



ANNUAL REPORT 2017



REPORT AND ACCOUNTS
PERIOD 1 JANUARY 2016 TO 30 JUNE 2017

VISION

To ensure a sustainable cane industry as an important pillar within the socio-economic framework of the country

MISSION

To promote the development of the cane sector and its clusters through systematic policy measures, creating an enabling environment with innovative and efficient services, research and development, technology transfer and value addition to meet current and future challenges



MAURITIUS CANE INDUSTRY AUTHORITY

10 October 2018

The Honourable Mahen Kumar SEERUTTUN
Minister of Agro-Industry and Food Security
PORT LOUIS

Sir

I have the honour to submit the Report and Accounts of the Mauritius Cane Industry Authority for period 1 January 2016 to 30 June 2017.

Yours faithfully

Bojrazsingh BOYRAMBOLI
CHAIRPERSON

CORPORATE INFORMATION

Chairperson of Board of Directors	Mr Vishnou Gondeea (up to 30 October 2017)
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REPORT AND ACCOUNTS – PERIOD 1 JANUARY 2016 TO 30 JUNE 2017

A(1) CORPORATE MATTERS

Introduction

The sugar cane industry crossed another milestone with the establishment of the Mauritius Cane Industry Authority (MCIA), bringing under its ambit the operations and functions of the six Service Providing Institutions. This merger formed part of the reform process within the industry, as a consequence of Government's policy to sustain the planting community subsequent to the 36 per cent drastic cut in the price of sugar. For the MCIA, the objective was to bring down cess not to exceed 4 per cent of the ex-Mauritius Sugar Syndicate price as from crop 2011.

The Ministry of Agro-Industry and Food Security took the initiative to provide for the establishment of the Mauritius Cane Industry Authority with a view to render the sugar cane industry more effective and efficient. With the Proclamation of the Mauritius Cane Industry Authority Act (No. 40 of 2011) on 19 March 2012, the Mauritius Cane Industry Authority was created as a body corporate to take over the powers and objects of the following six cess funded institutions, namely:

- (i) Cane Planters and Millers Arbitration and Control Board
- (ii) Farmers Service Corporation
- (iii) Mauritius Sugar Authority
- (iv) Mauritius Sugar Industry Research Institute
- (v) Mauritius Sugar Terminal Corporation
- (vi) Sugar Planters Mechanical Pool Corporation

The Mauritius Cane Industry Authority became the apex organisation of the sugar cane industry and the relevant Acts of the six cess funded institutions were repealed and the operations and activities of the institutions were vested with the MCIA.

Establishment of the Authority

The Mauritius Cane Industry Authority was established as a body corporate on 15 December 2011 with the enactment of the Mauritius Cane Industry Authority Act (No. 40 of 2011). The Act came into force by Proclamation on 19 March 2012.

Objectives of The Authority

The objects of the Authority are to:

- (a) monitor, oversee and coordinate all activities relating to, and ensure a fair, efficient and effective administration and operation of the cane industry;
- (b) promote and support the sustainable

development, efficiency and viability of the cane industry;

- (c) formulate and implement policies, strategies, plans, programmes and schemes in relation to the cane industry;
- (d) promote and facilitate the sustainable development of the cane cluster in Mauritius and in the region;
- (e) by means of research and investigation, ensure the technical progress and efficiency of the cane industry;
- (f) monitor and co-ordinate the activities of the cane industry, including planting, milling, processing, transport, bulk handling and marketing;
- (g) co-ordinate the activities of organisations concerned with the cane industry in the private and public sectors;
- (h) overview the storage, sampling, bagging, packing, loading and unloading of sugar;
- (i) maintain a pool of machinery for agricultural purposes;
- (j) resolve disputes between planters, millers and middlemen;
- (k) overview the registration of cane contracts;
- (l) promote the development and use of co-products;
- (m) facilitate the participation of employees and planters in the cane industry;
- (n) ensure that necessary essential services are available to planters;
- (o) promote the setting up of cane nurseries and the supply of cane setts to planters;
- (p) facilitate the adoption of modern and efficient agricultural practices by planters.

The following additional objectives were conferred on the MCIA after amendments were brought to the SIE Act. The Sugar Industry Efficiency (Amendment) Act 2016 was proclaimed on 27 January 2017 and became operational on 1 January 2017.

- (q) foster the use of biomass, including sugar cane, cane trash, high fibre cane, fuel canes, gramineae and other related biomass, in the production of electricity and biofuels for transport ; and
- (r) foster competitiveness of all segments of production in the cane industry.

Functions of the Authority

The Authority has such functions as are necessary to further its objectives most effectively and may, in particular:

- (a) set up and manage such agricultural or other centres as the Minister may determine;
- (b) hire the agricultural machinery of the Authority to such persons and on such terms and conditions as the Board may determine;
- (c) provide technical advice, assistance and training to planters on cane cultivation, harvesting and transport of canes and post-harvest operations;
- (d) manage agricultural land and, in particular, abandoned fields in Sugarcane Planters Regrouping Project (SPRP) or such other similar projects;
- (e) enter into management contracts on behalf of planters;
- (f) devise agricultural credit schemes in consultation with financing agencies;
- (g) ensure that arrangements are made so that canes of small planters are harvested at their optimal sucrose content;
- (h) assist cooperative societies in benefiting from the Fair Trade Initiative or such other similar projects;
- (i) provide, operate and maintain facilities for the storage, sampling, bagging, packing, loading and unloading of sugar or such co-product or other commodity as the Minister may approve;
- (j) set up a planters' data bank;
- (k) commission studies and consultancies in respect of any specific or general issue affecting the cane industry;
- (l) review, on a regular basis, the economic and financial performance as well as the problems and prospects of the cane industry;
- (m) periodically commission a revaluation of the fixed assets of the cane industry;
- (n) commission long-term master plans for the viability and sustainability of the cane cluster, with due regard to the interests of all parties concerned;
- (o) make recommendations to the Mauritius Revenue Authority regarding a rational and uniform system of granting capital allowances, including allowances in respect of equipment depreciation, in relation to the cane industry;
- (p) as and when appropriate, examine the accounts of millers and planters and offer advice on the forms to be used in connection with the presentation of those accounts;
- (q) collect contribution from the sale of sugar on the local market for the purposes of compensation under section 46 (2) (k);
- (r) advise the Minister on:
 - (i) the formulation and management of policies, strategies and schemes in relation to the cane industry;

- (ii) the provision of adequate means of inland access or, after consultation with the Mauritius Ports Authority, sea access, to the sugar terminal;
- (iii) the transport of sugar to and from the sugar terminal;
- (iv) all measures necessary to ensure the viability of the cane industry;

By virtue of the SIE (Amendment) Act 2016, the following functions have been added:

- (ra) manage, for the purpose of fostering the production of sugar cane and bagasse, the Sugar Cane Sustainability Fund set up under the Sugar Industry Efficiency Act;
- (rb) keep and maintain, for the purpose of sugar reform under the Sugar Industry Efficiency Act, a land conversion right (LCR) register;
- (rc) promote the production of energy from biomass generated by the sugar cane industry, develop and monitor the Renewable Sugar Cane Industry Based Biomass Framework specified in the Sugar Industry Efficiency Act;
- (rd) determine, under the Sugar Industry Efficiency Act, the sale price of molasses to distillers producing ethanol for blending or export or potable alcohol for export;
- (re) establish, under the Sugar Industry Efficiency Act, the Joint Molasses Allocation Committee for the allocation of molasses between distilleries;
- (rf) promote the Sugar-Based Agro-Industry and to generate sugar through the use of local raw materials, develop and monitor the Sugar Based Agro-industry Framework referred to in the Sugar Industry Efficiency Act;
- (rg) provide value addition from ethanol obtained from molasses or from other raw material obtained from sugar cane, develop and monitor the Ethanol and Molasses Framework referred to in the Sugar Industry Efficiency Act.

For the purposes of section 5 (1) (i) of the MCIA Act, the facilities to be provided by the Authority shall include:

- (a) loading and unloading quays;
- (b) buildings, sheds and other structures; and
- (c) plant, machinery and equipment.

Powers of Authority

The Authority has such powers as are necessary to attain its objectives and discharge its functions most effectively and may, in particular, subject to the MCIA Act:

- (a) enter into a contract, in accordance with the Public Procurement Act, including a contract for the supply of goods, services, plant, equipment or materials for the execution of works;
- (b) receive grants and donations, and raise funds;
- (c) subject to para e (i), fix and levy fees and charges;
- (d) enter into an agreement with any person for the performance, or provision, by that person, of any service or facility which the Authority is authorised to perform or provide;
- (e) with the Minister's approval:
 - (i) fix the rate of charges in respect of the storage, bagging, packing, loading or unloading, at the sugar terminal, of sugar or any other commodity;
 - (ii) undertake, by agreement with the Mauritius Ports Authority, the execution of bulk handling or automated or semi-automated cargo handling operations in respect of any commodity other than sugar;
 - (iii) give such guidelines as it considers appropriate to the Mauritius Sugar Syndicate for the purpose of formulating, coordinating and harmonising the policies of those organisations in keeping with the objectives of the MCIA Act.

Monopoly of Authority

- (1) Subject to section 7(1) (b) of the MCIA Act, no person, other than the Authority or an authorised body shall:
 - (a) as from the appointed date, store or load into a ship any sugar manufactured in Mauritius; or
 - (b) during such time as may be specified, store such other commodity as may be prescribed.
- (2) (a) Subject to section 7(1) (b) and to such conditions as may be prescribed, as from the appointed date:

- (i) every miller shall cause all the sugar manufactured at his factory to be delivered to the Authority or, with the approval of the Authority, to an authorised body;
- (ii) any sugar delivered under para (a) shall be consigned to the Mauritius Sugar Syndicate in the name of its owner;
- (iii) the Authority or an authorised body, as the case may be, shall receive any sugar manufactured and delivered to it under para (a).

- (b) The Board of Directors may authorise a miller to store sugar at his factory or at such other place as it may approve.

Corporate Governance Report

Compliance and Enforcement

The Board of Directors is responsible for ensuring that proper standards of Corporate Governance are maintained, and applied throughout the organisation. The report has been prepared as far as practicable in accordance with the 'Code of Corporate Governance for Mauritius'. The Chairperson and Members of the Board of Directors fully understand the importance of Corporate Governance, and believe that the adoption of high standard of governance is imperative for the enhancement of all stakeholders' trust and confidence including the planters' community and continuously take steps to improve governance within the framework of the Mauritius Cane Industry Authority Act (No. 40 of 2011) and other applicable legislations.

Statement of Compliance

We confirm that to the best of our knowledge that the Mauritius Cane Industry Authority has complied with all its obligations and requirements under the Code of Corporate Governance.



Vishnou GONDEEA
CHAIRPERSON



Amal Kumar Mohabeer MUNGUR
BOARD MEMBER

Role and power of the Board of Directors and its members

Structure and composition of the Mauritius Cane Industry Authority

The structure, composition and the manner of appointment of members have been established by Section 8 (1) of the Act.

The composition of the Mauritius Cane Industry Board during the period 1 January 2016 to 2 March 2017 is shown in the Table below:

Table 1. Composition of the Board during the period 1 January 2016 to 2 March 2017

Mr Vishnou Gondeea	Chairperson
Mr Veersingh Boodhna	Representative of the Ministry of Agro-Industry and Food Security
Mr Deobrut Bundhoo	Representative of the Ministry of Finance and Economic Development
Mr Jean Li Yuen Fong	Representative of Millers
Mr Patrick de Labauve d'Arifat	Representative of Millers
Mr Amal Kumar Mohabeer Mungur	Representative of Planters
Mr Heymant Rao Anand Sonoo	Representative of Planters
Mr Youvraj Sharma Khorugdharry	Representative of Employees of Mauritius Cane Industry Authority
Mr Gansam Boodram	Independent Member having wide experience in the field of Agro-Industry
Mr Jean Désiré Philippe Etienne	Independent Member having wide experience in the field of Agro-Industry

With the enactment of the Sugar Efficiency (Amendments) Act 2016, amendments to section 8 of the Mauritius Cane Industry Authority Act has been made. A new section 8 of the MCIA Act provides for the Authority to be administered by a Board of Directors.

At its meeting held on 3 March 2017, Cabinet has approved the composition of the Board of Directors of MCIA as follows:

Table 2. Composition of the Board of Directors during the period 3 March 2017 to 30 June 2017

Mr V. Gondeea	Chairperson
Mr V. Boodhna Deputy Permanent Secretary Ministry of Agro-Industry and Food Security	A representative of the Ministry responsible for the subject of Finance
Mr Deobrut Bundhoo Lead Analyst Ministry of Finance and Economic Development	A representative of the Ministry responsible for the subject of Finance
Mr Jacques M. D'Unienville Mr Nundlall Basant Rai, PDSM Mr Jean Li Yuen Fong Mr Amal Kumar Mohabeer Mungur	Four Members having wide experience in the sugar industry sector, including at least one representative from the Milling activities sector and one from the small planter sector

Tenure of Office

Every member of the Board, other than the ex-officio member, holds office for a period of 2 years and shall be eligible for reappointment. The Chief Executive Officer is in attendance at Board Meetings and may take part in its deliberations, but does not have the right to vote. The other Directors, Assistant Director and Managers are also called to be in attendance as and when required. The Administrative Manager acts as Secretary to the Board.

Powers of the Board of Directors

As per the new section (9)(1)(a) of the Mauritius Cane Industry Authority Act, the Board of Directors shall meet at least once every month.

Sections 10 (1) to (6) of the Act stipulate the powers of the Board of Directors as follows:

- (1) (a) The Board may, on the recommendation of the Chief Executive Officer, set up one or more departments, split one of those departments into two or more, or merge two or more of those departments into one.
- (b) For the purpose of ensuring the efficient and effective operation of any department, the Board may set up within that department such number of sections or units as it may determine.
- (2) (a) The Board may set up such committees of not more than five persons as may be necessary to assist it in the discharge of its functions and the exercise its powers. The persons may be members and non-members.
- (3) The persons referred to above shall:
 - (a) be appointed by the Board on such terms and conditions as it may determine; and
 - (b) be paid such allowance as the Board may, with the approval of the Minister, determine.
- (4) A committee shall:
 - (a) be chaired by the Chief Executive Officer or such other person as the Board may determine;
 - (b) meet as and when required by the Board or as often as the Chairperson of that committee thinks necessary; and
 - (c) within such time as may be fixed by the Board, submit a report which shall contain its observations, comments and, recommendations on any matter referred to it by the Board.
- (5) The committee shall regulate its meetings in such manner as it may determine.

- (6) The Board shall not concern itself with any matter relating to the exercise by the MSIRI or the Control and Arbitration Committee of their powers or the discharge of their functions.

Conflicts of Interest

Section 9 (3) of the Mauritius Cane Industry Authority Act provides that where a member has any interest, direct or indirect, in any matter before the Board, he shall, as soon as reasonably practicable, disclose to the Board the nature of the interest and shall not take any part in the deliberation of the Board relating to that matter.

Role and Function of the Chairperson of Board of Directors

The Chairperson of the Board of Directors is non-executive and is appointed by the Minister of Agro-Industry and Food Security under Section 8(2)(a) of the Act. The role and functions of the Chairperson are set out below:

- (a) to preside over meetings of the Board and to ensure its smooth functioning in the interest of good governance;
- (b) to encourage and ensure active participation of members in discussions and board matters;
- (c) to ensure that all relevant information and facts are placed before the Board to enable members to reach informal decision;
- (d) to execute contracts, jointly with the Chief Executive Officer, on behalf of the Authority.

The Advisory Council

The new Section 10A of the Mauritius Cane Industry Act provides for the setting up of an Advisory Council which shall assist the Board in the discharge of its functions.

Structure and Composition of the Advisory Council

The structure, composition and the manner of appointment of members have been established by the new section 10A(2) of the Act.

The composition of the Council shall consist of:

- (a) a chairperson, to be appointed by the Minister;
- (b) a representative of the Ministry responsible for the subject of co-operatives;
- (c) a representative of the Ministry responsible for the subject of environment;
- (d) a representative of the Ministry responsible for the subject of public utilities;
- (e) the Chief Executive Officer of the Mauritius Cane Industry Authority;
- (f) the General Manager of the Sugar Insurance Fund;
- (g) a representative of the Irrigation Authority;

Structure and Composition of the Advisory Council (contd)

- (h) a representative of the Chamber of Agriculture;
- (i) a representative of the Fair Trade Cooperative Federation;
- (j) a representative of the employees of the Authority;
- (k) a representative of millers to be appointed by the Minister;
- (l) a representative of power producing companies, to be appointed by the Minister;
- (m) a representative of refiners and agro-processors, to be appointed by the Minister;
- (n) 3 representatives of planters one of whom shall represent small planters, to be appointed by the Minister;
- (o) 4 representatives of recognised trade unions of the sugar cane industry, including a representative of staff, overseers, non-agricultural employee and agricultural employee, to be appointed by the Minister.

Tenure of office

Every member of the Council holds office for a period of 2 years and shall be eligible for reappointment.

Role and Function of the Chief Executive Officer

Section 11 (1) (a) of the Act provides that there shall be a Chief Executive Officer who shall be appointed by the Board on a fixed term performance contract and or on such other terms and conditions as it may determine, subject to the approval of the Minister of Agro-Industry and Food Security. The Chief Executive Officer:

- (a) is responsible for the execution of the policy of the Board and for the control and management of the day-to-day business of the Authority;
- (b) acts in accordance with such directives as he may receive from the Board;
- (c) seeks to achieve such annual performance targets as may be set by the Board;
- (d) submits to the Board, every 3 months, a report on the activities and finances of the Authority.

In addition, the Board may, subject to such instructions as it may give, delegate to the Chief Executive Officer such of its powers and functions as may be necessary for the efficient management of the day-to-day business and activities of the Authority, other than the power to:

- (i) sell or exchange any property or make any investment or donations;
- (ii) borrow money; or
- (iii) enter into a contract which exceeds the prescribed amount.

With the approval of the Board, the Chief Executive Officer may also delegate his powers and functions to such employee as he may determine.

Role of the Executive, non-Executive and Independent non-Executive Directors

The Board of Directors of MCIA and the Advisory Council, their composition and the manner they are constituted are set out in the new sections 8 and 10A of the Act. None of the members are executive. However, given the strategic importance of the Mauritius Cane Industry Authority, the Act has ensured that members of its Board of Directors and the Advisory Council represent appropriate Ministries and other stakeholder groups that have a direct interest in the different operational aspects of the Authority for its efficient, effective and smooth running.

Statement of Remuneration Policy

Section 8 (4) of the Mauritius Cane Industry Authority Act provides that every Member of the Board of Directors shall be paid such fees and allowance as the Board may, with the approval of the Minister, determine. In practice, the remuneration of the members of the Board is determined by the Pay Research Bureau. The fees paid to the Chairpersons of the Board and other Committees during the 18-month period under review to 30 June 2017 amounted to MUR 1,330,650 and fees paid for other Board Members and Committees amounted to MUR 508,240. The salary paid to the key management personnel during the year under review amounted to MUR 5,632,494. The new section 10A(5)(b) of the Act provides that every appointed member of the Council shall be paid such fees and allowances as the Board may, with the approval of the Minister, determine.

Board and Sub-Committees

The Board has two sub-committees appointed under its powers conferred by Section (10) (2) of the Act:

- (a) a Finance Committee which recommends to the Board in respect of financial matters; and
- (b) a Staff Committee which recommends to the Board on all staff matters relating to recruitment, etc.

Finance Committee

The Finance Committee was constituted of the following Board Members for the period 1 January 2016 to 2 March 2017:

Table 3. Finance Committee

Mr Gansam Boodram	Independent Member having wide experience in the field of Agro-Industry (as Chairperson)
Mr Deobrut Bundhoo	Representative of Ministry of Finance and Economic Development
Mr Patrick de Labauve d'Arifat	Representative of Millers

New composition of Finance Committee as approved by the Board of Directors on 30 March 2017

The new Finance Committee constituted of the following Board Members:

Table 4. Finance Committee

Mr Jacques M D'Unienville, G.O.S.K	Member having wide experience in the sugar industry sector (as Chairperson)
Mr Veersingh Boodhna	Representative of Ministry of Agro-Industry and Food Security
Mr Deobrut Bundhoo	Representative of Ministry of Finance and Economic Development

Staff Committee

The Staff Committee constituted of the following Board Members for the period 1 January 2016 to 2 March 2017:

Table 5. Staff Committee

Mr Amal K M Mungur	Representative of Planters (as Chairperson)
Mr Veersingh Boodhna	Representative of the Ministry of Agro-Industry and Food Security
Mr Jean Désiré Philippe	Independent Member having wide experience in the field of Agro-Industry
Mr Youvraj Sharma Khorugdharry	Representative of Employees of Mauritius Cane Industry Authority

New composition of Staff Committee as approved by the Board of Directors on 30 March 2017

The new Staff Committee is constituted of the following Board Members:

Table 6. Staff Committee

Mr Amal K M Mungur	Member having wide experience in the sugar industry sector (as Chairperson)
Mr Veersingh Boodhna	Representative of the Ministry of Agro-Industry and Food Security
Mr Jean Li Yuen Fong	Member having wide experience in the sugar industry sector

Other Committees

(1) Audit and Risk Committee

An Audit Committee was set up by the Mauritius Cane Industry Board on 27 November 2014 and its composition was as follows:

Table 7. Audit Committee

Chairperson	Mr Veersingh Boodhna Deputy Permanent Secretary Representative of Ministry of Agro-Industry and Food Security
Members	Mr Jean Li Yuen Fong Representative of Millers
	Mr Heymant Rao Anand Sonoo Representative of Planters

The Audit Committee, restyled as an Audit and Risk Committee and was approved by the Board of Directors on 30 March 2017.

The new composition is as follows:

Table 8. Audit and Risk Committee

Chairperson	Mr Veersingh Boodhna Deputy Permanent Secretary Representative of Ministry of Agro-Industry and Food Security
Members	Mr Jean Li Yuen Fong Member having wide experience in the sugar industry sector
	Mr Nundlall Basant Rai, P.D.S.M Member having wide experience in the sugar industry

The Audit and Risk Committee was set up in April 2017 and has met only once during the financial year 2016/2017 following the appointment of the Internal Auditor. It monitors and reviews the effectiveness and integrity of MCIA's internal financial controls, audit functions and risk management systems. In carrying out its responsibilities, the Committee has full authority to investigate all matters that fall within its terms of reference.

The Audit and Risk Committee's role is to assist the Board in discharging its responsibilities and duties in relation to specific matters pertaining to financial reporting process, internal controls, internal audit function, external audit, Corporate Governance and risk frameworks. According to best Corporate Governance practices, the Audit and Risk Committee shall meet at least four times a year to discuss the scope and findings of both internal and external audits.

(2) The Anti-Corruption Committee

MCIA has set up its Anti-Corruption Committee in 2017. The Committee is composed of the following members:

1. Mr. Leeladhanjiv Jhuboo (Chairperson)
2. Mr. Satish Purmessur
3. Mr. Fong Yan Ip Yam

The Anti-Corruption Committee has the following tasks:

- (i) Overseeing and coordinating the implementation of corruption prevention strategies,
- (ii) Advising Management on corruption prevention issues with respect to new projects and policies on which the organization is embarking.
- (iii) Reviewing the Anti-Corruption Policy of the MCIA which comprises risk assessments for all major activities of the institution.

(3) Management Committee

The Chief Executive Officer holds fortnightly management meetings with all the Directors, Assistant Directors and Managers to ensure the smooth running of all the departments of the Authority.

Access to Independent Advisers

The Board and the sub-committees have the right to retain independent external legal or other advisers as they deem necessary.

Board Information

The members of the Board are given accurate, timely and clear information so that they can maintain full and effective control over the strategic, financial and operating policies of the Authority.

Board and Sub-Committee Meetings

Fourteen Board Meetings were held during period 1 January 2016 to 2 March 2017. The following table shows the attendance at the Board Meetings.

Table 9. Attendance at Board Meetings 1 January 2016 – 2 March 2017

Names	No of meetings
Chairperson: Mr Vishnou Gondeea	14
MEMBERS	
Mr Veersingh Boodhna Representative of Ministry of Agro-Industry and Food Security	10
Mrs Damyantee Takoory (in replacement of Mr Boodhna when the latter was on leave)	-
Mr Deobrut Bundhoo Representative of Ministry of Finance and Economic Development	11
Mr Jean Li Yuen Fong Representative of Millers	12
Mr Patrick de Labauve d'Arifat Representative of Millers	3
Mr Heymant Rao Anand Sonoo Representative of Planters	10
Mr Amal Kumar Mohabeer Mungur Representative of Planters	11
Mr Youvraj Sharma Khorugdharry Representative of Employees	14
Mr Gansam Boodram Independent Member having wide experience in the field of Agro-Industry	10
Mr Jean Désiré Philippe Etienne, Independent Member having wide experience in the field of Agro-Industry	13

Meetings of Board of Directors

Four meetings of Board of Directors were held during period 3 March 2017 to 30 June 2017. The following table shows the attendance at the meeting of Board of Directors.

Table 10. Attendance at Board Meetings for period 3 March 2017 – 30 June 2017

Names	No. of meetings
Chairperson: Mr Vishnou Gondeea	4
MEMBERS	
Mr Veersingh Boodhna Representative of Ministry of Agro-Industry and Food Security	4
Mr Deobrut Bundhoo, Representative of Ministry of Finance and Economic Development	3
Mr Jacques M D'Unienville, G.O.S.K Member having wide experience in the sugar industry sector	4
Mr Nundlall Basant Rai, P.D.S.M Member having wide experience in the sugar industry sector	4
Mr Jean Li Yuen Fong Member having wide experience in the sugar industry sector	3
Mr Amal Kumar Mohabeer Mungur Member having wide experience in the sugar industry sector	4

Meeting of Advisory Council

As the nomination of the Chairperson and representatives of the Council have not yet been finalized, no meeting of the Council has been conducted during the period under review.

Secretary

Section 8(9) provides that the Board shall designate an employee to act as Secretary. The Administrative Manager of the Authority acts as Secretary to the Board and other sub-committees. He is responsible inter alia to:

- prepare and attend every meeting of the Board;
- keep minutes of proceedings of every meeting of the Board; and
- have such other duties as may be conferred on him by the Board.

Risk Management, Internal Control and Internal Audit

Risk Management

The Mauritius Cane Industry Board is responsible for the total process of managing risks while the Management of the Authority is accountable to the Board for the design, implementation and detailed monitoring of the risk management process.

The Internal Audit function is spearheaded by the

Internal Auditor to provide independent, objective assurance aimed at adding value and improving MCIA's Operations, Governance, Risk Management and Internal Controls.

The Internal Audit function is governed by an Internal Audit and Risk Charter approved by the Audit and Risk Committee. In addition, the Internal Audit function's mandate and annual audit coverage plans are approved by the Audit and Risk Committee.

Environment Risk

The Mauritius Cane Industry Authority does not operate in a manner that may cause harm to the environment in general nor does it use materials of risky nature which may affect the environment. The Authority complies with the relevant environmental laws and regulations.

Corporate Quality

A key aspect of risk management is to ensure high operational and service standards to all its stakeholders, especially the planters, so as to maintain a good corporate image.

Operation Risk

The Authority maintains its fleet of vehicles, tractors, etc. so as to ensure continuous service to the planters' community. The Sugar Storage and Handling Unit is ready to receive sugar at any time. The Authority has never delayed any operation due to operating failures.

Security

The Sugar Storage and Handling Unit being a national strategic facility is under the surveillance of the Police on a 24h-basis. Access to the Sugar Terminal is restricted and controlled. The Authority ensures that security is maintained at all times.

Foreign Exchange Risk

The Authority is not exposed to foreign exchange risk. It is financed mainly by means of a cess from sugar proceeds. The cess is levied each year and in such a manner and at such rate not exceeding 4% of the ex-Mauritius Sugar Syndicate price as may be prescribed and after consultation with the Board.

Insurance Risk

All the assets and potential insurable liabilities are covered by appropriate insurance policies.

Internal Control

The Board is primarily responsible for the effectiveness and efficiency of the system of internal control, while the design, implementation and monitoring of the system devolves on Management.

Internal Audit

The system of internal control at the Authority includes checks and balances through the operation of internal checks. The internal control system ensures the efficiency and effectiveness of the Authority.

Auditing and Accounting

Accounting

The Board is responsible for the preparation of accounts which fairly presents the state of affairs of the Authority and the results of its operations and complies with International Financial Reporting Standards (IFRS). In this context, the Board is responsible for adequate accounting records, maintenance of an effective system of internal control, and choice of accounting policies supported by reasonable and prudent judgment.

Audit

Section 52 (3) of the Mauritius Cane Industry Authority Act provides that the Auditor to be appointed under Section 5 (1) of the Statutory Bodies (Accounts and Audit) Act shall be the Director of Audit.

Integrated Sustainability Reporting

The Authority is a not-for-profit organisation. It inter alia provides services to the sugarcane industry. The Authority has throughout acted responsibly both as a service provider in a strategic position and a 'responsible citizen'.

Ethics

The Authority is committed to the highest standards of integrity and ethical conduct with all its stakeholders. It has built up a culture of efficiency and effectiveness at work and follows the general code of ethics prevailing in the public sector.

Environment

The Authority carries out its activities in such a manner that they do not constitute any threat to the environment.

Health and Safety

Security and safety assessment is carried out periodically by the Health and Safety Committee. Two part-time Safety and Health Officers replaced by a full time Officer as from October 2014 are employed to ensure compliance with the Authority's safety, health and environment policies and existing legislations and regulatory framework. Security and safety assessment of the Sugar Terminal is carried out periodically by a Registered Machinery Inspector. The Authority complies with all relevant Health and Safety legislations.

Corporate Social Responsibility

The Authority is a not-for-profit entity and as such endeavours to minimise operating costs for the benefit of the planters' community.

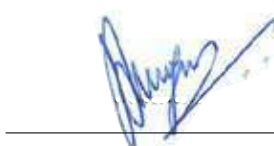
The Sugar Storage and Handling Unit of the Authority organises guided visits to the Sugar Terminal during the crop season on Tuesdays and Thursdays for students of primary school. From feedback received, such visits have been very beneficial to the students.

Donations

No donations had been made to any political party or organisation.



Vishnou GONDEEA
CHAIRPERSON



Amal Kumar Mohabeer MUNGUR
BOARD MEMBER

A(2) HUMAN RESOURCE MANAGEMENT

Introduction

The role of the Human Resource Division is primarily to make an effective contribution towards the achievement of the Authority's corporate objectives as well as fulfilling its social responsibilities. To accomplish this role, the Human Resource Department is, inter alia, committed to:

- (i) Assist in the design and development of an effective structure which will respond to changing environment and needs of the Authority.
- (ii) Obtain and develop the human resources required by the Authority and to use and motivate them effectively.
- (iii) Assist in creating and maintaining a co-operative climate of relationships within the Authority through effective communication channels and cross-functional team work.
- (iv) Assist in meeting the Authority's social and legal responsibilities.
- (v) Promote a safe working environment and general welfare of staff at the Authority.

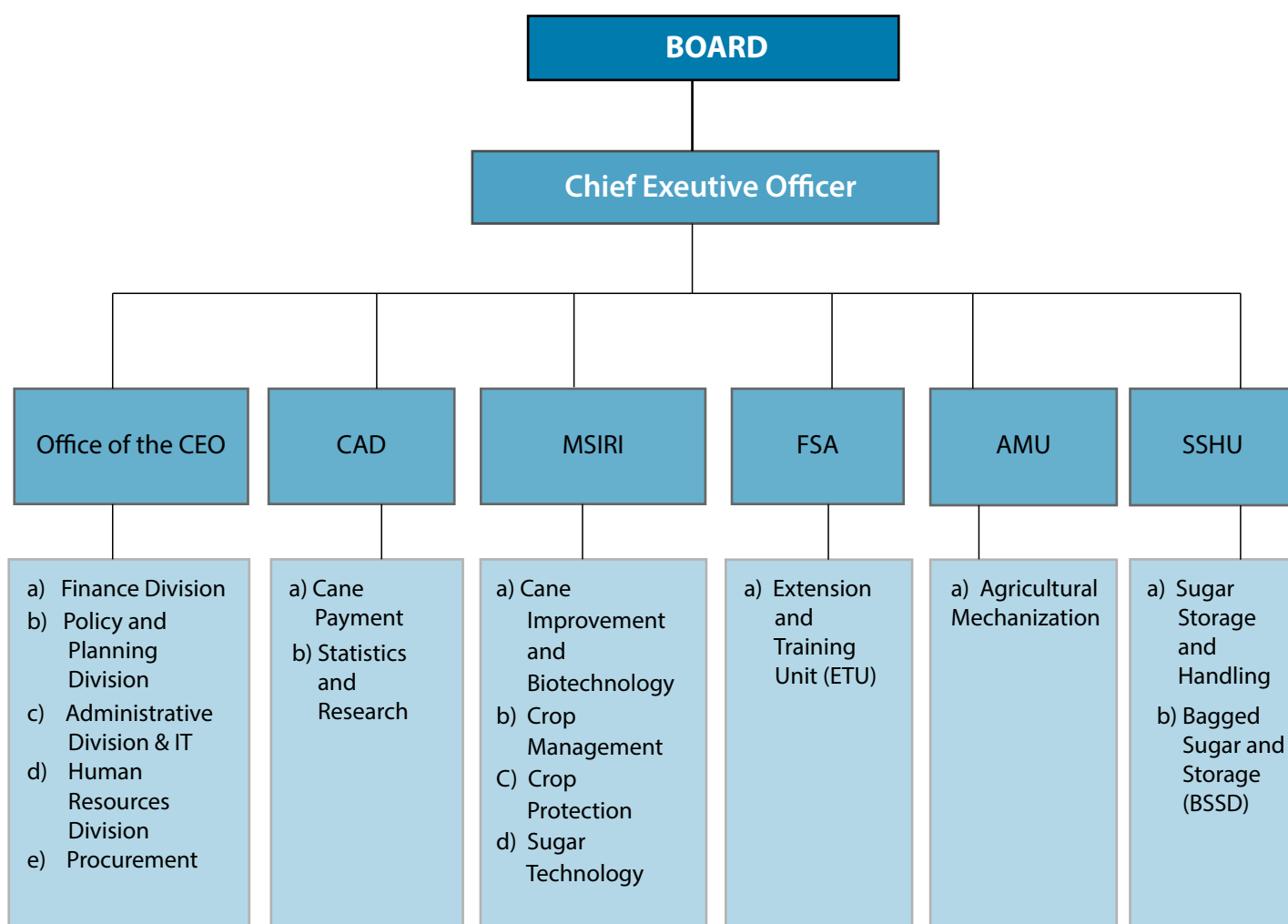
The Authority has a total workforce of 548 employees as at 30 June 2017 on its permanent and pensionable establishment.

Organisational Structure

The organisational structure of the MCIA, as approved by the Mauritius Cane Industry Board, provides for four departments, namely:

- (a) Office of the Chief Executive Officer
- (b) Control and Arbitration Department (CAD)
- (c) Mauritius Sugarcane Industry Research Institute (MSIRI)
- (d) Farmers Service Agency (FSA)
- (e) Agricultural Mechanization Unit
- (f) Sugar Storage and Handling Unit

The Organisation Structure is depicted in the figure below:-



(a) OFFICE OF THE CHIEF EXECUTIVE OFFICER

This Department is responsible to provide support service throughout the Authority, ensuring that all resources and facilities are made available to facilitate all other departments to achieve their respective objectives. It assists the Chief Executive Officer in execution of policies and the overall administration and management of the MCIA. It also comprises of an Internal Audit unit and has eight (8) employees. It also comprises of the following divisions:-

Finance Division – responsible, inter alia, for the proper administration of the general fund of the Authority, preparation of the annual budget estimates, statement of accounts and annual reports. It also has to provide accurate and timely financial information and statistics to internal and external bodies. Thirteen (13) Employees were attached to the Division.

Policy and Planning Division – responsible, inter alia, for the preparation and reviewing of the strategic plan of the Authority, carrying out regular assessment of the challenges and opportunities of the industry, both in the local and international scene and preparation of plans and policies with the objective of ensuring long term viability and sustainability of the sugar cane cluster. Six (6) Employees were attached to this Division.

Administration Division – responsible, inter alia, to provide secretary facilities to the Board and its sub committees, to establish and implement administrative procedures for the efficient functioning of the Authority, management of office space and general maintenance of building and premises and also for internal and external communication. It is also responsible for the IT section, the project unit and the Procurement section. Eighteen (18) employees were attached to this Division.

Human Resources Division – responsible, inter alia, for the development and implementation of HR policies and procedures, monitoring disciplinary cases, employees' grievances and promotion of a safe work environment and general welfare of staff. This department has also to undertake constant review of organisation structure in view of changing needs of the Authority. Eight (8) employees were attached to this Division.

(b) CONTROL AND ARBITRATION DEPARTMENT (CAD)

Prior to the setting up of the MCIA, the Control and Arbitration Department was a department of the Ministry of Agriculture, known as the Cane Planters and Millers Arbitration and Control Board.

The objectives of the Control and Arbitration Department are, inter alia, to control milling activities, arbitrate disputes among Millers, Planters and other stakeholders and determine the quantum of sugar

and by-products accruing to producers. Twenty-two employees were attached to this Department

(c) MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE (MSIRI)

The MSIRI, a Research Centre of international repute, was, prior to the creation of the MCIA, an autonomous statutory body, governed by its own terms and conditions of service as approved by its Board. With the creation of the Mauritius Cane Industry Authority, the MSIRI has now become a department of the Authority. This department is mainly responsible to carry out research on canes with a view to enhance competitiveness of the cane industry and also on technical and engineering options for improving efficiency of factories and for value addition to co-products.

132 employees were attached to this Department.

(d) FARMERS SERVICE AGENCY (FSA)

This department is, inter alia, responsible to:

- (i) organise training/seminars with a view to improve the cane yield of planters
- (ii) ensure the supply of planting materials to planters.

Prior to the setting of the MCIA, this Department was an autonomous parastatal body, that is, the Farmers' Service Corporation. Fifty-nine employees were attached to this Department.

(e) AGRICULTURAL MECHANISATION UNIT (AMU)

This Unit is primarily responsible for the provision of mechanical cultivation services to the sugarcane planters in preparing their lands prior to replantation after a sugarcane crop cycle.

Like other departments, this unit was, prior to the creation of the MCIA, also an autonomous parastatal body and was known as the Sugar Planters Mechanical Pool Corporation. The unit has 166 employees.

(f) STORAGE AND HANDLING UNIT

This Unit is responsible, inter alia, for the receipt, storage and loading of sugar into ships. This unit was, prior to the setting up of the MCIA, an autonomous parastatal body, known as the Mauritius Sugar Terminal Corporation.

The Bagged Sugar Storage Distribution also falls under the supervision of the Director, SSHU and is responsible, inter alia, for the receipt, handling and storing bagged sugar from the Sugar Estates and to distribute sugar for local consumption and for export. Prior to it being merged with the MCIA, this Unit was a private company, the Bagged Sugar Storage and Distribution Co. Ltd. The unit has 116 employees.

Senior Management Profile

Table 11. Senior Management Profile

SN	Name	Post	Qualifications
1	Mr Bundhoo Jugdis	Chief Executive Officer with effect from 01 October 2015 Manager, Policy & Planning up to 30 Sept 2015	BSc (Salford), MSc Soil Chemistry (Reading), MSc Information Science (City) Member of the Institute of Information Scientists
2	Mr Soniah Rajkamal	Director, Farmers Service Agency (Ag. Chief Executive Officer with effect from 18 August 2014 to 30 September 2015)	BSc, MSc (Maur)
3	Dr Saumtally Salem	Director, MSIRI (Ag. CEO from 9 to 17 August 2014)	BSc (Dund) MPhil (Cantab) PhD (Reading)
4	Mr Ip-Yam Fong Yan	Assistant Director, FSA (AMU)	BTech (Maur) Registered with the Council of Professional Engineers
5	Mr Purmessur Satish	Director, SSHU	BSc, MSc (Maur)
6	Mr Busgeeth Devendranath	Assistant Director (Ag. Director, CAD)	BSc (Maur)
7	Mr Seebrun Sachidanand	Administrative Manager	BA, (Punjab) Dip Public Administration (Maur)
8	Mr Santbakshsingh Sunil	Manager, Human Resource	BA, MBA (Delhi), Master in Public Policy and Administration, (Maur)
9	Mr Deena Sachim Duth	Manager, Finance	FCCA
10	Mr Ramchurn Narottam Sharma	General Manager, SSHU (Bagged Sugar)	LCCI (H), ACCA II
11	Dr (Mrs) Dookun-Saumtally Asha	Principal Research Manager	BSc MSc (Newcastle) PhD (Reading)
12	Dr Seeruttun Sumantlall	Research Manager	BSc (Maur), MSc (Cranfield), PhD (Pretoria), MIAgre
13	Mr Rivière Vivian	Research Manager	BSc (Maur), MSc (Cranfield)
14	Dr Ganeshan Seelavarn	Research Manager	BSc (Maur), MSc, PhD (London), DIC
15	Dr Payandi Pillay Kessawa	Research Manager	Dip Agr, BSc (Maur), MSc (Reading), PhD (Kwa-Zulu Natal)
16	Dr Ng Cheong Ronald	Research Manager	BSc (Reading), MSc (Cranfield), MBA (Maur), PhD (Free State)
17	Mr Basant Rai Umeshlall	Manager, Operations & Research	Dip Computer and System Design (ACP), Dip Business Management, BA, MA (Delhi)
18	Mr Mungroo Ishwurduth	Field Manager	MSc (Maur), Registered Professional Engineer

Table 11. Senior Management Profile (contd)

SN	Name	Post	Qualifications
19	Mr Gunesh Toolsee	Manager, ETU Ag. Assistant Director, ETU	BSc, MSc (Maur)
20	Mr Ramdharee Yashwantsingh	Manager, ETU	BSc, MBA (Maur)
21	Mr Awotarowa Anil	Manager, ETU	BSc, MBA (Maur)
22	Mr Jhuboo Leeladhanjiv	Internal Auditor/ Senior Internal Auditor	LLB (Maur) BSc, (Oxford Brooks), MBA (Open University of Mauritius) ACCA, MIPA, IIA

Industrial Relations

The majority of the employees at MCIA are members of unions. To ensure sound employee relations, regular meetings are held with representatives of the unions, where most disputes are discussed and resolved. The union representatives have appointed a Coordinator in the person of Mr P. Ramasawmy. Meetings are also held with non-unionised employees and their grievances are, as far as possible, attended to.

required skills. Thus training is a continuous activity to provide employees with the desired knowledge, skill, aptitude and habit to manage external pressure and competition.

Health and Safety

The policy at the Authority is to provide a safe and healthy work environment and to bring to the minimum, potential accident hazards and risks of injury.

Safety and Health Committees

The Safety and Health Committee provides the platform where Management and representatives of employees jointly identify potential hazards and find ways and means to eliminate or reduce them.

For the Authority, Health and Safety is an absolute priority. Therefore, the safety-related objectives are mandatory components for each unit/department while carrying out its activities. The MCIA is committed to implementing its Health and Safety Policy, through compliance of legislative requirements as a minimum standard. To achieve the objective, the Authority has appointed a full-time Safety and Health Officer.

During year 2016, the Health and Safety Committee held twenty one meetings.

Training and Development

The Authority is aware that its objectives can be achieved only if it has a knowledgeable Human Resource.

The main objective of training is to establish a sound relationship between the employee and his jobs, the optimum man-task relationship. Such a relationship is at its best when employees' attitude to the job is right, when his knowledge of the job is adequate and he has developed the necessary and

The following employees attended the following courses/workshops for period 1 January 2016 to 30 June 2017

Table 12. Courses/Workshops

Course Title	Name	Organized by	From	To
Regional Conference on Ayush	Goburdhun P, Koonjah S and Mahadea-Nemdharry Rajeshreebhye	Indian High Commission in Mauritius and the Office of the President	13 April 2016	14 April 2016
Root Cause Analysis	Soobadar Aneeza Dr	Change Act Ltd	24 May 2016	25 May 2016
Inception Workshop for the National Biodiversity Strategy and Action Plan (NBSAP) Project	Koonjah S	UNDP/MoA/GEF	27 May 2016	
Handling Discipline and Grievances in the workplace	Mungun A	Premier Engineering Training Centre	22 June 2016	
Graduate Training Employment Scheme	Payandi Pillay G Dr, Seeruttun Paola and Nundloll D	UoM	21 June 2016	
Follow up activities to the Capacity Building Workshop on Remote Sensing.	Chung Tze Cheong Maryse	UoM	11 July 2016	
Update Course on Biogas Energies	Lau Ah Wing A F	International Centre for Renewable Energies-Biogas (Cibogas)/Ministry of Foreign Affairs	01 August 2016	
Technical Workshop - Monitoring of the Northern Aquifer - IWRM Project	Ng Cheong R Dr	Ministry of Energy and Public Utilities	25 August 2016	
Workshop on "Pro-Poor and Inclusive Development in Mauritius"	Biltoo S	FES, ANSA/SATUCC & MTUC	16 September 2016	17 September 2016
Validation Workshop - Third National Communication (TNC) for the Republic of Mauritius under the UNFCCC	Koonjah S	Ministry of Environment, Sustainable Development, and Disaster and Beach Management	29 September 2016	30 September 2016
Irrigation Techniques for Water Conservation	Ng Cheong R Dr	MoA	14 January 2017	26 January 2017
Registry Procedures	Dwarka Leena, Hauzaree Keerti Devi, Ramharai Hanumatee Devi and Seewooshurn Pouvedi	Civil Service College	17 May 2017	18 May 2017

The following overseas missions were carried out during the period 1 January 2016 to 30 June 2017:

Table13. Overseas Missions

Name	From	To	Objective of Mission
Saumtally A S Dr and Badaloo G Dr	11 February 2016	18 February 2016	Consultancy visit at Mehran Sugar Mills Ltd, Pakistan.
Riviere V	13 February 2016	28 February 2016	Consultancy visit to Ivory Coast Re: Programme de Recherche Cannière - Phase III.
Chung Tze Cheong Maryse	29 February 2016	04 March 2016	Visit to Rodrigues to assist FAO Consultants Re: FAO Project Update the Land Suitability and Land Use Mapping to support sustainable Land Resources in Rodrigues.
Ganeshan S Dr and Ng Cheong R Dr	05 March 2016	18 March 2016	Consultancy visit to Ivory Coast Re: Programme de Recherche Cannière - Phase III.
Gopaul S	04 April 2016	06 April 2016	Emission Monitoring for CEB - Rodrigues power station of Port Mathurin and Pointe Meunier.
Dookun-Saumtally Asha Dr	21 April 2016	22 April 2016	Attended Communication Event for Agricultural Biotechnology Policymakers Booklet, Addis Ababa, Ethiopia.
Gaungoo A Dr	11 April 2016	14 April 2016	Visit to Rodrigues Regarding Training on the use of the WIKWIO Portal in Rodrigues.
Saumtally A S Dr and Ganeshan S Dr	20 May 2016	29 May 2016	To conduct a Workshop on behalf of the Regional Training Centre on Integrated Pests and Diseases Management held in Lahore, Pakistan.
Ng Cheong R Dr	12 June 2016	20 June 2016	Visit to Sucrivoire, Ivory Coast to provide training to Sucrivoire Officers in Soil Physics, Irrigation and Drainage on behalf of the Regional Training Centre.
Riviere V	05 June 2016	13 June 2016	Visit to Sucrivoire, Ivory Coast to provide training to Sucrivoire Officers in Agricultural Mechanization and Transport on behalf of the Regional Training Centre.
Umrut G and Sakurdeep S	19 June 2016	27 June 2016	Visit to Sucrivoire, Ivory Coast to provide training to Sucrivoire Staff in Soils and Fertilizers and Chemical Control on behalf of the Regional Training Centre.
Gaungoo A	16 July 2016	27 July 2016	WIKWIO Project - Conducted training on the use of the WIKWIO Portal with stakeholder , South-Africa.

Table13. Overseas Missions (contd)

Name	From	To	Objective of Mission
Umrit G	30 July 2016	06 August 2016	Attended a Workshop on Nutrient Management for Sugarcane at Mehran Sugar Mills Ltd, Pakistan.
Badaloo G Dr and Soobadar Aneeza Dr	21 August 2016	07 September 2016	Mission to Ivory Coast - Programme de Recherche Cannière - Phase III
Ganeshan S Dr	31 August 2016	04 September 2016	To attend Workshop to Standardize Sampling and Bioassay Methods of Assessing Field Performance of Sterile Male Lepidoptera, Durban, South Africa.
Ramdharee Y	6 September 2016	26 September 2016	Seminar on Climate change and green low-carbon development 2016, Republic of China
Soobadar Aneeza Dr	17 September 2016	22 September 2016	Attended Pakistan Society of Sugar Technologists (PSST) - Golden Jubilee Convention held in Lahore, Pakistan.
Umrit G	27 September 2016	29 September 2016	ISO Workshop on Increasing Consensus and Stakeholder Engagement, Nairobi, Kenya and mission to ICRAF Soil-Plant Spectral Diagnosis Lab
Sauntally A S Dr	05 October 2016	06 October 2016	Visit to eRcane and CIRAD Re: Collaboration with eRcane and CIRAD and launching variety R587.
Awotarowa A	12 October 2016	1 November 2016	Seminar on Climate change and green low-carbon development 2016, Republic of China
Badaloo G Dr	06 November 2016	09 November 2016	Attended the International Agrobiodiversity Congress 2016 , India.
Payandi Pillay K Dr	13 November 2016	19 November 2016	Visit to Ghana Re: Collaboration with Integrated Water Agricultural Management Development (IWAD).
Sauntally A S Dr, Dookun-Sauntally Asha Dr, Payandi Pillay K Dr and Dr, Badaloo G Dr	05 December 2016	08 December 2016	Attended the International Society of Sugarcane Technologist (ISSCT) Congress, Chiang Mai, Thailand.
Parmessur Y	3 May 2017	4 May 2017	Participated in the Gmassure capacity building Workshop, South Africa
Sonatun J	10 May 2017	12 May 2017	Attended the 17th General Assembly of AUF, held in Marrakech, Morocco
Badaloo G Dr	17 June 2017	26 June 2017	Training on Amelioration variétale et identification des variétés for Officers of Sucrivoire, Ivory Coast

Establishment

Retirement

The following Officers retired during the period January 2016 to July 2017:

Table 14. Retirement

SN	Name	Post	Department / Section	Date
1.	Deerpaul R	Agricultural Machinery Operator	AMU	5 April 2016
2	Sohun C	Tradesman	AMU	26 April 2016
3	Mohung M R	Terminal Operations and Maintenance Officer	SSHU	25 May 2016
4	Goinden D	General/Field Worker/Gardener	MSIRI	31 January 2017
5	Oomajee	Workshop/Vehicle/Machinery Attendant	AMU	19 February 2017
6.	Ayacootee M	General/Field Worker/Gardener	MSIRI	1 March 2017
7.	Veerabudren S	General Attendant	MSIRI	10 April 2017

Termination of Contract

The following Officer retired during the year 2016:

Table 15. Termination of Contract

SN	Name	Post	Department / Section	Date
1.	Malvenu Kervin	Agricultural Machinery Operator	AMU	23 September 2016

Deceased in service

The following Officers passed away during the year 2016:

Table 16. Deceased in Service

SN	Name	Post	Department / Section	Date
1.	Legrand Lindsay	Store Officer	SSHU	18 December 2016
2.	Luchmun Atmanand	Accounts Clerk	SSHU	5 April 2017

Leave without pay

Mrs Stephanie Adelaide, Technical Assistant/Senior Technical Assistant (MSIRI), for one year with effect from August 2016.

Study leave

Mr K. Neermul, Sugar Technologist/Senior Sugar Technologist was on Study Leave 14 January 2014 to 20 December 2015 at the University of Melbourne, Australia. He resumed duty on 21 December 2015 after obtaining an MSc in Agricultural Science.

Nine officers from Ministry of Agro-Industry and Food Security in the grade of Test Chemist Cadre joined the CAD as from January 2016.

B. POLICY AND PLANNING

Mandate and Functions

- The mandate of Policy and Planning Division revolves around the following main components:
- Formulating policies, programmes and projects to promote the development of the sugar cane cluster;
- Directing the implementation of such policies, programmes and projects with a view to achieve the sectorial and national objectives within agreed timelines; and
- Monitoring, reviewing and reforming all systems and procedures to ensure the conduct of business in an efficient manner deploying modern management techniques and technology where applicable.

Study on "The Economic, Social and Environmental Impact on Mauritius of Abolition of Internal Quotas of Sugar in EU Market"

The above study was entrusted to the consultant LMC. The report was submitted to Government in May 2015. The recommendations of the study were grouped under the following headings and some salient recommendations are tabulated below:

- Sugar sales, new markets, value addition and the MSS;
- Employment;
- Small and medium planters;
- Environment and social;
- Institutions; and
- By-products.

Table 17. Recommendations of LMC

Areas	Agro-Industry
1. Sugar sales, new markets, value addition and MSS	<ul style="list-style-type: none"> • Adoption of a more filiere and sugar based Agro-industry approaches, as well as to shift the geographical focus of sales, to embrace preferential markets in East Africa. • An aggressive and innovative marketing strategy. • Special tariff code for special sugars, establishment of intellectual Property Rules. • Harmonize export and currency policies.
2. Employment	<ul style="list-style-type: none"> • Employer be given choice between Workfare Programme and Voluntary Retirement Scheme. • The maintenance of differential treatment for pension contribution. • The possibility of holders of SIT shares to redeem them. • Collective bargaining at company level once the current collective agreement lapses. • Situation whereby compensation receivable, under a collective agreement and the COLA, exceeds the compounded inflation rate without any quid- pro quo purporting to enhance the viability and employability of an enterprise, has to be addressed, Section 34 of Employment Relations Act. • No limits to the use of seasonal labour. • Section 69 (6) of the Employment Relations Act should be reviewed in the light of the forthcoming review undertaken by Government, as in the Cabinet Decision of 27 March 2015, so as to avoid endless disputes and strike action which the sugar industry cannot now, and even more in the future, afford given the new commercial set up. • A 7-day week operation time for sugar factories, with a 6-day week for employees; work on Sundays would be payable at the legal rate. • Import of labour to alleviate the labour shortage of small planters by an institution capable of offering services at competitive rates. The institution could be the Mauritius Co-operative Agricultural Federation. • The establishment in law of Trade Union Modernization Fund with a yearly amount of MUR 3 million, obtained from sugar proceeds as from crop year 2015 till 2018, year when the Mid-Term Review of the new MAAS will be effected. • When the crop season is extended to nearly seven months, crushing and non-crushing days, as in 2014, the 5-day intercrop season is reduced. The solution to this problem would be that the production units operate on Sundays as well as a better cane allocation between sugar factories. This would be require a re-definition of factory areas which it is understood the MCIA is planning to undertake shortly in collaboration with stakeholders and establishment of rules that a sugar crop in a given factory area should as far as possible be limited to 150 crushing days. This would optimize existing capacity and represent a win-win for all parties.

Table 17. Recommendations of LMC (contd)

Areas	Agro-Industry
3. Small and medium planters	<p>Expansion of the Fairtrade (FT) initiative to include all small planters:</p> <ul style="list-style-type: none"> • Small farmer incentive schemes should be specifically targeted to FT planters. Incentive schemes should reward small farmers aiming to implement international environmental and social standards in their production activities, with a view to becoming Fairtrade certified. • FT accreditation should work in concert with re-grouping schemes. Although Fairtrade is only open to small farmers, cooperatives are encouraged under FT and re-grouping does not detract from the fact that land is still owned by individual small farmers although it is worked collectively to achieve economies of scale. • Investigate larger markets/trade contracts for FT sugar to enable an increase in FT sugar quotas therefore facilitating more cooperatives to join the scheme. • Put measures in place (such as reserving a percentage of the FT premium) to ensure the FT scheme is self-sustaining and can pay the accreditation fees for new cooperatives that join in the future. <p>Continuation of regrouping and mechanization schemes:</p> <ul style="list-style-type: none"> • Continue to prioritize re-grouping of small farmers to enable the possibility of mechanization; and extend schemes such as the Planter Harvest Scheme to encourage this re-grouping. • Continue and incentivize the scheme to match up those with land with those willing to work the land, with the aim of making it attractive for those with abandoned land to bring it back under cane. • The Planters Harvest Scheme has to be broadened into a Planters' Mechanization Scheme with the involvement of both large operators and SMEs and appropriate incentives designed for both categories of actors. • This measure holds the dual promise of increasing yields and reducing costs. Yields can be increased by better cultural practices, better varieties, shorter cane cycles and optimal harvest.

Table 17. Recommendations of LMC (contd)

Areas	Agro-Industry
	<p>New cultivation agreements between planters and millers in recognition of the new relationships required to face the challenges still facing the industry:</p> <ul style="list-style-type: none"> • Investigate the feasibility of Millers/Sugar Cane Clusters taking over some of the services offered by FORIP after the end of the scheme in 2015. • Devise a framework for direct contracts between planters and millers to cover all issues related to the cane cycle, such as planting, harvesting and transport. • Extend credit services for replanting after conclusion of the cane cycle, this could through cane clusters, commercial banks, or micro credit schemes. <p><u>Revenue enhancement:</u></p> <ul style="list-style-type: none"> • Revenue would be enhanced at industry level and would benefit small and medium planters as well through different marketing strategies, additional revenue from molasses and biomass. • Value addition at local level by planters in the context of SMEs, in respect of sugar cubes, cane juice, addition of spices to sugar and sugar figurines. <p>The SIT framework has to be revisited, the easier part being the additional shares which the SIT would acquire, distilleries for instance, whose dividends would accrue only to active partners of the industry. The further part would cater for the shares held by the corporate sector. This would also encompass the above-mentioned Agreement between Government and the MSPA of 5 December 2007.</p>

Table 17. Recommendations of LMC (contd)

Areas	Agro-Industry
4. Institutions MCIA	<ul style="list-style-type: none"> Activities of the MSTC to be merged with BSSD and fall under control of MSS. Winding up of the SPMP and FSC to be replaced by commercial interactions between small planters and millers. Streamlining of CPMACB's activities. Closure of the smaller cane reception centres should play a key role in this, which would also lower the cost burden of cane reception centres to them. The principal remaining activity of CPMACB should concern matters of arbitration. We recommend there is a process of consultation among planters and millers to review MSIRI's functions and how best to partner with local institutions like the University of Mauritius and other research centres in the region, in particular Reunion. The objective should be to streamline MSIRI's operation and substantially review its costs allocation by: <ul style="list-style-type: none"> (a) focusing its efforts on areas where it has a comparative advantage over other research centres; (b) attracting and retaining talent; and (c) eliminating any duplication of effort with regional centres. <p>The ultimate objective being a lean, efficient, up-to-date, producer-funded and lead research centre. Additionally, in a context where the focus would also be on the optimal development of cane biomass, such a research centre would be an asset for the producers and the country.</p> The new institution requires a different board structure and a different modus operandi significantly departing from the current MCIA led MSIRI.
5. SIFB	<ul style="list-style-type: none"> Implement the recommendations of the Actuarial Review of the SIFB for the 2014 and 2015 crops. Given the scale and severity of the challenges that lie ahead, we recommend that the authorities review the current status of the SIFB with a view to using its reserves to assist with the process of adjustment. An actuarial assessment would define the contours of the new system.

Table 17. Recommendations of LMC (contd)

Areas	Agro-Industry
6. MSS	<ul style="list-style-type: none"> It is recommended that discussions be initiated soon regarding the future of the MSS. These discussions would be accompanied by other discussions, whereby Government and producers should also address the institutional arrangements that will be affected by this change in marketing arrangements. In the interim, we recommend that: Just as other importers are allowed to import sugar and either sell it or incorporate in other goods, the refineries should be allowed to import NOS and produce refined sugar for the local market at their own risk. The MSS should have no exclusivity on finding markets for the so-called free sugars.
7. Re-engineering of institutions	<p>Ideally, the institutional set-up should be lean and should not exceed 2% of the take-home price of producers for all activities now undertaken by MCIA and MSS. The SIFB is not considered as it does not draw revenue from sugar proceeds. The ideal institutions would be as follows:</p> <ul style="list-style-type: none"> a lean MCIA dealing with, firstly, cane testing and arbitration activities and, secondly, facilitating the collaboration between planters and millers; the SIFB insuring for price reduction only; and the MSS as a platform for common services with each mill undertaking its own marketing.
8. By products- Molasses	<p>The cessation of exports of molasses. The setting up a joint MCIA/Distillers Allocation Committee. Additional contribution of MUR 20 per litre by distiller-bottlers in respect of potable alcohol used for the domestic market. Dividend payment to active planters only. The introduction of mandatory blending.</p>

Table 17. Recommendations of LMC (contd)

Areas	Agro-Industry
9. By products– Bagasse	<ul style="list-style-type: none"> • The total BTF be set at MUR 210 million or 1.5% of the sales proceeds of the CEB. The additional MUR 148 million would be distributed solely to planters, representing an extra MUR 475/t of sugar. • Negotiations to be held with the IPPs in respect of a quid pro quo involving their share of the bagasse transfer price and their requirements; i.e. fruitful could increase the accruals to small and medium planters by around MUR 500/t sugar. • Establish new price mechanisms to favour the use of forms of biomass other than bagasse. • Review the PPA of Omnicane so that it can optimize the recovery efficiency of bagasse through inter alia reducing the moisture content from 50% to around 42% and use other biomass and cane trash. Additional amounts would enable Omnicane to remunerate additional investments and the cane planters appropriately. • Give the green light to what is termed the energy plant at La Baraque. • Focus on the development of high biomass canes that have been developed in Reunion. • High biomass cane could benefit from start in tariffs. • Encourage investments in mills to save energy. <p>A 2x50 MW bagasse and biomass/coal plant is possible at FUEL subject to the decision and the procurement procedure of the CEB.</p>

Table 17. Recommendations of LMC (contd)

Areas	Agro-Industry
10. Other environmental issues	<ul style="list-style-type: none"> • The possibility of substituting coal by CNG in existing bagasse/coal IPPs should be explored and the impact on lesser CO₂ emissions worked out. Possibilities exist of importing CNG from Tanzania and Mozambique and may require Government to Government agreements. • Waste into wealth: the Omnicane ethanol cluster is pioneering the carbon capture for industrial use venture and the association with Air Liquide, the largest world operator in this field, holds major promises for the future. Indeed, carbon capture for industrial use can be a major asset in a world framework where carbon capture and storage (CCS) becomes prominent. • The energy plant of Omnicane requires approval in line with rules and regulations in force and taking into account its importance in the renewable sector. • The CDM methodology has to be modified to take into account the specific needs of SIDS. • In parallel to endeavours on biomass renewable energy, generating firm power, it is necessary to introduce solar energy in the rural areas. This would be in line with Recommendation 18 of the NEC. • In this regard, it is recommended that the Fairtrade Cooperatives be equipped with solar farms of 0.5 to 1.0 MW, as the case may be. This may require investments at the level of the CEB. One MW can on average generate 2 GWh of electricity. • This measure would reduce overall additional CO₂ emissions, encourage the cooperative to engage in energy activities, enhance SME activity, and maintain planters in activity through a diversification of activity and income. • Support for such a venture would fully comply with initiatives in favour of vulnerable groups in SIDS and are expected to attract funds from donor/lender agencies. • A thorough assessment of the possibility of using ethanol in dual-fired gas turbines taking into account technical aspects and oil economics.

Table 17. Recommendations of LMC (contd)

Areas	Agro-Industry
11. Land development and land abandonment	<ul style="list-style-type: none"> • An aggressive scheme to encourage owners of abandoned land to rent their land to producers wishing to grow canes thereon; the scheme would be based on a minimal legal cadre and would be voluntary and commercially driven; this would, maximize production efficiencies and reverse the fragmentation in agricultural land-holdings that has occurred. • The cane cultivation agreements and the Fairtrade Initiative have already been mentioned as means to maintain land under cultivation and enable planters to derive gainful income. • Many measures described here and earlier represent potent means to limit cane abandonment and to bring back land under cultivation. Taking into account that cane abandonment can be an environmental hazard, and that measures in this regard can have social and political implications. Government should work out a bonus-malus scheme to curb abandonment. • The preparation of clear transparent guidelines in respect of land use to foster development in line with the aspirations and ambition of the country while ensuring that as much as possible agricultural land remains under cultivation. • The possibility to trade land conversion rights so that the mix commercial/marginal or moderate land is arrived at and the non-commercial/prime land mix is avoided. • There is need to clarify the provisions of the SIE Act regarding the conversion of land by persons having acquired land in the context of agricultural parcelling. • The implementation of the measures recommended in the MAAS on difficult areas with a commercial focus as far as possible; this applies in particular to the South-West and South-East of the island; continued soil conservation in these areas is of paramount importance. • In relation to cane burning, further re-grouping and mechanization within the future industry should result in continued improvements as the industry's 2001 code of practice is enforced more widely among corporate and re-grouped farmers. • Use of cane trash as boiler fuel will also contribute to minimize planned cane burning. • However, action needs to be taken to severely curb those fires that lie between accidental and criminal ones.

The Government had set a High-Level Implementation Committee (HLIC) under the aegis of the Ministry of Agro-Industry and Food Security. The objective of the HLIC to review the Findings and Recommendations of Report and advise Government on the future course of action.

The approach and methodology adopted by the HLIC was to have consultative meetings with all the stakeholders.

However, Government decided to implement the following measures:

(1) New revenue streams to be identified to ensure that the sugar cane growers obtain a reasonable and adequate income.

(2) At its meeting of 11 December 2015, with regard to the implementation of the LMC Report of the Sugarcane Sector, Government, inter-alia, agreed to the setting up of a Sugarcane Sustainability Fund for the payment of an amount of MUR 1,100 per tonne of sugar to planters producing up to 60 tonnes of sugar and MUR 300 per tonne of sugar in excess of 60 tonnes. Government also decided that the Ministry of Finance and Economic Development would provide the necessary finding for the operationalisation of the Sugarcane Sustainability Fund, after the Central Electricity Board would have repaid the loan contracted from Government.

(3) An increase from MUR 20 to MUR 40 per litre of alcohol produced by local bottlers as recommended by LMC.

(4) Payment of a special assistance of MUR 2,000 per tonne of sugar by the SIFB to all insured planters.

(5) Early negotiations be carried out with the European Commission to raise the threshold to import raw sugar for processing into white sugar from 15% to 30% of the sugar export volume.

(6) A levy of 15% be introduced on the import of sugar to render such sugar less competitive vis-à-vis the locally produced sugar and that new standards on sugar quality be worked out by the Mauritius Standards Bureau for compliance by exporters supplying sugar to Mauritius.

(7) The MSIRI be detached from the MCIA in the short term and discussion be held with the sugar millers for them to finance the administrative and operational costs of the MSIRI.

(8) For the other institutions forming part of the MCIA, the situation be reviewed in some two years' time when a significant number of the employees would have proceeded on retirement.

(9) MCIA will work in close collaboration with the

Ministry of Labour, Industrial Relations, Employment and Training to ensure that any dispute in the sector is promptly dealt with to avoid any disruption of work and minimise conflicts between the employers and employees.

(10) Government will make a provision of MUR 2 million to the Trade Union Modernisation Fund:

(a) To enable them to meet their operational expenses given that their revenue has decreased following the retirement of a large majority of their members under the Voluntary Retirement Scheme and the Blue Print due to factory closure;

(b) For the training of their existing members; and

(c) The organisation of important activities.

(11) Regarding the issue of molasses and ethanol, there is need to have an Ethanol Framework. Thereafter, a policy decision be taken for the use of ethanol to be made mandatory. The Ministry of Agro-Industry and Food Security will set up a Committee comprising Ministry of Finance and Economic Development, Ministry of Industry, Commerce and Consumer Protection, the State Trading Corporation, MCIA and other stakeholders.

Certain measures were implemented immediately, whereas others were implemented following decision of Government in March 2016 to review the Sugar Industry Efficiency Act 2001 and other legislations,

The aim of the review of the SIE Act 2001 was inter alia to:

(a) Prepare the sugar cane industry to face challenges in view of the abolition of European Union (EU) country sugar quotas.

(b) Implement measures destined to ensure the long-term viability of the sugar cane industry.

(c) Provide for the setting up of a Sugar Cane Sustainability Fund for the purpose of fostering the production of sugar cane and bagasse.

(d) Lay the foundations for Mauritius to transit to a low carbon economy by, inter alia, providing for the use of lower carbon emission fuel in the transport sector.

(e) Empower the Mauritius Cane Industry Authority to develop:

- (i) A Renewable Sugar Cane Industry Based Biomass Framework to enable the country to best fulfil its international commitments;
- (ii) An Ethanol and Molasses Framework to allow the mandatory blending of ethanol and mogas; and

- (iii) A Sugar Based Agro-Industry Framework to promote a sugar based agro-industry and generate value added sugar or other sugar products through the use of local raw materials.
- (f) Ensure that consumers secure quality sugar-based products which comply with international norms.
- (g) Make better provisions for revenue accruing to planters from molasses and the allocation of molasses between distilleries.
- (h) Make better provisions with respect to land conversion.
- (i) Provide for the implementation of the award of 31 July 2015 of the Arbitration Panel regarding seasonal labour in the sugar cane industry.

Opportunity is being taken to make other amendments to the Act to remove obstacles in the way of business facilitation, more particularly in respect to land conversion.

Opportunity is also being taken to amend other Acts in line with the objectives of this Bill, including the need to re-engineer the Mauritius Cane Industry Authority and to ensure the long-term viability of the sugar cane cluster.

SIE (Amendment) Act 2016

The amendments brought to the SIE Act 2001 came into operation on 1 January 2017 and were proclaimed on 31 January 2017 except for Section 18 (3) (iii) in so far as it relates to subsection (1B) and 18 (3) (i) (v). The amendments brought to the SIE Act relates to the following:

Section 2 – Interpretation by inserting definitions for Crop Year, FOB, ICUMSA, LCR, Manufactured, MS 193/2016, Raw Sugar, SPRP, Sugar Reform.

Section 11 to re-introduce the 1:2 Scheme which allows Government to acquire land for development at a nominal process. In return, the seller can convert two units of land for every unit of land sold to Government free from land conversion tax. This scheme will enable acquisition of land to implement infrastructural developments.

New Section 13 A to establish the sugarcane Sustainability Fund for the purposes of fostering the production of sugarcane and bagasse.

New Section 13 B to empower the MCIA for the development of a Renewable Sugarcane Industry Based Biomass Framework for promotion of production of energy from biomass including

sugarcane, cane trash, high fibre cane, fuel canes, gramineae and other related biomass, generated by the sugarcane industry.

New Section 15 to allow the Mauritius Standards Bureau to test samples of sugar and determine whether such samples qualify as white sugar or raw sugar.

New Section 15 A to empower the MCIA to develop a Sugar Based Agro-Industry Framework to promote sugar based Agro-Industry and to generate value added sugar or other sugar products through the use of local raw materials.

New Section 15 B to empower the MCIA to develop an Ethanol and Molasses Framework to provide value addition from ethanol obtained from molasses or from any other raw material obtained from sugar cane.

New Section 15 C to define the basket of prices and revenue payable to planters for molasses as determined by the MCIA.

New Section 15 D to provide for the setting up of a Joint Molasses Allocation Committee at the MCIA which will be responsible to allocate molasses between the distilleries in the context of an Ethanol and Molasses Framework.

New Section 15 E to provide for establishment of a mandatory blending of hydrous or anhydrous ethanol with mogas to be carried out by all mogas companies.

Section 17 to allow for producers to rent out to growers not less than 65% of the aggregate areas of land used in 2015.

Section 21 to empower the MCIA to determine the total number of man-days to be performed in any crop year by workers employed by the job contractor and seasonal workers employed by the employer. The determination shall take into consideration the award of the Arbitration Panel dated 31 July 2015. It is to be noted that the Panel was set to look into the unresolved issues relating to a labour dispute between the recognized Joint Negotiating Panel representing the recognized trade unions of the sugar industry and the then Mauritius Sugar Producers Association.

Section 27 to remove tobacco from the definition of cultivation.

Section 28 to allow land not under cultivation for a period 10 years before an application for land conversion to be excluded from the provision of the SIE Act. Furthermore, small owners who had acquired land from agricultural morcellement in the past would be able convert their land when required for

residential and other development purposes. Finally, the transfer of Land Conversion Rights to or from a Smart City project will be subject to reduction factors as may be prescribed.

New Section 28 A to allow for any person entitled to an exemption from Land Conversion Tax under Schemes for transfer of land, acquisition and disposal of land, and sugar reform projects to have a right to transfer the Land Conversion Right (LCR) to another person upon approval by the Ministry or the MCIA. This will give greater flexibility for the trading and use of entitlements for major developments across the country.

New Section 28 B to provide incentives to companies to implement Smart Cities as specified in the Investment Promotion Act. Provision is also made for the transfer of part or the totality of LCR to a Smart City Company.

Section 29 to provide for Land Conversion Tax not payable by a planter registered with the Sugar Insurance Fund as at 31 May 1999 and undertaking to convert land of an extent not exceeding one hectare in not more than one single plot.

Consequential Amendments were:

- (i) The Employment Rights Act in Section 35
- (ii) The Land (Duties and Taxes) Act in Section 2 (b)
- (iii) The Mauritius Cane Industry Authority Act in Sections 2, 4, 5, 8, 9, new section 10 A, 11, 25, 29, 47
- (iv) The Value Added Tax Act in the First Schedule and Fifth Schedule

The MCIA Act was amended:

- (i) In Section 4 to add new objects of the Authority:
 - (a) Foster the use of biomass, including sugar cane, cane trash, high fibre cane, fuel canes, gramineae and other related biomass, in the production of electricity and biofuels for transport; and
 - (b) Foster competitiveness of all segments of production in the cane industry.
- (ii) In Section 5 (1) to add new Functions of the Authority:
 - (a) To manage the sugar cane Sustainability Fund;
 - (b) Keep and maintain a Land Conversion Right (LCR) register;
 - (c) Develop the Renewable Sugar Cane

Industry Based Biomass Framework;

- (d) Determine the sale price of molasses to distilleries producing ethanol for blending or export or potable alcohol for export;
 - (e) Establish the Joint Molasses Allocation Committee for allocation of molasses between distilleries;
 - (f) Develop the Sugar Based Agro-Industry Framework; and
 - (g) Develop the Ethanol and Molasses Framework to provide for valued addition from ethanol obtained from molasses or from other raw material obtained from sugar cane.
- (iii) In Section 8 and 9 by setting up a Board of Directors.
 - (iv) In Section 10 A by establishing an Advisory Council to assist the Board in the discharge of its functions.
 - (v) In Section 25 for the Control and Arbitration Committee to authorize transfer or receive sugar, an intermediate product or any co-product to and from another factory.
 - (vi) In Section 29 for the Control and Arbitration Committee to provide a permit to a miller to operate a factory for the manufacture of sugar or an intermediate product.
 - (vii) In Section 47 to provide for an importer to pay the distiller bottler contribution and provide for a penalty to those not abiding to the law.

Activities related to Amendments of the SIE Act, MCIA Act and Budgetary measures 2016 and 2017

Ethanol and Molasses Framework

The components of this framework are the revenue to planters from molasses, allocation of molasses to distiller and Blending ethanol with mogas.

Molasses pricing mechanism

With the amendments brought to section 15C of the SIE Act in December 2016, the changes made in the current pricing mechanism are presented as follows for the different users of molasses:

Table 18. Current pricing mechanism

Year	AMCO/MMCO export molasses	Distillers who produce alcohol for the local market	Livestock who use molasses for animal feed
Prior to 2014	Ex-factory price	Local market and export MUR 3,000/t	MUR 3,000/t or FOB whichever is higher
2014	FOB	Local market MUR 3,500/t Export market FOB (Omnicanne FOB for 3 years only 2014 to 2016)	MUR 3,000/t
2015*	FOB	Local market MUR 3,500 Export market FOB	MUR 3,000/t
2016 (SIE Act)	Deemed FOB	Local market 1.75* deemed FOB Export market deemed FOB	MUR 3,000/t changed to MUR 2,500/t in March 2017 by CAD

A Technical Committee set up by CAD had reviewed the methodology in the light of recommendations made by Consultant on a study to determine the price and payment mechanism of molasses payable to planters and amendments brought to SIE Act. The LEI methodology was retained amongst other methods of determination namely Return on Assets and T2 Rectified Neutral Spirits (T2REN).

The molasses FOB price for producer of alcohol for local market was MUR 3,479.91/t and molasses blended price payable to planters was MUR 2,242.89/t.

The price payable to planters for crop 2015 was therefore MUR 2,074.58/t.

The LEI method however uses the freight costs which are deduced from the LEI reference price in the determination of FOB. With the cessation of activities by MMCO, the freight figures were no longer available. CAD had used average freight of past years in its determination of FOB price payable by distillers for crop 2014 and 2015.

The Technical Committee considered the average freight method and the Regression Line Statistical Method using past data for period 2004 to 2013 when the actual freight figures were available and determined a relationship that existed between LEI and FOB. The Technical Committee submitted the recommendation to CAD. The CAD had considered further option and submitted its recommendations to the CAC. Following lengthy discussions the deemed FOB Price reached by CAC for Crop 2016 payable by AMCO, and producers of alcohol for export market was MUR 1988.52/t.

Table 19. Price payable to planters

Year	Tonnes molasses at 860 Brix	LEI USD	Freight USD	Other costs USD	FOB USD payable by users of molasses	Price payable to planters (MUR/t)
2004	155,763	103.78	44.96	17.22	41.6	911.57
2005	145,425	135.24	55.91	21.51	57.82	1,563.31
2006	139,631	152.42	69.13	20.0	63.29	1,898.18
2007	129,752	160.48	98.75	10.82	50.91	1,361.69
2008	141,847	187.60	94.05	15.60	77.95	2,181.32
2009	145,338	215.57	90.64	15.12	109.81	3,016.29
2010	144,137	206.09	96.06	12.21	97.82	2,689.33
2011	136,324	204.96	120.15	11.86	72.95	1,981.64
2012	123,916	201.67	116.07	11.10	74.5	2,235.18
2013	125,837	218.64	140.59	13.52	64.53	1,970.98
2014	139,308	207.48	130(a)	12.94	64.54	2,316.51
2015	130,844	187.55	126.7(b)	10.63*	50.22	2,074.00
2016	118,738	175.04	112.7(c)	5.59	56.75	2,242.89

Note:

(a) For 2014 crop: Freight taken as indicative (available from MSS)

(b) For 2015 crop: Freight taken as average 4 years period 2011 to 2014

* abolish the \$2 commission computed in other costs that is deducted from LEI reference price

(c) For 2016 Freight taken as average 5 years period 2009 to 2013

Molasses Allocation to Distillers and Distiller-Bottlers

For the purpose of this Ethanol and Molasses Framework, the MCIA had set a Joint Molasses Allocation Committee. The Committee had met on several occasions and discussions were initiated on installed capacity, equal saturation, priority access to molasses, force majeure, pricing and environmental issues.

Blending Ethanol with Mogas

In the context of the Ethanol and Molasses Framework the MCIA had also consulted the following stakeholders:

- The Ministry of Finance and Economic Development
- The Ministry of Industry, Commerce and Consumer Protection
- The State Trading Corporation
- The Distillers (Namely Grays Distilling Ltd, Medine Distillery Co. Ltd, Omnicane Ethanol Production Ltd)
- The Oil Companies (Namely Engen Petroleum Ltd, Vivo Energy Mauritius Ltd, Total Mauritius Ltd, Indian Oil).

- The Vehicle Dealers (Association of Motorcycle Dealers, Motor Vehicle Dealers Association)

The concerns of the different stakeholders were discussed. As there remained a number of issues to be addressed concerned with pricing, a draft Ethanol and Molasses Development Framework Report was submitted by MCIA to the parent Ministry for consideration in June 2017. Consultations with all stakeholders were ongoing.

Contribution from Distiller Bottlers

The Budget 2016-2017 had made provision for an increase of the contribution made by the distiller bottlers. Subsequently the Finance (Miscellaneous Provisions) Act No 18 of 2016 amended the MCIA Act in Section 47. The increase from MUR 20 per litre to MUR 40 per litre of potable alcohol sold on the local market was effective as from 7 September 2016. For Crop 2015, a contribution of MUR 92.49 million was generated from 4.6 million litres of potable alcohol sold on the local market. Planters were paid at the rate of MUR 320.54 per tonne sugar.

For Crop 2016, a contribution of MUR 151.5 million was generated from 4.15 million litres of potable alcohol sold on the local market. Planters were paid at the rate of MUR 498.69 per tonne sugar or MUR 1292.55 per tonne of molasses excluding molasses taken in kind (or MUR 1,282.53/t if molasses taken in kind is included).

Furthermore, the Budget 2017-2018 had made the following provisions with respect to the contribution:

- (a) To clarify that the contribution made by a distiller-bottler is based on potable alcohol derived from cane or cane products;
- (b) To introduce a contribution of MUR 40/L of absolute alcohol on imported potable alcoholic products manufactured from sugar cane or its by-products to ensure a level playing field with local distillers-bottlers; and
- (c) To empower the MRA Customs to collect the contribution from a distiller-bottler or an importer for ease of administration.

The MCIA Act would be amended accordingly in Section 47 to give effect to the budgetary measures.

Sugar Cane Sustainability Fund

The Study by Landell Mills Commodity International Ltd (LMC) had made a number of recommendations pertaining to the bagasse/electricity issue. The Ministry of Agro-Industry & Food Security had requested the Ministry of Energy and Public Utilities

to assess the recommendations of LMC. In that regard an Energy Sub-Committee was constituted to examine the recommendations of LMC and make further proposals for consideration by Government. The MCIA formed part of the Energy Sub-Committee. The focus was on equity and fairness as regards to the bagasse issue.

The Energy Sub-Committee had recommended an Incentive Scheme Fund to help small and medium planters having sugar accrual of 240 tonnes in a crop season.

Government examined the proposal and decided in January 2016 to set up a Sugar Cane Sustainability Fund. Payment for the operation of the Fund was effected by the Ministry of Finance and Economic Development after it received sums for the amount of the debt in three tranches of MUR 137 M each by the Central Electricity Board. The contribution to the Fund started with Crop 2015 and would end with Crop 2017.

Government decided that payment from the Fund be made as follows:

- (i) MUR 1100 per tonne sugar up to 60 tonnes; and
- (ii) MUR 300 per tonne of sugar in excess of 60 tonnes.

Payment for Crop 2016 was effected as follows:

	Crop 2015 MUR (M)	Crop 2016 MUR (M)
Category first 60 t sugar accrued	69.2	73.2
Category in excess 60 t sugar accrued	67.7	71.2
Total	136.9	144.4

Due to a higher production of sugar for Crop 2016 as compared to Crop 2015, the MCIA had in May 2017 requested for an additional grant from Government to be able to effect a full payment to planters.

Amendment to SIE Amendment Act 2016 – Job Contractor

The MCIA has set up a committee as per the provisions of the SIE Act consisting the MCIA, representative of employer and representative of recognized trade unions.

MCIA has liaised with the Ministry of Agro-Industry and Food Security, Ministry of Social Security and Ministry of Labour and Industrial Relations and all the sugar companies for relevant data.

The Ministry of Agro-Industry and Food Security has coordinated with Ministry of Labour and industrial Relations to seek relevant advice from the State Law Office. The consultations are ongoing.

Registration and payment of a contribution to the MCIA for the importation and sales of sugar on the local market

Following the gazetting of the Regulation made under Section 63 of the MCIA Act in 2012 and subsequent amendment made on 25 March 2014 (Government Notice No 50 of 2014) the contribution from sale of sugar on local market is MUR 3.70/kg of sugar. Furthermore, provision was made in the National Budget 2015/2016, for the introduction of a 15% duty on imported sugars for domestic consumption to render such sugar less competitive vis-à-vis locally produced sugar.

For the year 2016, 24 companies / importers were registered at the MCIA. Some 34,450 Mt of sugar were imported / sold on the local market and the MCIA has received a total contribution of MUR 127.47 M, which have been used for the payment of pensions for the ex-dockers. The introduction of 15% duty on imported sugar has substantially decreased the import of sugar and favoured locally produced sugar for local consumption.

As regards the quality of sugar imported, the importers are required to submit the certificate of analysis to the Customs Department and the MCIA as a prerequisite for customs clearance of the imported consignment. Furthermore, the SIE Act has been amended in 2016 to enforce standards for white and raw sugars used for domestic consumption as well as to empower the MCIA and Mauritius Standard Bureau to proceed with the sampling and testing of sugar respectively.

Activities related to the Multi Annual Adaptation Strategy (2006 to 2015)

During the course of the year 2016 to June 2017 the following activities continued under the projects related to MAAS plan

- Project 1: Field Operations and the regrouping of planters
- Project 3: Centralization of sugar factories
- Project 2: Rightsizing of production entities: the implementation of a Voluntary Retirement Scheme

Other components

- (i) Electricity Generation
- (ii) Métayers
- (iii) Fair Trade
- (iv) Environmental Issues

Project 1: Field Operations and the regrouping of planters

The objectives of this project are to improve the cost competitiveness of the field sector and to ensure the sustainable and reliable supply of canes by small planters through regrouping. The Field Operations Regrouping and Irrigation Project (FORIP) was to cover some 12,000 ha during the period 2006 to 2015. Given the recent increase in demand from planters to join this scheme, Government decided to extend the scheme for an additional period of 3 years (i.e. 2016 to 2018) and provision was made for the allocation of additional funds accordingly.

The implementation of FORIP was initially based on a multi-phased approach, i.e. Phases I, II and III. Phase IV was initiated in July 2009 and was completed in December 2010. For the period 2010 to 2015 the implementation of the project was based on a calendar year basis in line with the Programme Based Budgeting (PBB) for the allocation of funds. Subsequently, as from 2016 the project was implemented on a financial year basis.

In 2016, the appellation of the project was changed to Sugarcane Planters Regrouping Project (SPRP) with modifications to the Planters Contract Agreement and the scope of works, which are summarised below:

- (i) planters who must be owners of less than an aggregate of 15 ha compared to 25 ha previously to be eligible join this project (i.e. the scheme targets the small / medium planters who are the most vulnerable ones);
- (ii) additional conditions have been included to enable the MCIA not to proceed with works under certain specific terms and conditions;
- (iii) the previous provision pertaining to planter's contribution has been amended to link it with the viability price of sugar. Planters will need to contribute only for years when the ex-MSS price of sugar exceeds MUR 16,000 per tonne;
- (iv) under the new scheme the provision regarding the payment of cash advance to planters was abolished as was the case under FORIP. However, in case a planter has got a cash flow problem, the MCIA would look into the possibility to make arrangements with banking institutions to enable the planter to contract a loan;

- (v) no provision will be made for the rehabilitation of fields once handing over has been effected;
- (vi) no provision will be made for excavation works and carting away of rocks in difficult areas; and
- (vii) Otherwise, all other provisions of FORIP have been maintained.

The total cumulative extent regrouped, derocked and planted during the period covering 2006 to end June 2017 is 11,000 ha (i.e. representing some 92% of the extent earmarked under this project) involving some 11,515 planters as indicated in Table 20 below.

A summary of the extent covered by FORIP / SPRP during the different phases covering the period 2016 to end June 2017 is given in Table 20.

Table 20. Area involved under the different phases of FORIP [2006-2015] and SPRP [2016-2017]

Phase (Period)	Area (ha)	No. of Planters
Phase I (Aug 2006 – April 2007)	340	245
Phase II (May 2007 – April 2008)	973	785
Phase III (May 2008 – June 2009)	1,081	1,149
Phase IV (Jul 2009 – Dec 2010)	1,215	735
Phase V (Calendar year 2011)	1,325	1,407
Phase VI (Calendar year 2012)	1,396	1,675
Phase VII (Calendar year 2013)	1,331	1,597
Phase VIII (Calendar year 2014)	1,458	1,665
Phase IX (Calendar year 2015)	564	677
Phase X (Calendar year 2016)	590	708
Phase XI (Calendar year 2017)	727	872
Total	11,000	11,515

Project 2: Centralisation of sugar factories

The progress on monitoring of factory closure conditions for the period 2016 to June 2017 is tabulated below:

Table 21. Factory Closures

	Closed Factories in 2006	Disbursement of Fund From EU to meet Cash Compensation to Beneficiaries	Disbursement of Planters Fund	Handing over of Title Deeds to Beneficiaries	Erection of 150 m2 fertilizer store or multipurpose building	Road Infrastructure
1.	St Felix closure in 2006	√	√	√	No progress for the period	√
2.	Riche En Eau closure in 2007	√	√	√	No progress for the period	√
3.	Mon Desert Mon Tresor closure in 2007	√	√	√	No progress for the period	√
4.	Mon Desert Alma closure in 2008	√	√	√	No progress for the period	√
5.	Union St Aubin closure in 2011	√	Overdue MUR 6M not yet settled by Omnicane	√	No progress for the period	No progress for the period
6.	Mon Loisir closure in 2012	√	√	In Progress	No progress for the period	√
7.	Deep River Beau Champ closure in 2014	√	In Progress	In Progress	No progress for the period	No Progress for the period

Note: √ means completed

Planters Fund

With regard to the contribution by the cane receiving mills to the Planters Fund, Ex St Felix in the context of closure of Bel Ombre sugar factory still owes MUR 5,589,930. The Ex St Felix went into liquidation. The MCIA did not proceed further following advice received from SLO. Terra Milling with respect to the closure of Mon Loisir Sugar Factory has paid its last contribution in June 2016.

However, Omnicane Milling with respect to closure of Union St Aubin Sugar Factory still has an overdue account of MUR 6 M.

The payment by Alteo in the context of closure of Deep River Beau Champ is in progress.

Fertilizer Store/Multipurpose Complex

With regard to the erection of fertilizer stores or multipurpose complexes as per the conditions of closure, there has been no progress by the sugar companies for the period covering 2016 to June 2017.

Road Infrastructural Works

There are still outstanding road infrastructural works to be completed by Omnicane and Alteo in the context of closure of Union St Aubin and Deep River Beau Champ. There has been no progress for the period 2016 to June 2017.

Project 3: Socio – Economic Projects in favour of Employees of the Sugar Industry

Sugar Industry Employees – Socio Economic Projects

Schemes being implemented by the Sugar Industry and monitored by the MCIA are as follows:

- (1) Land allocation related to phasing out of sugar estate camps (P.O.C).
- (2) Allocation of land and payment of cash compensation to workers affected by sugar factory closures as per the Blue Print.
- (3) Allocation of land and payment of cash compensation to workers terminating voluntarily their contract of employment under the Early Retirement Scheme (ERS) and the Voluntary Retirement Scheme (VRS).

Cash Compensation

All the 8,287 beneficiaries of VRS / ERS / Blue Print have already received their total cash compensation amounting to MUR 3.3 billion.

Land Compensation

A Monitoring Committee is chaired by the Ministry of Agro-Industry and Food Security with all the sugar companies, Government Authorities, the Morcellement Unit of the Ministry of Housing and Lands and MCIA to address and resolve all the administrative bottlenecks that cause delays in the procedures and handing over of title deeds to the beneficiaries. In case of a beneficiary who passes away, the heirs are eligible for the plot of land.

Land is allocated to the beneficiaries after the completion of all infrastructural works which comprises of water and electricity supply, road and drainage network.

The cost of infrastructure works for all the sites would be around MUR 4 Billion.

Prior to signature of the title deeds and drawing of lots (DOL) exercise beneficiaries visit their plots of land to verify the status of their land and the provision of all amenities as agreed.

Site Monitoring for Infrastructure works

Four official site visits are carried out by MCIA with elected representative of beneficiaries, sugar companies, contractors and engineers.

Other site visits are also done by MCIA to ensure that the works are carried out as per requirements of the Letter of Intent issued by the Ministry of Housing and Lands and the Government Authorities with the representative of workers and with all workers prior to signature of title deeds.

Table 22. Status of handing over of title deeds for VRS/ERS/Blue Print

Schemes	No. of Sites	No. of beneficiaries	No. of beneficiaries received title deeds	No. of beneficiaries not yet received title deeds
ERS 2007	8	209	206	3
VRS 2007–2016	63	7,139	6,304	835
Blue Print	16	939	708	231
Total	87	8,287	7,218	1,069

All the outstanding 1,069 title deeds will be handed over to the beneficiaries upon:

- Completion of infrastructural works and receipt of clearances from Authorities.
- Receipt of Letter of Intent, Morcellement Permit.
- Receipt of the Parcel Identification Number (PIN) from Ministry of Housing and Lands.
- Having signed and registered the title deeds.

Table 23. Status of infrastructural works and clearances

S.N	SCHEME	COMPANY	MORC. REF MHL/M/....	SITES	REMARKS
1.	VRS (2007)	St Felix S.E	M/17413	Chemin Grenier	Awaiting Supreme Court Approval for diversion of existing canal.
2.	VRS (2016)	Cie de Gros Cailloux Ltée		Petite Rivière (Kahin)	Awaiting Letter of Intent from Ministry of Housing and Lands.
3.	VRS (2012)	Medine Ltd	M/17443	Palma	Medine has submitted External Auditor Report for cost of Infrastructure works. Onsite works will start in August 2017. Ministry of Housing and Lands and RDA to proceed with land acquisition for a roundabout.
4.	VRS (2012)	Medine Ltd	M/17402	Bambous	Infrastructure works ongoing. River Dragon dredging of works which is adjacent to the site needs the Supreme Court approval.

5.	VRS (2012)	Medine Ltd	M/17395	Chebel	Asphalt completed. Issue of sewerage house connection. Inspection Chamber. MCIA has instructed Medine to abide by the initial agreement on sewer provision on the site.
6.	VRS 2 (2007)	Alteo (Mon Loisir)	M/16288	Piton	Infrastructure works completed except asphalt. CEB to remove poles found on main entrance to enable the completion of asphalt.
7.	Blue Print	Alteo (DRBC Milling)	M/17164	Bel Air	D.O.L done on 15 February 2017. Awaiting clearances.
8.	VRS (2007)	Alteo (FUEL)	M/17100	Melrose	Asphalt completed Company to seek clearances. Due to RDA specification for offsite works have encountered longer period of time. D.O.L done on 31 July 2017.
9.	Blue Print	Alteo (Mon Loisir CUML)	M/17033	Belle Vue Maurel	Infrastructure works ongoing. MCIA has requested for additional drain to avoid floods on the site.
10.	Blue Print	Alteo (DRBC Milling)	M/17165	Bonne Mere	Infrastructure works started on 21 April 2017. Expected to be completed by February 2018.
11.	Blue Print	Alteo (Mon Loisir) CUML	M/16872	La Clemence	Awaiting Morcellement Permit. Alteo to submit new drainage plan to RDA.
12.	VRS (2007)	Bel-Air S.E	M/14117	Rivière des Anguilles	DOL on 1 August 2017.
13.	VRS (2007)	Alteo (Mon Loisir)	M/16858	Poudre d'Or Hamlet	Alteo to prepare title deeds.

Table 23. Status of handing over of title deeds for VRS/ERS/Blue Print (contd)

S.N	SCHEME	COMPANY	MORC. REF MHL/M/....	SITES	REMARKS
14.	Blue Print	Alteo (Mon Loisir) CUML	M/16873	Poudre d'Or Hamlet	Alteo to prepare title deeds.
15.	Blue Print	Alteo (DRBC - Milling)	M/17167	Queen Victoria	Morcellement Permit received on 13 April 2017. Alteo to prepare title deeds.
16.	Blue Print	Alteo (DRBC - Milling)	M/17166	Riviere des Creoles	Awaiting Morcellement Permit. Alteo to pay District Council for street lanterns.
17.	VRS 2 (2007)	Alteo (FUEL)	M/17185	Providence	Title Deeds handed over on 16 May 2017.
18.	Blue Print	Alteo (Mon Loisir)	M/16871	Gokoola	Works not yet started.
19.	VRS (2007)	Alteo (DRBC)	M/15544	La Lucie Block	Title Deeds handed over on 14 March 2017.
20.	VRS (2007)	ENL (Ex MDA)	M/16747	L'Avenir	D. O. L. on 14 March 2017. Out-of-court settlement. Company to prepare title deeds.
21.	VRS 2 (2007)	Alteo (DRBC)	M/15545	La Lucie Centralisation	Title deeds already handed over in September 2016.

VRS – Blue Print Scholarship Scheme

Applications for the award of Scholarship are invited from children of retired workers of the sugar industry and planters under the Voluntary Retirement Scheme (VRS/Early Retirement Scheme (ERS), Factory Closures who have been admitted to:

- (i) Any locally recognized Tertiary Education.
- (ii) Any local training institutions duly registered with the Mauritius Qualification Authority (MQA).

Consideration are also given to children who are following professional/ semi-professional courses approved by the Tertiary Education Commission (TEC).

The children receives a yearly allowance of MUR 18,000 for a maximum of four years. The modality of payment is mutually agreed between the student and the sugar company.

In the event that a candidate discontinues his/her course, he/she shall inform the MCIA and the Sugar Company giving reasons thereof. In this case the allowance is forfeited.

For the Period 2007 to March 2017 a number of 44 children have benefitted the scheme.

Scholarship

Table 24. Scholarship scheme

Year	Schemes	No. of Students
2007	Blue Print	2
	VRS	5
2009	Blue Print	4
	VRS	7
2011	VRS	4
2012	Blue Print	3
	VRS	8
2013	Blue Print	2
	VRS	3
2014	Blue Print	1
2015	Blue Print	2
	VRS	2
2016	VRS	1
Total		44

Surplus plots of land under the VRS/ERS/Blue Print/ Phasing out of Sugar Camps Scheme

A survey has been carried out on all the sites of VRS/ ERS/Blue Print/Phasing Out of Sugar Camps Schemes after handing over of title deeds.

The surplus plots of land in the schemes is as follows:

VRS	76
P.O.C	60
B. Print	26
Total	162

Alteo Ltd. will submit its status on completion of the schemes.

Sugar companies have the intention to sell the plots of land as they have to clean them on a regular basis which is too costly.

It has been agreed by all stakeholders that the land could be sold subject to:

- (1) Approval of MCIA as the Morcellement has been approved by Morcellement Board under certain socio-economic projects under the supervision of MCIA.
- (2) Plot of land to be kept and maintained on a regular basis until a decision is taken.
- (3) No one will be authorized to occupy the plot of land.
- (4) All plots should be properly pegged by August 2017.
- (5) Land to be sold to:
 - (i) All persons that the Company had an agreement with evidence as at December 2016.
 - (ii) Land will not be sold to those employees who have already benefitted plots of land under VRS/ERS/Blue Print and Phasing out of sugar camps.
 - (iii) Land to be sold by sugar companies to existing permanent employees in the Cane Industry after having refunded the infrastructural cost incurred by MCIA.

Table 25. Surplus plots of land under the VRS/ERS/Blue Print/Phasing out of Sugar Crops Schemes

	Sugar Company	Scheme: VRS /ERS/ Blue Print/ POC	Name of site	Number of surplus plots
1	St. Felix S.E Co. Ltd	VRS	Chemin Grenier	45
2	Mont Choisy	Phasing out of S. Camps	Mont Choisy	2
3	St. Aubin	VRS	Union St. Aubin	2
4	Medine	Phasing out of S. Camps	Eaux Bonnes	8
		VRS	Camp Mapou	5
			Chebel	2
5	Cie Sucrière de Bel Ombre	VRS	Case Noyale	2
6	Terragri Ltd	VRS 1	Bois Mangués	8
		VRS 2	Bois Mangués	1
			Mon Goût	1
			Maison Blanche	6
7	Omnican Ltd	VRS 1	Batimaraïs - R. des Anguilles	2
			Britannia	1
8	Britannia	Phasing out of S. Camps	Camp Berthaud 1	4
9	Mon Trésor Mon Désert	Phasing out of S. Camps	Cote D'Or	4
		Phasing out of S. Camps	Deux Bras	1
			Sauveterre	1
10	Omnican Milling Operations	B. Print	Tyack	8
11	Omnican (St. Felix)	B. Print	St. Felix	14
12	Omnican (Mon Trésor)	B. Print	Mon Trésor	4
13	Omnican Ltd	Phasing out of S. Camps	Desplaces	41
			Total	162

Winding up of the Phasing out of Sugar Estate Camps Scheme

The main objective of the project is to enable workers to become owners of their house and to eliminate all the housing estates which belonged to the Sugar Estates.

Since 1985 the scheme has been implemented in a phased manner and its target was to eliminate 133 Sugar Camps.

The main three components were:

- (i) Phase out houses of poor standard and the sale of sugar estate land after completion of all infrastructural works at a nominal price to allow employees to construct their own houses.
- (ii) The sale of existing houses that were of a reasonable standard to their occupants.
- (iii) Improvement of those camps where sugar companies were keeping ownership.

Sixty-six camps were phased out during the Phase I.

During the Phase II, the total number of sugar camps which have phased out is 65 resulting in a balance of two (2) camps.

The Camp Union and Mon Trésor have been earmarked to be completed by November 2017.

Infrastructure works at sites St. Aubin and Desplaces have been completed. OMNICANE, Cascade Ltée. and Union S.E Land Unit are seeking clearances from authorities for the receipt of Morcellement Permits which will enable MCIA to organize the Official Ceremony for the winding up of the Scheme.

Termination of Contract of Employment

Nineteen employees of Senneville Agricultural Ltd. voluntarily terminated their contract of employment in April 2017 with a cash compensation for their length of service and MUR 500,000 in lieu of land compensation.

The Ministry of Agro-Industry and Food Security, Ministry of Labour and Industrial Relations were apprised by MCIA on this issue.

Other components

Electricity Generation

The total electricity supply in the country in 2016 was around 2600 GWh. Out of this, electricity generation from coal was around 1060 GWh, bagasse 351 GWh and the remaining 1,189 GWh was from diesel oil, fuel oil, kerosene, gasoline, hydro, solar, fuel (wood,

wind, photo voltaic and landfill gas).

The IPP's of the sugar sector produced around 60% of the total electricity generated and the CEB 40%.

The Government has announced plans to increase the use of renewable sources of energy from the current 22% to 35% by 2025. This will be achieved through wind farms, solar energy, biomass and waste to energy projects. In order to provide the proper institutional set up Government had in 2016 created the Mauritius Renewable Energy Agency (MARENA) and in 2017 the Utility Regulatory Authority to regulate electricity, water and waste water.

In line with the objectives of Government to increase renewable sources, the MCIA was supportive to the Parent Ministry amending the SIE Act (section 13 B) in favour of development of a Renewable Sugarcane Industry Based Biomass framework

The CEB/IPP's Power Purchase Agreement

The new proposed power plant at Alteo with higher pressure boilers of 86 bar and two units of 45 MW each was submitted to Government in July 2015. It is proposed that the plant will use a new mix of combustibles that is bagasse and cane trash during crop and coal during inter-crop.

Government had set a Negotiation Committee at the level of the Ministry of Energy and Public Utilities in February 2016 to examine the proposal of Alteo. The Negotiation Committee is composed of representatives from Prime Minister's Office; Ministry of Finance and Economic Development; Ministry of Agro-Industry and Food Security/ MCIA and Ministry of Environment, Sustainable Development. This Committee has also in its mandate to look into the issue of bagasse payment. In that context the MCIA had in March 2017 submitted a report on the "Economic Value of Bagasse and Price Formulation" to the Parent Ministry.

Métayers

Pursuant to the agreement reached between the Ministry of Agro-Industry and Food Security (MoAIFS) representing Government and MSPA on 29 March 2010, the MCIA (ex-MSA) requested members of the ex-MSPA to implement provisions of the agreement. The MCIA will continue to monitor and act as a facilitator until all the issues concerned with the implementation of the agreement are resolved to the satisfaction of all parties concerned.

Métayers (contd)

This agreement makes provision for the possibility for a métayer to buy the land he/ she is presently occupying if it is considered as non-strategic or an alternative plot of land if the land occupied is considered to be strategic by the owner estate. The final price will include a discount of 35% as per the provision of the said agreement. In that respect, CLG Ltée. has submitted its request and sought the authorisation of the MCIA for the sale of métayers lands leased to six (6) métayers in the regions of Camp Bouillon, La Porte, Mare La Chaux and Quatre Cocos based on their valuations of land.

The MCIA has had consultations with the MoAIFS and the Valuation and Real Estate Consulting Services (VRECS) (ex-Valuation Department of the Ministry of Finance) on this request. The MoAIFS sought the assistance of the VRECS for the cross valuation of métayer lands proposed by CLG Ltée.

Site visits were effected by the VRECS and the latter submitted its recommendation to the MoAIFS and the MCIA. Following, the non-objection received from the MoAIFS on the valuation of land proposed by CLG Ltée. for the sale of métayer land at Constance, the MCIA informed CLG Ltée. and the respective métayers accordingly. CLG Ltée. has initiated arrangements for the parcelling of land at the level of the Morcellement Board. Subsequently, CLG Ltée. would proceed with finalising the title deed for the sale of land to the respective métayer.

Fair Trade

Export of sugar for small planters under the Fair Trade accredited system is yet another avenue for generating additional revenue and this will contribute towards overcoming the impact of reduction in sugar price. For the financial year 2016/17 a provision of MUR 5M was earmarked in the budget estimate to meet the administrative and surveillance costs incurred by planters under the Fair Trade Label. More attention is being focussed on identifying new markets in order to increase the volume of export under this label.

There is a potential for small planters to export some 42,000 t of sugar under this label. Export of sugar sold at a premium rate of 60 USD per ton of sugar under this label has decreased from 36,800 t in 2015/16 to a provisional figure of 33,000 t in 2016/17 due to deregistration of certain co-operative societies. However, these co-operative societies have already embarked on the process of recertification and in the event of recertification, the total volume of sugar exported under this label would increase by an additional 9,000 t. The process of recertification is still ongoing. The total premium received and paid to producers for the Crop 2016 is estimated around MUR 65M.

A new system of accreditation for the small planters regrouped into cooperatives has been implemented for the Crop 2016 under the Altromercato Ferrero initiative, which involved the export of some 4,000 tons of white refined sugar shipped to Ferrero whereby an additional premium of €40/t of sugar was received by the cooperatives. Under this scheme, the 800 registered cooperative planters were also eligible to receive both bio and chemical fertilizers free of cost in line with the recommendation made by the MSIRI after soil analysis.

Environment Issues of the Sugar Cane Cluster

EIA licences, EIA/PER monitoring and environment monitoring report by promoter

The MCIA is responsible:

- (i) to submit its clearances to the parent Ministry whenever there is an EIA application by a promoter on a case to case basis;
- (ii) to submit monitoring statues to the parent Ministry in line with conditions imposed by the Ministry of Environment in the EIA permit. Monitoring status reports were sent for the stack and ambient air quality covering period 2016-June 2017; and
- (iii) to review the environment monitoring report submitted by the promoter for actions deemed necessary as per the mandate of the MCIA.

Climate Change Initiatives

The MCIA has participated in a number of Capacity Building Workshops and coordinated activities and provided input related to National Communications Report, National Inventory Report and other climate related activities at the request of Ministry of Environment.

The MCIA formulated a project proposal under the Green Fund for a National Adaptation Plan in June 2017 for review by the parent Ministry and the Ministry of Environment.

The MCIA has also requested funding, in May 2016, under the Global Environment Fund 6 - capacity strengthening in the environmental monitoring of PoPs and toxic metals.

Draft Environment Protection (National Standards for Ambient Air Quality and Stack Emission) Regulations

The Ministry of Environment had in October 2016 proposed to repeal the EPA (Standards for Air) Regulations 1998. In that context a draft new regulation was circulated to the MCIA. The MCIA had studied same in consultation with all the stakeholders of the sugar sector and had submitted its views to the Ministry of Environment.

Air Pollution Monitoring System

Several companies have availed to the services provided by the air pollution monitoring system in order to show compliance to environmental standards as well as conditions set in the EIA Licences.

For the period January 2016-June 2017 the number of tests carried out was recorded as follows:

- 77 stack emissions;
- 44 ambient air quality;
- 25 particulate matter (less or equal to 10 microns); and
- 12 indoor air quality.

The air monitoring team followed a training on working at heights led by the MCIA Health and Safety Officer in August 2016.

The Unit had for the period generated a total revenue of some MUR 8.7 M from tests undertaken for both the sugar and non-sugar sector in Mauritius and Rodrigues.

International Scene

EU Sugar Reform

On 1 October 2017, the EU will undergo further reform: quotas on beet sugar and isoglucose will be abolished, but external tariffs will remain unchanged. The final outcome of this reform is uncertain, production of beet sugar and isoglucose is expected to increase. This, in turn, will increase the level of competition within the EU, reduce imports and erode the price preference from which ACP countries have benefitted in the past. It is also expected to result in an increase of EU sugar exports.

The impact of the erosion of preferences on the ACP will differ from country to country, depending on their level of exposure to the EU market, access to alternative markets (domestic, regional or other preferential) and whether these markets will continue to offer premiums over the world price following the EU reforms and their cost structure. Mauritius is categorized as a country with a large exposure to the EU market and/or higher costs of production.

The ability of producers to divert sugar from the EU to remunerative regional markets is an important means of mitigating the loss of EU preference. However, regional markets are limited in size and access is often restricted by trade barriers, even within established free trade areas (FTAs). There is also a potential risk that these markets will become oversupplied and very competitive, thus driving down the prices, especially in Eastern and Southern Africa.

This major upheaval on the EU market with the abolition of EU sugar country quotas and the liberalization of intra border trade is likely to lead to consequential price instability. Such upheavals tighten competition and validate the call for the Mauritian sugar industry to remain competitive.

With these forthcoming developments on the EU market post 2017 there is an urgent need to have a more controlled and managed internal EU market necessary for an adequate remunerative EU market price. There is need for proper monitoring and coordination of activities between Port Louis and our foreign embassies to ensure that our interest is not jeopardized.

Mauritius will have to pursue more in depth discussion with the EU to try and explore the possibility for another Accompanying Measures Support Program (AMSP) from the EU for Sugar Protocol Countries and the provision of other global concessionary finance/grants dedicated to environment protection and preservation in order to enable ACP members' states to make appropriate reforms/adjustments and to complete ongoing reforms of their sugarcane industries. Following a recent study commissioned by EU and ACP groups jointly on the on Current and Forecast Market Developments for ACP Sugar Suppliers to the EU Market, Mauritius will have to canvass / lobby the EU on the importance to have another Sugar Accompanying Measures from them.

Mauritius will need to canvass the EU on the successful completion of the 1st phase of the Sugar Research and Innovation Programme (SRIP) last year and request for their support for the funding of the 2nd phase of SRIP.

There is need for MSS to embark on a more aggressive marketing campaign for the export of sugar on remunerative markets. Government through the Ministry of Foreign Affairs, International Trade and Regional Integration has undertaken bilateral consultations and economic diplomacy to address the problem of market access.

Brexit

In January 2013, the UK's Prime Minister announced that a referendum on the future of the UK inside EU would take place. The Brexit referendum took place on 23 June 2016 and the result clearly indicated that UK should leave the EU. On 27 March 2017, UK triggered Article 50 of the Lisbon Treaty, which makes provision for the official mechanism for UK to leave the EU. The evolution and procedures on this famous article are still unknown. Most probably, a treaty framework would be worked out regulating the time-frame and modalities for this separation. The fact the UK formed part of the EU market implies that Brexit will modify the existing landscape of trade agreements the UK and the EU's existing trading partners.

With Brexit, UK will be called upon to re-negotiate or restart new bilateral negotiations with other countries /trading blocks. Based on the same principle, the other countries will no longer be able to enjoy preferential market access to the UK. In the specific case of Africa, with which the EU has signed or is negotiating EPAs, it might also lose preferential access to the UK market.

The effect of Brexit will vary according to the weight of the UK in a country's total export in addition to other uncertainties governing international trade. Given the political and financial importance of UK for the EU it is likely that the implications of Brexit will have direct consequences for trade, services, investment and development cooperation for EPAs with EU including Eastern and Southern Africa countries including Mauritius. Furthermore, Mauritius exports most of its sugar on the EU market implies that the impact of Brexit will be more significant for our sugarcane industry. However, until Brexit has been finalized there will be no disruption in the trade with EU and UK during the transitional period.

However, despite Brexit, the UK will be compelled to maintain trade relations with other EU members' states but on different terms and conditions. There is the need to set up an instrument which will closely monitor evolution on this topic and follow up on matters so that timely decisions are taken to safeguard and promote the interests of Mauritius. Government has set up a Technical Working Group comprising of both public and private stakeholders to develop appropriate strategies to respond to the potential opportunities and threats arising from Brexit. Furthermore, a comprehensive study was conducted by an international consultant to

consider all implications and options as well as to undertake a detailed analysis of products /sectors with trade potentials.

C. MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE – RESEARCH AND DEVELOPMENT

Introduction

As stipulated under the MCIA Act 2011, a Research and Development (R&D) Committee advises the MSIRI on research programmes and on all technical matters relating to its functions. The composition of the Committee during the period January 2016 to June 2017 was as follows:

Dr Jean Claude Autrey, CSK, Chairperson
Mr Gansam Boodram/Mr Jean Li Yuen Fong, Representatives of the Mauritius Cane Industry Board
Mr N Gopaul, Representative of the Ministry of Agro-Industry and Food Security
Mr J R Lincoln, Representative of the Chamber of Agriculture (Mr D Lavoipierre as alternate)
Mr J C Desvaux, Representative of Millers
Mr R K Hemoo, Representative of Planters
Mr N Basant Roi, Representative of Planters
Prof (Dr) T Bahorun, Independent member having wide experience in the field of Agro-Industry.

Seventeen meetings of the R&D Committee were held during the period 1 January 2016 - 30 June 2017.

Attendance of the Committee is given in the Table 26.

Table 26. Attendance at R&D Committee

Names	Number of meeting attended
Dr J C Autrey, CSK, Chairperson	17
Members	
Mr Gansam Boodram	7
Mr N Gopaul	13
Mr J R Lincoln	7
Mr J A Lagesse	9
Mr D Lavoipierre (Alternate)	8
Mr R K Hemoo	16
Prof T Bahorun, GOSK	16
Mr N Basant Roi	14
Mr J C Desvaux	12
Mr J Li Yuen Fong	2

The R&D Plan for 2016-2020 was finalized after discussions and consultations with stakeholders. The Plan is centred on seven themes or Research Focus Areas. The R&D objectives aimed at contributing to the long-term sustainability of the Mauritian cane industry and to capitalize on the multi-faceted potential of the sugar cane plant. The Plan would be reviewed formally at mid-term to assess progress and to determine any necessary changes to be brought. MSIRI would also continue to tap funds from external sources such as the ACP Sugar Research and Innovation Programme. The nine projects that were submitted to this programme were reviewed.

The Committee discussed the performance of promising sugar cane varieties to be considered for release in 2016 and 2017 before they were examined by the Cane Release Committee. The purchase of seedlings from West Indies Central Sugar Cane Breeding Station (WICSCBS), Barbados and South African Sugarcane Research Institute (SASRI), South Africa was approved. It was decided that some 10 000 seedlings would be purchased from each of the two breeding centres. The seedlings are expected to bring new traits that would be useful in increasing productivity.

The Committee considered the use of soil and plant spectroscopy in nutrient management of sugar cane. The conventional methods of soil testing and leaf analysis were considered to have limitations as they might not reflect the exact nutrient pool. It was therefore necessary to turn to methods such as spectroscopy that were faster, reliable and allow a wider range of elements to be determined.

It was agreed to establish a core Sugar Technology Laboratory and it was concluded that adequate staffing and additional funding for the purchase of the main equipment were necessary. The Committee also felt it important to give a new impetus for the project of converting trash to bioplastics and steps were taken to recruit a short-term post-doctoral candidate.

The Crop

The 2016 Crop was characterized by a total cane production of 3 798 488 t for an area of 51 476 ha. Sugar production in 2016 was higher than in 2015 and amounted to 386 277 t whilst the extraction rate (10.18%) was higher than that recorded in 2015 (9.14%). Compared to the mean of the past five years, cane and sugar production in 2016 lagged behind by 210 891t (5.6%) and 16 816t (4.4%). Weather parameters during the vegetative phase were close to normal except for deficient rainfall in January, March and May in the North, East and West sectors. Both maximum and minimum temperatures

were generally favourable to growth in all sectors. All the sectors benefited from normal sunshine duration during most of the elongation phase except for the month of February.

Reduced solar radiation coupled with a lower than normal temperature amplitude affected optimal sucrose accumulation. However, rainfall during the ripening phase was below normal except for the month of July in sectors East, South and Centre, and was generally conducive to sucrose accumulation. At the end of the harvest season 2016 extraction rate was 11.02% in the North, 9.68% in the East and Centre, 10.09% in the South and 10.31% in the West. These figures exceeded the extraction rates recorded during the previous two years except in 2014 for the West sector. The extraction rate in the North in 2016 was the highest recorded since 2001.

The tillering phase of the 2017 crop from October 2016 to January 2017 was affected by deficient rainfall that extended partially into the elongation phase. However, excessive rainfall over the cane areas was recorded from April to June 2017. The climatic conditions favoured growth which continued during the months of May and June. The rains that occurred in May-June and the mild temperatures that prevailed affected sucrose accumulation. The 10.7% richness obtained on average over the island in June 2017 was inferior to those obtained in June 2016 (12.9%) and June 2015 (11.5%).

Carry-over of crop 2015 at Medine

At Medine, 128 ha of sugarcane fields under varieties M 1176/77, M 1400/86, R 570 and R 579, could not be harvested during the 2015 harvest season. These fields were followed for stool composition in terms of number of tillers and for sucrose accumulation, as from March 2016. In general, it was observed that fields under all four varieties had lodged canes with stalks damaged by rodents. Sucrose content increased steadily and the values became comparable to those obtained in the early-ripening varieties at Medine. As a result, the carry-over fields could be harvested early in the season.

Cane Improvement

Crossing and seedling production

A total of 1044 crosses were carried out in 2016. Out of these crosses, 189 were bi-parental and the rest were polycrosses. All of the 1044 crosses were grouped into 403 genetic combinations. A total of 201 different female and 73 male-fertile parents were used to produce 7440 g of fuzz. Most of the parent varieties used for crossing were of Mauritian origin.

Preliminary phase of selection programme

The sugarcane selection programme starts with the sowing of true seeds derived from hybridization. In 2016, a total of 54 450 seedlings, involving 106 different parental combinations (families), were produced for evaluation in the major agro-climatic zones of the island.

Biomass accumulation pattern in different types of sugarcane varieties

High biomass canes with higher fibre represent an important lifeline not only for the sustainability of the local sugarcane industry but also for national energy security. A study was conducted to assess the accumulation patterns of sucrose and fibre content among different types of high biomass varieties.

Broadly, all the genotypes followed the same trend in terms of total biomass accumulation, with a sharp rise from May to June and a tendency to flatten thereafter. The trends in total biomass were highly influenced by the sucrose accumulation pattern that showed a drastic rise at the pre-harvest season. Fibre content was generally found to be stable across the whole sampling period and, although it increased linearly and marginally up to September.

Categorization of early ripening and high sucrose genotypes

In the recent years more efforts have been geared towards the development of high sucrose genotypes suitable for early harvest. This forms part of an ACP-Sugar Research Programme (ACP-SRP) funded by the EU. Results showed that sucrose accumulation differed among the parent varieties tested. Pol % cane fresh weight ranged from 9.2 to 13.9 in May and improved at a faster rate to reach a range of 14.9 to 20.3 in November. A similar increasing trend also occurred in juice purity and Pol % cane dry matter. The results indicated that opportunities to screen for early high-sucrose parent varieties are present and can be used for developing early-ripening high-sucrose parents and commercial varieties.

Varieties recommended for release

Varieties M 1002/02 and M 915/05 (Figure 1) were officially released for commercial cultivation in 2016 following a decision by the Cane Release Committee after assessment of their potential.

M 1002/02 is a high cane and sugar yielding variety with fairly high sucrose content and high profitability at mid- and late-season harvests. The variety is adapted to a wide range of environments and it consistently outperformed existing commercial varieties in advanced selection trials under both mechanized and manual harvests. The variety is resistant to gumming, smut, leaf scald and rust. It is

recommended for commercial cultivation in the L and P soils of the humid and sub-humid zones. Flowering intensity is average and ratooning ability is good. M 1002/02 is likely to displace M 1176/77, M 1246/84, M 1400/86, R 573 and R 575 at mid-season harvest, and M 1672/90, M 2593/92 and R 570 at both mid- and late-season harvests.

M 915/05 is a high cane and sugar yielding variety with fairly high sucrose content and high profitability at middle-season harvest. The variety is adapted to a wide range of environments and soil types. However, it generally outperforms existing commercial varieties particularly in the B and F soils. It is resistant to gumming smut and rust, and is slightly susceptible to yellow spot. Flowering intensity is nil to low and ratooning ability is very good. Its performance at early- and late-season harvests is being assessed.

In 2017, the Cane Release Committee considered the performance of varieties M 1561/01, M 216/02, M 956/02, M 1256/04 and M 853/05 for release. Based on the results in trials and availability of planting material, the decision was taken to release M 1256/04 (Figure 1).

M 1256/04 was specifically bred for the sub-humid zone. It has good rationing ability, high cane and sugar yield for mid-season harvest. It is suitable for cultivation in the L and P soils of the sub-humid and humid zones for harvest at mid-season.



Fig 1. Newly released varieties M 1002/02 (left)
M 1256/04 (middle) and M 915/05 (right)
Cane processing and analysis

A near-infrared automated cane sampler (Jeffco InfraCana® II Model IC02, Jeffress Engineering Pty Ltd, SA, Australia), funded by the ACP-SRP was used to process cane samples received. This technology makes use of spectral data analysis to determine sucrose content in cane samples and the development of a good calibration model is a prerequisite for reliable and accurate results. A total of 14 273 cane samples were processed in 2016 with the majority comprising of 4000 samples from preliminary and final selection stages, 6900 samples

from the ACP trial on the development of early ripening high sucrose varieties and 1573 samples for crop monitoring. Some 400 samples were received from sugar estates.

Field Experimentation and Liaison with Stakeholders

Field experimentation

Around 143 trials earmarked in the R&D programme established on 70 ha on the four main MSIRI stations at Réduit, Ferret, Belle Rive and Union Park and on the substations at Bon Espoir, Valetta, Trois Ilots and La Sourdine were monitored during the year. Some 150 t of cane were used as planting material of promising varieties and at harvest 2150 t were sent for milling.

In the final phase of the Crop Improvement Programme, 47 trials at final phase of selection (13 in the North, 15 in the Centre/East, 14 in the South and 5 in the West) were harvested during the year for evaluation of test varieties. Planting material of some promising varieties, namely M 216/02, M 1256/04 and M 853/05 was used for the establishment of larger industrial plots for further evaluation.

Fifteen varieties were proposed for observation plots and industrial trials and were planted in different localities. As proposed in the Cane Release Committee in 2016, large-scale industrial trials were established to assess the performance of R 582 in relation to the newly released varieties M 1002/02 and M 915/05. These trials are earmarked for mechanized harvest and are expected to provide additional information on R 582. They are being closely monitored and visits were organized for estate agronomists, section managers and staff of the Farmers Service Agency.

Monitoring of cane growth and development

Fortnightly cane elongation measurements were undertaken in 53 sites located, in different agro-climatic zones of the island during December to June. In the same zones, monthly samplings of cane in 105 sites during April to December were effected to determine cane weight and sugar content for crop estimates.

Communication with stakeholders

Regular contacts were maintained with the staff of sugar estates and other stakeholders of the sugarcane industry during the year and several activities were also organized for exchange of information and technology transfer.

The Institute participated in the regional liaison meetings organized at the Farmers Service Centres (FSCs) to discuss issues such as performance of commercial and promising sugarcane varieties,

evolution of cane growth, sugarcane fertilization, organization of harvest and associated problems and control of accidental fires. The Farmers Service Agency was also provided with planting material of newly released varieties: M 683/99, M 1392/00, M 1002/02 and M 915/05 to establish observation plots and nurseries for the small planters.

Individual meetings were conducted with Agricultural, Field and Section Managers and Agronomists of the sugar estates to promote exchange of information and technology transfer. Emphasis was placed on the performance of varieties adapted to the different regions and the selection of elite varieties to be multiplied in industrial plots. Regular meetings were effected for the establishment and monitoring of final phase trials and observation plots of promising sugarcane varieties.

Biotechnology

Micropropagation and disease cleaning of sugarcane varieties

In vitro cultures of the newly released varieties: M 1002/02 and M 915/05 were initiated using young leaf rolls. Some 18 000 plantlets were produced, transplanted and hardened under glass house conditions from April to December, while more than 20 000 in vitro plantlets were available in the laboratory at the end of the year and would be transplanted in 2017.

In view of regenerating noble canes, (*Saccharum officinarum* spp) available in a field collection, fifteen clones were successfully cultured in vitro using young leaf rolls. They were all tested for major diseases and clean material was multiplied and potted (Fig 2)

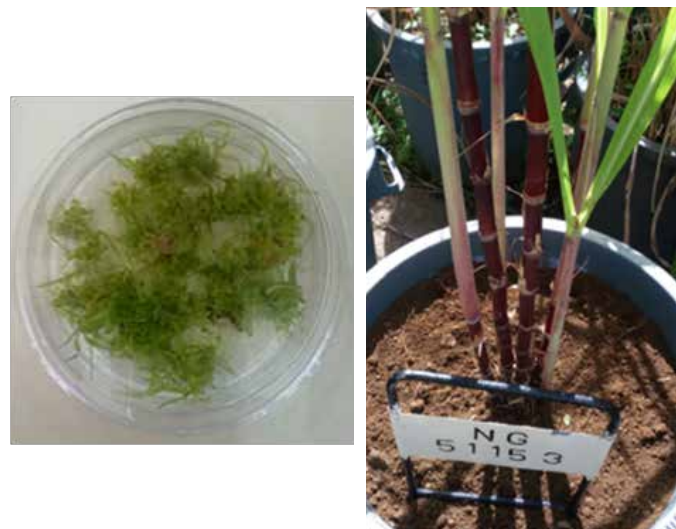


Fig 2. Regeneration of noble canes: from laboratory (left) to pots (right).

Development of molecular diagnostic tools

Sugarcane streak mosaic virus (SCSMV) is a relatively newly identified virus disease of sugarcane, which has spread rapidly in South-East Asia in the last decade, after it was initially described in the Indo-Pak sub-continent. Thus, the importance of surveillance and efficient diagnostic tools in quarantine to prevent its potential entry into the country. As part of an ACP-SRP project that was undertaken during the period 2010 to 2015, an RT-PCR test based on the conserved sequences of the coat-protein gene was previously developed for SCSMV. During 2016, a real-time Taqman® RT-PCR test for SCSMV was evaluated and optimized and is now available for detection of the virus.

Genetic diversity of sugarcane yellow leaf virus

Yellow leaf disease of sugarcane occurs in all sugarcane growing countries worldwide including Mauritius. The causal agent, Sugarcane yellow leaf virus (genus Polerovirus, family Luteoviridae) exhibits considerable genetic diversity. Studies have confirmed the occurrence of at least eight genotypes. Sequencing studies conducted on SCYLV genotypes in Mauritius showed the presence of a new genotype and it is proposed that the genotype sub-group be described as a new genotype and termed MU. These results further indicate the high genetic variability of SCYLV and changes that can occur in its genome, which can play an important part in its pathogenicity.

Application of marker assisted selection for yellow spot disease resistance screening

Yellow spot (YS) disease can be responsible for up to 25% yield loss in highly susceptible varieties of sugarcane when conditions are conducive for disease spread in the super humid zone of Mauritius. Breeding for resistant varieties is a major approach for disease management. However, it is a time consuming and resource intensive process. Marker assisted selection (MAS) is one alternative to reduce both the time and the cost for breeding for YS resistance in sugarcane. Evaluation and screening showed the suitability of marker SAT2033 for the selection of clones resistant to YS disease. In addition to MAS, it is intended to further capitalize on the use of marker SAT2033 in the targeting of parents resistant to YS disease for breeding purposes.

QTL mapping for early ripening and high sucrose content

Breeding and cultivating early ripening sugarcane varieties can contribute to the constant supply of canes with high sucrose content to the mills. The selection for early ripening sugarcane varieties from breeding populations is very complex and

necessitates heavy investment in resources as for all other important characteristics. The application of MAS as a tool to support conventional breeding programmes may enable the identification of early ripening sugarcane varieties, early in the breeding programme. In this context a mapping population of 300 individuals derived from the cross between an early and a late ripening parent (CP 67412-early x M 245/76-late) was studied in replicated trials at Réduit. QTLs were identified that provide a significant contribution to phenotypic variation and are good candidates for MAS. The mapping population will be further phenotyped during the crop season 2016-2017 to confirm the QTLs identified. This will be followed by the design of PCR based markers for QTL validation and application to MAS.

Diversity study within the *Saccharum* spp complex

Breeding for improved sugarcane varieties is key to the resilience of the industry in Mauritius. This is a highly resource intensive process and usually takes 12-14 years before a new variety is released. The rate of improvement of sucrose content has slowed down both in Mauritius and worldwide due to a shrinking genetic base of sugarcane as a result of limited germplasm use in breeding programmes. This study was carried out to assess the level of diversity that exists among commercial canes and among members of the *Saccharum* complex in our collection including *S. officinarum*, *S. spontaneum*, *S. robustum*, *S. sinense* and distantly related *Erianthus* sp. using molecular markers. This survey is expected to provide an understanding of limitations of current breeding approaches and thus identify alternative resources to be used for the broadening the genetic base of sugarcane.

SNP markers derived from RADseq (a genotyping by sequencing approach) were applied to the fingerprinting of a germplasm collection consisting of 66 accessions. While most hybrids appeared to be related to *S. officinarum*, varieties M 1176/77 and M 387/75 were closely related to *S. spontaneum*. These two varieties together with varieties M 1989/99, R 579, M 555/60 and R 575 were most widely distant from the remaining sugarcane hybrids. They are favorite candidates for use as parents in order to increase diversity and to take maximum advantage of heterosis.

Fertilizer Management

NPK fertilizer recommendations

The economics of nitrogen (N) fertilization of sugarcane was reviewed in the light of the price of sugar for 2016 and the prevailing price of N fertilizers. In spite of an increase of around 18% in ex-Syndicate price of sugar compared to 2015 and the price of fertilizer N remaining almost unchanged, the

economic rate of N for maximum net returns did not change significantly and was maintained at 1.2 kg/t of cane expected. Fertilizer recommendations for P and K were made on the basis of soil test results.

Analytical Services

Soil analysis and foliar diagnosis

Analytical services were provided to sugar estates, small and medium planters for the determination of pH, available phosphorus (P), potassium (K) and silicon (Si) in soils. A total of 1231 samples were analyzed and based on the soil test results, recommendations were made for the correction of soil acidity and fertilization of plant and ratoon canes. The percentage of samples showing deficiency of P, K and Si was 33%, 52% and 7% respectively.

The monitoring of N, P, K and Si status in TVD leaves on ratoon canes was carried out on leaf samples coming from 476 Permanent Sampling Units (PSU's) and sugar estate fields, with the aim of monitoring the nutrient status of sugarcane plantations and take corrective measures where required. Although recommendations for corrective action are based on average results of 3 consecutive years, during 2016, the percentage of PSU's showing deficiency of N, P and K was 61%, 42% and 30% respectively.

Non-routine analytical services

In addition to the routine soil and plant testing, the Agricultural Chemistry Laboratory provided non-routine analytical services upon request from stakeholders in the sugarcane industry as well as from private organizations. Some 1739 samples comprising of a wide range of matrices including fertilizer, sugar, molasses and water, amongst others, were analyzed.

Environment and Natural Resources Management

Environment

The application of P fertilizers to sugarcane is essential in maintaining crop productivity. However, if not properly managed, fertilizer P losses during runoff may lead to eutrophication of surface waters. A P index was developed for use as a risk assessment tool to assess the level of risk of P losses by considering the source and transport factors which influence P transport from sugarcane fields.

The source variables of the P index include dissolved-P, particulate-P, the rate, method and timing of P application. The transport variables are soil erosion, and surface runoff potential. Best management practices (BMPs) that help reduce P losses are also taken into account through the inclusion of a BMPs multiplier. A calculation was developed for the overall P source potential and transport potential. Once the

P index value is calculated, fields are assigned a P loss risk of either low, medium, high or very high with each of the four classes being associated with an interpretation and guided management practice.

Cultural Practices and Mechanization

New Cropping Systems (NCS)

In 2008, a study conducted by MSIRI, revealed a sugarcane yield decline over the previous three decades which was partly explained by a gradual loss in fertility/quality of the soils. To reverse the productivity decline, practices to rejuvenate the soils were proposed together with similar recommendations made by the Sugar Yield Decline Venture set up in Australia where a yield plateau was observed. These recommendations were based on four pillars, namely: controlled traffic, reduced tillage, the introduction of a rotation preferably with a legume to break the current monoculture system of sugarcane production, and adoption of green cane harvesting.

NCS were developed for our local conditions and tested with the objective of mitigating this phenomenon of yield decline. Six trials were initiated and from past harvest data collected from all the trials and the following conclusions were drawn:

- Inclusion of a leguminous crop prior to planting satisfied the full N requirement of the plant cane; the cane yields obtained with the legume (without any N fertilizer applied) were similar to the yields in those plots which received normal inorganic fertilizers. Furthermore, the fixed-N remaining after the plant cane was enough to supply 50% of the requirement of the first ratoon crop.
- The practice of reduced tillage did not affect sugarcane productivity, the cumulative yields for this land preparation technique being similar to those planted after conventional tillage. The beneficial effects of reduced tillage are expected in successive crops.
- Adoption of controlled traffic is a prerequisite to mechanized harvesting and the adoption of dual row planting at 1.80/1.90 m spacing either showed an increase in cane yields, in plant cane and/or young ratoons, or similar productivity, depending on site and cane variety.
- When all four pillars of the NCS plots were integrated and compared to the conventional practices, the cumulative yields over five or six crops showed a higher productivity in the plant cane and first ratoon, although the difference is gradually reduced in older ratoons.

Sugarcane trash to energy

With increasing environmental concerns associated with the use of fossil fuels, sugarcane trash is increasingly considered as another valuable renewable energy resource together with bagasse. A joint project with Terragen, and partly funded by the MRC, was initiated to collect data on all factors pertaining to sugarcane trash collection in the fields, its transport logistics and conversion into electricity after mixing with bagasse (Figure 3). The main objectives were to improve the efficiencies at all the steps involved and assess the viability of this activity; the ultimate goal will be to maximize revenues, both for the co-generation plant and the growers.



Fig 3. Trash bales in the field

Field measurements have shown that a potential of 10-15 t/ha of trash on a dry matter basis is available after mechanized harvest. However, to avoid collecting soil particles and to maintain a minimum trash cover, for the benefits of improved soil moisture conservation and weed control, only partial removal of the trash (not exceeding 50%) has been targeted in on-going ratoon fields. This amount may be slightly increased in fields which will be replanted thereafter.

For cost-effective transport of the field residues to the power plant, it has been found that a baling operation is essential. At the power plant, a shredding system is used to break the bales before combustion. As the available boilers cannot function with trash alone, due to its high ash content (between 8 to 10%), the shredded trash is mixed with bagasse for electricity generation. The ratio of trash to bagasse with the existing conveyor system at Terragen is around 1:6; further modifications to the conveying system will allow higher amounts of trash – reaching closer to the targeted 30% trash in the mixture.

Agronomic impact of partial trash removal

Previous studies have shown that trash has an agronomic value particularly in the rainfed or dry regions as it helps to conserve soil moisture and

partly suppresses the emergence of small-seeded weeds. Field trials were therefore initiated at Terra to assess the agronomic impact of partial removal of trash both under rainfed and irrigated conditions. In each case, partial removal of trash (around 50%) was compared to full trash blanket (100%). For each treatment, soil moisture was monitored using Time Domain Reflectometry (TDR) sensors placed at 20 cm depth. The soil moisture dynamics, irrespective of soil cover, were influenced by the rainfall intensity. Soil moisture retention was significantly superior with the 100% trash cover under rainfed conditions. However, under irrigated conditions, the difference in soil moisture between the two ground covers was less accentuated; the irrigation applied has probably levelled the soil moisture under the 50% trash cover.

At harvest of the trials, cane yields in the plots with 50% trash cover were comparable to those with a full trash cover. The data indicated that partial removal of trash does not adversely impact on cane productivity, although more information is required before a firm conclusion can be drawn. No difference was noted in weed infestations between the two trash management treatments.

Irrigation

Development and release of sugarcane irrigation management software

The irrigation management software IMIS (Irrigation Management Information System) has been designed as a tool for large-scale sugarcane farmers, in order to maximize water use efficiency (WUE) through a better management of available water resources. For ease of management, the software also provides a quick illustration on a GIS map of the changes in soil moisture under the irrigated areas. Since its release, the software has been put in operation at Riche-en-Eau, where it has been used to schedule irrigation on the existing twelve centre pivots, each divided equally into two, three or four irrigation management units (IMU). Feedback has been quite positive from this site as the IMIS has allowed quick decision-making to establish the priority list of fields to be irrigated.

Drip system for irrigation and application of chemicals

A drip irrigation trial at Medine, to study the effects of different regimes of application of water and fertilizers on four varieties planted in single and dual rows, was harvested in 1st ratoon. For technical reasons, no irrigation was possible for the first five months after harvest. Thereafter, an average of 6 mm/day was applied up to about 3 weeks before harvest. In total, some 1100 mm of net irrigation was applied for the season. In general, climatic conditions were quite dry, with only 56 rain days giving 640 mm of total rainfall for the whole season. Almost half of the total rainfall occurred during the month of

February in three successive downpours. As a result, only some 310 mm of the total rainfall were found to be effective. Thus, for the whole of the growing season, water received by the crop was about 1410 mm, representing a seasonal crop water satisfaction of only about 63%.

Significant differences were observed in cane yield between the two planting methods and also among the varieties, but there was no interaction between the two factors, suggesting that the comparative response of the varieties was similar for both planting methods. In both single and dual row plots, variety M 2502/99 had the highest cane yield, but in general, the single row plots gave higher yields than the dual row plots. Irrespective of varieties, there was a tendency for higher IRSC in dual row compared to single row, but without any significant difference. Moreover, this higher IRSC in dual row did not translate into higher sugar yields, on account of the relatively lower cane yields. In general, single row planting gave higher sugar yields than dual row planting, but the difference was not significant. Overall, variety M 2502/99 performed remarkably well and produced the highest cane and sugar yields with both planting methods.

Comparison of rainfed and irrigated crops at Terra

A study was conducted at Terra to monitor growth, development and yield of irrigated sugarcane compared to a rainfed crop on an on-farm basis, under normal industrial production conditions. The aim was to collect reliable data to develop accurate estimates of crop water demand, to determine water use efficiency and to benchmark yield differences between irrigated and rainfed crops under commercial conditions. Water Use Efficiency (WUE) was 95.5 kg/ha/mm for the irrigated crop and 89.3 kg/ha/mm for the rainfed crop whereas irrigation water use efficiency (IWUE) was calculated to be 84.8 kg/ha/mm. Overall, the study has shown a sizeable response of variety R 579 to irrigation with a cane yield increase of 46 t/ha that could be ascribed to irrigation, and a benchmark of some 85 kg of cane that can be produced per mm of irrigation applied through the drip system for a plant cane of variety R 579 after a growing period of 17 months.

Land Resources

Two main groups contribute to the sugarcane economy, namely the Miller-/Corporate planters (71% of total land area) and small planters group (25% of total land area), with the remaining 4% shared between the medium and large planters. A total of 57 323 ha of sugarcane land was registered in 2015, an overall decrease of 992 ha against 2013 data. This loss has occurred mostly among the small, medium, and large planters. On the other hand, the registered area belonging to the group of Miller-/Corporate planters has increased by some 510 ha.

The composition ratio (%) for each producer group in the total land area has remained almost the same compared to 2013, with a slight decrease in the large planters group (1%) and increase (2%) in the Miller-/Corporate planters group.

The geographical distribution in 2015 remained similar to 2013: the predominance of the Southern and the Eastern sectors was maintained (61%), with each sharing around 30% of total sugarcane lands. The Northern sector contributed 22% and the Central and Western sectors 17% of the total, more or less equally shared. In 2015, the large planters' category no longer existed in the Northern and Eastern sectors; whereas the medium planters' category was almost insignificant in the Northern and the Central sectors. Only the Southern and Western sectors had all four categories of planters.

Crop Protection

Diseases

The dry weather that prevailed during December 2015 and January 2016 delayed the onset of yellow spot infection. The inception of yellow spot disease occurred in February in varieties M 703/89 and R 579. Heavy rains in subsequent months were conducive for the disease to intensify and at Union Park, peak infection was observed in late June.

Chlorotic streak was observed in several sugarcane growing areas particularly at Union Park, Belle Rive, Ferney, Rose Belle, La Flora, Cluny, Mon Desert Alma and Highlands. Several stools of varieties R 573, R 582 and R 579 at Ferney showed typical symptoms of the disease. It was also apparent on many test varieties in resistance trials for yellow spot disease established at Belle Rive and Union Park Experimental Stations in the super-humid zone. At Rose Belle, the disease was observed on variety M 2283/98 in the poorly drained fields.

Mild infection of brown rust was observed in variety M 1176/77 at Belle Rive, Beau Champ and Tamarin and variety M 2593/92 showed severe infection at Belle Vue, Beau Champ and FUEL.

The resistance trials planted in 2011, 2012 and 2013 at Union Park Experimental Station were assessed for yellow spot infection at 2nd ratoon. Out of the 95 varieties evaluated 20 were resistant to the disease while 18 varieties were susceptible and 33 varieties were highly susceptible.

A trial planted in 2013 at Ferret Experimental Station with 31 varieties was surveyed for smut and based on results at plant cane and two ratoons, 16 varieties were resistant, five were slightly susceptible, four were susceptible and six were highly susceptible to the disease.

A leaf scald resistance trial established in 2014 at Belle Rive Experimental Station with 11 varieties was evaluated. Compared to the controls, variety R 585 was rated as highly susceptible while varieties M 591/01, M 955/01, M1561/01, M 2437/03, M 1254/04, M 1873/04, M 853/05, M 915/05, M 2090/05, and R 582 were rated resistant.

A rust trial was implemented in 2015 in the humid environment of Union with 16 varieties. The climatic conditions were conducive for the incidence of the disease on variety M 1030/71 which is used as a spreader variety. Based on results of plant cane and first ratoon, variety M 831/01 was rated as highly susceptible and three varieties namely M 2593/92, M 591/01 and M 1254/04 were rated susceptible. Resistant varieties were M 955/01, M1561/01, M 2437/03, M 1873/04, M 853/05, M 915/05, M 2090/05, M 1256/04, R 584 and R 585. Varieties R 582 and M 1292/00 were slightly susceptible.

Quarantine

Five Australian varieties, Q 183, Q 186, Q 200, Q 208 and Q 209 which completed the 2-year cycle in closed quarantine in 2015 were maintained for 1 year in open quarantine at Réduit. Monthly surveys conducted did not show any known visible disease symptoms. The varieties were released for use as germplasm and for evaluation in the selection programme. A new quarantine cycle was initiated with 22 varieties imported from Australia, Guatemala, Philippines, France (Réunion) and USA.

Sugarcane fuzz of 67 crosses was imported from Barbados for sowing and evaluation of the genotypes. Germination was monitored and the seedlings obtained were regularly examined for visible disease symptoms. Since no disease was observed in the seedlings, they were released.

International sugarcane quarantine

In 2015, 14 varieties imported from Guatemala and planted in the quarantine facilities were tested for Sugarcane mosaic virus (SCMV), Sugarcane streak mosaic virus, Sugarcane yellow leaf phytoplasma, SCYLTV and leaf scald. The presence of SCMV was detected in variety CG 03-138. The variety was destroyed.

Seven of the 21 M-varieties planted and maintained in the facilities for export purposes, namely M 3035/66, M 695/69, M 261/78, M 1551/80, M 1300/83, M 1186/86 and M 2024/88 were removed as they have no further potential for export. Two newly released varieties, M 1392/00 and M 1002/02 have been introduced. A total of 16 M-varieties are currently available for export.

Export of varieties and fuzz

Under the exchange programme of varieties with foreign institutions, five M-varieties were exported

to each of the following countries, Philippines, Guatemala and USA. On the other hand, 17 M-varieties were exported to Sudan and variety M 1176/77 to Burundi. Some 40 sugarcane crosses were purchased by Côte d'Ivoire.

Nurseries

During the year, six varieties were planted in N0 nurseries and 27 in N1 nurseries. Three varieties namely M 216/02, M 853/05 and M 1739/05 were promoted from N1. Fifteen varieties were planted in N2 nurseries at Trois Ilots, covering a total area of 1.6 ha. Varieties M 1688/9, M 591/01, M 1254/04 were promoted to N3. More than 240,000 setts from the nurseries at Trois Ilots, Medine, Ferret and Reduit were prepared for final phase trials, disease trials, multiplication, and various other trials.

Trials with one-eyed cuttings

In an attempt to reduce costs trials were initiated using a 'bud chipper' (Sumeet Technologies, India - donated by Andhra Sugar Mills Ltd.) to study the effectiveness of planting one-eyed cuttings in comparison with the traditional three-eyed cuttings. The trial was implemented at Belle Vue with cane varieties M 2505/99, M 1002/02 and M 1698/02. Cuttings were subjected to hot water treatments: dual hot water treatment and short hot water treatment. The results showed that irrespective of cane variety, more than 70% of the cane stalks used for preparing the one-eyed cuttings remained and could be eventually sent back to the mills. In terms of hot water treatment, a three-fold reduction in the time taken was noted with the one-eyed cuttings, representing a significant reduction in resource utilization. No significant difference in germination, tiller number, and cane height was noted. Based on these results, under irrigated conditions, one-eyed cuttings will be adopted for the planting of nurseries.



Fig 4. One-eyed cuttings prepared using a 'bud chipper'

Antagonistic effect of *Trichoderma harzianum* on *Ceratocystis paradoxa*

Pineapple disease caused by the fungus *Ceratocystis paradoxa* affects sugarcane cuttings or setts resulting in poor germination. Cuttings are usually treated with

fungicides thiophanate-methyl or difenoconazole prior to planting. Biological control of plant pathogens by microorganisms is considered a more natural and environmentally acceptable alternative to the existing chemical treatment methods. Results of a study in dual culture showed an antagonistic action of *T. harzianum* against pineapple disease fungus *in vivo*.

Microbiological analyses of sugars and water

Routine microbiological analyses were carried out on 210 sugar samples (white refined, raw and special sugars) and related products (e.g. molasses and massecuite) and 43 water samples.

Pests

The dry weather conditions prevailing during November and December 2016 were conducive for the build-up of sugarcane thrips *Fulmekiola serrata*. Several fields at Mon Trésor, Belle Vue, Beau Champ, Constance and Savannah showed severe damage. Leaf necrosis, drying/binding of leaf tips and yellowish streaks on older leaves were prominent. Infestation was more important in varieties R 573, M 2024/88 and M 1989/99.

Severe infestation by mites was also observed in the sub-humid localities. Two species were observed causing a general reddening of the leaves (Figure 5).

Localized severe infestation of the soft scale insect *Pulvinaria iceryi* occurred on about 5 ha at Constance, Belle Vue and Britannia. A high population of the coccinellid predator, *Cryptolaemus montrouzieri*, was observed at Belle-Vue. The coccinellids were collected from this field, released in infested fields in the other areas, effectively controlling the pest.



Fig 5. Reddening of leaves caused by mites *Abacarus* spp (middle) and *Oligonychus* sp. (right)

Severe infestation by the white borer, *Tetramoera schistaceana* was observed on R 573 at Mon Trésor in ratoon fields (on approximately 12 ha) but the fields recovered without any apparent setback on cane development. Assessments of the prevalence of the white borer in young ratoon cane fields in the North, showed that the most affected varieties were M 2593/92 at Belle Vue, M 1176/77 and M 1400/86 at Beau Plan, while at Souvenir and Mon Rocher, damage in variety M 2593/92 was less severe. In the South, at Mon Trésor, highest percentage of dead hearts was recorded in R 573.

Damage by the white grub *Heteronychus licas* occurred at Mon Desert Alma in plant cane on approximately 5 ha which was treated with insecticide thiamethoxam. Slight damage was also reported at Ferney and Etoile and larval surveys revealed the presence of *Adoretus* sp.

Of the 32 routine larval surveys of white grubs and light trappings conducted from March to October, 680 larvae were collected; *H. licas* (51 %) and *Adoretus* (45.5%) were the most abundant species. Light traps were operated during the summer months (January, November and December) and 227 beetles comprising of *H. licas* (18.9 %), *A. piceum* (7.9 %), *P. smithi* (40.5 %); *Adoretus* sp. (29.1%) and *Temnorhynchus* sp. (3.5 %) were collected.

Sugar Technology

Determination of the polarization of sugars without wet lead clarification

Near Infrared polarimetry has been investigated worldwide using the tentative 'ICUMSA Method GS 7-31 (2011): The determination of Pol by NIR Polarimetry and Brix for Sugarcane and Factory Products' for the lead-free analysis of factory products. Following the promising results obtained this method was recommended on a tentative basis as from Crop 2013 for analysis of all factory products except sugars. The elimination of the use of lead in the determination of the polarization of sugars is receiving considerable attention. Preliminary trials on sugars using the conventional polarimetric method at 589 nm and the NIR polarimetric method at 882 nm were initiated during Crop 2016. Results indicate that the NIRPOL method constitutes a suitable alternative to the conventional lead acetate Pol analysis. A significant reduction in cost of analysis, safety risks, disposal costs, time for sample preparation and negative environmental effects should provide substantial motivation for adoption of this method for sugar analysis.

Ring tests

The main objective of Ring Tests on mixed juice is to monitor the performance of the laboratory analysts and also to ensure that standard analytical methods are being used, and corrective actions are recommended where necessary. Comparative analyses of mixed juice samples have been carried out at the sugar factory and Control and Arbitration Department (CAD) laboratories during crop 2016.

Laboratory audits

The aim of laboratory audits is to ensure that a good practice is maintained in terms of product sampling and the analytical procedures as described in the Official Methods are followed diligently. During 2016 crushing season, visits were conducted to all

sugar factory and CAD laboratories. Verification of laboratory equipment such as refractometers, polarimeters, pH meters and analytical balances was effected using Certified Reference Materials and known standards.

D SERVICE TO FARMERS (EXTENSION & TRAINING)

Objectives

- (i) Ensure that essential services are available to planters.
- (ii) Promote the setting up of cane nurseries and the supply of cane setts to planters.
- (iii) Facilitate the adoption of modern and efficient agricultural practices by planters.

Functions

- (i) Provide technical advice, assistance and training to planters on cane cultivation, harvesting and transport of cane and post-harvest operations.
- (ii) Manage agricultural land and, in particular, abandoned fields in FORIP or such other similar projects.
- (iii) Enter into management contracts on behalf of planters.
- (iv) Devise agricultural credit schemes in consultation with financing agencies.
- (v) Ensure that arrangements are made so that cane of small planters are harvested at their optimal sucrose content.
- (vi) Assist cooperative societies in benefitting from the Fair Trade initiative or such other similar projects.

Field Visits

The main form of contact with the grower is through field visits. These visits attracted a total of 33,034 growers. The focus was mainly to assess cane growers' problems in the Sugarcane Planters Regrouping Project (SPRP/FORIP) and to advise them on Good Agricultural Practices.

Table 27. No. of growers

Year	2016	2017
FORIP/SPRP	18,584	10,238
Non-FORIP	3,060	1,152
Total	21,644	11,390

Demonstrations

Seventy-three demonstrations were carried out on growers' fields with a view to allow growers to observe new technologies. These comprised result as well as method demonstrations including:

- (i) new herbicides mix Fluoxypr and Escort, Fluoxypr and Torpedo for control of difficult weeds, particularly vines;
- (ii) newly released varieties, namely M1989/99, M2283/98, M1392/00, M915/05, M2502/99, M683/99, M1002/02;
- (iii) One-eye setts vs. three-eye setts and zero budget farming.

Table 28. No. of demonstrations

Year	2016	2017
Herbicide mix	12	4
One-eye setts	-	7
Varieties	19	10
Zero budget farming	2	-
Total	33	21

Conducted Tours

A total of eighteen conducted tours were carried out and were attended by 185 growers who visited the demonstration sites mainly the weedicide and varietal demonstrations.

Survey on Cost of Production

A survey involving 250 cane growers was carried out during the period January to March 2017. Analysis of data is being undertaken to determine the cost of production of the cane growers.

Group Meetings

Twenty-six group meetings were carried out and these were attended by some 528 growers. The topics are given in the Table 29.

Table 29. Group Meetings

Topic	2016	2017
Weed control/Fertilization	1	-
Agricultural Land Management System (ALMS)	-	4
Cane Fires	4	-
Good Harvesting Practices	2	1
SPRP	4	7
Fair Trade	-	2
DBM Services	1	-
Total	12	14

Info Sheets

A total of 311 info sheets on cane fire mitigation and improving cane quality to the mills were distributed to cane growers. One hundred posters were also produced and distributed.

Soil Sampling

The field staff collected a total of 504 soil samples from small growers' fields which were then sent for analysis to the MSIRI Soil Chemistry Laboratory. Results of the soil analyses were utilized for appropriate fertilizer regimes and soil amendments mainly in SPRP sites.

Field Days

Fourteen planters of the Bon Accueil FSC area attended an Open Day at Flacq Fire Station organized by the Mauritius Fire and Rescue Services (MFRS). Fire bats were handed over to them by the MFRS.

Visit by Planters to FSC

A total of 19,457 growers visited the Farmers Service Centres for technical advice and information mainly related to SPRP and weed control.

Liaison Meetings

Thirteen liaison meetings chaired by FSC Managers were held with stakeholders at the different FSCs.

Information Meetings

- (i) Eleven information meetings on "Cane Fire Mitigation" were held during the year and were attended by 480 cane growers.
- (ii) Four talks on "Pesticide Container Management" were held with Fairtrade Certified Cooperatives, and were attended by 64 planters.

Seed Cane Supply

Seed cane supply to small planters was an important activity of the Farmers Service Centres. During the period January to December 2016, the FSC supplied 8,036 t of seed cane to sugar cane planters and for the period January to June 2017, some 5,995 t of seed cane were supplied by the Farmers Service Centres.

The main cane varieties supplied were R570 followed by M 1400/86. Among the recently released varieties, M 2283/98 seemed to be particularly accepted among the small planters as 120 t were purchased in January to December 2016 and 258 t during the period January to June 2017.

Table 30. Seed Cane Supply

Variety	Quantity Supplied 2016/17 (t)	Quantity Supplied 2017 (t)
R 579	669	336
R 570	4,345	3,386
M 1176/77	326	79
M 1400/86	1,696	1,569
M 3035/66	845	281
M 1989/99	35	21
M 1672/90	-	30
M 2283/98	120	258
R 573	-	35
Total	8,036	5,995

Nurseries Established

During the year 2016/17, cane nurseries were established as follows:

Table 31. Nurseries Established

Variety	Area Established 2016/17 (ha)
M 2283/98	1.688
R 570	9.913
R 579	1.854
M 3035/66	4.416
M 915/05	0.527
Total	18.398

SPRP Establishment

For the year 2016/17, 915 ha of small planters land was contracted for the implementation of SPRP. As at end June 2017, planting was completed on 727 ha. Delays were due to adverse weather affecting land preparation activities.

Table 32. SPRP Establishment

Sector	Area Contracted (ha)	Area Completed (ha)
North	137	133
East	379	250
Centre	233	218
South	166	126
Total	915	727

FORIP Rehabilitation

Due to unfavourable climatic conditions at planting as well as the poor performance of certain varieties such as M703/89 and M387/85, several fields had to be rehabilitated during the year. The area rehabilitated under FORIP during the year is given in Table 33:

Table 33. FORIP Rehabilitation

Sector	Area Rehabilitated (ha)	No of Planters
North	2.751	1
East	13.564	21
Centre/West	12.222	6
South	8.514	5
Total	37.051	33

Road Mending Scheme

Road mending works (mainly patching) were carried out over a total length of some 19.5 km at 16 sites to enable planters to harvest and transport their canes during the crop season. Opening of drains over a length of 90 m was completed at Bambous Virieux.

Radio Talks 2016/17

The following radio talks were broadcasted during year 2016/2017:

- (i) Long season planting;
- (ii) Performance of newly released cane varieties;
- (iii) Cane fire management;
- (iv) Weed control in plant cane and ratoons;

- (v) Post harvest field operations;
- (vi) Control of vines in sugar cane;
- (vii) Control of difficult weeds.
- (viii) Lapse of EU Preferential Prices and New Marketing Strategies;
- (ix) Review of Crop 2016.

Farming News Articles

The following articles were published in the Farming News Bulletin of FAREI:

- (i) Lapse of EU Preferential Prices and New Marketing Strategies;
- (ii) Newly Released Cane Varieties.

Events

The ETU participated in the World Food Day Celebrations organized by the Ministry of Agro-Industry and Food Security held at Domaine Les Pailles on Saturday, 15 September 2016 and Sunday 23 October 2016 and Mahebourg Waterfront on Saturday 22 October 2016 and Sunday 23 October 2016.

Committees

The following staff represented the Extension and Training Unit, MCIA on several committees:

Table 34. Committees

Name	Grade	Committee
Mr T. Gunesh	Ag Assistant Director	Standards Committee, Mauritius Qualifications Authority Sectoral Committee, HRDC Steering Committee, FANRPAN Node (Mauritius) Mount and Beau Plan Fund
Mr Y. Ramdharee	Manager	e-Agriculture Project and Technical Steering Committees (MAIFS)

E. SERVICE TO FARMERS (AGRICULTURAL AND MECHANISATION)

Objectives and Functions

To maintain a pool of machinery for agricultural purposes.

To hire the agricultural machinery of the Authority to such persons and on such terms and conditions as the Board may determine.

Services to the Planting Community

The Agricultural Mechanisation Unit of the Mauritius Cane Industry Authority manages a fleet of agricultural machines and equipment consisting mainly of Crawler Tractors, Pneumatic Tractors, Excavators, Bell Loaders, Roller, as well as various equipment and accessories. Table 35 below shows the different types and numbers constituting the fleet.

Table 35. Services to the Planting Community

SR	DESCRIPTION	TYPE	CAPACITY	23QTY
1	Crawler Tractor	'D6'	165 - 185 HP	25
2	Crawler Tractor	'D7'	220 HP	9
3	Crawler Tractor	'D8'	300 HP	4
4	Excavator	SOLAR 500 LC-V	50 Tonnes	2
5	Excavator	PC - 350	35 Tonnes	2
6	Loader	950 F	170 HP	1
7	Bell Loader	1250 Cane Loader	38 HP	5
8	Roller	3410P	130 HP	1
9	Wheel Tractor	-	90 HP	1
10	Wheel Tractor	-	175-185 HP	14
11	Wheel Tractor	-	250 HP	1

The Unit undertakes land preparation works for various categories of planters. The types of service provided consist mainly of:

1. Land Clearing
2. Derocking
 - (I) Coarse
 - Bulldozing
 - Rock breaking
 - Ripping
 - Raking
 - (II) Fine
 - Chiselling
 - Rock aligning
 - Stone crushing
3. Levelling
4. Furrowing
5. Road tracing and road-making

More than 85% of work performed by AMU machines is for sugarcane plantation.

Main Categories of Hirers

1. Small sugarcane planters

This category of planter consists mainly of small sugarcane planters and constitutes approximately 33% of the AMU's workload. More than 85% have land of less than 1 ha while more than 65% have less than 0.5 ha. These planters benefit from highly subsidized tractor rates.

2. Sugar Estates

Some sugar estates also hire the machines of AMU for their sugarcane land preparation. They benefit from subsidized tractor hire rates but at a slightly higher hire rate.

3. Sugar Planters Regrouping Project (SPRP)

Since 2015, the Field Operations Regrouping and Irrigation Project (FORIP) has been replaced by the Sugar Planters Regrouping Project. With regards to land preparation works, the SPRP differs from the FORIP in as much as the number of effective hours of land preparation works is now limited to 15 hours per arpent. The total number of effective hours done in projects during period January 2016 - June 2017

amounts to 24,312 hours only (representing 38% of the total effective hours of work), which is substantially less than in previous years.

4. Small non-sugar planters

This category consists mainly of vegetable and food crop growers. They constitute approximately 4% of the total workload.

5. Revenue

Table 36. Revenue

Planters/ Category	2014		2015		Jan 2016 - June 2017	
	Effective h	Revenue (MUR)	Effective h	Revenue (MUR)	Effective h	Revenue
Small Sugar Cane Planters	13,246	7,287,145	18,400	10,224,595	27,138	15,572,975
Sugar Estates	4,002	4,561,740	3,069	3,450,050	1363	1,399,980
Large Planter	433	363,510	859	721,770	5964	6,643,935
Projects including SPRP	42,660	137,098,036	23,925	76,796,350	19,994	61,997,143
Ministry /Parastatal including Food Security Fund Project	1,135	3,402,248	55	162,085	4318	13,811,556
Small Non-Sugar Planters	2,709	3,350,665	3,430	4,367,857	5093	6,392,986
Others	138	387,791				
Total	64,323	156,451,135	49,738	95,722,707	63,870	105,818,575

F. CANE MILLING ARBITRATION AND CONTROL

Introduction

The Control and Arbitration Department (CAD) is a department of the Mauritius Cane Industry Authority (MCIA). It has replaced the former "Cane Planters and Millers Arbitration and Control Board" with the proclamation of the MCIA Act No.40 of 2011 on 19 March 2012.

The CAD is headed by a Director who is responsible for the day to day management of the department and for the execution of the policies of the Control and Arbitration Committee. The Director is assisted by the Assistant Director, three Sugar Technologists and the Manager, Operations and Research.

Functions and powers of the Control and Arbitration Committee includes:

- (i) Arbitration of disputes between planters and millers;
- (ii) Control of the milling of canes and the manufacture of sugar;
- (iii) Determination of the quantity of sugar and co-products accruing to planters and millers;
- (iv) Determination of Refund of Transport Cost;
- (v) Registration of Cane Contracts;
- (vi) Delimitation of Factory Areas

The composition of the Control and Arbitration Committee during period 01 January 2016 to 30 June 2017 was as follows:

Table 37. Composition of the Control and Arbitration Committee

<i>Chairperson</i>	
Mr. Dheerendra Kumar Dabee, G.O.S.K	
<i>Members</i>	
Mrs.Damyantee Takoory	Representative of the Ministry of Agro Industry and Food Security
Mr. Jean Li Yuen Fong	Representative of millers
Mr. Soobas Muniah	Representatives of small planters
Mr. Vhinaye Dookhony P.M.S.M	Representatives of large planters
Mr. Patrick de Labauve d'Arifat replaced by Mr. Amal Mungur	Representative of the MCIA Board
Vacant	Independent member

During period 1 January to 30 June 2017, the Committee held 20 meetings. As from April 2017, Mr. Patrick de Labauve d'Arifat has been replaced by Mr Amal Kumar Mohabeer Mungur as representative of the MCIA Board. On 21 September 2016, Mrs D. Takoory, the Representative of the Ministry of Agro-Industry and Food Security who was on leave abroad was replaced by Mr S.K. Bachoo.

Table 38. Attendance for period 1 January to 30 June 2017

Mr. Dheerendra Kumar Dabee, G.O.S.K	19
Mrs.Damyantee Takoory	17
Mr. Jean Li Yuen Fong	20
Mr. Soobas Muniah	20
Mr. Vhinaye Dookhony P.M.S.M	20
Mr. Patrick de Labauve d'Arifat	9
Mr Amal Kumar Mohabeer Mungur	4
Mr. S.K. Bachoo	1

Arbitration of disputes and grievance handling

During period January 2016 to June 2017, no formal dispute was reported to the Committee for arbitration. However, 12 complaints have been registered and successfully addressed by the management of CAD.

Registration of Cane Contracts

Section 28 of the MCIA Act (Provision relating to Cane Contracts) provides that cane contracts between planters and millers shall be entered into for any crop year on or before 31 May and forwarded to the Committee for registration not later than 15 June of that crop year.

The registration of Cane Contracts for Crops 2016 was done at the weighbridges of all cane reception sites during the month of May. As in the previous years, a one-stop-shop facility for cane registration was offered to planters of Omnicane at Mare D'Albert

and Souillac Sugar Insurance Fund Board Offices.

A total of 3,707 cane contracts have been registered by the CAD and the number of late registration permits granted was 292.

Milling Activities

The 2016 Crop Season started on 23 May 2016 and ended on 17 December 2016. The start and end of milling activities of all sugar factories are given in Table 39.

Table 39. Start and End of Crop 2016

Factory	Start of Crop	End of Crop
Terra	01 July	17 December 2016
Alteo	23 May	16 December 2016
Medine	11 July	29 November 2016
Omnican	27 June	14 December 2016

During the harvest season, a total amount of 3,798,657 t of canes were supplied to the mills by the sugarcane growers and 3,795,828 t were crushed, with a loss of 2,829 t during transportation from cane transit sites to the factories. The figure below illustrates cane crushed by the four sugar factories:

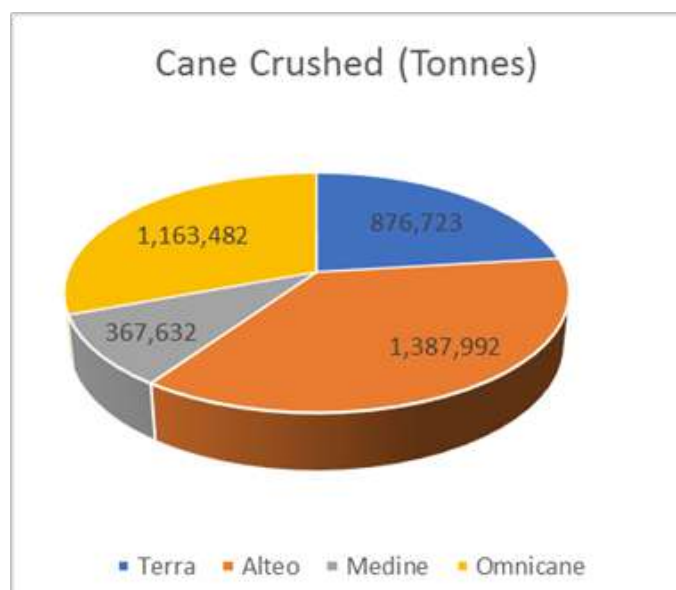


Fig 6. Cane crushed per factory - Crop 2016

The final sugar production for crop 2016 is 386,277 Tel Quel or 388,934 t at 98.5° pol. The sugar production by each mill is shown in Fig. 7 below:

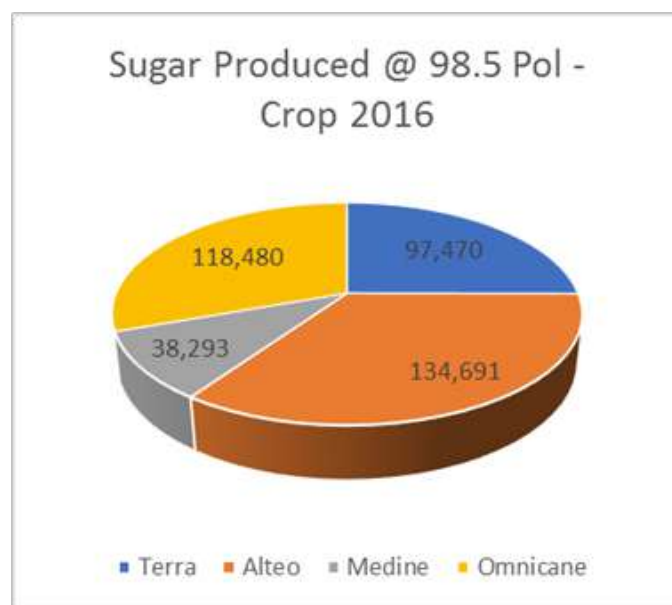


Fig 7. Sugar produced @ 98.5 Pol per factory - Crop 2016

The island average sucrose in cane (Richesse) was 11.64 in year 2016 as compared to 10.73 in 2015 indicating an increase of 0.91%. The same observation was made with regard to extraction which was 10.18 in 2016 compared to 9.04 in 2015 signifying an increase of 1.14%.

Final Road Rate for Crop 2016

Pursuant to section 40 of the MCIA Act, "where the distance over which a planter's canes are transported to a factory is greater than 6.4 kilometres, the miller shall" –

- (i) where the transport is undertaken by the planter, reimburse to the planter the amount by which the cost of transport over that distance exceeds the cost of transport over 6.4 kilometres;
- (ii) where the transport is undertaken by the miller, be refunded the cost of the cost the transport over the first 6.4 kilometres only.

The rate of refund was determined by the Committee on 7 February 2017 and the recommended rates were not changed.

Table 40. Rate of Refund for transport undertaken by the planter (above 6.4 km)

Planters supplying	Crop 2015 and 2016 (MUR/t/km)
Up to 100 t of canes	7.54
More than 100 t of canes	6.85

Table 41. Rate of Refund for transport undertaken by the miller (first 6.4 km)

Cost	Crop 2015 and 2016 (MUR/t/km)
Fixed cost	24.57
Variable cost	6.85
Total	68.41

Assessment of Scum for Crops 2016

The Final Assessment of Scum for Crops 2016 based on the average quantity of scums produced by each factory per tonne of canes milled during the preceding crop year was approved by the Control and Arbitration Committee on 23 March 2016.

The amount of scums accruing to planters at specified moisture content is shown in Table 42.

Table 42. Final Assessment of Scum for Crop 2016

Factory	Moisture % Scum	kg Scums per t cane
Terra	66.93	31.80
Alteo	73.68	57.70
Medine	80.10	51.70

Omnicanne factory recirculates scums produced in its diffuser to minimize sucrose loss and at the same time improves sucrose extraction. Consequently, the miller provides scum to planters only for the purpose of replantation at the rate of 7 t per acre as previously approved by the Committee.

Sucrose Content Tests

The Control and Arbitration Department carries out sucrose content tests on the canes of planters at the CAD Laboratories.

Every year, any planter or group of planters having an amount of canes as specified by the Committee may apply for a separate sucrose content test in case he wants his canes to be assessed separately. The last date for the submission of an application for a separate test is 15 March in any crop year. For 2016, the Committee approved applications for twenty new tests, twelve cancellations, fourteen amendments to existing tests and three renewals.

Sucrose content tests were carried out in five laboratories. Rose Belle and Mon Tresor sampling sites were permanently closed down after one week's operation, as from 11 July 2016 as per approval of the Control and Arbitration Committee. At the remaining thirteen cane transit sites, cane consignments were sampled as usual and the samples collected were transported to the centralized laboratories for analysis.

A total of 124,340 sucrose content tests were carried out during the whole crop (see Table 43) as compared to 128,063 for the preceding year. In all, 7,478 tests were rejected and 4,002 tests were cancelled since they were classified as outliers by the Infracana equipment or were less than 2 kg. Finally, 112,860 valid tests were performed as compared to 141,001 tests in 2015. This represents a reduction of about 20% and was due mostly to frequent breakdowns of the Infracana Cane Analyser at nearly all sites.

Table 43. Cane received and number of samples per site

Site No.	Site Name	Number of samples	Cane received (kg)	Number of tests
1	Beau Champ	5,118	60,035,750	4,665
2	Beau Plan	6,690	78,490,120	5,889
3	Terra	20,386	692,377,100	18,998
4	Bel Ombre	2,507	7,101,850	2,127
5	Britannia	2,151	22,018,260	1,822
6	Constance	4,516	57,574,500	4,131
7	Alteo	21,157	1,221,339,300	18,599
8	Highlands	2,678	20,952,780	2,499
9	Medine	9,857	354,298,030	9,435
10	M Desert Alma	3,325	34,351,550	3,134
11	Mon Loisir	6,154	61,405,060	5,479
12	Mon Tresor	168	2,133,030	156
14	Reufac	1,176	6,328,820	1,102
15	R en Eau	4,365	34,341,070	4,084
16	Rose Belle	75	982,370	68
17	St Antoine	2,744	24,425,950	2,501
18	St Felix	7,326	85,548,920	6,272
19	Omnican	19,631	961,915,900	18,128
20	Solitude	2,331	20,794,010	2,079
21	St Aubin	1,985	37,715,350	1,692
Total		124,340	3,784,129,720	112,860

The First, Second and Third Provisional Assessments which enable planters to obtain financial advances from the Mauritius Sugar Syndicate for canes already delivered were approved on 9 August, 21 September and 19 October 2016 respectively. Since the harvest season ended on 17 December 2016, the Final Assessment was completed in January 2017 and was approved by the Committee on 18 January 2017.

Determination of Price of Molasses

The present price of molasses payable to planters is a blended price which is related to the proceeds obtained from the trade of that commodity. The price is based upon the European published referenced price known as the LEI (Landbouw Economist Institute). LEI is the reference price published by the Dutch Ministry of Agriculture for the European market. This price is used to determine the FOB Port Louis price.

The LEI reference price is deemed to be the CIF price and the FOB price is arrived at by deducting various cost items from the LEI published rate. These costs comprise of the following items:

- Throughput cost
- Commission
- Freight
- Second port discharge
- Adjustment total sugar

For Crop 2016, the price of molasses per t at 86°Brix is as follows:

- The FOB Price of Molasses for exportation: MUR 1,988.52
- The Price of Molasses for the domestic market: MUR 3,479.91
- The Price of Molasses payable to planters: MUR 2,242.89

Weighbridge Calibrations and Checks

Pursuant to Section 32 of the MCIA Act the CAD has to calibrate and conduct regular checks at all cane and sugar weighbridges around the island which inter alia includes sugar factories, cane transit sites, refineries and Sugar Storage Units of the MCIA.

The CAD possesses two lorries equipped with a crane and forty-five 1-tonne cubic metallic standard weights to carry out the accuracy verification of the weighbridges. The standard weights are calibrated by the Legal Metrology Division of the Ministry Of Commerce each year prior start of crop season.

The number of cane weighing platforms in operation during Crop 2016 was 55. All platforms were tested throughout the year and the various accuracy checks performed as at end of December 2016 are given below in Table 44 below. The total number of checks

performed was 4,676 excluding approximately 1500 reconciliation of weighbridge planters' tickets.

Table 44. Weighbridge calibration and accuracy checks 2016

Type of Checks	Number of Checks
Calibration/ Recalibration	62
Taring	160
Daily weighbridge accuracy checks	4454
Total	4676

Certification of ISO/IEC 27001:2013

The Control and Arbitration Department of the MCIA was accredited MS ISO/IEC 27001:2005 (Information Security Management System) on 23 June 2011 for a period of 3 years. The CAD is the second Department in the Public Service after the Passport and Immigration Office (PIO) and first parastatal body to be awarded this certification.

The ISO 27001:2005 is an International Information Security standard which provides a framework to establish, implement, operate, monitor, review, maintain and improve the information security within the organization through the implementation of an Information Security Management System (ISMS). Information security refers to the protection of information from a wide range of threats so as to preserve its confidentiality, integrity and availability. Information forms part of an organization's most valuable asset. It exists in many forms, whether printed, stored electronically or spoken in conversation.

In year 2016, the CAD implemented the new requirement of MS ISO/IEC 27001:2013 which is an updated version of 2005. On 3 and 4 May 2017, the Mauritius Standard Bureau conducted their Audit Exercise and found that the management system of the CAD meets all the requirements of MS ISO/IEC 27001:2013. A certificate of registration valid for a period of three years until 22 June 2020 was consequently issued to the CAD by the MSB on 23 June 2017.

Value added products

During 2016, the Committee approved the following applications:

- (1) Nine new applications for the production of sugarcane juice for direct consumption
- (2) Two new applications for the production of Rhum Agricole
- (3) Seven renewals for the production of sugarcane juice for direct consumption
- (4) Two renewals for the production of Rhum Agricole

Closure of weighbridges

In year 2016, the CAD received several applications for the closure of cane transit sites from the millers as follows:

- (1) From Omnicane Milling Operations Ltd for the closure of the weighbridges at Britannia, Mon Tresor and Rose Belle Cane Transit Sites
- (2) From Terra Milling Ltd for the closure of the weighbridges at Solitude and St Antoine Cane Transit Sites
- (3) From Medine Milling Company Ltd for the closure of the weighbridges at Reufac Cane Transit Site
- (4) From Alteo Milling Ltd for the closure of the weighbridges at Highlands Cane Transit Site

After scrutinizing all applications, the CAC opted to proceed with the closure of weighbridges in phases. Two weighbridges namely Mon Tresor and Rose Belle were closed down for Crop 2016 in view of the Smart City Development Project at Mon Tresor by Omnicane and the proposed extension of the commercial centre at Rose Belle by the *Centre Commercial du Vieux Moulin*.

With regard to other sites, the Committee was in principle agreeable to the closure of the weighbridges of Reufac, Highlands and Solitude for Crop 2017 and eventually those of Britannia and St Antoine for Crop 2018. A firm decision on the closure of those weighbridges for Crops 2017 and 2018 would however be made by the Committee in 2017 in light of experience gathered from the closure of the two weighbridges in 2016 and the Report of the Crop Monitoring Committee.

End of Crop 2015 at Medine

The harvest of sugarcane at Medine for Crop 2015 was extended beyond 15 January 2016 and the Control and Arbitration Committee finally decided to determine the Final Assessment of Sugar and Molasses for Crop 2015 as at 23 January 2016. A separate assessment was carried out on all canes received between period 25 January 2016 to 07 February 2016.

Proposal for Enhancements of the DCM and ASM Software

The Data Capture Module (DCM) software and the Assessment Module (ASM) software which are used at the CAD laboratories and Head Office respectively has been running under Windows XP Operating System (OS).

Since April 2014, Microsoft has stopped supporting the XP Operating System and both the DCM and ASM software needed to be urgently enhanced/ upgraded using the VB.net platform which can be supported by the latest Operating Systems (Windows 7 or 10 OS).

Software Labs has been awarded the contract for the enhancement of the Data Capture Module and the Assessment Module by the MCIA. The contract agreement between the MCIA and Software Labs was signed on 21 September 2016 and the enhancement of DCM and ASM software started immediately.

The development of the two softwares is near completion.

Cloud Server

Software Labs has hosted a cloud server for the Account of CAD. The Cloud server will store the analytical data from the CAD laboratories and other reports generated by the new applications. Sugarcane growers as well other stakeholders of the sugar industry may in future obtain their weekly bulletins and assessment reports directly from the cloud server.

Table 45. Summary of Crop 2016

Table 46. Summary of Crop 2016

Factory	Crushing Period		Crushing days	Canes (tonnes)			Richesse (Sucrose % Cane)	Extraction (Sucrose Extracted % Cane)	Sugar Produced (tonnes)				Molasses Produced (tonnes)
	Start	End		Received	Crushed	Loss in Transit			Tel Quel	Produced @ 98.5 Pol.	Average Efficiency	Diff	
Terra	01-Jul	17-Dec	140	877,492	876,723	769	12.55	10.97	96,622	97,470	97,454	16	28,324
	07-Jul	23-Dec 15	142	953,331	952,304	1,027	11.21	9.63	91,878	92,733	92,101	632	31,616
Alteo	23-May	16-Dec	169	1,389,333	1,387,992	1,341	11.04	9.68	134,329	134,691	134,284	407	37,553
	26-May	28-Dec 15	179	1,378,837	1,377,299	1,538	10.38	8.84	121,755	122,306	122,250	56	41,810
Medline	11-Jul	29-Nov	104	367,729	367,632	97	11.85	10.31	39,925	38,293	38,551	-258	11,631
	18-Aug	07-Feb 16	138	394,360	394,338	23	11.10	9.27	36,571	36,952	37,555	-603	13,620
Omnicanne	27-Jun	14-Dec	142	1,164,103	1,163,482	621	11.60	10.09	117,401	118,480	118,637	-157	40,167
	02-Jun	12-Dec 15	165	1,282,704	1,280,360	2,344	10.65	9.05	115,866	117,081	117,146	-65	45,061
Total				3,798,657	3,795,828	2,829	11.64	10.16	386,277	388,934	388,927		117,675
				4,009,232	4,04,301	4,931	10.73	9.14	366,070	369,072	369,053		132,107

Note: Figures in italic relate to Crop 2015

G(1) SUGAR STORAGE AND HANDLING UNIT (SUGAR TERMINAL)

Introduction

The Sugar Storage and Handling Unit (Ex-Mauritius Sugar Terminal Corporation) is located on a piece of reclaimed land having an area of 10.93 ha at Les Salines, Port Louis.

Initially, at its inception in 1980, the main activities at the Terminal were to receive, store and bulk load into ships the raw sugar produced by the sugar factories. The terminal is equipped with receiving facilities, accurate weighing equipment, two-storage sheds of bulk capacity of 175,000 t each and an efficient out-loading station with a loading rate of 1440 t/h.

Following the dismantling of the sugar protocol and the cessation of raw sugar production and exportation, the activities of the sugar storage and handling unit are mainly the sugar receipt, storage and delivery of both plantation white sugar and non-originating sugars to the two refineries of the island.

Receiving Station

Sugar is transported in trucks from the sugar factories (PWS) or from the Terminal Quay (NOS) to the receiving station. Fully computerized weighbridges ensure accurate weighing of the sugar lorries at the receiving station. The sugar boxes are then tipped using electro-mechanical equipment to unload the sugar onto conveyor belts which is then conveyed to the storage sheds.



Fig 8. Unloading sugar boxes

The Storage Sheds

Two storage sheds, each having a storage capacity of 175,000 t harbours in bulk the plantation white sugar as well as the non-originating sugar. The infrastructures are so designed to resist cyclonic winds of 300 km/h. The storage sheds are protected against any fire outbreak through a state of art fire detection and firefighting system.

Since 2009, Shed No. 2 is dedicated to the storage of special sugars in 1-t bags destined for exportation.



Fig 9. Storage Shed

Unloading of Non-Originating Sugar at the Terminal Quay

The unloading of sugar vessels is carried on a 24-h basis which may last between 6 to 8 days. The operations are complex with several operators within the port sector working simultaneously and converging towards the same goals and objectives. Thus, proper coordination, cooperation, communication and control are key factors for successful end results. The unloading rate is approximately 4000 t per 24 h with some 2000 trucks involved in the to and fro movement from the wharf to the receiving station for the whole operations.



Fig 10. Storage of Non Originating Sugar (NOS) and Loading of trucks



Fig 11. Transport by trucks



Fig 12. Grabs filling chute

Delivery of Sugar to Refineries

Plantation White Sugar (PWS) and Non-Originating Sugar (NOS) from shed number one are delivered through a new conveying system (C14) inside the shed. The lorry is positioned under discharging hoppers where an operator triggers the pneumatic gate to load the sugar boxes. The lorry is then weighed at the receiving station and directed to the refineries namely Fuel and Omnicane.

Delivery of NOS is also done through the out-loading conveyors and reclaimed at the return bin of the sugar quay.



Fig 13. Delivery of sugar from Shed No.1



Fig 14. Delivery of sugar from return bin of quay

Staff Matters

Health and Safety Committee

The Health and Safety Committee met regularly to discuss matters relating to the health and safety of the employees. The Committee was chaired by the Director.

All provisions of the Occupational Safety and Health Act 2005 were complied with and all the equipment at the Sugar Storage and Handling Unit is inspected by a Registered Machinery Inspector.

Meetings with Staff Associations

The management had regular meetings with the Mauritius Sugar Terminal Corporation Employees Union (MSTCEU) and the Mauritius Sugar Terminal Corporation Staff Association (MSTCSA) to discuss establishment problems, including those relating to the terms and conditions of service and the maintenance of good industrial relations.

Maintenance and Repairs

All equipment and machineries undergo rigorous maintenance phases based on a pre-planned preventive maintenance programme and coupled to that, critical equipment are routed to a conditioned-based monitoring cycle.

Most of the maintenance and repair works are carried in-house except for big projects which are outsourced. The workshop is equipped with specialized tools and equipment and among others this include a lathe, a milling machine, a hydraulic press, welding equipment both arc and gas, heavy duty drilling machine. Two mobile cranes facilitate transportation of heavy loads, tarring of weighbridges, maintenance of sugar boxes and working at heights with the man-platform attachment.

In view of the geographical position of the terminal and being exposed to the saline environment, the whole structure which is made of steel and aluminium cladding are subject to adverse environmental impacts. Coupled to that, the ageing of the terminal escalates the maintenance and repairs works. The total built-up area is approximately 43,000 m².

Sugar Movements

Sugar Received at the Terminal

A total of 37,524.843 t of PWS was received at the Terminal during the 2016 sugar cane crop. A breakdown of the quantity of sugar received from each of the sugar estates is shown in Table 46.

Import of NOS for processing in Mauritius

The MSS imported two consignments of NOS on board MV IRONIC SMYRNI and MV SANTA URSULA totalling 58,573.040 MT for refining in Mauritius. The unloading operation lasted for 9 consecutive days and 12 consecutive days on a 24-h basis on board MV IRONIC SMYRNI and MV SANTA URSULA respectively. A breakdown of the quantity of NOS received at the Terminal from each of the vessels is also given in Table 47.

Reloading of Sugar on Trucks to Refineries

The PWS and the NOS stored in shed No. 1 were reloaded on trucks and sent to the two refineries, namely Alteo Ltd. and Union Flacq and Omnicane Milling Operations Ltd. During the year ending December 2016, a total of 37,394.260 t of Plantation White Sugar were loaded on trucks at the Terminal and sent to the two refineries.

Table 46. Sugar Received at the Sugar Storage and Handling Unit for year 2016

Sugar Estates	Plantation White Sugar (t)
Terra Milling Ltd.	13,633.000
Omnicanne Milling Operations Ltd.	NIL
Medine Sugar Milling Company Ltd.	21,490.580
Alteo Limited Union Flacq	252.090
SSHU (Bagged Sugar) (Ex. BSSD Co Ltd.)	2,149.173
Total	37,524.843

Table 47. Unloading of Non Originating Sugar (NOS) at the Sugar Storage and Handling Unit for year 2016

Sugar Vessels	Non Originating Sugar (NOS) (t)
MV Ionic Smyrni	19,786.230
MV Santa Ursula	38,786.810
Total	58,573.040

G(2) SUGAR STORAGE AND HANDLING UNIT (BAGGED SUGAR)

Transfer of the Operations of The Bagged Sugar Storage and Distribution Co Ltd to MCIA

In the context of the rationalization of the service providing institutions to improve cost effectiveness, quality services and optimal use of human resources, Cabinet, at its meeting on 22nd August 2014, had agreed to the transfer of the operations of the Bagged Sugar Storage and Distribution Co. Ltd. to the Mauritius Cane Industry Authority. The employees of the Company, who are on a permanent and pensionable establishment would be redeployed to the Mauritius Cane Industry Authority.

The Bagged Sugar Storage and Distribution Co. Ltd. has been removed from the Register of Companies, under Section 309(1)(d) of the Companies Act 2001, on 31st December 2014. All assets and liabilities have been transferred to the Mauritius Cane Industry Authority with effect from 1st January 2015.

Principal Activities

The principal activity of the Bagged Sugar Unit comprises of the receipt, storage and distribution of bagged sugar as follows:

- Special Sugars are received from sugar estates for export markets
- White Refined / Raw Sugars are received from sugar estates for local market
- Imported Sugars were received from overseas suppliers for local market and bottlers up to year 2012.

To this end, the Unit operates three warehouses held on operating lease at the following locations:

- The Albion Docks
- MCIA Shed No 2
- Caudan

The sugars are handled in 25 kg, 50 kg and one-tonne bags.

The Bagged Sugar Unit is also responsible for the following:

- Receipt of Empty bags ordered by the Mauritius Sugar Syndicate from overseas and local suppliers for onward delivery to the sugar estates
- Receipt of steel bars and liners ordered by the Mauritius Sugar Syndicate from overseas and local suppliers for onward delivery to the sugar estates

The weight of sugar received for the past 8 years is shown in the Table 48.

Table 48. Weight of sugar

Crop Year	2009	2010	2011	2012	2013	2014	2015	2016
<i>Sugar Received from Sugar Estates (t)</i>	101,418	118,847	136,144	142,772	121,042	126,714	104,172	134,566
<i>Imported Sugar (t)</i>	28,832	25,160	3,000	8,000	-	-	-	-
	130,250	144,007	139,144	150,772	121,042	126,714	104,172	134,566

Operational Standards

The Bagged Sugar Unit has been certified to be in general compliance with BS EN ISO 9001:2008.

The Bagged Sugar Unit has also carried out and implemented Hazard Analysis and Critical Control Point (HACCP) on Receipt, Storage, Delivery of Bagged Sugar and Empty Bags.

Employees

The Bagged Sugar Unit had 81 employees as at 31 December 2016.

H. DIRECTORS RESPONSIBILITY STATEMENT

General

Directors are responsible to present financial statements of the Authority that give a faithful representation of the financial position as at the end of the financial period and of the results of its operations for the period then ended. It is responsible for the integrity of these financial statements and for the objectivity of any other information presented therein.

The Directors confirm that, in preparing these financial statements, they have ensured that proper accounting records which disclose with reasonable accuracy at any time the financial position of the Authority; the assets of the Authority have been safeguarded by maintaining appropriate internal control systems and procedures; reasonable steps have been taken for the prevention and detection of fraud and other irregularities; the financial statements have been prepared on the going concern basis; judgments and estimates have been made that are reasonable and prudent; and accounting policies have been selected in accordance with International Financial Reporting Standards and have been applied consistently.

Internal Control

The Directors have overall responsibility for taking such steps, as are reasonably open to them, to safeguard the assets of the Authority and to prevent and detect fraud and other irregularities. The internal control system has been designed to provide the Directors with such reasonable assurance. Such systems ensure that all transactions are authorised and recorded and that any material irregularities are detected and rectified within a reasonable time-frame. The Authority has an established internal control system which assists management in effectively discharging its responsibilities. The internal control system is reviewed on an ongoing basis to ensure its effectiveness.

Risk Management

The Authority does not have a specific Risk Management Committee. However, all risky issues are considered by the Board. The Board is responsible for taking appropriate action to mitigate risks, if any, using such measures, policies, procedures and other controls that it deems fit.



Amal Kumar Mohabeer MUNGUR
BOARD MEMBER



Vishnou GONDEEA
CHAIRPERSON

I. INDEPENDENT AUDITOR'S REPORT



NATIONAL AUDIT OFFICE

REPORT OF THE DIRECTOR OF AUDIT TO THE MAURITIUS CANE INDUSTRY BOARD

Report on the audit of the Financial Statements

Opinion

I have audited the financial statements of the Mauritius Cane Industry Authority, which comprise the statement of financial position as of 30 June 2017 and the statement of profit or loss and other comprehensive income, statement of changes in equity and statement of cash flows for the 18-month period then ended, and notes to the financial statements, including a summary of significant accounting policies.

In my opinion, the financial statements give a true and fair view of the financial position of the Mauritius Cane Industry Authority as at 30 June 2017, and of its financial performance and its cash flows for the 18-month period then ended in accordance with International Financial Reporting Standards.

Basis for Opinion

I conducted my audit in accordance with International Standards of Supreme Audit Institutions (ISSAIs). My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of my report. I am independent of the Mauritius Cane Industry Authority in accordance with the INTOSAI Code of Ethics together with the ethical requirements that are relevant to my audit of the financial statements in Mauritius, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Emphasis of Matter

I draw attention to Trade Receivables amounting to Rs 337,764,164 at Note 22 of the financial statements. Out of this sum, Rs 207,133,932 represented cash advances to planters under the Field Operation Regrouping and Irrigation Project from 2006 to 2015. In 2016, the project was renamed Sugar Planter's Regrouping Project and the conditions of the advances were also revised. More than 11 years had lapsed since the start of the project, and no repayment had been effected as at 30 June 2017. The recoverability of the advances was uncertain.

My opinion is not qualified in respect of this matter.

Key audit matters

Key audit matters are those matters that, in my professional judgment, were of most significance in my audit of the financial statements of the current period. These matters were addressed in the context of my audit of the financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on these matters.

Sugar Cane Sustainability Expenses

The sugar cane sustainability expenses amounting to Rs 274 million as recognised in the statement of profit and loss and other comprehensive income was considered as significant. This expense represented financial assistance provided to cane planters by the Ministry of Agro Industry for crop years 2015 and 2016. The Mauritius Sugar Syndicate (MSS) was allocated the task to distribute the contribution to eligible cane planters. There was a risk that disbursements of the contribution to planters could be materially misstated due to the fact that payments could be effected to ineligible or fictitious planters and that approved rates were not applied.

How my audit addressed the Key Audit Matter

I performed various audit procedures including the following:

- Lists of registered planters for crop years 2015 and 2016 were obtained and compared with the MSS payment lists to ensure that no fictitious or ineligible planters were paid and no double payments were made.
- The MSS payment lists were scrutinised and the applicable rates approved by the Ministry of Agro Industry, the quantity of sugar produced and the accuracy of individual payment were checked.
- The accuracy and accounting treatment of the funds received and disbursed were checked and that appropriate disclosures were made in the accounts.

Other Information

Management is responsible for the other information. The other information comprises the information included in the annual report of the Mauritius Cane Industry Authority for the 18-month period ended 30 June 2017, but does not include the financial statements and my auditor's report thereon.

My opinion on the financial statements does not cover the other information and I do not express any form of assurance conclusion thereon.

In connection with my audit of the financial statements, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or my knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact. I have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Mauritius Cane Industry Authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management intends to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible of overseeing the Mauritius Cane Industry Authority's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISSAIs, will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISSAIs, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Mauritius Cane Industry Authority's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Mauritius Cane Industry Authority's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Mauritius Cane Industry Authority to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide those charged with governance with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on Other Legal and Regulatory Requirements

Management's Responsibility for Compliance

In addition to the responsibility for the preparation and presentation of the financial statements described above, management is also responsible for ensuring that the activities, financial transactions and information reflected in the financial statements are in compliance with the laws and authorities which govern them.

Auditor's Responsibility

In addition to the responsibility to express an opinion on the financial statements described above, my responsibility includes expressing an opinion on whether the activities, financial transactions and information reflected in the financial statements are, in all material respects, in compliance with the laws and authorities which govern them. This responsibility includes performing procedures to obtain audit evidence about whether the Mauritius Cane Industry Authority's expenditure and income have been applied to the purposes intended by those charged with governance. Such procedures include the assessment of the risks of material non-compliance.

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

Opinion on Compliance

Statutory Bodies (Accounts and Audit) Act

The financial statements for the 18-month period ended 30 June 2017 were submitted on 2 October 2017. Due to some errors, the financial statements were amended and submitted on 20 June 2018.

Mauritius Cane Industry Authority Act

A sum of Rs 369.2 million was held as deposits 'On Demand' at the Mauritius Sugar Syndicate as at 30 June 2017. Contrary to Section 49 of the MCIA Act, the appropriate approval was not seen for the investment.

In my opinion, except for the matter described above, in all material respects, the activities, financial transactions and information reflected in the financial statements are in compliance with the above Acts.

Public Procurement Act

The Mauritius Cane Industry Authority is responsible for the planning and conduct of its procurement. It is also responsible for defining and choosing the appropriate method of procurement and contract type in accordance with the provisions of the Act and relevant Regulations. My responsibility is to report on whether the provisions of Part V of the Act regarding the Bidding Process have been complied with.

In my opinion, the provisions of Part V of the Act have been complied with as far as it appears from my examination of the relevant records.

Financial Reporting Act

The Directors are responsible for preparing the Corporate Governance Report. My responsibility is to report on the extent of compliance with the Code of Corporate Governance as disclosed in the annual report and on whether the disclosure is consistent with the requirements of the Code.

In my opinion, the disclosure in the Annual Report is consistent with the requirements of the Code.



K. C. TSE YUET CHEONG (MRS)
Director of Audit

National Audit Office
Level 14,
Air Mauritius Centre
PORT LOUIS

9 July 2018

J. FINANCIAL STATEMENTS

THE MAURITIUS CANE INDUSTRY AUTHORITY

FINANCIAL STATEMENTS

PERIOD ENDED 30 JUNE 2017

THE MAURITIUS CANE INDUSTRY AUTHORITY

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THE MAURITIUS CANE INDUSTRY AUTHORITY

1

REPORT OF THE DIRECTORS

1. The Directors have the pleasure to submit the financial statements of the Mauritius Cane Industry Authority (MCIA) for the period of 18 months ended 30 June 2017.

2. State of affairs and review of activities

The Statement of profit or loss and other comprehensive income for the period of 18 months ended 30 June 2017 is set on page 2 and the Statement of financial position as at that date on page 3.

The main activity of the Mauritius Cane Industry Authority, is unchanged since 31 December 2015.

3. Statement of Directors

The Directors state that :

- Suitable accounting policies are selected and applied consistently
- Judgements and estimates made are reasonable and prudent.
- Applicable accounting standards are followed subject to any material departures, disclosed and explained in the financial statements.
- Financial statements are prepared on the going concern basis, given the Board presumes that the Authority will continue its activities.



CHAIRPERSON

MCIA Board of Directors

THE MAURITIUS CANE INDUSTRY AUTHORITY


STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

FOR THE PERIOD ENDED 30 JUNE 2017

	Notes	18 months ended 30 Jun 2017	Year ended 31 Dec 2015
		MUR	MUR
Income			
Cess	9	468,322,927	329,300,100
Grants - Co-financing from Government	9	95,000,000	59,000,000
Hire of tractors and trailers	10	106,985,435	98,994,179
Levy on sale of sugar	11	195,892,964	120,680,286
Release of funds	12	768,296,221	440,957,557
Other income	13	63,119,637	51,907,396
Expenditure			
Salaries and salary related expenses	14	(601,104,133)	(379,548,783)
Administrative and general expenses	15	(237,266,221)	(176,094,487)
Ex- dockers pensions	16	(168,424,905)	(116,727,656)
Depreciation of property, plant & equipment	17	(195,108,824)	(128,646,237)
Depreciation of investment property	18	(660,000)	(440,000)
Amortisation of intangible assets	19	(1,147,090)	(729,448)
FORIP expenses		(339,090,934)	(397,531,660)
Planters fund expenses		(1,339,894)	-
ALMS expenses		(948,449)	-
VRS expenses		(105,918,252)	-
Sugar cane sustainability expenses		(274,000,000)	-
Finance costs		(711,750)	(369,697)
Increase in retirement benefits obligations		(40,670,202)	(25,282,384)
Comprehensive deficit for the period		(268,773,469)	(124,530,834)
Other comprehensive income			
<i>Items that will not be reclassified to statement of profit or loss</i>			
Gain on non-current assets revaluation		-	233,014,537
(Loss) / Gain on investment revaluation		11,900	(263,500)
Actuarial losses on defined benefit pension plans		(83,538,404)	(189,682,024)
Total comprehensive deficit for the period		(352,299,973)	(81,461,821)

Approved by the MCIA Board of Directors on 19 June 2018.


Chairperson


Board member

The notes on pages 6 to 35 form an integral part of these financial statements.

THE MAURITIUS CANE INDUSTRY AUTHORITY

STATEMENT OF FINANCIAL POSITION

AS AT 30 JUNE 2017

	Notes	30 Jun 2017	31 Dec 2015
		MUR	MUR
ASSETS			
Non-current assets			
Property, plant and equipment	17	2,354,695,959	2,526,516,160
Investment property	18	7,700,000	8,360,000
Intangible assets	19	2,179,807	2,924,932
Investment in financial assets	20	689,400	677,500
Loans receivable	21	34,731,363	24,056,000
Trade receivables	22	225,467,213	246,303,612
		<u>2,625,463,742</u>	<u>2,808,838,204</u>
Current assets			
Inventories	23	54,739,900	57,641,658
Loans receivable	21	11,223,626	9,068,021
Trade receivables	22	113,649,631	87,840,961
Cash and cash equivalents	24	673,853,619	678,356,149
		<u>853,466,776</u>	<u>832,906,789</u>
Total assets		<u>3,478,930,518</u>	<u>3,641,744,993</u>
EQUITY AND LIABILITIES			
EQUITY			
Accumulated fund		(714,207,841)	(540,113,183)
Contributed capital	25	300,000,000	300,000,000
Revaluation reserve		2,115,420,117	2,246,164,935
Fair value reserve		551,650	539,750
Earmarked funds	26	744,994,655	659,980,765
Car and motorcycle loan interest fund	27	-	48,165,737
Total Equity		<u>2,446,758,581</u>	<u>2,714,738,004</u>
LIABILITIES			
Non-current liability			
Financial liabilities	28	2,715,919	10,810,467
Provisions	29	154,703,882	137,458,174
Deferred income	30	22,261,677	38,255,617
Trade payables	31	6,344,362	6,037,342
Borrowings	32	17,882,678	19,783,260
Retirement benefits obligations	33	734,305,503	610,096,897
		<u>938,214,021</u>	<u>822,441,757</u>
Current liabilities			
Provisions	29	22,610,337	18,772,545
Deferred income	30	39,255,617	42,363,616
Trade payables	31	30,750,751	42,096,153
Borrowings	32	1,341,211	1,332,918
		<u>93,957,916</u>	<u>104,565,232</u>
Total liabilities		<u>1,032,171,937</u>	<u>927,006,989</u>
Total Equity and Liabilities		<u>3,478,930,518</u>	<u>3,641,744,993</u>

The notes on pages 6 to 35 form an integral part of these financial statements.

THE MAURITIUS CANE INDUSTRY AUTHORITY
STATEMENT OF CHANGES IN EQUITY
PERIOD ENDED 30 JUNE 2017

4

	Contributed Capital	Accumulated Fund	Fair Value Reserve	Revaluation Reserve	Earmarked Funds	Total
	MUR	MUR	MUR	MUR	MUR	MUR
As at 01 January 2016	300,000,000	(540,113,183)	539,750	2,246,164,935	659,980,765	2,666,572,267
Transfer to APMU fund	-	(3,639,954)	-	-	3,639,954	-
Transfer from Car Loan Interest fund	-	51,112,351	-	-	-	51,112,351
Transfer - excess depreciation on revaluation	-	130,744,818	-	(130,744,818)	-	-
Released to Profit or loss	-	-	-	-	(454,912,282)	(454,912,282)
Received during period	-	-	-	-	536,286,218	536,286,218
Comprehensive deficit for the period	-	(268,773,469)	-	-	-	(268,773,469)
	300,000,000	(630,669,437)	539,750	2,115,420,117	744,994,655	2,530,285,085
Actuarial losses on defined benefit pension plans	-	(83,538,404)	-	-	-	(83,538,404)
Profit on investment revaluation	-	-	11,900	-	-	11,900
As at 30 June 2017	300,000,000	(714,207,841)	551,650	2,115,420,117	744,994,655	2,446,758,581
Car Loan Fund of MUR 30,417,987 representing money obtained by MSIRI from ex MSA to be used as a revolving fund. As it is no more used for the intended purpose, it has been transferred to Accumulated Fund in 2015.						
Car Loan Interest fund of MUR 51,112,351 representing interest earned on car loans to MSIRI officers transferred to Accumulated Fund on 30 June 2017.						
As at 01 January 2015	300,000,000	(279,636,385)	803,250	2,095,674,091	608,356,099	2,725,197,055
Vacation leave - Previous period	-	(51,541,545)	-	-	-	(51,541,545)
As Restated	300,000,000	(331,177,930)	803,250	2,095,674,091	608,356,099	2,673,655,510
Refund to ACP - SRP	-	(11,684,940)	-	-	-	(11,684,940)
Car Loan Fund transferred	-	30,417,987	-	-	-	30,417,987
Transfer - excess depreciation on revaluation	-	82,003,180	-	(82,003,180)	-	-
BSSD balances transferred	-	4,312,390	-	-	-	4,312,390
Released to Profit or loss	-	-	-	-	(402,701,940)	(402,701,940)
Received during period	-	-	-	-	454,035,081	454,035,081
Amount transferred to FORIP fund	-	(291,525)	-	-	291,525	-
Comprehensive deficit for the period	-	(124,530,835)	-	-	-	(124,530,835)
	300,000,000	(350,951,673)	803,250	2,013,670,911	659,980,765	2,623,503,253
Actuarial losses on defined benefit pension plans	-	(189,682,024)	-	-	-	(189,682,024)
Loss on investment revaluation	-	-	(263,500)	-	-	(263,500)
Non-current assets revaluation adjustments	-	520,514	-	232,494,024	-	233,014,538
As at 31 December 2015	300,000,000	(540,113,183)	539,750	2,246,164,935	659,980,765	2,666,572,267

The notes on pages 6 to 35 form an integral part of these financial statements.

THE MAURITIUS CANE INDUSTRY AUTHORITY
STATEMENT OF CASH FLOWS
PERIOD ENDED 30 JUNE 2017

	Notes	18 months ended 30 Jun 2017	Year ended 31 Dec 2015
		MUR	MUR
Cash flows from operating activities			
Cash absorbed in operations	37.1	(1,031,309,844)	(608,337,152)
Interest paid		(514,176)	(318,581)
Net cash used in operating activities		(1,031,824,020)	(608,655,733)
Cash flows from investing activities			
Capital expenditure		(35,889,145)	(34,041,690)
Disposal proceeds		5,797,681	365,000
Interest received		14,003,474	12,019,244
Dividend received		9,870	24,650
Net cash generated from/(used in) investing activities		(16,078,120)	(21,632,796)
Cash flows from financing activities			
Staff loans granted		(30,110,991)	(11,797,145)
Staff loans recovered		17,280,023	10,931,194
Accumulated interest fund - car & motorcycle loans		2,946,613	2,525,427
FORIP funds received		500,241,031	452,335,757
Other funds received		376,788	1,699,325
Repayment of loans		(2,006,054)	(1,300,172)
Co-financing from Government - Operating deficit		95,000,000	59,000,000
Contribution from MSS - BSSD operational costs		127,590,000	128,230,000
Contribution from MOFED - Tractors		24,390,000	-
Co-financing from Government - ALMS		5,000,000	-
Funds received with respect to VRS		20,000,000	-
Co-financing from Government - Modernisation of trade Unions		2,000,000	-
Funds received from APMU		6,692,200	-
Sugar cane sustainability fund received		274,000,000	-
ACP refund for previous period		-	(11,684,940)
Deferred Cess		-	4,108,000
Funds from BSSD		-	2,403,556
Net cash flow generated from financing activities		1,043,399,610	636,451,002
Net (Decrease) / Increase in cash and cash equivalents		(4,502,530)	6,162,473
Movement in cash and cash equivalents			
		MUR	MUR
As at 01 January 2016		678,356,149	672,193,676
(Decrease) / Increase		(4,502,530)	6,162,473
As at 30 June 2017	37.3	673,853,619	678,356,149

The notes on pages 6 to 35 form an integral part of these financial statements.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

PERIOD ENDED 30 JUNE 2017

1 REPORTING ENTITY

The Mauritius Cane Industry Authority (**The Authority**) is a body corporate established under the Mauritius Cane Industry Authority Act 2011 which was proclaimed on 19 March 2012 to take over the activities of the following ex- Service Providing Institutions (SPIs)

- Mauritius Sugar Authority
- Mauritius Sugar Industry Research Institute
- Mauritius Sugar Terminal Corporation
- Farmers' Service Corporation
- Sugar Planters Mechanical Pool Corporation
- Cane Planters and Millers Arbitration and Control Board

MCIA took over the activities of BSSD Co. Ltd as from 1 January 2015. The audited financial statements of the company as at 31 March 2015 have been consolidated with those of MCIA.

The Authority's registered office is situated at 1, Moka Road, MSIRI Complex, Reduit.

The objectives of the Authority include:

- Monitoring, overseeing and coordinating all the activities relating to, and ensuring a fair, efficient and effective administration and operation of the cane industry.
- Promoting and supporting the sustainable development, efficiency and viability of the cane industry.
- Formulating and implementing policies, strategies, plans, programmes and schemes in relation to the cane industry.
- Promoting and facilitating the sustainable development of the cane cluster in Mauritius and in the region.
- Monitoring and coordinating the activities of the cane industry, including planting, milling, processing, transport, bulk handling and marketing.

The assets and funds of every former SPI have been vested in the Authority and all rights, obligations and liabilities subsisting in favour of or against a former SPI continued to exist under the same terms and conditions in favour or against the Authority. Consequently, the Authority has incorporated in its financial statements all the assets, liabilities and funds of the ex-SPIs which were reclassified and consolidated. Depreciation policies have been standardised to achieve consistency and uniformity in reporting.

2 REPORTING DATE AND COMPARATIVES

The financial statements cover a period of 18 months ending 30 June 2017.

Comparative information in respect of the preceding period covers 12 months ending 31 December 2015.

3 REPORTING CURRENCY

The financial statements of the Authority are presented in Mauritian rupees (MUR).

4 MEASUREMENT BASE

The Authority adopts International Financial Reporting Standards as appropriate for the measurement and reporting of the financial position and financial performance on an accrual basis.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

5 NEW AND REVISED IFRS IN ISSUE

- 5.1 Below is a list of the amendments to IFRSs and the the new interpretation that are mandatorily effective for accounting periods that begin on or after 1 January 2016.

- IFRS 14 - Regulatory Deferral Accounts
- Amendments to IFRS 10, IFRS 12 and IAS 28 - Investment Entities: Applying the Consolidation Exception
- Amendments to IAS 27 - Equity Method in Separate Financial Statements
- Amendments to IAS 1 - Disclosure Initiative
- Amendments to IFRS 5, IFRS 7, IAS 19 and IAS 34 issued in the Annual Improvement Cycle 2012-2014
- Amendments to IAS 16 and IAS 38 - Clarification of Acceptable Methods of Depreciation and Amortisation
- Amendments to IFRS 11 - Accounting and Acquisitions of Interests in Joint Operations
- Amendments to IAS 16 and IAS 41 - Bearer Plants

Adoption of these new IFRSs has no impact on the financial statements.

- 5.2 New and revised IFRS that are not mandatorily effective (but allow early application) for the period ending 30 June 2017.

- IFRS 9 Financial Instruments- will be effective for the accounting periods beginning on or after 01 January 2018.
- IFRS 15 Revenue from Contracts with Customers ;will be effective for accounting periods beginning on or after 01 January 2018.
- IFRS 16 Leases ;will be effective for accounting periods beginning on or after 01 January 2019
- IFRS 1,12,28 Annual Improvement - will be effective for the accounting periods beginning on or after 01 January 2018.
- IAS 7 Disclosure Initiative - will be effective for the accounting periods beginning on or after 01 January 2017.
- IAS 12 Income Taxes - Recognition of Deferred Tax for Unrealised Losses - will be effective for the accounting periods beginning on or after 01 January 2017.
- IAS 40 Investment Property- will be effective for the accounting periods beginning on or after 01 January 2018.
- Amendments to IFRS 10 and IAS 28 - Sale of Contribution of Assets between an Investor and its Associate or Joint Venture : The IASB decided in December 2015 to defer indefinitely the effective date of these amendments
- Clarifications to IFRS 15 - Revenue from Contracts with Customers ;will be effective for the accounting periods beginning on or after 01 January 2018.
- Amendments to IFRS 2 - Classification and Measurement of Share- based Payment Transactions ; will be effective for the accounting periods beginning 01 January 2018
- Amendments to IFRS 4 - Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts ;will be effective for the accounting periods beginning 01 January 2018

Where relevant, the Authority is still evaluating the effect of these Standards, amendments to published Standards and Interpretations issued but not yet effective, on the presentation of its financial statements. The preparation of financial statements in conformity with the International Financial Reporting Standards requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Authority's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where estimates and assumptions are significant to the financial statements are disclosed in **note 8**.

6 SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies adopted in the preparation of these financial statements are set out below.

6.1 Basis of preparation

The financial statements have been prepared on the historical cost basis except for non current assets and financial instruments that are measured at revalued amounts or fair values at the end of each reporting date.

6.2 Statement of Compliance

The financial statements have been prepared in accordance with International Financial Reporting Standards.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

6.3 Property, plant and equipment

Assets, liabilities and funds of all ex-SPIs have been vested into the MCIA at the commencement of the MCIA Act 2011 and transferred at their book values. Assets and liabilities of BSSD Co. Ltd have been transferred at their book values at 01 January 2015.

Non-current assets are stated at their revalued amount, based on periodic valuations, by external independent valuers, less subsequent depreciation for buildings. Any accumulated depreciation at the date of revaluation is eliminated against the gross carrying amount of the asset and the net amount is restated to the revalued amount of the asset.

All property, plant and equipment transferred are stated at their carrying amount. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Subsequent to initial recognition, property, plant and equipment are measured at fair value. Gains and losses arising from changes in the fair value of property, plant and equipment are included in other comprehensive income in the period in which they arise.

Subsequent costs are included in the assets carrying amount or recognised as a separate asset as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Authority and the cost of the item can be measured reliably.

Increases in the carrying amount arising on revaluation are credited to revaluation reserve. Decreases that offset previous increases of the same asset are charged against the revaluation reserve; all other decreases are charged to the statement of profit or loss.

Each period the difference between depreciation based on the revalued carrying amount of the asset charged to the statement of profit or loss and depreciation based on the asset's original cost is transferred from revaluation reserve to accumulated fund.

Depreciation is calculated on the straight line method to write off the cost or revalued amounts of the assets to their residual values over their estimated useful lives as follows:

	Annual rate
Buildings	2% - 20%
Plant, Machinery and Motor Vehicles	2.85% - 100%
Fixtures, Furniture and Fittings & Office Equipment	3.33% - 100%
Computer & Associated Equipment	6.67% - 50%
Laboratory Equipment	16.67% - 100%

Land is not depreciated.

Tractors are depreciated based on the number of effective hours. Tools are written off in the year of purchase.

Full provision for depreciation is made in the year of purchase and nil in the year of disposal.

The assets' residual values and useful lives are reviewed and adjusted if appropriate, at the end of each reporting period.

Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down immediately to its recoverable amount.

Gains and losses on disposal of plant and equipment are determined by comparing proceeds with carrying amount and are included in the statement of profit or loss.

6.4 Investment property

Investment property, which is building held to earn rentals and not occupied by the Authority, is carried at cost less impairment losses. Depreciation is calculated at 5% of the cost of the building. Subsequent to initial recognition, investment property is measured at fair value. Gains and losses arising from changes in the fair value of investment property are included in other comprehensive income in the period in which they arise.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

6.5 Intangible assets**Computer Software**

Acquired computer software licences are capitalised on the basis of costs incurred to acquire and bring to use the specific software and are amortised using the straight line method over their estimated useful lives. Subsequent to initial recognition, computer software are measured at fair value. Gains and losses arising from changes in the fair value of computer software are included in other comprehensive income in the period in which they arise.

Costs associated with maintaining computer software are recognised as an expense as incurred.

6.6 Inventories

Inventories are valued at the lower of cost and net realisable value.

6.7 Financial instruments**6.7.1 Financial assets**

The Authority classifies its financial assets as loans and receivables and available-for-sale financial assets. Management determines the classification of its financial assets at initial recognition.

(i) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They arise when the Authority provides money, goods or services directly to a debtor with no intention of trading the receivable. They are included in current assets when maturity is within twelve months after the end of the reporting period or non-current assets for maturities greater than twelve months.

(ii) Available-for-sale financial assets

Available for sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories. They are included in non-current assets unless Management intends to dispose of the investment within twelve months of the end of the reporting period.

Purchases and sales of financial assets are recognised on trade-date, the date on which the Authority commits to purchase or sell the asset. Investments are initially measured at fair value plus transaction costs for all financial assets.

Financial assets are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the Authority has transferred substantially all risks and rewards of ownership.

Available-for-sale financial assets are subsequently carried at cost.

Investments in equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are measured at cost.

The Authority assesses at the end of each reporting period whether there is objective evidence that a financial asset or a group of financial assets is impaired. In the case of financial assets classified as available-for-sale, a significant or prolonged decline in the fair value of the security below its cost is considered in determining whether the securities are impaired.

If any such evidence exists for available-for-sale financial assets, the cumulative loss, measured as the difference between acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognised in profit or loss is removed from equity and recognised in the statement of profit or loss.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

(iii) Long term receivables

Long term receivables with fixed maturity terms are measured at amortised cost using the effective interest rate method, less provision for impairment. The carrying amount of the asset is reduced by the difference between the asset's carrying amount and the present value of estimated cash flows discounted using the effective interest rate. The amount of loss is recognised in the statement of profit or loss. Long term receivables without fixed maturity terms are measured at cost.

If there is objective evidence that an impairment loss has been incurred, the amount of impairment loss is measured as the difference between the carrying amount of the asset and the present value of estimated cash flows discounted at the current market rate of return of similar financial assets.

(iv) Other receivables

Other receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, less provision for impairment. A provision for impairment of other receivables is established when there is objective evidence that the Authority will not be able to collect all amounts due according to the original terms of receivables.

The amount of the provision is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the effective interest rate. The amount of provision is recognised in the statement of profit or loss.

6.7.2 Financial liabilities

Financial liabilities are classified as borrowings, payables and other financial liabilities.

(i) Borrowings

Borrowings are recognised initially at fair value being their issue proceeds net of transaction costs incurred.

Borrowings, except bank overdraft, are classified as current liabilities unless the Authority has an unconditional right to defer settlement of the liability for at least twelve months after reporting date.

(ii) Other payables

Other payables are stated at their fair value and subsequently measured at amortised cost using the effective interest method.

(iii) Other Financial Liabilities

They are recognised at fair value, net of any assets provided as guarantee to the financial institution issuing the loans.

Other financial liabilities are offset with financial assets to the extent that the liabilities and the assets are linked. Full disclosures of the gross amount used in the offsetting model are made below (note 28).

6.7.3 Cash and Cash Equivalents

Cash and cash equivalents include cash in hand, cash at bank, bank overdrafts and deposits.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

6.7.4 Retirement benefit obligations**(i) Defined benefit plans**

A defined benefit plan is a pension plan that defines an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation.

The Authority contributes to a defined benefit plan for its employees. The cost of providing benefits is determined and the regular cost is spread over the service lives of employees in accordance with the advice of qualified actuaries who carry out a full valuation of plans every year using the Projected Unit Method.

The retirement benefit obligation recognised in the statement of financial position represents the present value of the defined benefit obligation as adjusted for unrecognised actuarial gains and losses and unrecognised past service cost, and as reduced by the fair value of plan assets.

(ii) Gratuity on retirement

For employees who are not covered by the above pension plan, the net present value of gratuity on retirement payable is calculated by qualified actuaries and provided for. The obligations arising under this item are not funded.

6.8 Impairment of assets

At each reporting date, the Authority reviews the carrying amounts of its assets to determine whether there is any indication that those assets have suffered an impairment loss. An impairment loss is recognised for the amount by which the carrying amount of the asset exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units).

6.9 Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable.

Revenues earned by the Authority are recognised on the following bases:

- Cess - Cess on sugar proceeds, receivable from the Mauritius Sugar Syndicate, is accounted for in the same accounting period in which the related expenditure is incurred ie accounted on a financial year basis rather than crop year basis.
- Grant - Grant from the Mauritius Sugar Syndicate to finance BSSD expenditure, is accounted for in the same accounting period in which the related expenditure is incurred.
- Hire of equipment - Upon completion of work at the invoiced value for hire of equipment. No value added tax is charged.
- Levy on sale of sugar - When imported & locally produced sugar is delivered for sale on the local market.
- Sales of cane and foodcrops - When goods are delivered and title has passed.
- Interest income - On a time-proportion basis using the effective interest method.
- Dividend income - When the Authority's right to receive payment is established.
- Cash advance to and contribution from planters - When it is probable that economic benefits will flow to the Authority.

6.10 Deferred income

Deferred income of ex-SPIs incorporated in the financial statements of the Authority is credited to the statement of profit or loss equally over five reporting periods. Other deferred income is released to the statement of profit or loss in the year of related expenditure.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

6.11 Specific Funds Investments

Specific funds investments are held with respect to funds received to carry out specific projects and included under cash and cash equivalent. Amounts disbursed on the projects are debited to the fund and released to the statement of profit or loss when expenses are incurred.

6.12 Provisions

Provisions are recognised when the Authority has a present or constructive obligation as a result of past events and when it is probable that an outflow of resources that can be reliably estimated will be required to settle the obligation.

7 FINANCIAL RISK MANAGEMENT**7.1 Financial Risk Factors**

The Authority's activities expose it to a variety of financial risks.

7.1.1 Market risk**(i) Currency risk**

The Authority has limited exposure in respect of foreign currency risk.

(ii) Price risk

The Authority holds an investment of only MUR 689 400 (at fair value on 30 June 2017) in equities and no investment in bonds or other securities. Accordingly, it has minimal exposure to price risk.

(iii) Credit risk

The Authority has limited concentration of credit risk in relation to car loans, and has policies in place requiring loan refund to be deducted directly from employees' salary. A '*gage sans déplacement*' is created in favour of the Authority on vehicles acquired through MCIA loans.

Credit risk associated with advances made to planters under the FORIP Scheme is, however, more significant. Despite cash advance to planters is subject to contractual obligations, the recoverability is highly dependent on government policy. Decision to enforce repayment rests upon the Ministry of Agro-Industry and Food Security.

(iv) Liquidity risk

The Authority manages its liquidity risk by maintaining sufficient cash and also by ensuring the availability of funds through committed credit facilities.

The table below analyses the Authority's financial liabilities into relevant maturity groupings based on the remaining period at the end of the reporting period to the contractual maturity date.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

	Due within 12 months	Due after 1 year	Total
	MUR	MUR	MUR
At 30 June 2017			
Borrowings	1,341,211	17,882,678	19,223,889
Trade Payables	30,750,751	6,344,362	37,095,113
	<u>32,091,962</u>	<u>24,227,040</u>	<u>56,319,002</u>
At 31 December 2015			
Borrowings	1,332,918	19,783,260	21,116,178
Trade Payables	42,096,153	6,037,342	48,133,495
	<u>43,429,071</u>	<u>25,820,602</u>	<u>69,249,673</u>

(v) Cash flow and fair value interest rate risk

As the Authority has no investment in significant interest-bearing assets, the Authority's income and operating cash flows are substantially independent of changes in market interest rates.

7.2 Fair value estimation

The nominal value less estimated credit adjustments of other receivables and payables are assumed to approximate their fair values.

7.3 Capital risk management

The Authority manages its capital to ensure that it will be able to continue as a going concern. Its overall strategy remained unchanged from 31 December 2015. The capital structure of the Authority consists of accumulated fund, revaluation reserve and other funds and reserves.

8 CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Estimates and judgements are continuously evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

8.1 Critical accounting estimates and assumptions

The Authority makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

8.2 Impairment of available-for-sale financial assets

The Authority follows the guidance of IAS 39 on determining when an investment is other-than-temporarily impaired. This determination requires significant judgement. In making this judgement, the Authority evaluates, among other factors, the duration and extent to which the fair value of an investment is less than its cost, and the financial health of and near-term business outlook for the investee, including factors such as industry and sector performance, changes in technology and operational and financing cash flow.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

8.3 Pension benefits

The present value of the pension obligations depend on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost (income) for pensions include the discount rate. Any changes in these assumptions will impact the carrying amount of pension obligations.

The Authority determines the appropriate discount rate at the end of each year. This is the interest rate that should be used to determine the present value of estimated future cash outflows expected to be required to settle the pension obligations. In determining the appropriate discount rate, the Authority considers the interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension obligation.

8.4 Revaluation of property, plant and equipment

The Authority measures property, plant and equipment, investment property and intangible assets at revalued amounts with changes in fair value being recognised in other comprehensive income. Independent valuation specialists were engaged to determine fair values.

8.5 Asset lives and residual values

Property, plant and equipment are depreciated over its useful life taking into account residual values, where appropriate. The actual lives of the assets and residual values are assessed annually and may vary depending on a number of factors in reassessing asset lives, factors such as technological innovation, product life cycles and maintenance programmes are taken into account. Residual value assessments consider issues such as future market conditions, the remaining life of the asset and projected disposal values. Consideration is also given to the extent of current profits and losses on the disposal of similar assets.

8.6 Depreciation policies

Property, plant and equipment are depreciated to their residual values over their estimated useful lives. The residual value of an asset is the estimated net amount that the Authority would currently obtain from disposal of the asset, if the asset was already of the age and in condition expected at the end of its useful life.

The directors therefore make estimates based on historical experience and use best judgement to assess the useful lives of assets and to forecast the expected residual values of the assets at the end of their expected useful lives.

9 CESS AND GRANTS**9.1 Cess is levied at the rate of 4% of sugar proceeds at ex MSS price.**

Cess money is recognised when there is reasonable assurance that the cess will be received and all attaching conditions will be complied with.

Government grants are received to finance the Authority's operating deficit.

All conditions relating to the Government grants are fulfilled.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

9.2 (i) MSS - Cess on sugar proceeds

	MUR	30 Jun 2017 MUR	31 Dec 2015 MUR
Cess released from deferred income			
- Crop 2014		-	74,956,708.00
- Crop 2015 (note 30)		4,108,000	-
Cess received during period			
- Crop 2015	94,373,540		
- Crop 2016	226,629,050	321,002,590	129,925,287
Cess deferred to future period			
- Crop 2015		-	(4,108,000)
Cess receivable for the period			
- Crop 2016		15,622,337	-
		<u>340,732,927</u>	<u>200,773,995</u>
(ii) MOAFS - Contributions towards operating deficit			
2015 Estimates		-	59,000,000
Jan to Jun 2016 Estimates		32,000,000	-
2016-2017 Estimates		63,000,000	-
(iii) MSS - Grant to finance BSSD expenditure		127,590,000	128,230,000
(iv) MOA - Contribution towards Mauritius Herbarium		-	296,105
TOTAL		<u>563,322,927</u>	<u>388,300,100</u>

9.3 OTHERS

(i) During the period the following have also been received:

	MUR
MOFED - 2015 Estimates - Acquisition of tractors	24,390,000
MOAFS- 2016-2017 Estimates - ALMS	5,000,000
MOAFS- 2016-2017 Estimates- Modernisation of Trade Unions	2,000,000
MOAFS - 2016 VRS for CAD officers	20,000,000

(ii) Sugarcane Sustainability Fund

In the context of the LMC Report on the sugarcane sector, Government agreed to the setting of a Sugar cane Sustainability Fund to be managed by the MCIA.

The SIFB and the MSS were requested to provide the necessary support to MCIA for the disbursement of contribution to cane planters.

During the period MUR 274M were received from Ministry of Agro Industry and Food Security and have been transferred to Mauritius Sugar Syndicate for payment to planters.

10 HIRE OF TRACTORS AND TRAILERS

	30 Jun 2017 MUR	31 Dec 2015 MUR
Hire of tractors	104,928,889	97,534,829
Hire of trailers	2,056,546	1,459,350
	<u>106,985,435</u>	<u>98,994,179</u>

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

11 LEVY ON SALE OF SUGAR

A contribution of MUR 3.70 per kg of sugar is levied on the sale of imported sugar on the local market to meet pensions payable to ex-dockers from ex-MSTC.

Levy earned during the period:

	30 Jun 2017	31 Dec 2015
	MUR	MUR
- Received	134,593,843	115,635,957
- Receivable	61,299,121	5,044,329
	<u>195,892,964</u>	<u>120,680,286</u>

12 RELEASE OF FUNDS

	30 Jun 2017	31 Dec 2015
	MUR	MUR
Release with respect to:		
- Deferred income (note 30)	39,383,939	38,255,616
- FORIP expenses	339,090,356	397,550,070
- VRS expenses	105,918,252	955
- Sugar cane sustainability expenses	274,000,000	-
- APMU expenses	2,631,495	-
- ALMS expenses	948,449	-
- Planters fund expenses	1,339,894	-
- Other funds expenses	4,983,836	5,150,916
	<u>768,296,221</u>	<u>440,957,557</u>

13 OTHER INCOME

13.1 Other income consists of:

	30 Jun 2017	31 Dec 2015
	MUR	MUR
Interest & dividend received	16,415,069	14,710,064
Sale of cane	4,018,884	2,774,333
Interest on car/motor cycles Loans	177,327	165,771
Rent received	15,266,974	10,320,233
Analytical & agronomic services	5,937,792	2,877,962
Anchorage dues	616,148	249,774
Berthing dues	1,307,460	660,000
Rent of warehouse for special sugar	5,271,950	6,341,300
Sale of varieties	1,166,677	1,135,304
Stale cheques written back	79,641	118,227
DBM - SPES decrease in liabilities	6,758,647	1,300,775
Loading & Uploading of Non Originating Sugar	606,917	766,500
ACP fund transferred	1,161,409	-
Sugar storage facilities	1,423,127	-
Rental of sugar boxes	256,000	-
Refund of Medical expenses	162,501	-
Profit on disposal	-	365,000
Air Pollution Monitoring	-	5,094,500
Amounts written back	-	2,254,138
Sale of rocks	-	542,063
Exchange gain	-	1,481,682
Miscellaneous	2,493,114	749,770
	<u>63,119,637</u>	<u>51,907,396</u>

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

13.2 Miscellaneous income includes:

	30 Jun 2017 MUR	31 Dec 2015 MUR
SICOM - refund for damages & accidents	314,136	24,559
Accountant General - rental hall	47,000	11,975
Revenue for recycled oil	5,625	17,000
Refund for tractor repairs	64,816	40,529
CRIGS Project refund	983,608	-
Cane Juice application fee	74,000	-
Water charges refund	159,178	-
Others	844,751	655,707
	<u>2,493,114</u>	<u>749,770</u>

14 SALARY AND SALARY RELATED EXPENSES

	30 Jun 2017 MUR	31 Dec 2015 MUR
Salaries & wages	407,050,171	275,296,606
Travelling	44,749,183	28,610,079
Uniforms	2,119,085	1,663,895
Pension - Ex-MSIRI	1,652,324	1,142,657
Pension contribution - SICOM	37,319,391	15,749,206
Pension contribution - MSIRI Pension Fund	11,005,748	9,429,566
Pension contribution - AMAS II	340,726	263,814
National Savings Fund	4,175,188	2,833,516
National Pension Scheme	3,468,095	4,253,492
Family Protection Scheme	4,154,719	1,941,228
Civil service FPS	152,706	78,421
IVTB contribution	1,298,830	1,344,725
Sick leave	13,219,629	6,923,883
Vacation leave & retirement gratuity	12,050,251	2,824,064
Passage benefits	15,694,990	6,487,476
Increase in provision	21,795,966	1,390,804
Insurance of employees	10,294,885	5,661,002
Medical expenses	10,562,246	6,954,349
Compensation and damages	-	6,700,000
	<u>601,104,133</u>	<u>379,548,783</u>

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

15 ADMINISTRATIVE AND GENERAL EXPENSES

	30 Jun 2017 MUR	31 Dec 2015 MUR
Loss on Disposal	9,253,613	-
Audit Fees	500,000	400,000
Board & Committee Fees	2,181,755	1,257,329
Consultancy Fees	372,195	1,899,856
Legal & Professional Fees	639,330	1,726,335
Subscriptions	180,995	83,640
Cleaning	1,575,655	1,009,783
Maintenance & Repairs	13,626,150	4,148,169
Security	13,814,263	6,159,997
Tools & Spare Parts	2,102,181	6,261,644
Computer Maintenance	651,979	377,736
Outsourcing of IT & Remote Connection	1,896,264	1,310,969
Computer Supplies	835,965	730,685
Software licences	116,257	69,874
Field Experimentation Expenses	54,256	46,717
Other Office Expenses	416,826	455,409
Welfare	1,145,239	684,229
Advertisement	459,141	394,737
Maintenance of Office Equipment	638,777	284,279
Printing , Photocopy , Postage and Stationery	1,455,984	4,060
Health & Safety	2,590,638	1,408,021
Missions	1,743,209	295,714
Publications	(140,707)	75,175
Rent	18,379,671	11,406,603
Rates	46,212	1,558,896
Electricity	18,186,571	11,573,888
Water	2,685,254	1,882,467
Telephone , Internet & E-Mails	3,655,280	2,403,451
Research & Development	17,798,425	9,743,918
Running Expenses - Tractors & Cranes	97,394,446	90,723,248
Running Expenses - Other Vehicles	9,648,233	7,127,811
Training	349,359	190,390
Increase In Provision	551,067	1,714,492
Assets Written Off	1,720,350	1,088,772
Insurance of Building and Equipment	2,314,007	1,554,198
Other Funds Expenses	4,983,836	5,150,916
Air Pollution Monitoring Unit Expenses	2,631,495	891,079
Loss on Exchange	812,050	-
	237,266,221	176,094,487

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

16 EX-DOCKERS PENSIONS

- (i) The Authority has a legal obligation to provide and pay pension to ex-dockers who became redundant as a result of the coming into operation of the Bulk Sugar Terminal in 1980. The pension is currently funded by a contribution levied on sale of imported sugar on the local market.

Pension cost and the number of pensioners for the past years are as follows:

Financial Year	No. of Pensioners	As at	MUR
2004/05	2277	Dec-04	77,594,665
2005/06	2247	Dec-05	82,595,731
2006/07	2186	Dec-06	82,448,588
2007/08	2149	Dec-07	86,914,478
2008/09	2107	Dec-08	90,556,365
2009/10	2065	Dec-09	141,846,047 **
2011	1997	Dec-10	92,132,395
2012	1960	Dec-11	97,982,123
2013	1910	Dec-12	102,167,493
2014	1860	Dec-13	104,969,291
2015	1789	Dec-14	116,727,656
2016/17	1738	Dec-16	168,424,905 ***

** For 18 months from 1 July 2009 to 31 December 2010

*** For 18 months running from 1 January 2016 to 30 June 2017, MUR 168 424 905 was paid as pension.

- (ii) Charge to Statement of profit or loss is made up of the following:

	30 Jun 2017 MUR	31 Dec 2015 MUR
Paid during the period	167,995,166	115,667,183
Add Pension due at end	5,219,681	4,789,942
	173,214,847	120,457,125
Less Pension due at start	(4,789,942)	(3,729,469)
	168,424,905	116,727,656

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

FOR THE PERIOD ENDED 30 JUNE 2017

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17 PROPERTY, PLANT AND EQUIPMENT

17.1

	LAND & BUILDINGS	PLANT, MACHINERY & VEHICLES	FFF & OFFICE EQUIPMENT	COMPUTER & ASSOCIATED EQUIPMENT	LABORATORY EQUIPMENT	TOTAL
	MUR	MUR	MUR	MUR	MUR	MUR
COST OR VALUATION						
As at 01 January 2016	1,933,289,000	698,645,549	6,609,399	3,852,449	12,766,000	2,655,162,397
Adjustment	-	3,207,774	-	-	-	3,207,774
Additions	-	30,566,854	450,067	1,730,603	2,588,688	35,336,212
Disposal	-	(16,475,200)	-	-	-	(16,475,200)
As at 30 June 2017	1,933,289,000	715,944,977	7,059,466	5,583,052	15,354,688	2,677,231,183
DEPRECIATION						
As at 01 January 2016	57,837,089	65,164,842	1,202,521	853,713	3,588,072	128,646,237
Charge for the Period	86,755,634	98,789,048	1,919,282	1,939,914	5,909,015	195,312,893
Disposal	-	(1,423,906)	-	-	-	(1,423,906)
As at 30 June 2017	144,592,723	162,529,984	3,121,803	2,793,627	9,497,087	322,535,224
NET BOOK VALUE						
As at 30 June 2017	1,788,696,277	553,414,993	3,937,663	2,789,425	5,857,601	2,354,895,959
As at 31 December 2015	1,875,451,911	633,480,707	5,406,878	2,998,736	9,177,928	2,526,516,160

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

- 17.2 Property, plant and equipment, investment property and intangible assets of the Authority have been revalued at 31 December 2014 by BDO & Co., Chartered Accountants. BDO & Co. hired the services of Mr. Vyas S. Ramphul, MRICS, Chartered Valuation Surveyor at Broll Indian Ocean.

The income capitalisation approach has been used as basis for valuing investment property, sales comparison approach and depreciated replacement cost basis for land and buildings and for plant, machinery and motor vehicles.

The revaluation surplus was credited to revaluation reserve.

- 17.3 If the property, plant and equipment were stated on a historical cost basis, the amounts would be as follows:

	30 Jun 2017 MUR	31 Dec 2015 MUR
Cost	1,540,762,184	1,549,730,687
Accumulated depreciation	(1,202,629,885)	(1,218,452,976)
Net book value	338,132,299	331,277,711

18 INVESTMENT PROPERTY

	30 Jun 2017 MUR	31 Dec 2015 MUR
18.1 COST OR VALUATION		
As at 01 January 2016	8,800,000	8,800,000
Additions	-	-
As at 30 June 2017	8,800,000	8,800,000
DEPRECIATION		
As at 01 January 2016	440,000	-
Charge for the year	660,000	440,000
As at 30 June 2017	1,100,000	440,000
NET BOOK VALUE		
As at 30 June 2017	7,700,000	8,360,000

If the investment property was stated on a historical cost basis, the amounts would be as follows:

	30 Jun 2017 MUR	31 Dec 2015 MUR
Cost	1,561,251	1,561,251
Accumulated depreciation	(1,124,102)	(1,077,264)
Net book value	437,149	483,987

- 18.2 The following have been recognised in the statement of profit or loss:

	30 Jun 2017 MUR	31 Dec 2015 MUR
Rental income	300,000	300,000
Direct operating expenses arising from investment property that generates rental income	-	-

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

19 INTANGIBLE ASSETS

	30 Jun 2017 MUR	31 Dec 2015 MUR
<u>Computer software</u>		
COST OR VALUATION		
As at 01 January 2016	3,654,380	2,741,400
Additions	401,965	676,580
Revaluation adjustment	-	236,400
As at 30 June 2017	4,056,345	3,654,380
DEPRECIATION		
As at 01 January 2016	729,448	-
Charge for the year	1,147,090	729,448
As at 30 June 2017	1,876,538	729,448
NET BOOK VALUES		
As at 30 June 2017	2,179,807	2,924,932

If the intangible assets were stated on a historical cost basis, the amounts would be as follows:

	30 Jun 2017 MUR	31 Dec 2015 MUR
Cost	11,753,994	12,563,463
Accumulated depreciation	(11,244,704)	(10,978,817)
Net book value	509,290	1,584,646

20 INVESTMENT IN FINANCIAL ASSETS

Investment represents .

- 74,000 shares in Sugar Investment Trust
- 85 000 ordinary shares in SBM Ltd

Fair Value

	30 Jun 2017 MUR	31 Dec 2015 MUR
SIT	74,000	74,000
SBM Ltd	615,400	603,500
	689,400	677,500
Cost		
Available-for-sale financial assets		
At 30 June 2017	222,750	222,750

21 LOANS RECEIVABLE

	30 Jun 2017 MUR	31 Dec 2015 MUR
Staff loans	45,954,989	33,124,021
<i>analysed as follows:</i>		
- Current	11,223,626	9,068,021
- Non-current	34,731,363	24,056,000
	45,954,989	33,124,021

Loans are issued to employees at 4% to 8% interest per annum and are refundable over a period of five to seven years.

A 'gage sans déplacement' is created in favour of the Authority on vehicles acquired.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

22 TRADE RECEIVABLE

22.1		30 Jun 2017 MUR	31 Dec 2015 MUR
	Receivables	337,764,164	325,431,960
	Prepayments	1,352,680	8,712,613
		339,116,844	334,144,573
	<i>analysed as follows:</i>		
		MUR	MUR
	Current	113,649,631	87,840,961
	Non Current	225,467,213	246,303,612
		339,116,844	334,144,573
22.2	Receivables consist of:		
	Planters - Hire of tractors	21,447,151	56,876,185
	Planters funds	17,589,930	29,589,930
	Cash advance to planters	207,133,932	205,662,582
	MSS - Levy on sale of sugar	61,299,121	5,044,328
	Analytical & Agronomic Services	5,687,409	6,498,194
	Interest & dividend	2,401,725	2,690,821
	Air Pollution Monitoring Unit	2,296,200	2,216,500
	MSIRI Employees	3,284	898,188
	Rodrigues Assembly	658,845	780,590
	MSS - Cess	15,622,336	-
	Ministry of Agro-Industry	-	811,263
	MSS - Warehouse for special sugar	-	9,511,950
	ACP & WIKWIO	-	2,912,162
	Others	3,624,231	1,939,267
		337,764,164	325,431,960

- 22.3 The carrying amount of receivables approximate their fair value. Receivables do not contain impaired assets. The maximum exposure to credit risk at the reporting date is the fair value of each class of receivable mentioned above.

23 INVENTORIES

	30 Jun 2017 MUR	31 Dec 2015 MUR
Cost of spare parts and consumables		
SSHU	29,609,449	30,134,039
AMU	24,777,043	27,319,440
MSIRI	353,408	188,179
	54,739,900	57,641,658

Inventories are valued at the lower of cost and net realisable value.

Net realisable value is estimated to approximate cost of inventories.

The recoverable amount of the inventories is estimated to be not less than their carrying amount. No impairment loss is noted.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

24 CASH AND CASH EQUIVALENT

	30 Jun 2017 MUR	31 Dec 2015 MUR
- Deposits with MSS	369,200,000	181,200,000
- Deposits with NCB Ltd	-	273,500,000
	369,200,000	454,700,000
- Bank account with Maubank	17,503,444	17,504,131
- Bank account with SBM Ltd- FORIP	179,569,329	20,345,880
	566,272,773	492,550,011
- Other bank balances	107,465,036	185,697,216
- Cash	115,810	108,922
	673,853,619	678,356,149

The effective rate of interest on bank overdrafts at the reporting date is 6.5 %.

25 CONTRIBUTED CAPITAL

The initial capital of ex-Mauritius Sugar Terminal Corporation is MUR 300M, made up as follows:

	MUR
- Proceeds from cess levied on the sugar crop for years 1974 and 1975	109,440,675
- Interest accrued on amount of cess levied above	17,077,540
- Contribution by Government	173,481,785
	300,000,000

THE MAURITIUS CANE INDUSTRY AUTHORITY

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NOTES TO THE FINANCIAL STATEMENTS

FOR THE PERIOD ENDED 30 JUNE 2017

26 EARMARKED FUNDS

26.1 MOVEMENT IN EARMARKED FUNDS

	Opening MUR	Transfer in MUR	Transfer out MUR	Closing MUR
APMU FUND	-	12,308,354	2,631,495	9,676,859
ALMS FUND	-	5,000,000	948,449	4,051,551
VRS FUND	173,754,216	20,000,000	105,918,252	87,835,964
SUGAR CANE SUSTAINABILITY FUND	-	274,000,000	274,000,000	-
FORIP FUND	225,669,195	500,241,031	339,090,356	386,819,870
PLANTERS FUND				
Constance	28,615,608	-	-	28,615,608
Bel Ombre	24,004,459	-	48,600	23,955,859
Rose Belle	25,810,061	-	35,000	25,775,061
Highlands	25,385,179	-	206,034	25,179,145
Britannia	24,669,795	-	425,160	24,244,635
Mon Desert Alma	14,978,131	-	-	14,978,131
St Felix	12,695,185	-	69,500	12,625,685
MTMD	21,795,882	-	135,000	21,660,882
Riche En Eau	12,695,185	-	188,100	12,507,085
Union St Aubin	15,000,000	-	-	15,000,000
Mon Loisir	15,000,000	-	232,500	14,767,500
DRBC	15,000,000	-	-	15,000,000
	235,649,485	-	1,339,894	234,309,591
OTHER FUNDS				
Housing Scheme for S.E Workers fund	737,264	-	348,560	388,704
Sponsorship of University Students fund	585,000	-	-	585,000
Modernisation Fund for Trade Union	573,685	2,000,000	2,102,641	471,044
Bois Cheri Tea Camps fund	32,667	-	-	32,667
Northern Plains Irrigation Project fund	1,036,280	-	-	1,036,280
Phasing out of sugar camps fund	14,478,361	-	2,213,216	12,265,145
Flora fund	1,111,169	39,062	-	1,150,231
Flora Fascicles fund	2,163,524	81,750	58,802	2,186,472
MRC fund	25,893	255,975	259,315	22,553
SABRN fund	950,936	-	-	950,936
SOPEX fund	3,213,089	-	1,301	3,211,788
	24,907,868	2,376,787	4,983,835	22,300,820
TOTAL	659,980,765	813,926,172	728,912,282	744,994,655

During the period Jan 2016 to Dec 2017 MCIA has received MUR 500M to finance the FORIP Scheme.

26.2 PLANTERS FUND

26

Gross Planters Fund		Planters Fund Debtors				Net Planters Fund
	30 June 2017	01 January 2016	Increase	Decrease	30 June 2017	30 June 2017
	MUR	MUR	MUR	MUR	MUR	MUR
Constance	28,615,608	-	-	-	-	28,615,608
Bel Ombre	23,955,859	5,589,930	-	-	5,589,930	18,365,929
Rose Belle	25,775,061	-	-	-	-	25,775,061
Highlands	25,179,145	-	-	-	-	25,179,145
Britannia	24,244,635	-	-	-	-	24,244,635
Mon Desert Alma	14,978,131	-	-	-	-	14,978,131
St Felix	12,625,685	-	-	-	-	12,625,685
MTMD	21,660,882	-	-	-	-	21,660,882
Riche En Eau	12,507,085	-	-	-	-	12,507,085
Union St Aubin	15,000,000	6,000,000	-	-	6,000,000	9,000,000
Mon Loisir	14,767,500	6,000,000	-	6,000,000	-	14,767,500
DRBC	15,000,000	12,000,000	-	6,000,000	6,000,000	9,000,000
	234,309,591	29,589,930	-	12,000,000	17,589,930	216,719,661

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

27 CAR AND MOTORCYCLE LOAN INTEREST FUND

The fund represents mainly the interest element on car and motorcycle loans to employees.

	30 Jun 2017 MUR	31 Dec 2015 MUR
As at 01 January 2016	48,165,737	45,640,310
Interest on car and motorcycle loans	2,526,789	1,838,780
Bank interest	419,825	686,647
Transferred to Accumulated fund	(51,112,351)	-
As at 30 June 2017	-	48,165,737

A car loan fund representing funds received by MSIRI from ex-MSA to be used for the granting of loans to its employees.

The fund balance has been transferred to Accumulated Fund in 2015 as it is no more used for its intended purpose.

Car Loan Interest fund of MUR 51,112,351 representing interest earned on car loans to MSIRI officers was transferred to Accumulated fund on 30 June 2017.

28 FINANCIAL LIABILITIES

Under the Small Planters Efficiency Scheme (SPES), ex-MSA signed an agreement with Development Bank of Mauritius Ltd (DBM Ltd) in May 1991. Ex-MSA guaranteed DBM Ltd the repayment of loans granted to planters under the SPES. For that purpose, a savings account is held by ex-MSA with DBM Ltd.

Ex-MSA guaranteed DBM Ltd the repayment of all instalments of principal and interests of any loans granted by DBM Ltd from its own funds, remaining unpaid together with legal costs and other charges for recovery, if any. There exists a right of set off between the savings account and the loans granted by DBM Ltd under the SPES.

The financial asset is offset with the financial liabilities.

	30 Jun 2017 MUR	31 Dec 2015 MUR
Gross financial liabilities	30,957,166	37,715,813
Financial assets set-off	(28,241,247)	(26,905,346)
Net financial liabilities	2,715,919	10,810,467

29 PROVISIONS

Provisions are recognised when the Authority has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount can be made.

Provisions are reviewed at each reporting date and are adjusted to reflect the current best estimate.

Employees entitlement to bank of sick leave and vacation leave as defined in the PRB 2013 Report are recognised as and when they accrue to employees. An accrual is made for the estimated liability for bank of sick leave and vacation leave.

All provisions made are present obligations of uncertain timing or amount.

Movement in provisions is shown below.

	Sick Leave	Passage Benefit	Vacation Leave	Salary Increase	Rental & Other Services	Legal Cost	TOTAL
	MUR	MUR	MUR	MUR	MUR	MUR	MUR
Balance as at 01 January 2016	66,548,055	26,069,323	57,076,251	2,074,598	2,258,492	2,204,000	156,230,719
Earned	13,219,629	15,694,990	9,499,630	-	-	-	38,414,249
Increased / (Decreased)	14,559,104	438,638	4,841,168	1,957,055	822,317	(271,250)	22,347,032
Paid	(13,709,441)	(19,377,509)	(645,620)	(4,031,653)	(1,580,809)	(332,750)	(39,677,782)
Balance as at 30 June 2017	80,617,347	22,825,443	70,771,429	-	1,500,000	1,600,000	177,314,219

analysed as follows:

	MUR	MUR	MUR	MUR	MUR	MUR
Current	4,340,766	16,000,000	519,571	-	1,500,000	22,610,337
Non-Current	76,276,581	6,825,443	70,251,858	-	-	154,703,882
	80,617,347	22,825,443	70,771,429	-	1,500,000	177,314,219

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

29

PERIOD ENDED 30 JUNE 2017

30 DEFERRED INCOME

	30 Jun 2017	31 Dec 2015
	MUR	MUR
As at 01 January 2016	80,619,233	189,723,557
Received during period	24,390,000	4,108,000
Less : Amount transferred to statement of profit or loss with respect to :		
- Cess and Grants (note 9)	(4,108,000)	(74,956,708)
- Release of Funds (note 12)	(38,255,616)	(38,255,616)
- Depreciation (note 12)	(1,128,323)	-
As at 30 June 2017	61,517,294	80,619,233
analysed as follows:		
	MUR	MUR
- Current	39,255,617	42,363,616
- Non-current	22,261,677	38,255,617
	61,517,294	80,619,233

31 TRADE PAYABLES

	30 Jun 2017	31 Dec 2015
	MUR	MUR
31.1 Payables	37,095,113	48,133,495
31.2 analysed as follows:		
	MUR	MUR
- Current	30,750,751	42,096,153
- Non-current	6,344,362	6,037,342
	37,095,113	48,133,495
31.3 Omnicane & others - Rental of land	1,407,580	2,043,497
Ex- dockers pensioners	5,218,681	4,789,942
Planters - Deposits	4,344,382	3,066,258
Mauritius Revenue Authority	1,307,735	2,498,170
SIC - Investment in BSSD Co. Ltd	200,000	600,000
Ministry of Agro - Industry	7,000,000	7,000,000
Scomat Ltee	206,067	3,169,962
University of Mauritius	722,400	722,400
National Pension Fund	463,083	2,723,224
SSHU Employees	1,765,259	-
AWL Trading	3,934,725	-
RSL Security Services	2,346,710	-
UMCL Ltd	2,358,861	-
National Audit Office	500,000	-
Mauritius Sugar Syndicate	-	572,486
Salary Commissioner	-	1,435,000
Dr J C Autrey	-	6,700,000
MSIRI Employees	-	3,707,130
Servequip Ltd	-	1,185,355
Others	5,319,630	7,920,071
	37,095,113	48,133,495

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

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PERIOD ENDED 30 JUNE 2017

32 BORROWINGS

	30 Jun 2017 MUR	31 Dec 2015 MUR
Loans		
- EDF loan	19,066,005	20,905,666
- Australian aid loan	157,884	210,512
	<u>19,223,889</u>	<u>21,116,178</u>
 Repayable as follows:		
	MUR	MUR
- Within one year	1,341,211	1,332,918
- Within two to five years	5,344,844	5,331,672
- After five years	12,537,834	14,451,588
	<u>19,223,889</u>	<u>21,116,178</u>
 analysed as follows:		
	MUR	MUR
- Current	1,341,211	1,332,918
- Non-current	17,882,678	19,783,260
	<u>19,223,889</u>	<u>21,116,178</u>

Loans are unsecured and repayable by annual instalments. The rate of interest ranges from 1 to 4 %.

The carrying amount of borrowings are not materially different from their fair value.

EDF loan is denominated in Euro and is translated at closing rate.

Exchange loss of MUR 766,935 is recognised on translation of the EDF and Australian Aid loan.

33 RETIREMENT BENEFITS OBLIGATIONS

33 A 30 JUNE 2017

- 33 A.1 (i) The Authority operates a defined benefit pension scheme. The scheme is a final salary scheme which provides benefits to employees in the form of a guaranteed pension payable for life. The level of pensions depends on the employees' length of service and their salary at the date of retirement.
- (ii) IAS 19 figures are computed by qualified actuaries - Feber Associates Limited for MSIRI pension liabilities and SICOM Ltd for the other ex-Service Providing institutions.
- (iii) IAS 19 *employee benefits* requires estimating the amount of liability that the employer has to recognise in its financial statements with respect to employees who are going to retire at normal retirement age.

Under IAS 19, liabilities refer to the liability of the employer at the reporting date, in respect of retirement benefit obligations. They represent estimates of the future stream of retirement benefit obligations which has been discounted to its present value.

The fair value of plan assets represents the value at the reporting date of the investment fund that shall be used to cover the liabilities as and when they become due.

- (iv) Under the revised IAS 19 amendments (2011) effective on or after 1 January 2013, the cost deferral mechanism of unrecognised gain/loss is no more permitted.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

31

PERIOD ENDED 30 JUNE 2017

IAS 19 (as revised in 2011) changes the accounting for defined benefit plans and termination benefits. The amendments require the recognition of changes in defined benefits obligations and in the fair value of plan assets when they occur. The "corridor approach" permitted under the previous version of IAS 19 is eliminated. The recognition of past service costs is accelerated and past service costs can no longer be deferred and recognised over future vesting periods. All actuarial gains and losses are recognised immediately through the statement of profit or loss and other comprehensive income so that the net pension asset or liability recognised in the statement of financial position reflects the full value of the plan deficit or surplus.

The above change has been implemented in the financial statements ending 31 December 2013 where a net liability of MUR 367,811,921 has been recognised.

(v) The three components of the defined benefit plan are accounted as follows:

- Service cost and net interest components accounted for in the statement of profit or loss.
Service cost component includes current and past service costs and net interest component relates to the change in measurement in both the plan obligation and plan assets arising from the passage of time.
- The remeasurement component which comprises actuarial gains and losses made on obligations and the difference between the actual investment return and the expected return on assets during the reporting period.
Remeasurements are accounted for in the statement of profit or loss.
- Plan obligations and plan assets reported in the statement of financial position.

	MSIRI 30 Jun 2017 MUR	OTHER SPIs 30 Jun 2017 MUR	TOTAL 30 Jun 2017 MUR
33 A.2 Amounts recognised in statement of financial position			
Defined benefit obligation	602,146,900	894,474,059	1,496,620,959
Fair value of plan assets	(465,330,549)	(296,984,907)	(762,315,456)
	136,816,351	597,489,152	734,305,503

33 A.3 Amounts recognised in statement of profit or loss.

Service cost:			
Current service cost	12,541,936	23,658,458	36,200,394
Past service cost	-	-	-
Employee contributions	(6,206,923)	(10,183,086)	(16,390,009)
Other contributions - redeployed members	-	(502,771)	(502,771)
Fund Expenses	2,151,921	661,851	2,813,772
Net Interest expense/(income)	14,888,540	47,564,077	62,452,617
Charge to statement of profit or loss	23,375,474	61,198,529	84,574,003
Remeasurement:			
Liability (gain)/loss	(25,369,718)	87,321,624	61,951,906
Assets (gain)/loss	17,228,348	4,358,150	21,586,498
Charge to statement of other comprehensive income	(8,141,370)	91,679,774	83,538,404
Total	15,234,104	152,878,303	168,112,407

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

32

PERIOD ENDED 30 JUNE 2017

33 A.4 Movements in liability recognised in statement of financial position

At start of period			
- As previously reported	143,727,758	466,369,139	610,096,897
- Effect of restatement	-	-	-
- As restated	143,727,758	466,369,139	610,096,897
Amount recognised in statement of profit or loss	23,375,474	61,198,529	84,574,003
Actuarial reserves transferred in	-	-	-
Employer contributions and direct benefits	(22,145,511)	(20,766,867)	(42,912,378)
Other contributions - redeployed members	-	(991,423)	(991,423)
Amount recognised in OCI	(8,141,370)	91,679,774	83,538,404
Effect of curtailment	-	-	-
At end of period	136,816,351	597,489,152	734,305,503

33 A.5 Reconciliation of the present value of defined benefit obligation

Present value of obligation at start of period	591,029,341	781,969,351	1,372,998,692
Restatement	-	-	-
Current service cost	14,693,857	23,658,458	38,352,315
Interest cost	65,411,104	76,242,012	141,653,116
Benefits paid	(41,465,763)	(74,717,386)	(116,183,149)
Fund Expenses & Life Insurance	(2,151,921)	-	(2,151,921)
Effect of curtailment	-	-	-
Expected present value of obligation at end of period	627,516,618	807,152,435	1,434,669,053
Liability (gain)/loss	(25,369,718)	87,321,624	61,951,906
Actual present value of obligation at end of period	602,146,900	894,474,059	1,496,620,959

33 A.6 Reconciliation of fair value of plan assets

Fair value of plan assets at start of period	447,301,583	315,600,212	762,901,795
Restatement	-	-	-
Expected return on plan assets	50,522,564	28,677,935	79,200,499
Employer contributions	28,352,434	20,684,217	49,036,651
Employee Contributions	-	10,183,086	10,183,086
Other employer contributions - redeployed members	-	991,423	991,423
Other employee contributions - redeployed members	-	502,771	502,771
Funds Expenses & Life Insurance	(2,151,921)	-	(2,151,921)
Actuarial Reserves Transferred In	-	-	-
Benefits paid + other outgo	(41,465,763)	(75,296,587)	(116,762,350)
Expected fair value of plan assets at end of period	482,558,897	301,343,057	783,901,954
Asset gain/(loss)	(17,228,348)	(4,358,150)	(21,586,498)
Actual fair value of plan assets at end of period	465,330,549	296,984,907	762,315,456

33 A.7 The plans are exposed to actuarial risks such as investment risks, interest rate risk, longevity risk and salary risk.

The cost of providing the benefits is determined using the Projected Unit Method.

Discount rate determined by reference to market yields on bonds.

Significant actuarial assumptions for determination of the defined benefit obligation are discount rate, expected salary increase and mortality.

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

33

PERIOD ENDED 30 JUNE 2017

33 B 31 DECEMBER 2015

	MSIRI 31 Dec 2015 MUR	OTHER SPIs 31 Dec 2015 MUR	TOTAL 31 Dec 2015 MUR
33 B.1 Amounts recognised in statement of financial position			
Defined benefit obligation	591,029,341	781,969,351	1,372,998,692
Fair value of plan assets	(447,301,583)	(315,600,212)	(762,901,795)
	143,727,758	466,369,139	610,096,897
33 B.2 Amounts recognised in statement of profit or loss.			
Service cost:			
Current service cost	8,835,325	14,415,710	23,251,035
Past service cost	-	-	-
Employee contributions	(1,821,722)	(6,182,743)	(8,004,465)
Other contributions - Redeployed members	-	(564,597)	(564,597)
Fund Expenses	1,211,144	436,721	1,647,865
Net Interest expense/(income)	5,886,108	28,663,083	34,549,191
Charge to statement of profit or loss	14,110,855	36,768,174	50,879,029
Remeasurement:			
Liability (gain)/loss	39,465,111	48,824,311	88,289,422
Assets (gain)/loss	11,160,045	23,784,998	34,945,043
Charge to statement of other comprehensive income	50,625,156	72,609,309	123,234,465
Total	64,736,011	109,377,483	174,113,494
33 B.3 Movements in liability recognised in statement of financial position			
At start of period			
- As previously reported	24,326,859	370,805,630	395,132,489
- Effect of restatement	66,447,559	-	66,447,559
- As restated	90,774,418	370,805,630	461,580,048
Amount recognised in statement of profit or loss	14,110,855	36,768,174	50,879,029
Actuarial reserves transferred in	-	-	-
Employer contributions and direct benefits	(11,782,671)	(12,624,018)	(24,406,689)
Other contributions - redeployed members	-	(1,189,956)	(1,189,956)
Amount recognised in OCI	50,625,156	72,609,309	123,234,465
Effect of curtailment	-	-	-
At end of period	143,727,758	466,369,139	610,096,897

THE MAURITIUS CANE INDUSTRY AUTHORITY

NOTES TO THE FINANCIAL STATEMENTS

34

PERIOD ENDED 30 JUNE 2017

33 B.4 Reconciliation of the present value of defined benefit obligation

Present value of obligation at start of period	353,886,712	708,457,253	1,062,343,965
Restatement	179,448,918	-	179,448,918
Current service cost	10,046,469	14,415,710	24,462,179
Interest cost	36,404,104	53,134,294	89,538,398
Benefits paid	(27,010,829)	(42,862,217)	(69,873,046)
Fund Expenses & Life Insurance	(1,211,144)	-	(1,211,144)
Effect of curtailment	-	-	-
Expected present value of obligation at end of period	551,564,230	733,145,040	1,284,709,270
Liability (gain)/loss	39,465,111	48,824,311	88,289,422
Actual present value of obligation at end of period	591,029,341	781,969,351	1,372,998,692

33 B.5 Reconciliation of fair value of plan assets

Fair value of plan assets at start of period	329,559,853	337,651,623	667,211,476
Restatement	113,001,359	-	113,001,359
Expected return on plan assets	30,517,996	24,471,211	54,989,207
Employer contributions	13,604,393	12,563,118	26,167,511
Employee Contributions	-	6,182,743	6,182,743
Other employer contributions - redeployed members	-	1,189,956	1,189,956
Other employee contributions - redeployed members	-	564,597	564,597
Funds Expenses & Life Insurance	(1,211,144)	-	(1,211,144)
Actuarial Reserves Transferred In	-	-	-
Benefits paid + other outgo	(27,010,829)	(43,238,038)	(70,248,867)
Expected fair value of plan assets at end of period	458,461,628	339,385,210	797,846,838
Asset gain/(loss)	(11,160,045)	(23,784,998)	(34,945,043)
Actual fair value of plan assets at end of period	447,301,583	315,600,212	762,901,795

34 FINANCIAL COMMITMENTS

	30 Jun 2017	31 Dec 2015
	MUR	MUR
Financial commitments relating to goods and services already contracted for	14,267,645	41,825,809

35 RELATED PARTY TRANSACTIONS - COMPENSATION OF KEY MANAGEMENT PERSONNEL

	30 Jun 2017	31 Dec 2015
	MUR	MUR
Compensation paid during the period to and on behalf of executive and non-executive Directors, including pension contributions.	7,471,384	3,059,001

36 ACCUMULATED FUND

Car Loan Fund of MUR 30,417,987 representing money obtained by MSIRI from ex MSA to be used as a revolving fund. As it is no more used for the intended purpose, it has been transferred to Accumulated Fund.

A transfer of MUR 3,639,954 was made from accumulated fund to the Air Pollution Monitoring Unit fund. This represents net amount which was recognised as income in previous years.

Car Loan Interest fund of MUR 51,112,351 representing interest earned on car loans to MSIRI officers transferred to Accumulated Fund on 30 June 2017.

THE MAURITIUS CANE INDUSTRY AUTHORITY
STATEMENT OF CASH FLOWS
PERIOD ENDED 30 JUNE 2017

37 STATEMENT OF CASH FLOWS NOTES

37.1	Cash absorbed in operations	18 months ended 30 Jun 2017	Year ended 31 Dec 2015
		MUR	MUR
	Total comprehensive surplus / (deficit) for the period	(268,773,469)	(124,530,834)
	<i>Adjustments for:</i>		
	Depreciation on property, plant and equipment	195,312,892	128,646,237
	Depreciation on investment property	660,000	440,000
	Amortisation of intangible assets	1,147,090	729,448
	Loss / (Profit) on disposal	9,253,613	(365,000)
	Exchange Loss / (Gain)	158,880	(1,481,683)
	Co-financing from Government	(95,000,000)	(59,000,000)
	Contribution from MSS - BSSD operational costs	(127,590,000)	(128,230,000)
	Interest paid	514,176	318,581
	Interest received	(14,003,474)	(12,019,244)
	Dividends received	(9,870)	(24,650)
	Release of deferred income	(43,491,939)	(113,212,324)
	Release of FORIP fund	(339,090,355)	(397,550,070)
	Release of VRS funds	(105,918,252)	-
	Release of Planters funds	(1,339,894)	-
	Release of APMU fund	(2,631,495)	-
	Release of ALMS fund	(948,449)	-
	Release of Sugar Cane Sustainability fund	(274,000,000)	-
	Release other earmarked funds	(4,983,835)	(5,151,872)
	Actuarial loss	40,670,202	25,282,384
	Financial assets written off	-	1,020,000
	Loans receivable written off	-	47,152
	Operating deficit before working capital changes	(1,030,064,179)	(685,081,875)
	(Increase) / decrease in accounts receivables (excluding car loans)	(3,041,186)	89,470,384
	(Decrease) / increase in accounts payables	(14,095,188)	4,415,396
	(Decrease) / increase in financial liabilities	(8,094,548)	(2,256,576)
	(Decrease) / increase in provisions	21,083,500	(16,903,492)
	(Increase) / decrease in inventories	2,901,757	2,019,011
	Cash absorbed in operations	(1,031,309,844)	(608,337,152)

37.2 Non cash transactions

The principal non cash transactions are the adjustments for co-financing from Government, depreciation, contribution from MSS, investment income, loss on disposal, actuarial loss, release of funds and release of deferred income to statement of profit or loss.

37.3 Cash and cash equivalents

Cash and cash equivalents include the following for the purpose of the statement of cash flows:

	30 Jun 2017	31 Dec 2015
	MUR	MUR
Cash in hand and at bank	673,853,619	678,356,149
Bank overdraft	-	-
	673,853,619	678,356,149

K. LIST OF ABBREVIATIONS

ACP	African Caribbean and Pacific
AMCO	Alcohol and Molasses Company
AMU	Agricultural Mechanization Unit
CAD	Control and Arbitration Department
CCS	Carbon, Capture and Storage
CEB	Central Electricity Board
CIRAD	Coopération Internationale en Recherche Agronomique pour le Développement
CLG	Constance La Gaiete

J. FINANCIAL STATEMENTS

K. LIST OF ABBREVIATIONS	
EIA	Environment Impact Assessment
ERS	Early Retirement Scheme
ETU	Extension and Training Unit
EU	European Union
FORIP	Field Operations Regrouping and Irrigation Project
FAO	Food Agricultural Organization
FAREI	Food and Agricultural Research and Extension Institute
FSA	Farmers Service Agency
FSC	Farmers Service Centre
FT	Fairtrade
HACCP	Hazard Analysis and Critical Control Point
IFRS	International Financial Reporting Standards
IMIS	Irrigation Management Information Software
IPP	Independent Power Producer
ISMS	Information Security Management System
ISSCT	International Society of Sugarcane Technologist

K. LIST OF ABBREVIATIONS (CONTD)

MSA	Mauritius Sugar Authority
MSB	Mauritius Standard Bureau
MSIRI	Mauritius Sugarcane Industry Research Institute
MSS	Mauritius Sugar Syndicate
MSTC	Mauritius Sugar Terminal Corporation
MSTCEU	Mauritius Sugar Terminal Corporation Employees Union
MSTCSA	Mauritius Sugar Terminal Corporation Staff Association
MUR	Mauritian Rupees
NBSAP	National Biodiversity Strategy and Action Plan
NCS	New Cropping Systems
NIR	Near Infrared Spectrometer
NOS	Non Originating Sugar
PBB	Programme Based Budgeting
PCR	Polymerase Chain Reaction
PIN	Parcel Identification Number
PIO	Passport and Immigration Office
PPAs	Power Purchase Agreement
PPS	Planter Participation Scheme
PSU	Permanent Sampling Unit
PWS	Plantation White Sugar
QTL	Quantitative Trait Loci
R&D	Research and Development
RTC	Regional Training Centre
SASRI	South African Sugarcane Research Institute
SCMV	Sugarcane Mosaic Virus
SCYLV	Sugar Cane Yellow Leaf Virus
SIE	Sugar Industry Efficiency
SIDS	Small Island Developing States
SIFB	Sugar Insurance Fund Board
SLO	State Law Office
SPMPC	Sugar Planters Mechanical Pool Corporation
SPRP	Sugarcane Planters Regrouping Project
SSHU	Sugar Storage and Handling Unit
SRIP	Sugar Research and Innovation Programme
SRP	Sugar Research Program
TEC	Tertiary Education Commission
TNC	Third National Communication
UNDP	United Nation Development Programme
VRECS	Valuation and Real Estate Consulting Services
VRS	Voluntary Retirement Scheme
WICSCBS	West Indies Central Sugar Cane Breeding Station
WIKWIO	Weed Identification and Knowledge in Western Indian Ocean
WUE	Water User Efficiency



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