



MAURITIUS CANE INDUSTRY AUTHORITY

REPORT AND ACCOUNTS
2021 - 2022





Mauritius Cane Industry Authority

REPORT AND ACCOUNTS

1 JULY 2021 to 30 JUNE 2022

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

Date: 24 May 2023

The Honourable Maneesh GOBIN
Attorney General
Minister of Agro-Industry and Food Security
PORT LOUIS

Sir

I have the honour to submit the Annual Report and Accounts of the Mauritius Cane Industry Authority for period 1 July 2021 to 30 June 2022.

Yours faithfully

Moheen NATHOO (Mrs)

CHAIRPERSON

CORPORATE INFORMATION

Chairperson of Board of Directors	<p>Mr Medha GUNPUTH (up to February 2023)</p> <p>Mrs Moheenée NATHOO (as from March 2023)</p>
Auditors	<p>National Audit Office</p> <p>Air Mauritius Centre</p> <p>President John Kennedy Street, Port Louis</p>
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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 (SPI). 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% drastic cut in the price of sugar. For the MCIA, the objective was to bring down cess not to exceed 4% 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.

Following Cabinet's decision on 22 August 2014, the MCIA took over the activities of the Bagged Sugar Storage Co Ltd, which now operates under the name Sugar Storage and Handling Department.

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 23 December 2016 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) of the MCIA Act;
- (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) of the MCIA Act 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

Corporate governance is the set of processes, customs, policies and laws affecting the way an organisation is directed, administered or controlled. Corporate governance is the structure that governs direction and performance of an organisation. It is about how the Board of Directors of the organisation can contribute to the success of the organization by setting values and an organized framework that focusses on long term continuity and success to achieve operational effectiveness, financial efficiency, higher values and strong reputations. Corporate Governance also includes the relationships among the many stakeholders involved and the goals for which the organization is governed.

The key elements of good corporate governance principles include honesty, trust and integrity, openness, accountability, mutual respect and commitment to the organization.

The new Code of Corporate Governance of Mauritius was launched in 13 February 2017 by the Minister of Financial Services, Good Governance and Institutional Reforms and the Chairman of the National Committee on Corporate Governance. The code comprises a set of principles and guidance. It aims to improve and guide the governance practices of organisations within Mauritius. It also forms part of existing laws, rules and regulations, principles and best practices. Codes are different to other parts of the legal system as principles-based approach is adopted rather than a rules-based approach. 'A principles-based approach provides an organisation with the flexibility to adopt systems and procedures that suit its individual circumstances'.

'Apply-and-Explain' as per the Code of Corporate Governance

The Code of Corporate Governance employs an 'apply-and-explain' methodology. The Code of Corporate Governance for Mauritius is the first to adopt this new approach to corporate governance.

As such, rather than being a rigid set of rules, the Code includes eight simple principles.

PRINCIPLE 1: GOVERNANCE STRUCTURE

The MCIA is headed and administered by a Board of Directors as established under the MCIA Act (No 40 of 2011). The appointment of the MCIA Board of Directors is depicted at Principle 3.

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) 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 of 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 informed decision;
- (d) to execute contracts, jointly with the Chief Executive Officer, on behalf of the Authority.

Role and Function of the Chief Executive Officer

Section 11 (1) (a) of the MCIA 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.

Quorum

The quorum of the Board shall be 3.

The profile of the Senior Management of the MCIA is detailed at A(2) HUMAN RESOURCE MANAGEMENT.

PRINCIPLE 2: THE STRUCTURE OF THE BOARD AND ITS COMMITTEES

Structure and composition of the Board 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 Board of Directors of the MCIA is committed to achieve high standard of corporate governance. The aim is to maximise long term value for all stakeholders. The Board has the responsibility to ensure accountability, transparency and performance of the organisation. Sub-Committees

have been set up to enable the Board to discharge its duties in a more effective and efficient manner. However, the Board is ultimately responsible.

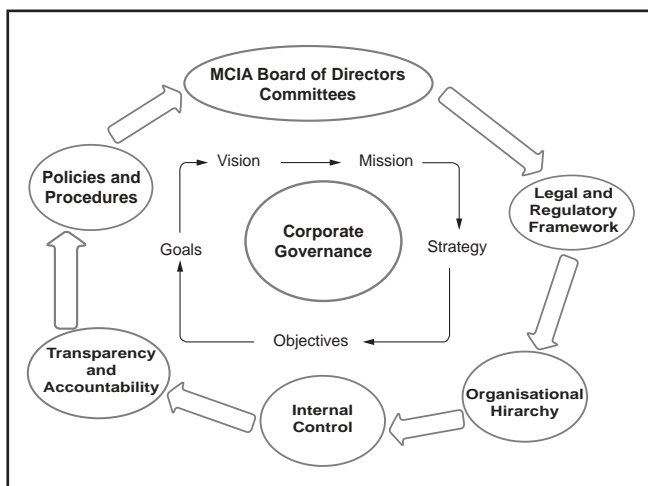


Fig 1. Corporate Governance

Board Structure for year 2021/2022

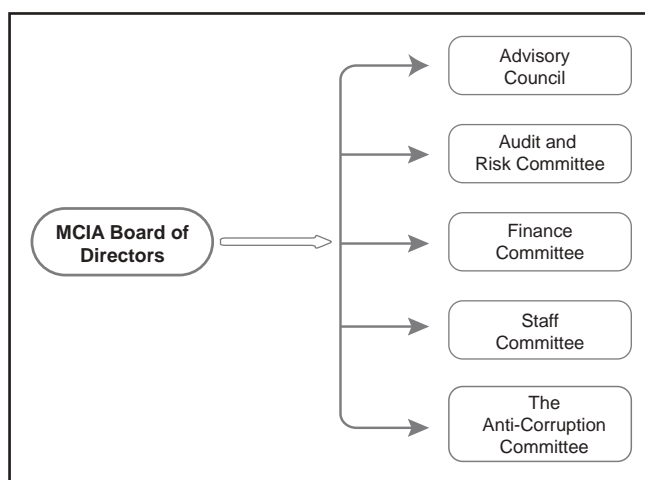


Fig 2. Board Structure for year 2021/2022

Composition of the Board of Directors of the Mauritius Cane Industry Authority

The composition of the Mauritius Cane Industry Authority Board of Directors during the period 1 July 2021 to 30 June 2022 is shown in the Table below:

Table 1. Composition of the Board of Directors during the period 1 July 2021 to 30 June 2022

Mr Medha Gunputh	<i>Chairperson</i>
Mrs Indira Rugjee	Representative of the Ministry of Agro-Industry and Food Security
Mr Vikraj Ramkelawon	Representative of the Ministry of Finance, Economic Planning and Development
Mr Jacques M D'Unienville, G.O.S.K	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 sector
Mr Jean Li Yuen Fong	Member having wide experience in the sugar industry sector
Mr Amal Kumar Mohabeer Mungur	Member having wide experience in the sugar industry 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.

Board and Sub-Committees

Thirteen (13) Board of Directors meetings were held during period 1 July 2021 to 30 June 2022. The following table shows the attendance at the Board of Directors Meetings.

Table 2. Attendance at the Board of Directors Meetings Period 1 July 2021 to 30 June 2022	
<i>Names</i>	<i>Board of Directors Meeting</i>
Chairperson: Mr Medha Gunpath (as from 1 July 2021)	13
MEMBERS	
Mrs Indira Rugjee Representative of Ministry of Agro-Industry and Food Security	13
Mr Vikraj Ramkelawon Representative of Ministry of Finance, Economic Planning and Development	9
Mr Jacques M d'Unienville, G.O.S.K Member having wide experience in the sugar industry sector	7
Mr Nundlall Basant Rai, P.D.S.M Member having wide experience in the sugar industry sector	12
Mr Jean Li Yuen Fong Member having wide experience in the sugar industry sector	12
Mr Amal Kumar Mohabeer Mungur Member having wide experience in the sugar industry sector	13

Secretary

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

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

Since the post of Administrative Manager is vacant, the most senior Office Management Assistant in the Administration Department has been requested to service the Board.

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.

Composition of Finance Committee

The Finance Committee was constituted of the following Board Members:

Table 3. Finance Committee

Mr Jacques M d'Unienville, G.O.S.K	Member having wide experience in the sugar industry sector (as Chairperson)
Mrs Indira Rugjee	Representative of Ministry of Agro-Industry and Food Security
Mr Vikraj Ramkelawon	Representative of Ministry of Finance and Economic Development

Nine (9) meetings were held during period 1 July 2021 to 30 June 2022. The following table shows the attendance at the Finance Committee meetings.

**Table 4. Attendance at Finance Committee
Period 1 July 2021 to 30 June 2022**

Mr Jacques M d'Unienville, G.O.S.K Member having wide experience in the sugar industry sector (as Chairperson)	9
Mrs Indira Rugjee Representative of Ministry of Agro-Industry and Food Security	9
Mr Vikraj Ramkelawon Representative of Ministry of Finance and Economic Development	9

Composition of Staff Committee

The Staff Committee is constituted of the following Board Members:

Table 5. Staff Committee

Mr Amal Kumar Mohabeer Mungur	Member having wide experience in the sugar industry sector (as Chairperson)
Mrs Indira Rugjee	Representative of the Ministry of Agro-Industry and Food Security
Mr Jean Li Yuen Fong	Member having wide experience in the sugar industry sector

Nine (9) meetings were held during period 1 July 2021 to 30 June 2022. The following table shows the attendance at the Staff Committee meetings.

**Table 6. Attendance at Staff Committee
Period 1 July 2021 to 30 June 2022**

Mr Amal Kumar Mohabeer Mungur Member having wide experience in the sugar industry sector (as Chairperson)	9
Mrs Indira Rugjee Representative of the Ministry of Agro-Industry and Food Security	9
Mr Jean Li Yuen Fong Member having wide experience in the sugar industry sector	9

The Advisory Council

The new Section 10A of the Mauritius Cane Industry Authority 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.

Tenure of office

Every member of the Council holds office for

a period of 2 years and shall be eligible for reappointment.

Other Committees

(1) The Audit and Risk Committee

The Audit and Risk Committee has been set up since April 2017. It monitors and reviews the effectiveness and integrity of MCIA's internal financial controls, audit functions and risk management systems. The Audit 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 and the internal audit function.

The composition of the Audit and Risk Committee is as follows:

Table 7. Audit and Risk Committee

Chairperson	Representative of Ministry of Agro-Industry and Food Security Mrs Indira Rugjee Deputy Permanent Secretary 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

(2) The Anti-Corruption Committee

MCIA has set up its Anti-Corruption Committee to oversee the corruption risk areas. The committee is composed of the following Management members to formulate corruption policies:

1. Mr. Yashwantsingh Ramdharee (Chairperson)
2. Mr. Leeladhanjiv Jhuboo (Member)
3. Mr. Devendranath Busgeeth (Member)
4. Mr. Sunil Santbakshsingh (Member)

The committee has met twice during the financial year 2021/2022.

The Anti-Corruption Committee has the following tasks:

- overseeing and coordinating the implementation of corruption prevention strategies
- advising Senior Management on corruption prevention issues with respect to new policies
- reviewing the Anti-Corruption Policy of the MCIA which comprises of assessments and review for all major activities of the organisation

(3) Management Committee

The Chief Executive Officer holds monthly 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.

PRINCIPLE 3: DIRECTORS APPOINTMENT PROCEDURES

Section 8 of the Act refers to the appointment of Directors:

- (1) The Board shall be administered by a Board, to be known as the Board of Directors.
- (2) The Board shall consist of-
 - (a) a Chairperson;
 - (b) a representative of the Ministry;
 - (c) a representative of the Ministry responsible for the subject of finance;
 - (d) 4 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.
- (3) Every member, other than members referred to in subsection (2)(b) and (c), shall hold office for 2 years and shall be eligible for reappointment.
- (4) Every member shall be paid such fees and allowances as the Board may, with the approval of the Minister, determine.

PRINCIPLE 4: DIRECTORS DUTIES, REMUNERATION AND PERFORMANCE

The duties of the MCIA Board of Directors is to lead and guide the MCIA.

- To monitor, review and evaluate strategies, policies and corporate plans
- To ensure that the organisation complies with the codes of corporate governance.
- To ensure that the organisation has an effective system of controls in order to assess and monitor risks properly
- To ensure that all information to stakeholders are communicated in all transparency and accountability
- To prepare a statement of objectives for the organisation

a) General Responsibilities

The Board oversees the general performance of the MCIA. The entire Board is responsible for such supervision.

b) The Board Acts in the Interest of the Organisation

The Board shall act in the best interests of the MCIA and its Departments.

c) Quality Performance

The Board is responsible for the quality and effective performance of the MCIA.

d) Provision of Information

The Chief Executive Officer and the Board Secretary shall see to it that Management, in a timely manner, provides Board and its Committees with the necessary information for effective and efficient function.

e) Responsibility for Securing Information

The Board and its individual members each has responsibility to get all information from Management and the internal and external auditors required to carry out their duties efficiently and effectively.

The Information Governance System of the MCIA

Governance policies in respect of information and information Technology are guidelines and frameworks that are established to ensure effective and responsible management of information and IT Resources. These policies typically cover a wide range of areas including data security, privacy, risk management, compliance and IT Infrastructure.

The Mauritius Cane Industry Authority (MCIA) is registered as a data controller under the Data Protection Act 2017 (DPA).

SAFEGUARDS, SECURITY MEASURES AND MECHANISMS IMPLEMENTED TO PROTECT PERSONAL DATA at the MCIA are as follows:

Physical safeguards: Filing Cabinets are kept in restricted filing room (access to dedicated Staff Only). All files are kept under lock. These measures are applied throughout the organization in departments where strict confidentiality is fundamental.

Technical safeguards: In general, electronic files in all departments of the MCIA are password protected to ensure that there is data security, privacy and confidentiality.

The IT Department ensures that there is a proper IT infrastructure. The policies of the IT Department of the MCIA are to ensure that the IT Infrastructure including hardware and software are managed properly. Additionally, the networks of MCIA are protected through a Firewall.

The IT infrastructure also covers processes, configuration management and IT Service management.

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 remuneration for Chairpersons and Members of the MCIA Board of Directors and other Committees during the 12-month period under review to 30 June 2022 amounted to MUR2,199,401. The salary paid to the key management personnel during the year under review amounted to MUR 11,177,955. The new section 10 (3)(b) of the MCIA 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. Fees paid to Chairperson and Board Members are given in table 8.

Table 8. Fees - Board Members
Period 1st July 2021 to 30 June 2022

	MUR	MUR
Chairperson		
GUNPUTH Medha		359,100
Board Members		
BASANT-ROI Nundlall	19,885	
LI YUEN FONG Jean	20,610	
MARRIER D'UNIENVILLE Jacques	12,300	
MUNGUR Amal Kumar Mohabeer	22,570	
RAMKELAWON Vikraj	13,050	
RUGJEE Indira	19,910	
		108,325
TOTAL		467,425

PRINCIPLE 5: RISK GOVERNANCE AND INTERNAL CONTROL

The Board of MCIA has the responsibility to develop and execute a vigorous risk management framework.

The Audit and Risk Committee has been set up to design a sound risk governance system in order to implement it effectively and efficiently. Its 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 and risk frameworks.

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. The main source of finance was by means of a cess from sugar proceeds. The cess was being 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 of Directors. However, during the financial year 2017/2018, Government has taken the decision to waive temporarily the cess and has been contributing to meet the operational costs of the MCIA.

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.

PRINCIPLE 6. REPORTING WITH INTEGRITY

The full set of the MCIA Annual Report is published on the MCIA's website (www.mcia.mu).

The Financial statements of the MCIA have been prepared in accordance with the Statutory Bodies

(Accounts and Audit) Act and are in line with the International Public Sector Accounting Standards (IPSASs).

Donations

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

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'.

Code of 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. Some of the ethics are Integrity, Selflessness, Honesty, Impartiality, Accountability and Transparency.

Table 9. Code of Ethics

Integrity	To put the obligations of the MCIA above one's own personal interests.
Selflessness	To avoid seeking financial or other material benefits for oneself or any other person through one's official position.
Impartiality	To act solely as per the merits of a case and to serve the Government of the day, irrespective of his or her own political affinity or preference.
Objectivity	To favour meritocracy basing his or her advice and decisions on rigorous analysis of evidence.
Accountability and Transparency	One should be responsible and accountable for his or her decisions and actions.
Openness	To be as open as possible in his or her decisions and to provide justification for his or her actions whenever required.
Honesty	To act in good faith and to be truthful.
Justice	To adhere to the principles of natural justice.

PRINCIPLE 7: AUDIT

INTERNAL AUDIT

The aim of the internal audit function is to assess the policies, methods and procedures in place at the organisation in order to cater for their adequate application. Independent assurance is provided on the quality and effectiveness of internal control, governance and processes, thus helping to protect the organisation. The MCIA's Internal Audit function reports functionally to the Board's Audit Committee and administratively to the Chief Executive Officer.

The Internal audit function is spearheaded by the Internal Auditor / Senior Internal Auditor to provide independent, objective assurance aimed at adding value and improving MCIA's Operations, Governance, Risk Management and Internal Controls.

The Board has the overall responsibility for the Authority's system of risk management and internal controls as well as for the assessment of their effectiveness. The Board views risk management as an integral component of good business practice with a view to supporting management's decision making and improving the reliability of business performance.



Table 10. Internal Audit versus Internal Control

Internal Audit	Internal Control
The objective of the Internal Audit function is to assist in the effective discharge of MCIA responsibilities. It also undertakes reliable assessment and value adding services relating to systems, internal controls and procedures. The Internal Auditor/Senior Internal Auditor has unrestrained access to documentations and records in the execution of his function.	The internal control system is primarily designed to manage rather than eliminate the risks of failure in meeting business objectives. Internal controls can provide only reasonable assurance against material misstatement or loss. MCIA's internal controls are tested on a regular basis by the Internal audit function.

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 Public Sector Accounting Standards (IPSASs). 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.

PRINCIPLE 8: RELATIONS WITH SHAREHOLDERS AND OTHER KEY STAKEHOLDERS

The responsibilities of the Board of Directors of the MCIA is to achieve and sustain the highest standards of Corporate Governance. The objective is to help to continue survival and maximize the long term value with different stakeholders. Good governance is important for the continuous success and survival of the organisation.

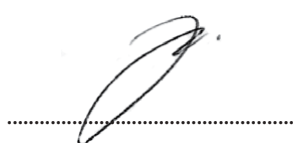
Corporate Social Responsibility

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

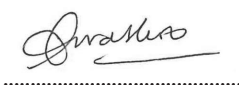
The Sugar Storage and Handling Unit of the Authority organises guided visits to the Sugar Terminal during the crop season on Tuesdays and Thursdays for students of primary school. From feedback received, such visits have been very beneficial to the students.

Moreover, the Policy Planning Unit (PPU), under the Scheme of Phasing out of sugar camps provides grant for an amount of Rs 7,000 to all ex-sugar camp dwellers who have moved from a sugar camp to a new site. The amount is released by MCIA once the construction of their house has reached the slab level and upon certification by the PPU. Three beneficiaries in the region of Tyack and Plaine Magnien have benefitted from this scheme during the period of this reporting.

Furthermore, the policy Planning Unit is also involved in the monitoring of the Scholarship Scheme for graduated courses, diploma, BSC offered by recognised Institutions to children of planters and workers in the context of factory closures and implementation of the Voluntary Retirement Scheme project.



Jacques M d'UNIENVILLE, G.O.S.K.
BOARD MEMBER



Mrs Moheen NATHOO
Senior Chief Executive,
Ministry of Agro-Industry
and Food Security

Corporate Governance Report

Compliance and Enforcement

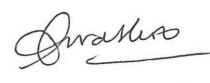
The Board of Directors is responsible for ensuring that proper standards of Corporate Governance are maintained, and applied throughout the organisation. The report has been prepared as far as practicable in accordance with the 'Code of Corporate Governance for Mauritius'. The Chairperson and Members of the Board of Directors fully understand the importance of Corporate Governance, and believe that the adoption of high standards of governance are 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 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.



Jacques M d'UNIENVILLE, G.O.S.K.
BOARD MEMBER



Mrs Moheen NATHOO
Senior Chief Executive,
Ministry of Agro-Industry
and Food Security

A (2) HUMAN RESOURCE MANAGEMENT

Introduction

The role of the Human Resource Department 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.

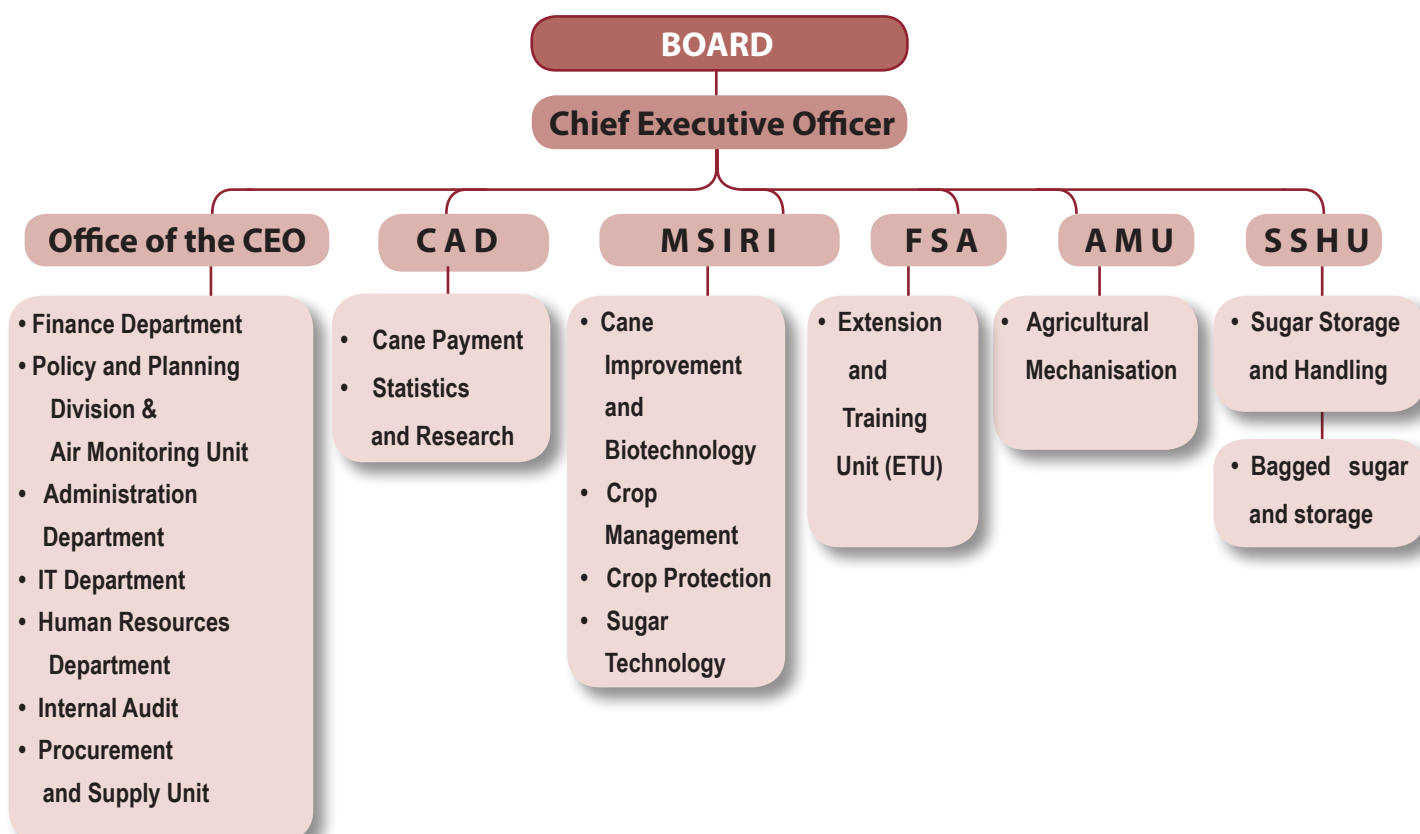
(v) Promote a safe working environment and general welfare of staff at the Authority.

The Authority had a total workforce of 496 employees as at 30 June 2022 on its permanent and pensionable establishment.

Organisational Structure

The organisational structure of the MCIA, as approved by the Mauritius Cane Industry Board, provides for six 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 (AMU)
- (f) Sugar Storage and Handling Unit (SSHU)



(a) OFFICE OF THE CHIEF EXECUTIVE OFFICER

This Department is responsible for providing 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 comprises the following Sections:-

(i) **Finance Section**– 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. Fourteen (14) employees were attached to the Department.

(ii) **Policy and Planning Unit** – 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. It is also responsible for the Air Monitoring Unit. Nine (9) employees were attached to this Department.

(iii) **Administration** Section– responsible, *inter alia*, for providing secretarial facilities to the Board and its sub committees, for establishing and implementing 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. Fifteen (15) employees were attached to this Department.

(iv) Information Technology Section

The IT Section is responsible for the overall design, implementation and management of

the IT infrastructure and applications within the MCIA. The unit provides support services to all the other sections in the organization including the sub-offices (outstations) and is also responsible for ensuring that all the hardware/system owned by the Authority are in good working conditions. Assistance is also provided to any user having difficulties with either a software/program or with hardware such as printers, scanners, and workstations.

Three (3) employees were attached to this Department.

(v) Human Resources Section

The Human Resource Section is 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 the organisational structure in view Department changing needs of the Authority. Seven (7) employees were attached to this Department.

(vi) Internal Audit Unit

The Internal Audit function is to provide independent, objective assurance aimed at adding value and improving MCIA's operations, governance, risk management and internal controls.

The MCIA's Internal Audit function reports functionally to the Board's Audit and Risk Committee and administratively to the Chief Executive Officer. The Internal Audit Unit 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. Three (3) employees were attached to this Unit

(vii) Procurement and Supply Unit

The Procurement and Supply division is the office responsible for the acquisition of supplies and services to support the MCIA activities. It is the entity, within the MCIA, authorized to do the procurement and supply such as seeking for quotations for small value items, issuing of purchase orders, following up of deliveries, receiving of goods, stocking at the right locations and issuing to users.

Five (5) employees were attached to this Unit.

(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 (20) 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. One hundred and sixteen (116) employees were attached to this Department.

(d) FARMERS SERVICE AGENCY (FSA)

This department is, *inter alia*, responsible for:

- (a) carrying out extension and training activities with a view to improving cane yield of planters;
- (b) ensuring the supply of quality planting materials and the adoption of newly released sugar cane varieties.

Prior to the setting of the MCIA, this Department was an autonomous parastatal body, that is, the Farmers Service Corporation. Sixty (60) 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. The preparation of lands prior to replantation after a sugarcane crop cycle is the main activity. It also provides cane loading facilities during crop season.

Like other departments, this department was, prior to the creation of the MCIA, also an autonomous parastatal body and was known as the Sugar Planters Mechanical Pool Corporation. In the execution of its activities, the department has one hundred and thirty six (136) employees in its establishment.

(f) STORAGE AND HANDLING UNIT (SSHU)

This Unit comprises two sections:

(i) Sugar Terminal

This section 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. Thirty one (31) employees are attached to this section.

(ii) Bagged Sugar Storage and Distribution

This unit 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 for the distribution

of sugar for local consumption and for export. Prior to its merging with the MCIA, this Unit was a private company, known as, the Bagged Sugar Storage and Distribution Co. Ltd.

The unit has seventy seven (77) employees in its establishment.

Senior Management Profile

Table 11. Senior Management Profile		
Name	Post	Qualifications
Mr PURMESSUR Satish	Chief Executive Officer (on contract)	BSc (Maur), MSc (Maur)
Mr RAMDHAREE Yashwantsingh	Director, FSA	BSc (Maur), MSc (Maur), MBA (Maur)
Mr JHURRY Luckraj	Director, SSHU	BSc (Maur), MSc in Agricultural Development (London)
Mr MUNGROO Ishwurduth	Director, AMU	BSc (Maur), MSc (Maur), Registered Professional Engineer
Mr BUSGEETH Devendranath	Ag. Director, CAD (Assistant Director, CAD)	BSc (Maur)
Dr (Mrs) DOOKUN-SAUMTALLY Asha	Ag. Director, MSIRI (Principal Research Manager, MSIRI)	BSc (Newcastle) MSc (Newcastle) PhD (Reading)
Dr SEERUTTUN Sumantlall	Ag. PRM (Research Manager, MSIRI)	BSc (Maur), MSc (Cranfield), PhD (Pretoria), MIAgre
Mr RAMCHURN Narottam Sharma	Manager, SSHU (Bagged Sugar)	LCCI (H), ACCA II
Mr AWOTAROWA Anil	Ag. Assistant Director, FSA (Manager, ETU)	BSc (Maur), MBA (Maur)
Mr SANTBAKSHSINGH Sunil	Manager, Human Resource	BA (Delhi), MBA (Delhi), Master in Public Policy and Administration (Maur)
Mr DEENA Sachim Duth	Manager, Finance	FCCA
Mr WOODUN Ritesh	Manager, IT	BSc (Maur), MSc (Maur)
Dr NG CHEONG Ronald	Research Manager	BSc (Reading), MSc (Cranfield), MBA (Maur), PhD (Free State)
Mr BABOOLALL Chadandeo	Manager, ETU	BSc (Maur), MBA (Maur)
Mrs CAHOOLESSUR Kumari	Ag. Manager, Policy and Planning Unit	BSc (Maur), MBA (Maur)

Internal Audit

Table 12. Internal Audit

Name	Post	Qualifications
Mr JHUBOO Leeladhanjiv	Internal Auditor/Senior Internal Auditor	LLB (Maur) BSc (Oxford Brooks), MBA (Mau) 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.

Safety and Health

As 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, the Authority has appointed on its Permanent and Pensionable establishment a full-time Safety and Health Officer.

Safety and Health Committees

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

For the Authority, Safety and Health 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 Safety and Health Policy, through compliance with legislative requirements as a minimum standard. To achieve the objective, the Authority has appointed a full-time Safety and Health Officer.

During year 2021/2022, the Safety and Health Committee held ten (10) meetings.

Personal Protective Equipment

With a view of minimizing the risk of injury, all employees concerned are granted Personal Protective Equipment adapted to the nature of their respective duties.

Health Surveillance

In the performance of their respective duties, some employees are exposed to various hazardous materials such as: used engine oil, welding fumes, laboratory chemicals etc. A health surveillance exercise is carried out in respect of all employees concerned on an either 6-month basis or yearly basis depending in their nature of work, to ascertain their fitness.

Machinery Inspections at the MCIA

Machinery inspections are carried out on a six-month and yearly basis at the following departments to ensure that vehicle lifts, hoists and lifts and other machineries are of substantial construction, sound material, adequate strength and free from patent defect and are also properly maintained:

- Sugar Storage and Handling Unit
- Sugar Storage and Handling Unit (Bagged Sugar)
- Agricultural Mechanization Unit
- Mauritius Sugarcane Industry Research Institute
- Control and Arbitration Department

Protocol maintained by the MCIA- Re: COVID-19 Pandemic

Since July 2021, following the post lockdown re: COVID-19, the MCIA has maintained the

following sanitary protocols as set by the Ministry of Health and Wellness:

- Social Distancing: 1 m
- Wearing of face mask mandatory at the place of work
- Temperature check
- Hygiene and hand sanitization

Four hundred (400) persons were vaccinated; the booster dose was administered on 26 January 2022.

Safety and Health Training

Safety and Health Training courses/workshops held during the period 1 July 2021 to 30 June 2022 are as follows:

Workplace vaccination programme organised by the MCIA in collaboration with The Ministry of Health and Wellness

The MCIA in collaboration with the Ministry of Health and Wellness also organised a workplace vaccination programme for the booster dose, for its employees, at the MCIA Head Office, Réduit.

Table 13. Courses/Workshops

Course Title	Participant	Organised by	From	To
On the job Tool box training- Personal Protective Equipment (PPE)	AMU Employees (HMU Drivers and WVMA)	MCIA	07 September 2021	
	Policy and planning Unit employees	MCIA	14 September 2021	
On the job training protocol	SSHU Employees	MCIA HR Department	24 September 2021	
On the job training Personal Protective (PPE) (on the job)	AMU Workshop employees	MCIA HR Department	07 October 2021	
	BSSD Employees	MCIA	08 October 2021	
On the job training Workshop MSIRI	Workshop employees MSIRI	MCIA HR Department	11 November 2021	
On the job training Covid-19 protocol/Guidelines for employees	MCIA employees	MCIA HR Department	12 November 2021	
Seminar on Occupational safety and health for employees in Parastatal Bodies	Mrs B Jean Louis-Dabeensing	The Ministry of Labour, Human Resource Development and Training	07 Dec 2021	08 Dec 2021

Table 13. Courses/Workshops (Cont'd)

Course Title	Participant	Organised by	From	To
Seminar on Occupational Safety and Health for employers/employees in the transportation sector	Mr N K Soowombuhur	The Ministry of Labour, Human Resource Development and Training	08 Feb 2022	09 Feb 2022
On the job training- Safe Operating Procedure. CAD department. Crop Season	Crop Season employees	HR Department. MCIA on the job.	14, 21, 30 June 2022	
First Aid Training by St John First Aid Training Institution	MCIA employees CORPORATE - 4 employees AMU - 10 employees SSHU - 2 employees BSSD - 5 employees AIR MONITORING - 1 employee CAD - 4 employees MSIRI - 11 employees FSA- 6 employees	MCIA HR Department	03, 15, 22, 22 and 28 June 2022	

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 job, 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 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.

The following employees attended the following courses/workshops during the period 1 July 2021 to 30 June 2022:

Table 14. Courses/Workshop				
Course Title	Participant	Organised by	From	To
Training course on New Technology Popularizing of Agricultural Mechanization for Developing Countries	Mr I Mungroo	On-line Training Programme, China.	12 October 2021	01 November 2021
Seminar on Climate Change and Sustainable Agricultural Development for Developing Countries	Mr L Jhurry	On-line Training, China.		
Clean Combustion Technology in Modern Rural Areas for Developing Countries	Mrs K Cahoolessur	On-line Training Programme, China.	20 October 2021	09 November 2021
Effective Talent Management Strategy Design, Application & Implementation	Mr S Santbakshsing	Onevaldus Co Ltd	28 October 2021	29 October 2021
Virtual Training on Corruption Risk Assessment for Parastatal Bodies/State Owned Enterprise (SOEs) and Local Authorities	Mr S Santbakshsing & Mr D Busgeeth	On-line Training by ICAC	29 November 2021	
Anti-Bribery and Corruption awareness training	Mr Y S P Busawon	BDO IT Consulting Ltd	15 March 2022	16 March 2022
Training on EPS evaluation	Messrs I Senrondon, P Ponnusawmy, K Neermul, R Beedassy, R Soomaroo, R Woodun, L Teelonah	On-line Civil Service College	14, 15 & 18 April 2022	
Policies and Practices of Industrial Green Development for Developing Countries	Mr K Neermul	On-line Training Programme, China.	15 & 28 April 2022	
IT Essential PC Hardware and Software	Miss R Ramessur	Mauritius Institute of Training and Development	23 April 2022	

Table 14. Courses/Workshop (Contd)

Course Title	Participant	Organised by	From	To
Training on Nursery	Messrs S Mourat, N Ramburrun & S Soojhawon	FSA	02 July 2021	03 July 2021
Basic Electronic Emails	3 OMAs & 20 TA/ STAs from FSA	FSA	20 January 2022	
Regrouping Project	Miss L Pitchamootoo, Mr S Magona, Miss P Haton, Miss S Beeharry, Miss A B Iddoo, Miss D Jeebun, Mr S Mourat, Mr N Ramburrun & Mr S Soojhawon	FSA	31 January 2022 & 11 February 2022	
On-line training on Sugar Refinery Technology for Developing Countries	Miss L Pitchamootoo, Mr S Magona, Miss P Haton, Miss S Beeharry, Miss A B Iddoo, Miss D Jeebun, Mr S Mourat, Mr N Ramburrun & Mr S Soojhawon	FSA	10 March 2022	30 March 2022
Identification of sugarcane varieties at MSIRI	(47 participants) from FSA & MSIRI	MSIRI	15 & 17 June 2022	

Retirement

The following Officers retired during the year 01 July 2021 to June 2022:

Table 15. Retirement

SN	Name	Post	Department /Section	Date
1	Mr M H Khodoruth	Administrative Manager	CORPORATE	12 July 2021
2	Mr R M Baboo	Operator	BSSD	11 September 2021
3	Mr P Langur	WVMA	AMU	05 November 2021
4	Mr V Riviere	Research Manager	MSIRI	26 November 2021
5	Mr G H Odayen	Welder	AMU	04 December 2021
6	Mr A Lotun	Controller	BSSD	26 January 2022

Table 15. Retirement (Contd)

SN	Name	Post	Department /Section	Date
7	Mr V Manikkam	Senior Terminal Operator	SSHU	03 February 2022
8	Mr G T Jadunundun	Senior Test Chemist	CAD	12 February 2022
9	Mr S Purmessur	Chief Executive Officer		14 February 2022
10	Mr A Marie Jeanne	AMO	AMU	15 February 2022
11	Mrs K Seewoonarain	OMA	AMU	16 February 2022
12	Mrs F Olivier	OMA	MSIRI	01 March 2022
13	Mr G Rughoobur	Operator	AMU	14 March 2022
14	Mr S Jeemon	Operator	AMU	29 March 2022
15	Mr H K Pillay Sawmy	Head Operator	AMU	31 March 2022
16	Mr S Anadachee	General Attendant	MSIRI	01 April 2022
17	Mr R Rusal	General Worker/ Field Worker/ Gardener	MSIRI	01 April 2022
18	Mr K Goinden	General Attendant	MSIRI	04 April 2022
19	Mr S Arnassalon	Baghandler	BSSD	06 April 2022
20	Mr O Jawahir	Office Attendant	FSA	14 April 2022
21	Mr Shailendr Ramlogun	Procurement & Supply Officer	AMU	01 June 2022
22	Mr J L Fanfan	Baghandler	BSSD	04 June 2022

The MCIA organized a humble ceremony to thank its retired employees for their contribution and services rendered to the Authority. Besides, a certificate of recognition and a token were offered to each of them.

Resignation

Table 16. Resignation

SN	Name	Post	Department /Section	Date
1	Mr D T Bissessur	Technical Assistant/ Senior Technical Assistant	FSA	27 October 2021
2	Mr J Andy	AMO	AMU	08 June 2022

Leave without pay

Table 17. Leave without pay

SN	Name	Post	Department /Section	Date
1	Dr (Mrs) A Soobadar	Technical Officer/ Senior Technical Officer	Agricultural Chemistry, MSIRI	From 1 January to 31 December 2021 From 1 January to 06 July 2022
2	Mr J Andy	AMO	AMU	From 8 June 21 to 7 June 2022
3	Mr K Veeragavoodoo	Technical Assistant/ Senior Technical Assistant	FSA	1 July 2021 to 01 May 2022.

Appointment (Temporary Contract)

Table 18. Appointment (Temporary Contract)

SN	Name	Post	Department /Section	Date
1	Miss B Sahye- Seenundon	Radio/Telephone Operator/Receptionist	SSHU	18 January 2021
2	Mr Y Ramchurun	Contractual	MSIRI	02 August 2021
3	Miss R Candan	Contractual	MSIRI	02 August 2021
4	Mr T Ramdeehul	WVMA AMU	01 October 2021	
5	Miss J Ng See Cheong	Radio/Telephone Operator/Receptionist	ADMINISTRATION	01 October 2021
6	Mr H K Ramgolam	WVMA	AMU	01 October 2021
7	Mr P Reedoy	Handy Worker	ADMINISTRATION	01 October 2021

Appointment (Temporary Contract)

Table 18. Appointment (Temporary Contract) (Contd)

SN	Name	Post	Department /Section	Date
8	Mrs S G Ramigadu	Cleaner/Cook	ADMINISTRATION	03 November 2021
9	Mrs A Vythelingum	Cleaner/Cook	ADMINISTRATION	01 December 2021
10	Mr K Lutchmee	Driver, Heavy Mechanical Unit	CAD	01 February 2022
11	Mr S Purmessur	CEO	CEO's Office	02 March 2022
12	Mr V K Seeranj	Terminal Operator (Mechanical)	SSHU	04 March 2022
13	Mr N K Beeharry	WVMA	AMU	07 March 2022

Extension of Temporary Contract

Table 19. Extension of Temporary Contract

SN	Name	Post	Department /Section	Starting Date
1	Miss R Candan	Contractual	MSIRI	02 February 2022
2	Mr Y Ramchurun	Contractual	MSIRI	02 February 2022
3	Mr T Ramdeehul	WVMA	AMU	01 April 2022
4	Mr H K Ramgolam	WVMA	AMU	01 April 2022
5	Mr P Reedoy	Handy Worker	Administration	01 April 2022
6	Mrs S G Ramigadu	Cleaner/Cook	Administration	02 May 2022

Appointment

Table 20. Appointment

SN	Name	Post	Department / Section	Date
1	Mrs R Lutchmanen	Sugar Technologist/ Senior Sugar Technologist	CAD	05 July 2021
2.	Mr A. Jugnauth	Sugar Technologist/ Senior Sugar Technologist	CAD	05 July 2021
3	Mrs R Chuckowree	Technical Officer/ Senior Technical Officer	MSIRI	02 August 2021
4	Mr A K Ramburn	Technical Officer/ Senior Technical Officer	MSIRI	16 August 2021
5	Mrs A D Seechurn	Technical Officer/ Senior Technical Officer	MSIRI	16 August 2021
6	Mrs K Nekitsing	Technical Officer/ Senior Technical Officer	MSIRI	16 August 2021
7	Miss A B M Iddoo	Technical Assistant/ Senior Technical Assistant	FSA	16 August 2021
8	Mr D T Bissessur	Technical Assistant/ Senior Technical Assistant	FSA	16 August 2021
9	Miss D L Jeebun	Technical Assistant/ Senior Technical Assistant	FSA	16 August 2021
10	Miss P Haton	Technical Assistant/ Senior Technical Assistant	FSA	16 August 2021
11	Miss L Pitchamootoc	Technical Assistant/ Senior Technical Assistant	FSA	16 August 2021
12	Miss H Kaniah	Technical Officer/ Senior Technical Officer	MSIRI	01 September 2021
13	Miss S D Beeharry	Technical Assistant/ Senior Technical Assistant	FSA	06 September 2021
14	Mr B Bonarien	Technical Officer/ Senior Technical Officer	MSIRI	08 September 2021
15	Mr A Gungaram-Mohun	Technical Officer/ Senior Technical Officer	MSIRI	10 September 2021

Table 20. Appointment (Contd)

SN	Name	Post	Department / Section	Date
16	Mr S Mattapullut	Technical Officer/ Senior Technical Officer	MSIRI	20 September 2021
17	Mr K Panpadoo	Technical Officer/ Senior Technical Officer	MSIRI	27 September 2021
18	Mr M Z S Manoga	Technical Assistant/ Senior Technical Assistant	FSA	24 January 2022
19	Mr L Jhurry	Director	SSHU	04 January 2022
20	Dr A Dookun-Sauntally	Director	MSIRI	04 January 2022
21	Mr I Mungroo	Director	AMU	13 January 2022
22	Mrs V Hurdowar	Stores Superintendent	Corporate	03 November 2021
23	Miss J Ng See Cheong	Radio/Telephone Operator/ Receptionist	Administration	20 April 2022

Change in status/grade

Table 21. Change in status/grade

SN	Name	Department /Section	From	To
1	Mr J D Assen	AMU	AMO	Head AMO
2	Mr R Bholah			
3	Mr R Bhoolun			
4	Mr S Cunden			
5	Mr M M Daby			
6	Mr B Dasroo			
7	Mr R D Ramadu			
8	Mr R Harhagi			
9	Mr R Jaynub			
10	Mr M Jugasing			
11	Mr J A Lasauteuse			
12	Mr A Mungur			
13	Mr R Seebarith			
14	Mr I Suddul			
15	Mr P Vadeevaloo			
16	Mr M Beharee	BSSD	Management Support Officer	Office Management Assistant

Internship

Table 22. Internship

SN	Name	Department	Date
1.	Mrs H D Rughoobur	FINANCE	01 July 2021
2.	Miss Y Elaheebocus	MSIRI	15 July 2021
3.	Mr N Hurkoo	MSIRI	15 July 2021
4.	Miss L D Jeebun	MSIRI	19 July 2021
5.	Mr M Summun	Safety & Health	02 August 2021
6.	Miss S Soobhugs	MSIRI	16 August 2021
7.	Miss H Lutchmanen	MSIRI	23 August 2021
8.	Mr D Subhi	MSIRI	23 August 2021
9.	Miss B R Joomun	MSIRI	23 August 2021
10.	Miss T Chukoory	FINANCE	22 November 2021
11.	Miss V Seelochund	MSIRI	02 February 2022
12.	Miss A S Moraby	IT	09 May 2022

Extension of Internship

Table 23. Extension of Internship

SN	Name	Department	From	To
1.	Mr M Summun	HEALTH & SAFETY	01 September 2021	31 October 2021
2.	Miss H Lutchmanen	MSIRI	04 October 2021	04 April 2022
3.	Mr D Subhi	MSIRI	04 October 2021	04 April 2022
4.	Miss H D Rughoobur	FINANCE	01 January 2022	31 May 2022
5.	Mr M Summun	HEALTH & SAFETY	02 March 2022	30 April 2022
6.	Miss H Lutchmanen	MSIRI	05 April 2022	04 September 2022
7.	Mr D Subhi	MSIRI	05 April 2022	04 September 2022
8.	Miss T Chukoory	FINANCE	22 May 2022	31 August 2022

B. POLICY AND PLANNING

“CHOOSING THE RIGHT STRATEGY IS THE KEY ROLE OF THIS UNIT”

Mandate and Functions

The Policy and Planning Unit under the Corporate office of the Chief Executive Officer at the MCIA continues to fulfill the important mandate and functions of the former apex Mauritius Sugar Authority (ex MSA) which is to promote the development of the sugar industry and to ensure its long-term viability and also to safeguard its interests, both at national and international level.

The objectives of the Policy and Planning Unit are:

- Monitoring, overseeing and coordinating all activities relating to the operation of the cane industry and ensuring its fair, efficient and effective administration.
- Promoting efficiency and viability in the cane industry.
- Formulating and implementing policies, strategies, plans programs and schemes in relation to the cane industry.
- Assessing the challenges and opportunities of the industry both on local and international fronts.
- Promoting and facilitating the sustainable development of the cane cluster in Mauritius and in the region.
- Acting as think tank of the industry to spearhead changes and respond to future needs of the industry.

New Strategies

- a) Increase the area under cane cultivation and area replanted island wide
- b) Increase the production of biomass (cane and non-cane sources) to increase the supply of renewable energy in the electricity mix.
- c) This strategy is expected to increase the yield and production of cane which will in turn ensure economic activities of planters and the sugar cane cluster for the benefit of the country.

World Bank Report

An Advisory Services Agreement was signed by the Ministry of Agro Industry and Food Security with the World Bank to advise Government on the policy recommendations to be adopted for the long term viability of the sugarcane sector. The report of the World Bank was submitted to the Ministry in December 2020. A Workshop was held on 5th February 2022 for the launching of the report by the Hon Minister of Agro Industry & Food Security in the presence of all stakeholders.

The four recommendations of the World Bank Report are:

- a) Increase the price of electricity produced from bagasse to MUR3.50/kWh payable to all planters and producers. This was announced in National Budget 2021/2022 and has been implemented.
- b) Reduce sugar export logistics costs - A modern sugar storage facility of 150,000 t sugar is being set up at Riche Terre as announced in the National Budget 2021/2022. Land clearing works and award of contract to the consultant are in progress.
- c) Increase share of speciality sugars sold- An aggressive marketing strategy is followed by MSS to increase exports of refined white and special sugars. It is targeted to increase from 145,000 t in 2021 to 150,000 t in 2022. However it is good to note that MSS foresees a higher price increase of white sugar in Europe and hence will prioritise the sale of white sugar.
- d) Increase in the share of high-tech sugarcane farms – Increasing the share of sugarcane production by using more efficient (high-tech) farms for the category of planters having more than 10 ha improves the viability of the sugar sector by reducing the overall farming costs through yield gains due to mechanisation, improved cane variety and increased access to irrigation.

The World Bank has qualified the above measures as a series of no regret policy options (that is measures worth taking) that could be implemented simultaneously and immediately to give the sector a chance to halt its decline. Three of the above four measures have been implemented by Government.

The competitiveness analysis carried out by the World Bank on the future envisioned going forward shows two scenarios under which the sector could become competitive without government support:

- (a) Scenario 1: Maintaining the current sector size but introducing significant policy reforms and sector level changes; or
- (b) Scenario 2: rightsizing the sector focusing mainly on specialty sugar

The table below summarizes the policy options that would help to transition from support to no support scenario and which requires a careful roadmap.

Table 24. Policy options and programs for supporting the transition of the sugarcane sector of Mauritius

Public Policy/ Program	Description	Public budget implications	Sequencing priority	Stakeholder implications
Reducing labor costs	Labour costs (basic wages, statutory contributions to the National Pension Fund and to the Sugar Industry Pension Fund) are higher in the sugar sector compared with other economic sectors in Mauritius. The simulations were based on a maximum potential reduction in overall labour costs (wages, benefits, etc.) of 40% across all types of labour (farms, mills, refineries, IPPs), with a minimum of no labour cost reduction (increases in labour costs were not considered). Given that there is approximately 4000 permanent workers in the sugarcane sector and that at times there are labour shortages, an option would be for workers to take early retirement and bring in a new generation at lower costs, focusing on mechanization and automatization of processes. Savings from reducing labour costs could be up to MUR136 million.	High (The measure of reducing labour costs by the industry may need to be accompanied by additional compensation packages and workforce retraining programs. Current voluntary early retirement scheme is approximately MUR1.5million/worker)	Medium term (Reducing labour costs could lower costs at the milling level-second highest in the sector and allow a controlled management of the sector in response to market trends)	Reduction in salaries, benefits, and/or early retirement for the 4000 workers of the sugar cane industry.

Table 24. Policy options and programs for supporting the transition of the sugarcane sector of Mauritius (Contd)

Public Policy/ Program	Description	Public budget implications	Sequencing priority	Stakeholder implications
Public sector institutional reform	<p>Potential savings due to institutional cost reductions are less than MUR5 million. However, the impact of realignment sector size, challenges and opportunities should yield more benefits for the sector and for the transition of smallholders and workers. In particular, the following would be key institutional issues to consider:</p> <ul style="list-style-type: none"> - Merge MCIA's policy capacity with the Policy Unit of the Ministry of Agroindustry to have an agriculture-wide perspective - SIFB should transition to only facilitating market-based risk financing to the sector, such as hedging and insurance (drop its ad-hoc support to the sector), gradually leaving the industry to procure such coverage on their own according to specific needs. - MSS efforts to promote sugar sales in international markets should be taken up by public sector trade facilitation functions, and specific marketing efforts devolved to individual millers/refiners/distillers - Other agencies under MCIA should be merged with those providing support to farmers and agribusinesses in the non-sugar and energy sectors, and in the case of MSIRI, also joining forces with regional research centers, like the one in Reunion. 	<p>Low</p> <p>Supporting detailed analysis for institutional transition and establishing compensation packages and retraining for staff.</p>	<p>Medium term</p> <p>Creating a more dynamic, transparent and stronger institutional setting will be essential to ensuring the sustainability of the sector after averting its downfall and preventing the reemergence of misaligned incentives.</p>	<p>Current sugarcane specific institutions may be affected as they merge with other multi-sectoral institutions, and this may result in staff reductions.</p>

Table 24. Policy options and programs for supporting the transition of the sugarcane sector of Mauritius (Contd)

Public Policy/ Program	Description	Public budget implications	Sequencing priority	Stakeholder implications
Managed sector downsizing	<p>- Only two out of six sector downsizing scenarios show that a reduction in the area under production and in the number of mills would produce sector viability under a comfortable probability interval. Therefore, policy measures would need to ensure that land transitions out of sugarcane in the right areas and in the least efficient land. As an example of the importance of implementing a well-managed transition, the last mill closure caused an increase in additional transport costs of approximately MUR75 million. Furthermore, the mills should be geared towards producing premium prices in order to justify the industry's relatively expensive production costs. A well-managed sector downsizing could turn around the current sector losses of MUR1.4 billion into approximately MUR800 million in profits. This would require a careful plan for the transition of farms and workers out of sugarcane.</p>	Moderate Public expenditures could involve support to farms and workers to transition out of sugarcane.	Medium/Long term A careful transition plan would take time and several policy changes around labor, transport, and institutional arrangements should be tackled first.	Planters and millers may need to leave the sector, downsizing the volume of production between 20% and 50%. This could produce a loss of jobs for about 800 to 2000 workers and for 3000 to 6000 farmers.

Table 24. Policy options and programs for supporting the transition of the sugarcane sector of Mauritius (Contd)

Public Policy/ Program	Description	Public budget implications	Sequencing priority	Stakeholder implications
Realigning direct public sector support towards competitiveness and socio-environmental objectives	Public expenditures (2018) to the sugarcane sector have been increasing in Mauritius due to the decline in revenues from sugar exports. The supports have been mainly through supplemental payments provided to small planters for compensating the drop in sugar prices. These types of farmer support are not conducive to improving competitiveness. In order to promote market-based production investment decisions (rather than government support-based decisions), it would be important for public expenditures to become less distortive of farm-level decisions, focusing on helping the farmer transition to a more efficient production system or to transition out of sugarcane into other viable land uses. Depending on the course of action to be taken by the public policy for the future of the sector (maintaining the size or downsizing), support could be geared towards efficiency improvements in agricultural production and/or environmental and/or social objectives (Climate / Nutrition Smart Agriculture, Natural Resources Management, etc.)	Moderate Mainly public expenditure switching with a medium- term commitment for allowing for sector investment/ transition and a targeted/smart support design.	Medium/Long term Making the sector sustainable in the medium to long term will depend on creating the right incentives for planters and industry actors.	The implications are for taxpayers who will need to provide support through public expenditures, but potentially benefiting from environmental and social services provided by the sector.

New Amendments of the SIE Act, MCIA Act and Budgetary measures in June 2022

Government in its Budget 2022/2023 made provisions to include in its Finance (Miscellaneous Provisions) Bill 2022 the following amendments related to the sugar sector:

Table 25. New Amendments of the SIE Act, MCIA Act and Budgetary Measures in June 2022

S/N	Legislations	Amendments
1	Property Taxes	<p>VRS Scheme-Transfer among heirs A VRS property transferred to the heirs of a deceased beneficiary shall deemed to have been obtained by inheritance thus enabling the property to be transferred between the heirs free from duty and tax. This amendment will be backdated to take effect as from 1 July 2016 in the Land (Duties and Taxes) Act.</p>
2	Mauritius Cane Industry Authority Act	<p>In section 7 subsection (2)(a)(ii)</p> <p>To allow sugar producers to deliver sugar to the Mauritius Sugar Syndicate or any other Authorized Body as may be approved by the Mauritius Cane Industry Authority.</p> <p>In Section 24 (3) To exempt producers/ sellers using small tonnages of canes for production of cane juice for direct consumption from requiring the approval of the Minister of Agro Industry.</p> <p>In Section 39 (3) To provide that payment of Bagasse Remuneration applies to both planters and producers of sugar</p> <p>In Section 40 subsection 4 To allow cane sampling, cane handling, cane storage facilities, cane testing and weighing of canes in the meaning of cane transit site.</p>
3	Sugar Industry Efficiency Act	<p>In section 15 C (2) To include in the computation of the final price of molasses, the price of molasses sold to breeders.</p> <p>In Section 13A (4) To provide that payment of Bagasse Remuneration applies to both planters and producers of sugar.</p>
4	Sugar Insurance Fund Act	To include payment of fire insurance also by the Government in favour of small planters

In June 2022, Government in its Budget speech 2022/2023 also announced the following measures in support of the sugar sector:

- To support the small sugarcane planters and ensure a fair and equitable distribution of proceeds from sugar cane cultivation, Government will:
- Maintain a minimum guaranteed price of MUR25,000/t for planters producing up to 60 t sugar;
- Continue to pay the premium to the Sugar Insurance Fund Board in respect of those producing less than 60 t sugar; and

- Waive the CESS in respect of crop 2022
- To encourage sugar planters to renew some 10,000 hectares of crops:
- Grant under the Cane Replantation Scheme will be increased by 43 percent from.. MUR35,000 to MUR50,000/arpent; and
- A "Cane Replantation Revolving Fund "will be introduced by the DBM to provide loans at an annual preferential rate of 2.5%.

Those who want to bring back abandoned land into cultivation will also be eligible under this scheme.

Budgetary measures for financial year 2021/22 and progress on previous measures

The status and progress on budget measures for period July 2021 to June 2022 concerning the sugar sector are tabulated as follows:

Table 26. Status and progress on Budgetary measures For Financial year 2021/22

Financial year	Budget Measures	Progress/ achievements
2020/ 2021		All measures were implemented
2021/2022	(a) The introduction of the biomass framework which will enable sugar cane planters to benefit from MUR 3.50/ kWh of electricity. Thus, all planters and producers will benefit from a remuneration of MUR3,300/t of sugar for bagasse.	A total sum of MUR 848.6 M was disbursed from the National Resilience Fund for a total sugar production of 257,154.81 t. A first provisional payment to beneficiaries was made in November/ December 2021, a second provisional in June 2022 and a final in July 2022 to reach the total MUR 3,300 / ton sugar for bagasse.
	(b) A guaranteed price of MUR25,000/t for planters producing up to 60 t of sugar for Crop 2021	The additional top up of Government was calculated at MUR 1,037.72/ ton sugar and paid to planters producing up to 60 t sugar in order to reach the guaranteed price of MUR 25,000/ t sugar.
	(c) A waiver on insurance premium payable to Sugar Insurance Fund Board by planters producing up to 60 tons of sugar for crop 2021	The Sugar Insurance Fund Act was amended in the Finance Act 2022 to take on board the Actuarial review report 2021 and to include Fire insurance premium payment by Government in favor of small planters. A total premium of MUR57,488,682 (General premium MUR56,553,125 and Fire Premium MUR935,557) or equivalent MUR1,037.72 / t sugar was payable by Government for the small planters.

Table 26. Status and progress on Budgetary measures For Financial year 2021/22 (Contd)

Financial year	Budget Measures	Progress/ achievements
2021/ 2022	(d) A 50% subsidy on fertilizer for Crop 2021 for planters producing up to 60 t of sugar	Due to an increase in price of raw materials in the international market, increase in exchange rate of foreign currency,, the market price of fertilizer in Mauritius registered a marked increase thus impacting on its availability and affordability. Government had to disburse additional amounts totaling to MUR126.5 M which represents the 50% refund.
	(e) A 50% refund on the costs related to certification, testing and accreditation with a view to achieving standards such as Bonsucro	A total sum of MUR1,686,894.82 which represents the 50 % refund was disbursed by Government in May and June 2022 in favor of Cooperative societies and milling companies who avail of the certification , testing and accreditation services to achieve standards of Bonsucro and Fair Trade.
	(f) A modern sugar storage facility of 150,000 t at Riche Terre	
	(g) MUR 36 million will be provided to renew the fleet of tractors of the Agricultural Management Unit under the MCIA	Two new tractors for MCIA were procured as at end June 2022. Tractors were also procured for food crops and Small Farmer's Welfare Fund.
	(h) Moreover, planters having recourse to MCIA registered private tractor operators will also benefit from the Land Mechanisation Support Scheme.	The MCIA Board of Directors gave its approval in November 2021 for MCIA to have recourse to the services of private contractors in order to increase its capacity for tractor hire services to sugar cane planters for land preparation. These planters were also eligible to the Cane Replantation Scheme.
	(i) Acquisition of Cane Harvesters and in field equipment	MUR15 M was used to acquire a second cane harvester for small planters. An Memorandum of Understanding was signed with MCAF Ltd.
	(j) A Cane Replantation Scheme for small planters	As at end of June 2022, a total of 467 contracts were signed with planters. Land preparation was complete on 383 ha and replantation on 368 ha. Land lease agreement was signed between MCIA and Landscape Mauritius in December 2021 for the development of a modern sugar storage facility in the Freeport area. Award of contracts of works is in progress and clearing of land is complete.

Impact of Government Support: Crop years 2015 to 2021

Government has guaranteed a stable price of MUR25,000/t of sugar for all planters with sugar accrued up to 60t sugar after taking into

consideration the price of sugar, bagasse, molasses and the cess and premium waiver. The Government provided a top up support of MUR 1,037.72/ton of sugar in 2021 as compared to a top up support of MUR 7,901.50 in 2020.

Table 27. Total Revenue derived by planters with sugar accrued up to 60 t sugar (MUR / t of sugar)

Year	2015	2016	2017	2018	2019	2020	2021
Sugar	13,166.37	15,571.50	12,166.64	8,700.00	11,383.65	14,062.22	16,765.09
Bagasse	162.29	149.83	164.81	161.05	143.06	136.73	3,300
Molasses (including bottler)	1,262.00	1,364.06	1,539.33	1,536.71	1,640.26	1,745.59	1,823.21
Other Government support	3,100.00	1,100.00	2,350.00	6,887.00	10,910.39	7,901.50	1,037.72
Cess +insurance premium waiver	600.00	720.00	600.00	600.00	922.64	1,153.96	670.60 (CESS)
							1,403.38 (premium)
Total Revenue	18,290.66	18,905.39	16,820.78	17,884.76	25,000.00	25,000.00	25,000.00

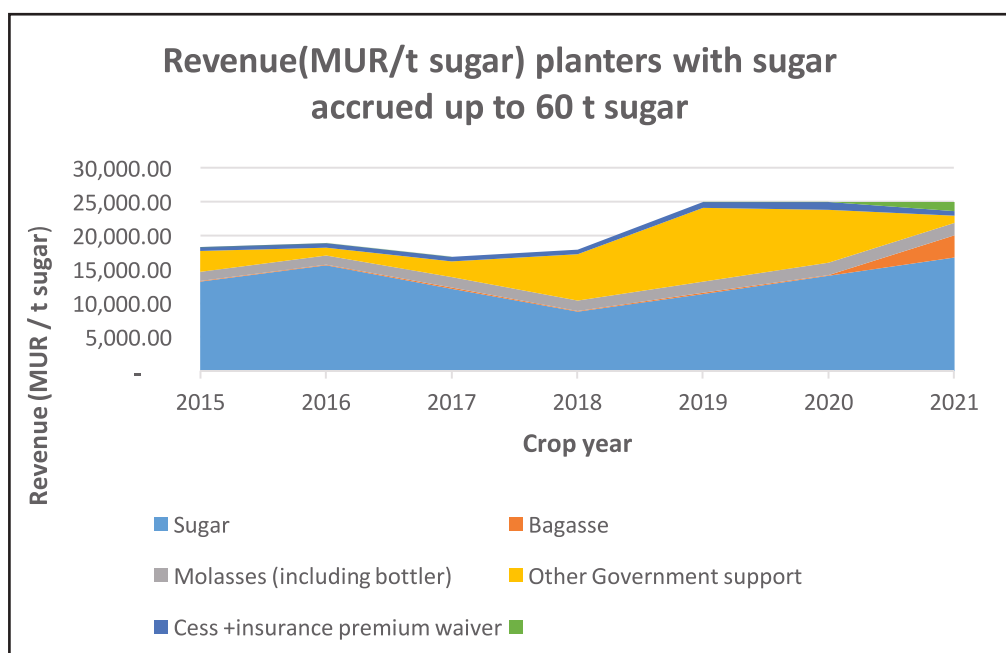


Fig 5. Revenue (MUR/t sugar) planters with sugar accrued up to 60t sugar

Table 28. Revenue derived by individual and corporate planters who are not millers, for excess 60 t sugar, (MUR/ t sugar)

Year	2015	2016	2017	2018	2019	2020	2021
					excess 60 t	excess 60 t	excess 60 t
Sugar	13,166.37	15,571.50	12,166.64	8,700.00	11,383.65	14,062.22	16,765.09
Bagasse	162.29	149.83	164.81	161.05	143.06	136.73	3,300
Molasses (including bottler)	1,262.00	1,364.06	1,539.33	1,536.71	1,640.26	1,745.59	1,823.21
Other Government support	2,300.00	300.00	1,550.00	3,895.67	-	-	-
Cess +insurance premium waiver	-	-	-	-	455.35	562.49	670.60

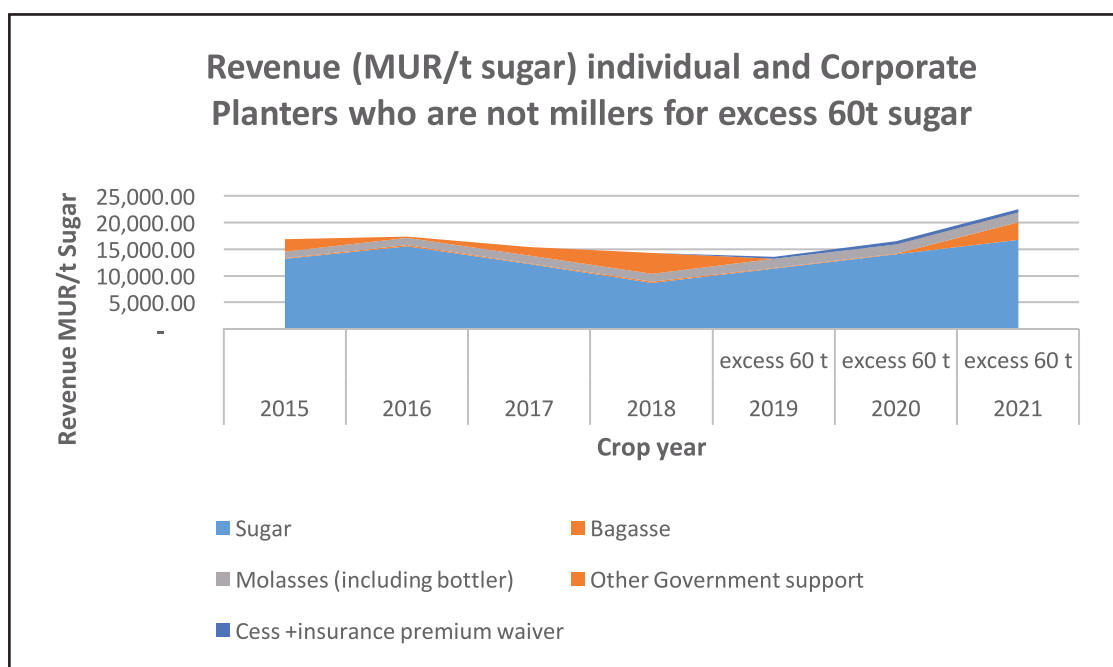


Fig 6. Revenue (MUR/t sugar) individual and Corporate Planters who are not millers for excess 60t sugar

Table 29. Revenue derived by millers (MUR / t sugar)

Year	2015	2016	2017	2018	2019	2020	2021
Sugar	13,166.37	15,571.50	12,166.64	8,700.00	11,383.65	14,062.22	16,765.09
Bagasse							3,300
Molasses (including bottler)					0		0
Cess +insurance premium waiver					455.35		
Other Government support					0		0

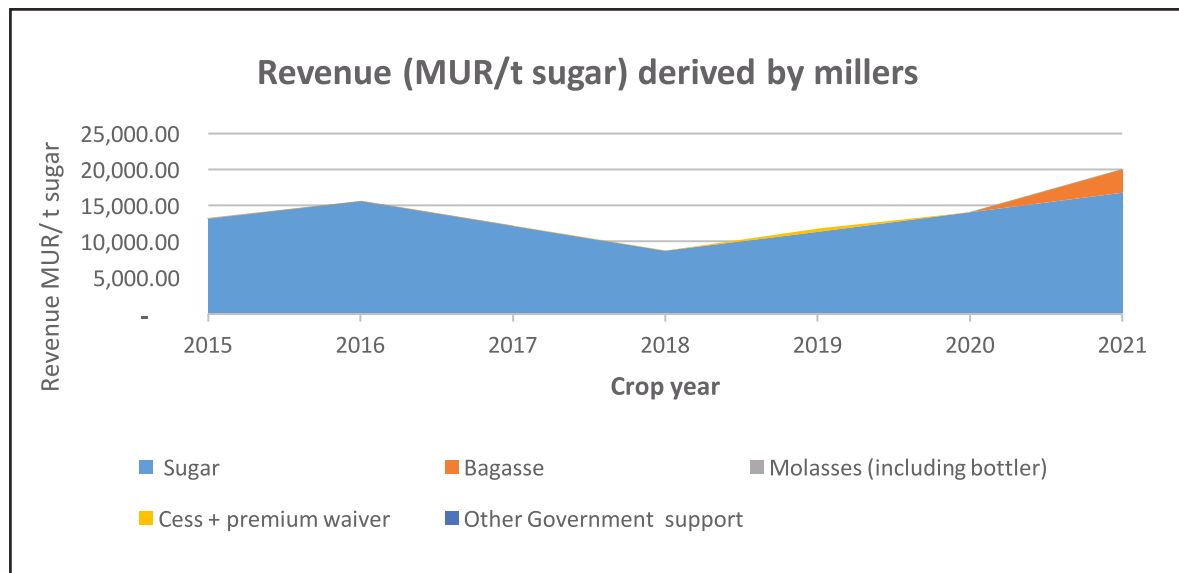


Fig 7. Revenue (MUR/t sugar) derived by millers

Table 30. Summary of revenue derived by planters - Crop 2021

	Up to 60 t sugar	Above 60 t sugar	Millers
Sugar accrued (tons)	40,964.440	159,984.32	56,206.05
MUR / t sugar			
Price guarantee	25,000		
Cess	670.6		
SIFB Insurance	1,403.38		
Net price	22,926.02	21,888.30	20,065.09
Sugar	16,765.09	16,765.09	16,765.09
Bagasse	3,300.00	3,300.00	3,300.00
Molasses (including bottler)	1,823.21	1,823.21	
Other Government support	1,037.72		

It is to be noted from table below that government top up financial support to reach the MUR 25,000/t sugar cost some MUR352.5M in 2020 for the first 60 t sugar as compared to MUR 42.5M in 2021 for up to 60 t sugar produced by planters. In addition

Government support for bagasse amounted to MUR 848.6 M to all planters and millers for crop 2021 as compared to no Government support for bagasse for crop 2020.

Table 31. Government Financial Support Crop 2019 (MUR/t sugar) on First 60 t of Sugar

On First 60 Tons of Sugar					
Category	Financial Support			Other Measures	
	First 60 sugar Tons	Rate	Fin Support	Cess Waiver	Gen Premium Waiver
	(tons)	(MUR per Sugar T)	AMT (MUR)	(Ave MUR per Sugar T)	(Ave MUR per Sugar T)
Small Planters (with SA up to 60 tons Sugar)	49,294.35	10,910.39	537,820,528.74	455.35	467.29
Other Planters	1,320.00	11,377.68	15,018,537.60	455.35	-
Corporates	1,140.00	11,377.68	12,970,555.20	455.35	-
Miller-Planters	180	11,454.40	2,061,792.00	455.35	-
	51,934.35		567,871,413.54		

Table 32. Government Financial Support Crop 2020 - 2021(MUR/t sugar) on First 60 t of Sugar

Government Financial Support Crop 2020 (MUR/t sugar) on First 60 t of Sugar					
Category	Financial Support			Other Mesures	
	First 60 sugar Tons	Rate	Fin Support	Cess Waiver	Gen Premium Waiver
	(tons)	(MUR per Sugar T)	AMT (MUR)	(Ave MUR per Sugar T)	(Ave MUR per Sugar T)
Small Planters (with SA up to 60 tons Sugar)	41,137.69	7,901.50	325,049,449.63	562.49	591.47
Other Planters	1,860.00	8,492.97	15,796,924.20	562.49	-
Corporates	1,200.00	8,492.97	10,191,564.00	562.49	-
Miller-Planters	180	8,568.02	1,542,243.60	562.49	-
	44,377.69		352,580,181.43		
Government Financial Support Crop 2021 (MUR/t sugar) on First 60 t of Sugar					
Category	Financial Support			Other Mesures	
	First 60 sugar Tons	Rate	Fin Support	Cess Waiver	Gen Premium Waiver
	(tons)	(MUR per Sugar T)	AMT (MUR)	(Ave MUR per Sugar T)	(Ave MUR per Sugar T)
Small Planters (with SA up to 60 tons Sugar)	40,964.44	1,037.72	42,509,618.68	670.6	1,403.38
Other Planters (Above 60 tons sugar)	159,984.32			670.6	-
Millers	56,206.05				-
Total	257,154.81		42,509,618.68		-
	Financial Support				
	First 60 sugar Tons	Rate	Bagasse Fin Support		
	(tons)	(MUR per Sugar T)	AMT (MUR)		
Small Planters (with SA up to 60 tons Sugar)	40,964.44	3,300.00	135,182,652.00		-
Other Planters (Above 60 tons sugar)	159,984.32	3,300.00	527,948,256.00		-
Millers	56,206.05	3,300.00	185,479,965.00		-
Total	257,154.81		848,610,873.00	562.49	-
Grand Total			891,120,491.68		

Agricultural Land Management System - Cane Replantation Scheme

Another component of the Agricultural Land Management Scheme (ALMS) is the implementation of the Cane Replantation Scheme (CRS). The objective of the CRS is to motivate planters to replant sugarcane, either in their abandoned fields or renew their fields which have already completed a cane cycle of at least 6 years under the Field Operations, Regrouping and Irrigation Project through the payment of a cash grant of MUR 83,000/ha. Whereas those Planters who had not completed a cane cycle of 6 years would be eligible for a reduced cash grant of MUR 58,500/ha only for the replantation of their fields. This scheme ensured that planters do not eventually abandon their plantations given the difficulties they are facing.

Eligible planters make their own arrangements and incur all the expenses for the land preparation and plantation of their fields. Upon completion of works and verification to the satisfaction of the MCIA, the one-off cash grant is paid to the planters.

The Policy Planning Unit of the MCIA verifies and confirms all information of the individual contract agreement with planters prior to signature. The Unit also attends to planters' complaints relating to non-satisfaction of works performed in their fields and verifies the extent of their land. Verification of claims made by planters for expenditure incurred is carried out and the necessary arrangements are made to enable them receive payment.

Cane Replantation Scheme-Upfront Financing by DBM Ltd

For all those planters who are not able to meet the upfront financing and claim back for the cash grant, the MCIA had held consultations with the DBM whereby DBM provides a loan of MUR50,000/ arpent repayable at an interest rate of 2% per annum, subject to the borrower reimbursing as follows:

- (i) MUR35,000 per arpent by the MCIA as grant element on behalf of the eligible; and
- (ii) The balance MUR 15,000/arpent together with interest thereon over 2 years shall be repaid by the planter in two consecutive annual instalments.

Following discussions that the Ministry of Agro-Industry and Food Security had with the DBM in presence MCIA in April 2022 it was decided that the loan will be disbursed in two instalments as follows after clearance from the MCIA:

- (i) Prior to land preparation work; and
- (ii) Just before cane replantation.

For the period July 2021 to June 2022, contracts were signed for a total of 471.2 ha, involving 721 planters. Land preparation and replantation was complete on 377.5 ha.

Work is ongoing on the remaining areas.

Table 33. Progress of works for 2020 and 2021 as at end June

	2020/2021 Extent (ha)	2021/2022 Extent (ha)
Contracts signed	570	471.2
Land Preparation	500	-
Replantation	417	377.5

Cane Replantation Scheme- through SME Contractors/Private operators

It is also noted that in view of increasing the capacity for the provision of hiring services of tractors by the MCIA and of providing timely land preparation services to sugar cane planters, the MCIA Board of Directors approved that the services of SMEs contractors be enlisted having expertise in derocking and land preparation works over a period of 2 years. These planters also benefit from the Cane Replantation Scheme.

Sugar produced under sustainable and accredited trade labels- Fairtrade, Bonsucro and Organic

Export of sugar for small planters under sustainable and accredited trade labels is yet another avenue for generating additional revenue and placing the country on the world sugar niche markets map. Adherence to voluntary sustainability standards of production is therefore an important step to diminish supply chain risks and improve environmental management so as to enhance accessibility to the market.

There is a potential for growers to export some 40,000 t of sugar under the Fairtrade label. Export of sugar sold at a premium rate of 60 USD/t of sugar under this label has decreased from 17,200 t in 2020/21 to some 15,275 t in 2021/22. The total premium received and paid to producers for Crop 2021 is estimated around USD 916 K. It is noted that the Covid-19 sanitary restrictions that prevailed during the year unfortunately prevented certain co-ops aspiring to regain certification from holding their AGMs. This delayed the audit and certification process, and consequently hindered MSS from taking full advantage of sales opportunities in the Fairtrade segment.

A new system of accreditation for the small planters who are grouped into cooperatives has been set up under the Ctm Altromercato/Ferrero Sustainable Development Programme, which involved the export of some 4,000t of white refined sugar shipped to Ferrero whereby an additional premium of €40/t of sugar was received by the cooperatives. Under this scheme, some 700 registered cooperative planters are also eligible to receive both bio and chemical fertilizers free of cost in line with the recommendation made by the MSIRI after soil analysis.

Bonsucro is a global multi-stakeholder non-profit organization aiming at promoting voluntary sustainable sugarcane production, processing and trade around the world. Omnicane, Alteo, Terra and MSIRI are members of Bonsucro in Mauritius. The MSIRI is involved in R&D to assist the industry in meeting the standard in cultivation practices.

In September 2020, Bonsucro has announced that it has included the Syndicate's certification in its Chain of Custody Standard, making the MSS become the first sub-Saharan marketing organisation to be awarded this recognition. This accreditation will enable the MSS to source out their sugar requirements in priority from sustainable producers.

Organic production is becoming more prevalent along with many suppliers which are setting company policies to increase their organic offerings to mainstream consumers who have a rising interest in these products. In a spirit to increase further the revenue of producers and to promote the marketing of value addition to the cane industry, stakeholders are currently working on mechanisms and modalities for the production and marketing of certified organic sugars with the support and assistance from Government.

A workshop led by Mauritius Chamber of Agriculture was held in February 2022. Experimental plots were established at Terra, Alteo and Omnicane whereby guidelines set by ECOCert were used. However further research works needs to be pursued with respect to agronomic field practices, milling processes, legal frameworks, sensitization of planters, training of growers and service providers. There was need to make provisions for certification costs.

MoU between MCIA and MCAF Acquisition of Cane Harvesters

Funds were made available in the Government budgets 2019-2020 and 2021-2022 to materialise the purchase of cane harvesters from India for use by small planters. It is recalled that 51% of the cost of the harvester and associated in-field equipment is provided as a grant to the MCAF Ltd and the other 49% is a loan refundable by the MCAF in equal instalments of 7% over 7 years.

It is recalled that a first Memorandum of Understanding was signed between the MCIA and MCAF on 22 June 2020 and the harvester first came into operation in the field of a small planter

at L'Âmitié in August 2021. This initiative was addressing the issue of labour shortage and as it has been servicing the planters to their full satisfaction. There is increasing demand for mechanised harvest operations among the small planters.

A second Memorandum of Understanding (MoU) was signed between MCIA and MCAF Ltd on 23 March 2022 for the purchase of a second sugar cane harvester. This time a higher capacity harvester was acquired so as to be able to operate in dual rows plantation and high yielding fields. For crop 2021 some 6,000 t of cane throughout the island belonging to small planters and SIT was harvested mechanically covering around 300 arpents. Around twenty planters benefitted from this service.

The major problems encountered were related to topography of the land, presence of rocks and narrow side roads which are inherent to the field layouts of some planters. However, planters are keen to redesign their fields and remove rocks in order to benefit from the service. The MCAF Ltd is proactive in advising new cane plantations to meet the necessary requirements of field design in order to address the issue. In addition, the Federation is proposing a package of services including mechanical fertilizer and herbicide application to planters. The rate charged for mechanical harvest is very competitive (MUR450 to 500/t cane) as compared to other service providers.



Fig 8. Signature of MoU for sugarcane harvester

Progress on issues related to existing provisions of the law

(a) Molasses pricing mechanism-Provisions of MCIA Act and SIE Act

The Molasses pricing mechanism for the different users of molasses is as per the amendments brought to the SIE (Amendment Act) 2016:

Table 34. Evolution of the Sale price of Molasses from 2014 to date

Year	AMCO/MMCO export molasses	Distillers who produce alcohol for the local market and export market	Livestock sector who use molasses for animal feed
2016 (SIE Act)	Deemed FOB	Local market: 1.75*deemed FOB Export market : deemed FOB	MUR 2,500/t revised to MUR 3,000/t in 2021 by MCIA Board of Directors.
2021 (Sale price of Molasses) Regulations 2021		To set the upper limit of price of molasses sold to distiller-bottlers producing potable alcohol for the domestic market or any person using molasses to produce syrup and beverages and which shall not exceed MUR4,000/t molasses. This regulation is applicable for crop years 2021, 2022, and 2023. The regulation was published in Government Notice No 175 of 2021.	

For crop 2021, a total of 90,796.647 t of molasses tel quel have been produced by the three factories in operation and which was calculated to be 90,454.093 t of molasses at 86° Brix.

Out of the total production of 90,796.647 t tel quel, 86,632.405 t were allocated for the production of alcohol by the local distilleries, namely Grays, Medine, Omnicane and Oxenham and the remaining 4,164.242 t were allocated to livestock sector, namely Livestock Feed Factory, Meaders Feed Factory, breeders, Yemen and taken in kind by planters. The allocation of molasses to the three distilleries is based in principle on the agreed sharing ratio of 22.97:18.49:58.54 between Grays, Medine and Omnicane.

Table 35. Allocation of molasses -Crop 2021

Delivery of Molasses	Molasses Tel Quel (t)	Molasses @ 86° Brix(t)
Grays distillery	20,503.222	20,703.861
Medine distillery	15,972.020	16,056.814
Omnican distillery	50,063.213	49,428.600
Oxenham distillery	93.950	94.692
Subtotal to distilleries	86,632.405	86,283.968
Livestock sector	3,141.042	3,154.771
In kind	1,023.200	1,015.355
Total Molasses	90,796.647	90,454.093

The total proceeds from sale of molasses were MUR261.09 M. In June 2022 the MCIA Board of Directors approved the blended price of molasses paid to planters for crop 2021 at MUR2,914.75/t of molasses.

The table below shows the blended price of molasses paid to planters for the period 2004 to 2021.

Table 36. Blended price paid to planters (2004 to 2021)

Year	Tonnes molasses produced (tel quel) tonne	Tonnes molasses sold at 86° Brix after deducting amount in kind	LEI USD	Freight USD	Other costs USD	FOB USD paid by users of molasses	Price paid to planters (MUR/t molasses)	
2004	154,987	n.a	103.78	44.96	17.22	41.6	911.57	
2005	144,423	n.a	135.24	55.91	21.51	57.82	1,563.31	
2006	139,081	n.a	152.42	69.13	20	63.29	1,898.18	
2007	129,752	n.a	160.48	98.75	10.82	50.91	1,361.69	
2008	141,847	n.a	187.6	94.05	15.6	77.95	2,181.32	
2009	145,338	n.a	215.57	90.64	15.12	109.81	3,016.29	
2010	144,137	n.a	206.09	96.06	12.21	97.82	2,689.33	
2011	136,324	n.a	204.96	120.15	11.86	72.95	1,981.64	
2012	123,916	n.a	201.67	116.07	11.1	74.5	2,235.18	
2013	125,837	n.a	218.64	140.59	13.52	64.53	1,970.98	
2014	139,309	137,379	207.48	130(a)	12.94	64.54	2,316.51	
2015	132,107	130,952	187.55	126.7(b)	10.63*	50.22	2,074.00	
2016	117,675	117,215	175.04	112.7(c)	5.59	56.75	2,242.89	
2017	121,815	121,367	Deemed FOB price of MUR 2,147.18/t					2,390.88(d)
2018	102,084	101,938.77	Deemed FOB price of MUR2,147.18/t					2,376.10
2019	117,106	114,953.56	Deemed FOB price of MUR 2,147.18/t					2,347.24
2020	88,912	87,507.78	Deemed FOB price of MUR2,147.18/t					2,441.16
2021	90,797	89,438.74	Deemed FOB price of MUR 2,620.41/t					2,914.75
2022			Deemed FOB price of MUR 2,546.83/t					

Note:

- (a) **Prior to 2014**, molasses were traded by MMCO and AMCO. No data available on quantity sold @ 86° Brix. For 2014 and onwards when MMCO ceased operations, MCIA keeps the record of volume traded
- (b) For 2014 crop: freight taken as indicative (available from MSS)
- (c) **For 2015 crop:** freight taken as average 4 years period 2011 - 2014
* abolish the \$2 commission computed in other costs that is deducted from LEI reference price
- (d) For crop 2016 freight taken as average 5 years period 2009 - 2013
- (e) **For crop 2017 to 2020:** molasses sold is at 86° Brix and excludes molasses taken in kind. Price paid to planters is on basis of a deemed FOB price of MUR2,147.18 and MUR 3,500 for distiller-bottlers producing potable alcohol for domestic market.
- (f) **For crop 2021 :** deemed FOB price of MUR2,620.41 has been calculated using a matrix table and the maximum price for distiller bottlers producing potable alcohol for domestic market would be MUR4,000 as per the new regulation 2021.
- (g) **For Crop 2022:** deemed FOB price of MUR2,546.83 has been calculated using a matrix table and the maximum price for distiller bottlers producing potable alcohol for domestic market would be MUR4,000 as per the regulation 2021.

In June 2022 the MCIA Board of Directors also approved the deemed FOB price of molasses for crop 2022 at MUR2,546.83/ t molasses.

(b) Contribution of MUR40/L of absolute alcohol

The contribution collected by the Mauritius Revenue Authority for crop 2021 (July 2021 to April 2022) both from the distiller-bottler or manufacturer and importers based on potable alcohol derived from cane or cane products reached MUR 105,679,866. This contribution was generated from some 2.641 million litres of potable alcohol sold on the local market. Planters were paid at the rate of MUR 525.90 /t of sugar at 98.5% pol or MUR1,181.59 /t of molasses @ 86° Brix after deducting molasses taken in kind.

The total revenue derived from molasses including the bottler contribution and paid to planters for crop 2021 amounted to MUR4,096.34/t of molasses (MUR2,914.75 + MUR 1,181.59) or equivalent MUR 1,823.21/t sugar (MUR 1,297.31 +MUR 525.90)

(c) Biomass Framework- Provision of the MCIA Act and SIE Act

The setting up of a National Biomass Framework was announced within the Budget Speech 2021-2022. Consequently, the MCIA Act and SIE Act were amended in the Finance Bill 2021 to cater for the promotion of energy from such sources of biomass as may be prescribed.

The National Biomass Framework has been established under the *aegis* of the Ministry of Agro Industry and Food Security with the following goals, objectives and structure:

Goals of the National Biomass Framework

Provide policy and guidelines to participate in the attainment of the objectives of the country to reach its renewable energy mix of 60% by the timeline of 2030 by increased use of biomass and other green sources.

Objectives of the National Biomass Framework

Increase bioelectricity production by promoting and implementing projects for more efficient use of sugarcane bagasse, more trash collection, introduction of higher fibre cane varieties, cultivation of other energy crops and biomass import.

Structure of the Biomass Framework

- **Steering Committee (SC)**

As the apex body under the aegis of the Ministry of Agro Industry and Food Security and chaired by the Senior Chief Executive.

- **Framework Implementation Committee (FIC)**

- **Working Groups (WG) – currently three**

The Framework Implementation Committee (FIC) has met three times since 6 October 2021 under the chairmanship of the CEO, MCIA. After considering the views of its members on the different sources of biomass and its attributions, the FIC has established three working groups (WG) to review the potential and explore opportunities from the respective sources, and one WG to propose the respective pricing mechanism as follows:

WG1 Sugarcane Biomass - Bagasse and cane trash

WG2 Wood Biomass - Forest wood or plantations, domestic or industrial woody wastes

WG3 Pricing (WG 3) - Bagasse, trash and woody biomass

The various working groups met on more than ten occasions.

The various reports from the working groups have been presented and discussed at the level of the FIC and SC; the outcomes and recommendations of the report together with the respective pricing mechanism for each source of biomass were submitted to the Ministry of Agro-Industry and Food Security.

(d) Registration and payment of a contribution to the MCIA for the importation and sales of sugar on the local market-Provision of the MCIA Act

As per the Regulation made under section 63 of the MCIA Act in 2012 and subsequent amendment

made thereon, every importer of sugar for domestic consumption and industrial usage has to make a contribution of MUR 3.70/kg of sugar to MCIA. Furthermore, Government has increased the import duty from 80% to 100% on all imported sugars for domestic consumption to render such sugar less competitive vis-à-vis locally produced sugar.

For the year 2021, 21 companies/importers were registered with the MCIA. . The MCIA has received a total contribution of MUR129,721,792.42 from some 35,059.94 Mt of imported /locally produced sugar sold on the local market and which have been used for the payment of pensions for the ex-dockers.

As regards the quality of sugar imported, the importers are required to submit the certificate of analysis as a prerequisite for customs clearance of the imported consignment.

(e) Métayers -Provisions of the SIE Act

In line with the agreement reached between the Ministry of Agro-Industry and Food Security (MoAIFS) representing Government and MSPA in 2010, the MCIA requested sugar estates to implement provisions of the agreement. This agreement made provision for the possibility for a métayer to buy the land under cane cultivation if it is considered as non-strategic or an alternative plot of land if the land occupied is considered as being strategic by the owner estate. The final price will include a discount of 35% as per the provision of the said agreement.

The MCIA is acting as a facilitator regarding the implementation of the provisions of the agreement. For the Crop 2021, Constance La Gaiete (CLG) Co. Ltd and Alteo have submitted their request to the MCIA for the sales of métayers land to its métayers. MCIA has made arrangement with the Ministry of Agro-Industry and Food Security to request the Government Valuation Office to proceed with cross-valuation of the land based on the valuation report submitted by CLG Co. Ltd.

(f) Workers employed by Job Contractor-Provisions of the SIE Act

Section 21 of the principal SIE Act was amended in 2016 to provide for the MCIA to determine, in consultation with the Ministry responsible for the subject of labour, recognised trade unions and the employers, the number of working days to be performed by seasonal workers and workers employed by job contractors during a crop year. A Technical Committee has been set up by the MCIA as per the SIE (Amendment Act) 2016.

During the period July 2001 to June 2022, the Technical Committee on seasonal workers held meetings to determine the man-days for the crop years 2021 and 2022. MCIA issued to each sugar company that submitted a request for seasonal workers for the crop years 2021 and 2022 a letter

for each crop year indicating the number of man-days determined by the MCIA. All sugar companies were satisfied with the recommendations.

After the end of each harvest, sugar companies are requested to submit to the MCIA the final figures relating to the actual number of man-days of both seasonal and permanent labour force during the past crop year. This information is used by the Technical Committee to monitor the labour force in the cane industry.

Attendance at Technical Committee meetings on Seasonal Workers for Crop year 2021 and 2022 are shown at table 37 and 38 respectively.

Table 37. Attendance at Technical Committee meetings on Seasonal Workers Crop Year 2021

Name	Representative of	Status	No. of meetings attended
Mr S Purmessur	MCIA	Chairperson	1
Mr R Gutteea	MCIA	Designated Chairperson	9
Mrs B Jagarnath	Ministry of Labour (Up to June 2021)	Member	1
Mr S Damry	Ministry of Labour (As from July 2021)	Member	7
Mr M Antonio	Employers – Sugar Milling Companies	Member	8
Mr A D'Unienville	Employers – Sugarcane Growing Companies	Member	4
Mr D Ramjuttun	Agricultural Workers	Member	9
Mr L Dewnath	Non-Agricultural Workers	Member	9
Mr D Nursimulu	MCIA	Secretary	9

For the smooth running of the Technical Committee, the members proposed that it would be appropriate that alternate members be nominated. For the crop year 2022, MCIA contacted the sugar milling and sugarcane growing companies as well as Trade Unions for the nomination of alternate members.

Table 38. Attendance at Technical Committee meetings on Seasonal Workers Crop Year 2022

Name	Representative of	Status	No. of meetings attended
Mr S Purmessur	MCIA	Chairperson	1
Mr R Gutteea	MCIA	Designated Chairperson	6
Mr S Damry	Ministry of Labour	Member	6
Mr M Antonio	Employers -Sugar Milling Companies	Member	4
Mr J. L Caboche	Employers -Sugar Milling Companies	Alternate	3
Mr A D'Unienville	Employers - Sugarcane Growing Companies	Member	1
Mrs K. Veerapen	Employers - Sugarcane Growing Companies	Alternate	3
Mr A. Sookool	Employers – Sugarcane Growing Companies	Alternate	1
Mr D Ramjuttun	Agricultural Workers	Member	6
Mr P. Sydamah	Agricultural Workers	Alternate	1
Mr L Dewnath	Non-Agricultural Workers	Member	5
Mrs S. Soobraty	Non-Agricultural Workers	Alternate	2
Mr D Nursimulu	MCIA	Secretary	5
Mrs L. Dwarka	MCIA	Secretary	1

Other components

(a) Electricity Generation from Independent Power Producers

In 2021, electricity generation increased by 4.0% from 2,882 GWh (248 ktoe) in 2020 to 2,992 GWh (257 ktoe), of which 79% (2,350GWh or 202 ktoe) was generated from non-renewable sources and 21% (642 GWh or 55 ktoe) from renewable sources.

The Independent Power Producers produced around 60% of the total electricity generated and the Central Electricity Board produced the remaining 40%.

From 2020 to 2021, sales of electricity decreased by 3% from 2,448 GWh (211ktoe) to 2,524 GWh (217 ktoe) and the average sales price remained at around MUR6/ kWh.

(b) Electricity Generation from Bagasse

Bagasse production is following a similar trend as the cane production trend which has declined from 5 million t cane in 2000 to 2.6 million t

canes in 2021. With the declining trend in bagasse production the amount of electricity produced from bagasse has declined from 274 GWh in 2000 to 246 GWh in 2021.

Table 39. Electricity Export from bagasse (kWh/t) 2021

	t Cane crushed-crop 2021	kWh Exported crop 2021	kWh/t cane
Terragen Ltd	718,969	79,668,113	110.8
Alteo Energy	1,064,000	72,947,016	68.56
Omnicanne	885,495	93,880,840	106.02
Total/ Average	2,668,465	246,495,969	92.37

(c) Electricity Export from Cane Trash - 2017 to 2021

Table 40. Electricity Export from Cane Trash – 2017-2021

	Alteo Energy Ltd.			Terragen Ltd.		
	Kwh from trash	t cane trash	Kwh / t trash *	Kwh from trash	t cane trash	Kwh / t trash
2017	1,100,000	1943	566	7,561,385	7,433	1,017
2018	3,900,000	6370	612	7,730,212	8,154	948
2019	1,489,807	4379	340	9,003,956	9,639	934
2020	6,000,000	3968	1512	4,106,101	4,171	985
2021	0			6,103,355	6,200	984

(d) Electricity Export from coal as at end June 2022

Table 41. Electricity Export from coal as at end June 2022

Financial Year June 2022	kWh Exported
Terragen Ltd	280,585,775
Alteo Energy	96,420,524
Omnicanne (La Baraque)	441,692,916
Omnicanne St Aubin	223,858,644
Total	1,042,557,859

(e) Environment Issues of the Sugar Cane Cluster- Air Pollution Monitoring System

For the period July 2021 - June 2022 the total number of tests carried out was 136. The air monitoring unit has been able to provide monitoring services and met the requirement of the companies in Mauritius to demonstrate compliance with the Environment Protection Regulations 1998 standards (First and Second Schedule)

Table 42. Number of tests carried out (july to June)

Parameters tested	2017	2018	2019	2020	2021
Stack emissions	76	78	48	39	31
Particulate matter	76	73			1
Ambient air quality	37	45	31	56	86
PM 10	24	17	15	22	18
Indoor Air Quality	21	25	16	23	—
Total	234	238	110	140	136

The gross revenue generated from activities of the air pollution monitoring was MUR 3.33M for the 136 tests for financial year 2021-2022 which is slightly higher than the gross revenue calculated for financial year 2020-2021 which amounted to MUR 2.85 M for 140 tests. It is noted that there is a rise in demand for ambient air quality monitoring and a decline in stack emissions testing.

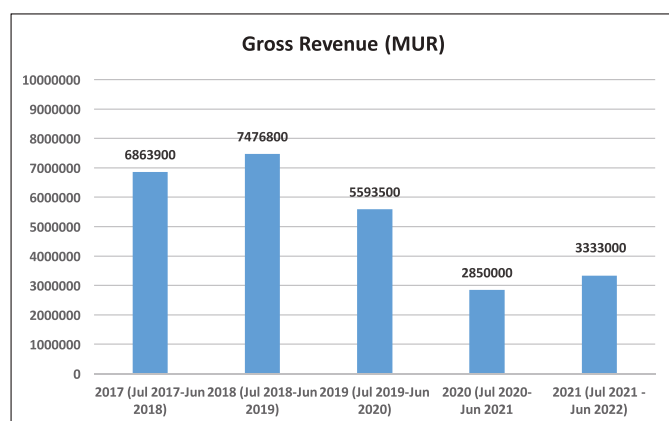


Fig 9. Gross Revenue (MUR)

(f) Industrial Dispute / Court cases of the Sugar Industry

The Policy and Planning Unit of the MCIA, represented by its Project Operations Executive, is also responsible

- for settling as far as possible in an amicable manner the disputes between employees and employers of the cane industry;
- for attending dispute cases at the Ministry of Labour, Human Resource Development & Training;
- for giving clarifications to the Human Rights Commission and Office of the Ombudsman;
- for attending queries at the Ministry of Social Integration, Social Security and National Solidarity on issues pertaining to pension of retired employees of the cane industry; and

- for attending cases at the Intermediate Court and Supreme Court relating to socio-economic projects falling under the supervision of the MCIA.

All cases at the Ministry of Labour, Human Resource Development and Training have been settled with the exception of three which are ongoing.

With regard to court cases, three are ongoing while in the other cases, there has been out of court settlement with the collaboration of the MCIA.

The Ag. Manager of the Policy and Planning Unit is also following two court cases in relation to the Field Operations Regrouping Irrigation Project (FORIP). One of the case which was entered in 2018 has been settled in June 2022, whereas the other case is ongoing.

(g) Public Relations

Sugarcane planters encounter difficulties relating to the registration, plantation, replantation and harvesting their fields. The Policy and Planning Unit assists them by contacting and directing them towards the authorities concerned and providing them the required guidance.

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

During the course of the year 2020 to June 2021 the following activities continued under the projects related to MAAS plan:

Project 1: Centralization of sugar factories-Sugar factory closure as per Blue Print

Project2: Socio-Economic Projects in favour of Employees of the Sugar Industry

Project 3: Phasing out of Sugar Camps

Project 4: Termination of Contract of employment in the sugar industry

Project 1: Centralization of sugar factories -Sugar Factory closure as per Blue Print

Sugarcane was introduced in Mauritius by the Dutch Governor Van Der Stel in 1639 to produce artisanal rum. Sugarcane has been occupying a dominant role in the Mauritian economy for over 3 centuries.

The first sugar mill was set up at Ville Bague in 1745 by the then French Governor B.F. Mahé de La Bourdonnais. In 1838, Mauritius had 259 sugar mills throughout the island. At the beginning of the 19th century there were 60-80 factories producing over 3000 t of sugar. Since then, the sugar industry has been undergoing constant expansion, modernization and centralization of factories.

The record sugar production was noted in 1973 when twenty one factories produced 718,464 tons of sugar.

As at 1973 nineteen (19) sugar factories were in operation with a cane crushing capacity ranging from 55 to 250 tons cane/h (TCH) compared with 280 to 380 TCH in 2022.

It is known that one of the means to reduce cost of production in cane milling is to consolidate cane milling activities through the process of centralization.

From 1993 to 2019, due to centralization, the number of sugar factories in operation has reduced from nineteen to three (Table 43). The three factories currently in operation are Alteo Milling Ltd in the East, Omnicane Milling Operations Ltd in the South and Terra Milling Ltd in the North.

Table 43 shows the Sugar factories that were closed under Blue Print on centralization of Sugar Milling Operations.

Table 43. Sugar Factories that were closed under Blue Print on Centralization of Sugar Milling Operations		
SN	Sugar Factory Closed	Year Closed
1	St Antoine	1994
2	Mount	1995
3	Constance	1997
4	Beau Plan	1999
5	Bel Ombre	1999
6	Rose Belle	2001
7	Highlands	2002
8	Britannia	2003
9	St Felix	2007
10	Mon Trésor Mon Desert	2007
11	Riche En Eau	2007
12	Mon Desert Alma	2007
13	Union Saint Aubin	2010
14	Mon Loisir	2012
15	Alteo – Deep River Beau Champ	2014
16	Médine Sugar Milling	2019

The closure of St Antoine sugar factory was examined by a Board of inquiry while the other factories have been closed under the Blue Print on the centralization of sugar milling operations in Mauritius.

No application for closure of sugar factories was reported for the year. The last factory that closed down was Medine as from crop 2019.

The progress on monitoring of factory closure conditions for the period 2017 to June 2022 is tabulated below:

Table 44. Factory Closures and progress

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 m ² fertilizer store or multipurpose building	Road Infrastructure
1. St Felix closure in 2006	✓	✓	✓	•	✓
2. Riche En Eau closure in 2007	✓	✓	✓	•	✓
3. Mon Desert Mon Tresor closure in 2007	✓	✓	✓	•	✓
4. Mon Desert Alma closure in 2008	✓	✓	✓	•	✓
5. Union St Aubin closure in 2011	✓	Overdue MUR 6M not yet settled by Omnicane	✓	•	✓
6. Mon Loisir closure in 2012	✓	✓	✓	Pending	✓
7. Deep River Beau Champ closure in 2014	✓	✓	✓	Pending	✓
8. Medine closure in 2019	No EU fund. Payment was made to beneficiaries by Medine Ltd. ✓	✓ A total payment of Rs 12 M was made by Medine Ltd	In Progress	A site at Henrietta has been identified and agreed between Medine Ltd and MCAF	Not required

Note: ✓ means completed

• one of the two earmarked site in progress

During the period July 2021 to June 2022, title deeds were handed over to beneficiaries for the Belle Vue Maurel site on 14 July 2021 in the context of the closure of Mon Loisir sugar factory and for Bonne Mere site on 19 and 20 October 2021 for the closure of Deep River Beau Champ factory.

All the workers who have terminated their contract of employment under the Blue Print have received their title deeds except those of Médine Sugar Milling Ltd. In this case, the beneficiaries of the Blue Print have opted for their land compensation at Casela (Cascavelle). All onsite infrastructural

works have been completed. Médine Ltd is in the process of seeking for the outstanding clearances from the Government Authorities. On receipt of all the final clearances, the Ministry of Housing and Land Use Planning, on the recommendation of the Morcellement Board, will issue the Morcellement Permit for this site. Subsequently, Médine Ltd will liaise with its Public Notary and the MCIA for the preparation of the title deeds of beneficiaries.

All the Closures of Sugar cane factories have been monitored by the ex-MSA and now by the Policy Planning Unit of MCIA.



Fig 10. Medine Sugar Factory



Fig 11. Drawing of lots exercise (Medine- Blue Print) site at Casela (Cascavelle site)

Planters' Fund

Following the closure of the Medine Sugar Factory as from crop 2019, third and fourth payment of MUR 6M were made in October 2021 and May 2022 respectively. The total payment received from Medine Ltd amounts to MUR12 M for the Medine Planters' Fund.

Fertilizer Store/Multipurpose Complex

With regard to the erection of fertilizer stores or multipurpose complexes, there was in principle an agreement that for all the closures that have occurred in the South, OMOL will provide fertilizer stores at two sites namely Plaine Magnien and Britannia. Clearance has been obtained from the District Council for the site at Plaine Magnien. In the context of closure of Mon Loisir and Deep River Beau Champ sugar factories, the cane receiving mills namely Terra Milling and Alteo Milling respectively have not proposed sites for this development.

With respect to closure of the Medine sugar factory, the site for the fertilizer store has been identified and agreed between Medine Ltd, MCIA and MCAF. The site is at Henrietta. Medine is liaising with contractors for start of works. The buildings are expected to be delivered by mid-November 2022.

No application for closure of sugar factories was reported for the year.

Handing over of Title Deeds to beneficiaries in context of closure of Mon Loisir and Medine Sugar Factories

For the period July 2021 to June 2022, title deeds were handed over to beneficiaries for Bonne Mere site on 19 and 20 October 2021 in the context of closure of Medine Sugar Factory and for the Belle vue Maurel site on 14 July 2021 in the context of closure of Mon Loisir Sugar Factory.

Project 2: Socio-Economic Projects in favour of Employees of the Sugar Industry- VRS/ERS/Blue Print

Voluntary Retirement Scheme (VRS) – 2001

It is clear to all stakeholders directly or indirectly involved in the cane industry that competitiveness implementation program was not new in Mauritius. Indeed, this has been a permanent feature of the sugar sector in 1985 when for the first time the Government came up with an overall strategic plan for the sugar industry.

The strategy was reviewed in 1985 through a major study, the sugar industry efficiency study which laid down the framework of actions for nearly a decade. Conscious of the threats and challenges that the sugarcane industry was then facing, Government decided that a sugar sector strategic plan be elaborated after consultations with all stakeholders for the survival of the sugar industry.

In May 2001 the Mauritius Sugar Authority (MSA) submitted its report to the Ministry of Agriculture, Food Technology and Natural Resources. The recommendations of the report relating to the conditions of Voluntary Retirement Scheme (VRS) to agricultural workers and non-agricultural workers of the sugar industry were implemented in the Sugar Industry Efficiency Act 2001 (Act No. 20 of 2001) which received assent on 2nd August 2001. The provisions of the SIE Act 2001 include cash and land compensation.

In the year 2001, 26 sugar companies offered VRS to 8,317 employees under the aegis of the MSA in close collaboration of the parent Ministry, the Sugar Producers' Association and the Cane Growers' Association. A cash compensation of MUR2.2 billion was paid to the employees, representing an average of some MUR264,500 per employee. In addition, the cost of infrastructural works for the 87 sites developed for these employees on an extent of 814 arpents around the island amounted to some MUR3.4 billion. All the infrastructural works were supervised by the Field Officer of MSA. The total

cost of some MUR 5.6 billion was financed by the sugar companies for which they benefitted from the tax exemption on land conversion.



Fig 12. VRS 2001 SITE AT Rose Belle

Voluntary Retirement Scheme (VRS) - 2007

In 2006, following the approval of MAAS and the amendments to SIE Act which followed in 2007, the package of VRS was reviewed with the intention of encouraging young employees to accept the VRS offer. A more attractive cash compensation was provided to all workers terminating their contract of employment over and above the land compensation. In addition, the MSA, in collaboration with the MSPA and the Regional Training Centre worked out the modalities for training schemes for the young workers opting for VRS. The KPI for the training schemes was that 1 500 VRS beneficiaries had to follow the training courses.

The KPI set was successfully met as the total number of employees who terminated their contract of employment under VRS who followed the training courses amounted to 1 840.

On 5 December 2007 a historical deal was signed between Government and the Mauritius Sugar Producers' Association (MSPA) which refers to the MAAS and defined the strategic orientations and key measures that needed to be undertaken in respect of the sugar sector reform.

The reform included the part financing of the social cost of the VRS 2007, Early Retirement Scheme and Blue Print from EU accompanying measures. The deal included the transfer of 2 000 arpents of land to Government by the members of the MSPA. The EU considered MAAS as a model to be replicated in other ACP counties. EU accompanying measures facilitated the implementation of VRS 2007. Growing companies comprising 18 MSPA members, Cane Growers' Association, the State Land Development Corporation (SLDC), Rose Belle Sugar Estate Board (RBSEB) and Sugar Investment Trust (SIT) applied for VRS as per the SIE (Amendment) Act 2007.

The VRS 2007 project for the employees was an ambitious socio-economic one which involved the development of some 8 207 individual plots of land scattered throughout the island. The Trade Unions, workers and Staff of the sugar industry have always stated that the project of land compensation should have been called "proze enn toit pou tou travayer sector disik". The VRS 2007 has enabled thousands of the sugar industry workers, labourers and Staff to have their own residence. The Scheme is monitored by the Project Operations Executive of the Policy Planning Unit of MCIA.

Table 45. Handing over of Title Deeds (VRS/Blue Print) - 1 July 2021 to 30 June 2022

Date	Sugar Company	Project	No. of Beneficiaries	Site	Ceremony Graced by:
14 July 2021	Cie Usiniere de Mon Loisir	B. Print	25	Belle Vue Maurel	Hon. Maneesh Gobin, Attorney General and Minister of Agro-industry & FS
16 August 2021	Medine Ltd	VRS	115	Bambous	Hon. Prime Minister and other eminent personalities
19 October 2021	Deep River Beau Champ Milling Co (Alteo Ltd)	B. Print	126	Bonne Mere	Hon. Prime Minister and other eminent personalities

Table 46. Status on ongoing VRS/ Blue Print Project

SN	Sugar Company	Scheme	No. of Beneficiaries	Site	Morc. Board Ref	Status as at 30.6.2022
1	St Felix Sugar Estates	VRS	134	Riambel/Chemin Grenier	17413	Title deeds are ready for handing over
2	Medine Agric. Ltd	VRS	118	Palma	17443	Company not agreeable with a clause of EIA Licence
3	Medine Sugar Milling Co. Ltd	B. Print	107	Casela (Cascavelle)	19914	Awaiting CWA clearance
4	Cie de Gros Cailloux Ltee	VRS	44	Kahin, Petite Riviere	18726	Awaiting CWA clearance



Fig 13. Ceremony of Handing over of Title Deeds – Bambous VRS Employees site



*Fig 14. Signature of Title Deeds on May 2022 –
Riambel/Chemin Grenier St. Felix
VRS Employees site*



*Fig 15. St. Felix VRS site at
at Riambel/Chemin Grenier*



Fig 16 and Fig 17. Medine Blue Print Employees site at Casela (Cascavelle)



Staffs of MCIA (working for the Handing over of Title Deeds - Bonne Mere site)



*Fig 18. Blue Print – Deep River Beau Champ
Handing over of Title deeds – Bonne Mere site on 19 October 2021
Venue: Belle Vue Allendy near Union Flacq*

VRS Rose Belle Sugar Estate Board (RBSEB)

The RBSEB has on March 2022 applied to the Hon. Minister of Agro-industry and Food Security for approval of VRS under the SIE Act for 254 workers of the organization.

MCIA held several meetings with Management of RBSEB, the Trade Unions of the workers, namely SILU and AGWU and the potential VRS beneficiaries as per the list submitted by RBSEB. MCIA has given all explanations on the conditions of the proposed VRS to the potential beneficiaries of the proposed VRS in the presence

of the Management of RBSEB. Some issues between beneficiaries and the Management cropped up. With the intervention of the MCIA, these issues have been settled to the satisfaction of all stakeholders.

At the MCIA, meetings were chaired by the Chief Executive Officer of the MCIA. Technical meetings were chaired by the Project Operations Executive of the Policy and Planning Unit of the MCIA. Site visits for land compensation were also carried out by the Officer in the presence of the representatives of workers and Management of RBSEB.

The Management of RBSEB is liaising with Government Authorities for clearances for the site agreed by the workers and is seeking for funds both for the payment of the cash compensation to potential beneficiaries and for infrastructural works.

The cash and the land compensations under ERS and other minor components are the same as for VRS. Two hundred and nine (209) workers and Staff employees terminated voluntarily their contract of employment under the ERS. Nine employees' sites were developed for these beneficiaries to obtain their land compensation.

Early Retirement Scheme (ERS) 2007

For the first time SIE (Amendment) Act 2007 catered for ERS which was implemented in December 2007 by the MSA.

The following milling companies applied for and received approval for the ERS in accordance with the section 23A of the SIE (Amendment) Act 2007:

1. Belle Vue Milling Co. Ltd
2. Médine Sugar Milling Co. Ltd
3. SUDS (Savannah Sugar Factory)
4. FUEL Milling Co. Ltd

Table 47. Details of Cash and Land Compensation (ERS)

SN	Company Name	No. of Beneficiaries	Cash Compensation Paid (Rs)	Employees' Site Location
1	Belle Vue Milling Co. Ltd	80	38,677,979	Bois Mangués, Cottage
2	Médine Sugar Milling Co. Ltd	38	27,096,399	Xavier- Cascavelle, Chebel and Henriette
3	SUDS (Savannah Sugar Factory)	54	31,793,887	Plein Bois
4	FUEL Milling Co. Ltd	37	25,022,244	Médine C. de Masque, Providence & Q. Victoria
	Total	209	122,590,509	9 sites

As at 30 June 2022, 5% of the beneficiaries have disposed of their plot of land.



Fig 19. ERS Employees site

Housing Grant

A housing grant of MUR 7,000 is payable to all Blue Print beneficiaries for the termination of their contract of employment on the closure of sugar factories upon reaching the slab level in the construction of their residence. This scheme also applies to all workers having benefitted a plot of land under the phasing out of sugar camps scheme.

During the current financial year, three persons have applied for the housing grant and MCIA made the necessary disbursement.

Separate Funds are kept for ex-workers of Deep River Beau Champ Milling Company and Medine Sugar Milling Company who have opted for land compensation at Bonne Mere and Casela Blue Print employees' sites respectively. As at June 2022 no claim has been received from the ex-workers of these companies.

Scholarship

The conditions of the termination of contract of employment of employees of the cane industry under VRS, ERS and Blue Print schemes provide for scholarships for higher education at recognised institutions to the wards of beneficiaries.

No request for scholarship has been received during the current year.

Surplus plots of land

After completion of all infrastructure works and the handing over of title deeds for land compensation

for the VRS/Blue Print employees' sites and phasing out of sugar camp sites, it was found that 162 surplus plots of land were available for sale.

Compagnie de Mon Choisy has already paid to the MCIA an amount of MUR 300,000 per plot for the sale of two plots of land representing refund of infrastructural cost. In addition, The Saint Felix Sugar Estate is in the process of selling ten plots. Terragri and Omnicane are also in the same process.

Project 3: Phasing out of sugar camps

The first sugar housing estate, also known as sugar camp, that was phased out was that of Senneville Camp at Bel Air Sugar Estate in the year 1987 when each of the 65 families occupying the sugar camp received a plot of land of 6 perches at a nominal price to construct their own houses. At a later stage the area of 6 perches was increased to 7 perches. The project was implemented over two phases:

Phase I – 66 sugar camps were phased out under the direct monitoring of the Mauritius Sugar Authority.

Phase II–67 outstanding sugar camps were completely phased out with the huge contribution of the sugar companies and the collaboration of Government Authorities, mainly the Central Water Authority, the Central Electricity Board and the National Housing Development Corporation.

All beneficiaries of the phasing out of sugar camps project have benefitted from a land compensation

and are eligible for a housing grant of MUR7,000 upon reaching the slab level of their residence. The Fund for the disbursement of housing grant is still in operation and is monitored by MCIA.

The whole project is supervised by the ex-MSA (now the Policy and Planning Unit of the MCIA).

Regarding the Church, Mandir, Kalimaye, mosque and other NGO's buildings located on the sugar camps. It was agreed that there should be an amicable settlement between the sugar companies and the registered NGOs concerning their relocation. Some of the NGOs had decided not to move their buildings. In case of no settlement, the ex-MSA, now the MCIA, as Government Authority has always intervened in an objective manner to settle these cases.

Project 4: Termination of contract of employment in the sugar industry

To reduce their cost of production several sugar companies have resorted to the reduction of employees who were under the permanent establishment. The MCIA had, with the consensus of Trade Unions and Cane Growers Association, settled the case of early termination of contract of employment for some employees. They benefitted from a cash compensation without land compensation.

International Scene

There is need to embark on a more aggressive marketing campaign for the export of sugar on more remunerative markets. All the stakeholders of the industry are working closely with a spirit to secure additional markets for our sugars and diversify our marketing strategy to look for more remunerative markets such as China, India, SADC, COMESA, Saudi Arabia, etc.

Comprehensive Economic Cooperation and Partnership Agreement between Mauritius and India (CECPA)

The CECPA, between Mauritius and India, signed on 22 February 2021, entered into force on 1 April 2021. It represents an important milestone in the Trade and Economic relationship between Mauritius and India, provides access to a market of more than 1.3 billion inhabitants to Mauritius. The Agreement has three key components namely Trade in goods, Trade in services and Economic Cooperation.

Under the agreement, Mauritius has been given market access to India for around 600 products as preferential rates. Some of the benefits to Indian importers in sourcing from Mauritius at preferential rates are special sugar (40,000 t at 10% duty, which is currently at 100% in India)

At this stage, 50% of Mauritian special sugars are exported to Europe, to around twenty countries. Some 12,000 t are sent to the United States. The rest is exported to other markets in Eastern Europe, the Middle East, Southeast Asia, China, Singapore, Kenya and South Africa in particular.

For the 2021 campaign, approximately 155,000 t of special sugars were marketed, i.e. some 8% more than for the previous campaign, a positive trend that began in 2020 which had also recorded an increase of 8%. The customer base for Mauritian specialty sugars has been consolidated and expanded in recent years.

The ex-Syndicate price increase is also due to a sharp commercial strategy with the all-out promotion of Mauritian special sugars, products with higher added value which brings more to the common kitty, thus contributing to the increase in the ex-Syndicate price. As the average selling price of special sugars is higher, the average price/t is improving.

The 20% price increase for the 2021 harvest is explained by an improved average price in the global market by some 15% in 2021/22 compared to the previous year and in the European market, average prices increased by 10%.

Research & Development Committee

Year 2021 was once again marked by a disruption of activities due to national COVID 19 lockdown from 9 March to 30 April. Nevertheless, the R&D Committee met on nine occasions, three of which were held on line. Attendance of members at the Committee during the year is given in Table 48.

In April, following the retirement of Dr Salem Saumtally from the post of Director MSIRI after 38 years of service, Dr A Dookun-Saumtally was appointed as Ag. Director and was in attendance at the Committee, whilst Dr S Seeruttun Ag. Principal Research Manager, acted as Secretary to the Committee. Mr Jean Claude Desvaux, who was a member of the Committee since June 2016, resigned at the last Committee meeting in December 2021, as he was retiring.

The most important themes discussed during the meetings in 2021 were the effect of the COVID lockdown 2021 on R&D activities, recruitment of new staff, low cane yield during the Crop 2020, agronomic performance of high biomass cane promising varieties in final phase trials, revenue generation through overseas sales of varieties and fuzz and collection of royalties, exchange of varieties with different breeding stations abroad, maintenance of the accreditation system, new legislations in connection with agriculture enacted during the year, a new pest incursion, new technologies introduced during the year, progress made on research projects, and collaboration as well as partnerships with local and foreign institutions, amongst others.

**Table 48. Attendance of Members at
the R&D Committee
January – December 2021**

Names	Number of meetings attended
Dr J C Autrey, CSK, Chairperson	9
Members	
Prof T Bahorun, GOSK	5
Mr N Basant Roi, PDSM	7
Mr J C Desvaux	6
Mr R K Hemoo	6
Mr J R Lincoln	2
Mr D Lavoipierre (Alternate to Mr Lincoln)	7
Mr J Li Yuen Fong	8
Mr Y Mungroo	6

Visitors

A number of visitors called at the MSIRI during the year as follows:

17 February 2021

H E Mr Vincent Degert, *Ambassador of the European Union to Mauritius and the Seychelles*

6 July 2021

Mr Grégory Martin, *Régional Council of Réunion Island, Office of Mauritius*

16 July 2021

H E Mr Keith Allan, *British High Commissioner, Mauritius*

26 October 2021

Mr Jérôme Vuillemin, *Qualitropic, La Réunion*

Mr Grégory Martin, *Régional Council of Réunion Island, Office of Mauritius*

16 November 2021

Delegation from National Sugar Development Council, Abuja, Nigeria, comprising:

Mr Abass Alex Juwon

Mr Abdullahi Gambo

Mr Adedeji Zacch Adelabu

Mr Adeyemo Abiodun Odunayo

Mr Babangida Damare Abba

Mr Bkeke Salihu

Mr Bobbo Fatimah Dahiru

16 November 2021

Delegation from National Sugar Development Council, Abuja, Nigeria (contd.)

Mr Haruna Yusuf Argungu

Mr Ibrahim Salihu Ibrahim

Mr Iyaniwura Adedayo Taoreed

Mr Kawuyo Mohammed Gidado

Mr Kolawole Hezekiah

Mr Ladan Balarabe

Mr Omaba Okida

Mr Onwumeru Afiong Lily

Mr Shira Auwalu Abubakar

Mr Waziri Ahmed Musdafa

Mr Zubair Fatai Omoniyi

17 November 2021

Mr Boudewijn Goossens, *Regional Director Africa & Middle East, Bonsucro*

24 November 2021

Mr Yuriy Kapitsa, *EU IP expert for project "Implementation of the Intellectual Property Plan in Mauritius"*

The 2021 Crop

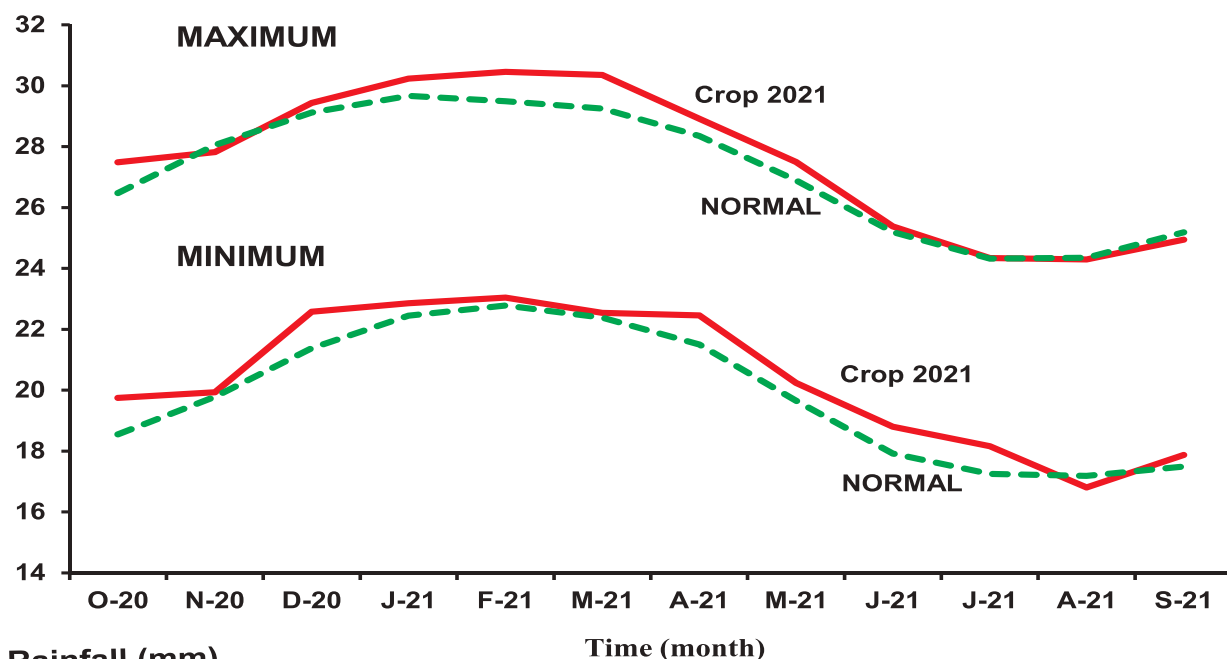
Cane elongation measurements initiated in December 2020 were continued on a fortnightly basis from January to June 2021 at 48 sites in the five sugar cane sectors of the island, representative of the various agro-climatic zones, varieties and crop categories. On account of the Covid-19 lockdown, assessment of stalk height was not possible at the end of March 2021 and figures for the month of March were derived by interpolation from measurements taken at mid-April 2021. Monthly samplings of cane for sucrose content were carried out from the last week of May to October 2021 in 95 fields in the different agro-climatic zones cultivated with different varieties in order to assess ripening.

The total cane milled stood at 2,668,465 t compared to 2,619,015 t in 2020, while total sugar production amounted to 255 818 t from 41 897 ha harvested for Crop 2021. This represented the lowest amount of sugar produced in the last two decades. The area under cane harvested also decreased by 1 814 ha compared to 2020.

Below normal rainfall was recorded during most of the summer months of January, February and March in all sectors (Figure 20). The maximum air temperature over the island was below the normal at Belle Rive, Ferret and Réduit, and higher than the normal at Union Park. A lower solar radiation as compared to the normal was observed in November, December and April of the crop year. These unfavourable climatic conditions contributed to an inferior stalk elongation of 4% over the island compared to the normal. The ripening phase for Crop 2021 was characterized by above normal rainfall in all sectors during the months of June, July and August. Solar radiation was also deficient during the months of June and August, while the temperature amplitude was below normal in most sectors during the ripening phase (Figure 20). Thus, the climatic conditions that prevailed were not conducive for sucrose accumulation and the

extraction rate of 9.59% reached in 2021 was lower than that recorded in the past 3 years. The resulting sugar productivity of 6.20 TSH over the island was the lowest recorded in the last two decades.

Temperature (°C)



Rainfall (mm)

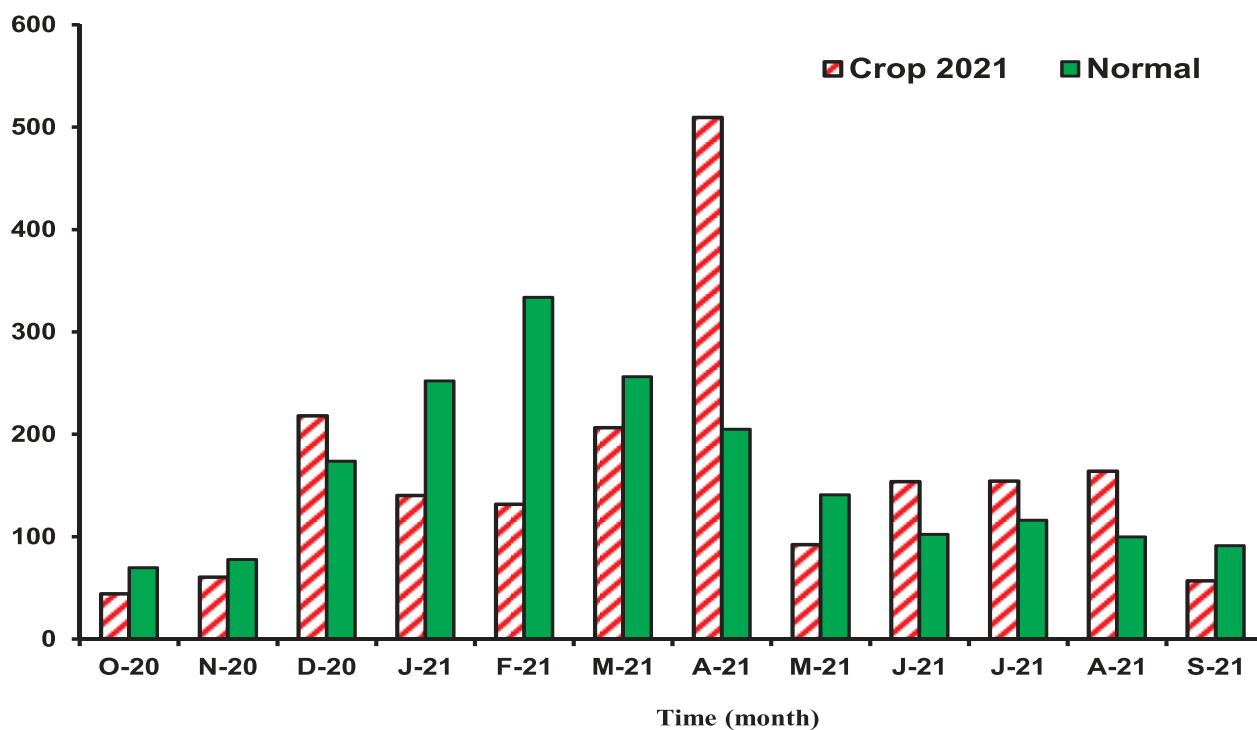


Fig 20. Rainfall, minimum and maximum temperatures recorded at Plaisance and average rainfall recorded in the cane areas in 2021 compared to the normal

Plant Breeding

During the year, 462 sugarcane crosses were done comprising of 171 genetic combinations and involving 106 different female parents, including recently released ones, M 1561/01, M 216/02, M 64, M 2283/98 and M 683/99 and 36 male-fertile parents, among which were present M 1002/02 and M 915/05. New promising parent varieties from multiplication nurseries, namely M 1423/02 in N3 and M 3818/06 in N2 were also utilized as parents. Some 3.0 kg of fuzz were produced during the season.

For the new quarantine cycle 2021-2023, 15 research institutions abroad were contacted for the reciprocal exchange of parent varieties for breeding purpose. Five clones were received from each of Australia, Barbados, Philippines, South Africa and four from Réunion Island while from the other countries, materials identified for import would be shipped in 2022. Five M-varieties were exported to the Philippines and South Africa. Besides, 9 other local varieties were also earmarked to be shipped to Argentina, Australia, Barbados, China, Columbia, Ecuador, Fiji, Guatemala, India, Mexico, Réunion island, Thailand and USA in exchange for their varieties. Five new foreign parent varieties were released from the closed quarantine after cleansing through tissue culture, and transplanted in pots, while another five parent varieties were released and planted in an open quarantine area at Réduit.

In view of further promoting our M varieties abroad, an agreement was signed with Boyd Biotech Ltd, in Brazil. The company proposed to evaluate M varieties for potential commercial exploitation under Brazilian conditions at their own cost and if successful, royalties would be collected by MSIRI/MCIA in the future. A first batch of 250 disease-free tissue culture plantlets of five elite M-clones, M 1669/08, M 821/07, M 3853/06, M 3818/06 and M 1423/02, were exported to Boyd Biotech Ltd.

On account of the Covid 19 lockdown, a number of activities related to selection were affected and had to be reorganised. Sowing of fuzz was postponed for 2022, while stage 1 selection was deferred for

2022 in ratoon crop. For stage 1, a total of 42195 seedlings derived from 153 crosses were potted in speedling trays and 41342 were transplanted in the field on two MSIRI sub-stations at Union Park and Ferret. Family evaluation scheduled for March-April 2021 was postponed for July 2021. A total of 3185 clones, selected from seedlings planted in 2019 (1R crop) and a few families planted in 2020 (PC crop), were advanced to new larger plots of new stage 2 (having merged stages 2 and 3). Selection of seedlings planted in 2020 was rescheduled for 2022 in the first ratoon crop.

In 2020, retrospective data analysis at early selection stages showed that the first two clonal selection stages could be merged, in order to shorten the selection process. In consequences, selected clones (3185) from the seedling population were planted in new layout of merged Stage 2/3 (new Stage 2) trial at Belle Vue (1327 clones), Valetta (1091 clones) and Union Park (767 clones).

During the year, no normal stream stage 2 trials were planted due to the first confinement period (20 March-15 June 2020), when selection was deferred for 2021 in first ratoon crop. Nevertheless, a small population of inter-specific derived seedlings was assessed in 2021. Based on morphological attributes, and a selection index comprising sucrose content, fibre content, vigour, flower intensity and visual grade twenty-one (21) clones were identified for evaluation in stage 4 trials (skipping obsolete stage 3 trials) and three in Multiplication Plots at Union Park. Stage 3 trials, planted in 2019, were evaluated at first ratoon crop in 2021 at Belle Rive, Union Park and Belle Vue. The population consisted of 821 locally bred progenies.

Overall, 105 elite clones were advanced to stage 4 trials and seven high fibre candidates were recycled for breeding purposes. The selection consisted of 21 clones issued from seeds initially imported from WICSCBS, Barbados and 15 of them were planted at Stage 4 and six were recycled for breeding purposes.

At Stage 4, a total of 126 clones were planted in replicated trials in August 2021 at Belle Vue (34),

Valetta (44) and Union Park (48). The population comprised of 105 clones selected from stage 3 and 21 were from interspecific stage 2 trials planted in 2020 at Union Park. Another 253 varieties planted in 13 Stage 4 trials in 2018 (2R crop) and 2019 (1R crop) at Belle Rive, Union Park and Belle Vue were assessed and 33 clones were selected, while 27 were promoted to N1 nurseries and six, mainly high sucrose candidates, were recycled for breeding purposes.

For the Final Phase, a total of 52 trials, of which 15 in the North, 15 in the Centre/East, 18 in the South and four in the West were monitored and harvested at different harvest dates during the crop season. The data collected were processed to screen the performance of varieties in terms of cane yield (TCH), sucrose content (IRSC %), fibre yield (t ha⁻¹) and sugar yield (TSH) in the main soil types: LRP, LBF, HFL and LHL. In trials at Trois Ilots, the test varieties, M 1639/09 performed better in terms of TCH than the standards. At Valetta, performances of M 1639/09, M 742/10 and M 631/11 were comparable to or better than the standards. Varieties M 1423/02, M 2882/03 and M 821/07 also performed better than the standard varieties in the south, while in the North the good performance of M 1639/00, M 848/06 and M 1952/07 were noted.

A total of 59 varieties were earmarked for planting in final phase trials in 2021. Eleven new final phase trials were planted in collaboration with corporate producers during the year, with seven at Terra in LRP and LHL soils, two at Rose Belle SE in LBF soil, one at Trois Ilots in LHL soil and one at Valetta in HFL soil.

Eight mid-season harvest trials (T1) were established in the B, F, L, rainfed P and irrigated P soils with 16 promising new varieties and 25 varieties that reached Stage 4 in the past and could not be planted. In addition, three T2 trials (1 early-season harvest in the rainfed P soil and 2 late-season harvest in L and rainfed P soils) were planted and involved eight M-varieties namely M 63, M 216/02,

M 1002/02, M 3818/06, M 521/07, M 821/07, M 1952/07 and M 1639/09, as well as CR87339, a variety from the Dominican Republic.

The agronomic performances of 100 unique test varieties were reviewed as follows: 95 test varieties from 79 middle-season trials, 17 varieties under test in 16 early-season trials and 5 varieties from 8 different trials harvested late in the season. Following results of agronomic performance across crop cycles and locations, morphological attributes and reaction to diseases of economic importance, promising varieties M 821/07 and M 1952/07 were promoted to N2 and N3 multiplication nursery, respectively.

M 821/07 (Figure 21) is a semi-erect and fairly tall variety with fairly high number of stalks and medium diameter. Flowering is low to nil. At middle-season harvest, it produces high cane and fairly high sugar yields with medium sucrose and fibre content. Promoted to N1 nursery in 2013 and to N2 in 2021, M 821/07 was planted in early- and late-season harvest trials in 2020. It is resistant to gumming, and brown rust (carrying the Br1 gene), slightly susceptible to smut, and susceptible to yellow spot. It is currently being tested for its reaction to leaf scald.



Fig 21. Promising variety M 821/07

M 1952/07 (Figure 22) is a fairly erect and fairly tall variety with a fair number of stalks of fairly large diameter. Flowering is low to nil. It is a high yielding variety with high and fairly high sucrose content at early- and middle-season harvests, respectively. Its sugar yield and profitability index are high. M 1952/07 has fairly high fibre content, which coupled with its high cane yield contribute to high fibre yield. The variety is showing wide adaptation and is suitable for early- and mid-season harvests. It is resistant to gumming, smut, leaf scald and brown rust, and is slightly susceptible to yellow spot disease. M 1952/07 was promoted to N1, N2 and to N3 in 2015, 2020 and 2021, respectively.



Fig 22. Variety M 1952/07

The Industrial Property Act 2019 provides for the protection of new sugarcane plant varieties under the Plant Breeder's Rights, and for the registration of a new variety, it is essential to comply with the requirements of distinctness, uniformity and stability (DUS). Evaluations and measurements in a DUS trial established in December 2019 were carried out during the period May to August 2021 on the first ratoon crop. A total of 54 characters were evaluated quantitatively and qualitatively from (a) the plant as a whole, (b) the culm, (c) the leaf blade, (d) the leaf sheath, (e) the node and (f) the internode. Data were analysed and preliminary reporting completed based on the

protocol established by the International Union for the Protection of New Varieties of Plants (UPOV).

In 2021, a total of 4500 cane samples were processed using the Jeffco InfraCana® II automated cane sampler Model IC02. These samples constituted of 2848 samples from preliminary and final selection stages, 1309 samples for crop monitoring, and the remaining from other MSIRI trials.

Field Experimentation, Liaison and Communication

During the year, 181 trials established by the various MSIRI Departments on some 70 ha at Réduit, Ferret, Belle Rive, Union Park, La Sourdine, Valetta and Trois Ilots as well on sugar estates land where managed in terms of planning field operations and cultural practices as well as harvesting.

Extension linkages with corporate growers were reinforced, promoting a participatory approach in the decision making of selecting promising varieties in final phase trials. Trials with new varieties were also established on sugar estates lands. Nineteen large observation plots were planted with new varieties; six at Beau Plan in the North, seven at Valetta in the Centre, two at Trois Ilots in the East and four at Rose Belle in the South. Among the newly released varieties, the very good performance of varieties M 683/99, M 2502/99, M 1392/00 and M 915/05 were noted, which was reflected by a slight increase in the area planted under each of them to reach 639 ha, 333 ha, 409 ha and 162 ha respectively. New varieties in 2021 only occupied about 6% of the total area under cane owing to the low rate of replantation of fields.

A new N1 nursery was planted in 2021 at Ferret with 27 varieties promoted from the preliminary selection phase. The importance of N1 nursery in the variety development programme is mainly to provide pure and disease-free planting material of promising and commercial varieties for final phase selection trials, disease resistance trials and for establishing observation plots.

Following the review of the agronomic performance of all varieties evaluated in final phase trials,

variety M 821/07 was promoted to N2 nursery while varieties M 1317/04 and M 1739/05 were discarded. This resulted in a total of three varieties in N2 including M 821/07, M 833/05, and M 3818/06 planted over an area of 0.167 ha at end-December 2021. Variety M 1952/07 was promoted to N3 nursery and occupied 1.096 ha together with other varieties.

In order to assess the evolution of cane elongation during the growing phase of the crop, cane height measurements were carried out on a fortnightly basis. Similarly, during the ripening phase and harvest season, cane samples were taken on a monthly basis to monitor the evolution of cane weight and sugar content. The data were essential to provide estimates for the crop season.



Biotechnology

The highly promising variety M 3869/07 was cultured in vitro in 2021 and some 3000 plantlets were produced. Similarly, the promising variety M 1952/07 was micropropagated, while the non-released high fiber variety M 1334/84, was initiated in the laboratory. In addition, 4000 tissue culture plantlets of another high fibre variety WI 81456 were provided for nurseries.

One sugar cane variety in quarantine, infected with Sugarcane yellow leaf virus, and three others infected with Sugarcane bacilliform virus were subjected to callus culture and freed from the viruses.

Besides in vitro multiplication of sugarcane, some 1500 disease-free banana plantlets (Figure 23) were produced on request.



Fig 23. Banana plantlets in tissue culture medium (left) and potted (right)

Progress was made on the application of gene editing technology, CRISPR/Cas9 to sugar cane. Five segments of the sugar cane genome are currently being studied; two regions of the brown rust (*Puccinia melanocephala*) resistance gene (*Bru1*) and three flowering genes *Gigantea* (*ScGI*), *Late elongated hypocotyl* (*ScLHY*) and *Flowering locus C* (*ScFTC*) and these were partially sequenced. Target sites from segments of the two *Bru1* gene and *ScGI* were cloned in CRISPR/Cas9 destination plasmids pBUE411 and pHUE411, with either Basta® and hygromycin as selective markers and cloned in *Agrobacterium tumefaciens* strain LBA4404.

Callus cultures from one sugar cane variety were infected with *A. tumefaciens* harbouring CRISPR/

Cas9 plasmid pBUE411. After screening for herbicide Basta® resistance, five plantlets were regenerated targeting the region for the *Bru 1* gene and *ScGI*. Transformants will be screened by next generation sequencing to identify any edited event at targeted genes.

For the selection of brown rust resistance among promising varieties, besides primer R12H16 that is routinely applied, a second set of primers, R12E03-2, was designed from a different R570 BAC library and evaluated. The new primer R12E03-2 proved to be more reliable as it produced a more prominent band at 589 bp (Figure 24) and has now been adopted for future screening of brown rust disease resistance.

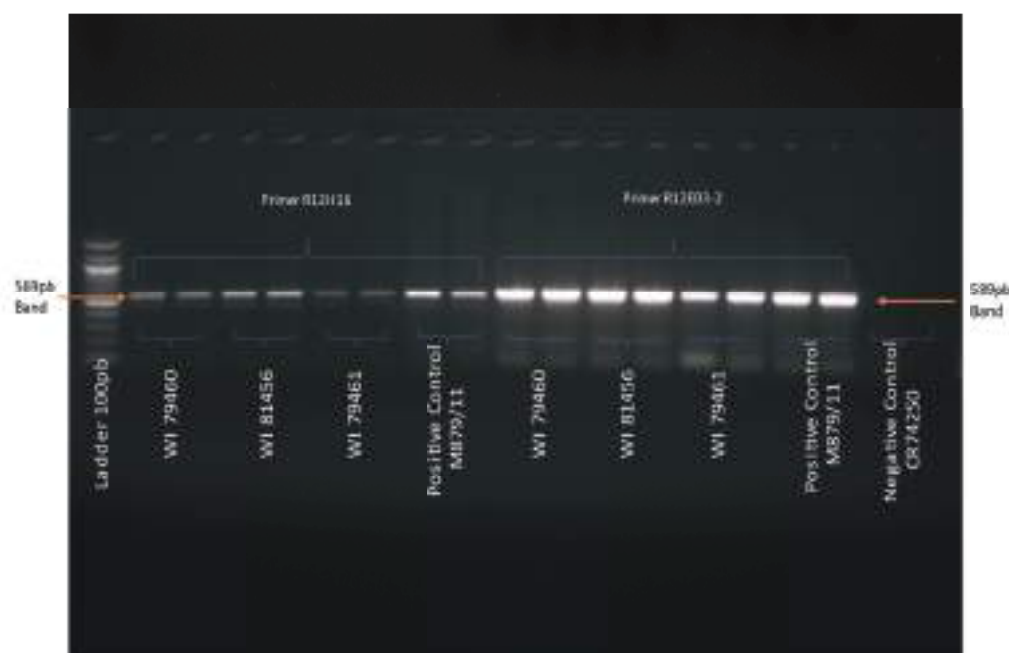


Fig 24. The new primer R12E03-2

Figure 24 shows the electrophoresis gel for Bru1 marker screening for the presence of 569 bp and 589 bp bands associated with resistance to brown rust using primers R12H16 and R12E03-2 respectively. More prominent bands are observed with primer R12E03-2 with samples WI 79460, WI 81456, WI 79461 and positive control variety M 879/11 (in duplicate) as compared to primer R12H16 (left).

The application of DNA barcoding for insect pests is well established at MSIRI and is now routinely applied for specimens where characterization by morphological characteristics is difficult. Samples of an unidentified aphid specimen collected from Round Island by the Mauritius Wildlife Foundation (MWF) and the Agricultural Services, MOAIFS, were DNA barcoded. Sequence analysis showed 100 % similarity with the rusty plum aphid, *Hysteroneura setariae* (Hemiptera: Aphididae). This insect is reported as a pest of rice, wheat, sugarcane and maize in many countries and is listed as a quarantine pest locally. It is also a known vector of Sugarcane mosaic virus (SCMV), the causal agent of mosaic disease of sugarcane, not present in Mauritius. Given its potential economic importance, follow-up surveys were carried out in mainland, Mauritius and the presence of *H. setariae* was confirmed on only one occasion at

Petit Raffray and Grand Gaube from specimens collected in grassland. So far, the aphid has not been recorded in sugarcane.

Sequencing facilities were upgraded during the year with the acquisition of two next generation sequencers; an Illumina MiSeq and a Minion from Oxford Nanopore. While the MiSeq is a highly versatile medium throughput platform, the main advantages of the Minion are its low cost and its capacity for long-read sequences to be produced. The Minion was used to sequence the genome of two important sugarcane bacterial pathogens namely *Xanthomonas axonopodis* pv *vasculorum* (XAV) and *X. albilineans*, causal agents of gumming and leaf scald respectively and high accuracy base-calling of nanopore reads were performed using Guppy v3.4.1 software (ONT, UK). Further efforts are also geared towards the identification and the assembly of plasmids within XAV strains, as in the past distinct plasmid were observed in Race 1 of the pathogen. Currently, the best strategy is to combine Illumina high quality sequencing reads with the long reads from the Nanopore to assemble complete bacterial genomes. It is also proposed to sequence the two bacterial genomes using the Illumina MiSeq and assemble the hybrid sequences from the two sets of equipment.

Tomato mottle mosaic virus (ToMMV: family Virgaviridae; genus Tobamovirus) was first recorded in Mauritius in January 2021. As part of its monitoring, samples received from Ministry of Agro-industry and Food Security (MOAIFS) were tested for the virus by RT-PCR using a first set of primers targeting the Tobamovirus genus and followed by a ToMMV specific test. Five samples were tested positive for the presence of Tobamovirus and ToMMV using the two tests above. The presence of ToMMV in the positive samples, was further confirmed by the sequencing of the 290 bp ToMMV PCR amplicon. The samples showed 99.64% nucleotide sequence similarity with worldwide ToMMV isolates. These findings are necessary as indicators of the disease spread and for the monitoring, by local authorities, of potential outbreaks.

Following a request received from a private commercial company for isolation and identification of fungal pathogens in *Vanilla* sp., DNA barcoding was applied to identify suspected fungal pathogens by sequencing of the ITS region. Sequence analysis enabled the characterization of the majority of isolates as *Fusarium oxysporum* (75%) and *Colletotrichum* sp (25%). Based on the results, remedial action could be taken to control the spread of the disease, showing the importance of the identification of pathogens.

Diseases

The absence of symptoms of gumming disease in commercial fields is now recurrent. This can be attributed to the cultivation of resistant varieties and the absence of major cyclones. In the eastern sector where the disease, particularly race 2, is usually observed, the highly susceptible variety M3035/66 did not show any symptoms. Similarly, there was no incidence of the disease in the susceptible variety R579 largely cultivated in the same region.

During the year, observations made on the recently released variety M683/99, highly susceptible to leaf scald, have shown some foliar stripes and

systemic infection. Since the variety is cultivated in areas prone to the disease, growers have been recommended to adopt proper cultural practices and control measures to avoid dissemination of this major bacterial disease in their plantations. Some foliar stripes and chlorosis were also noted in some varieties grown in multiplication nurseries and in the germplasm collection.

Although smut (*Sporisorium scitamineum*) is usually prevalent in the dry sub humid regions of the North and West, its presence was noted in varieties M1176/77 and M1561/01 cultivated in environments where the disease is generally not observed. This may have resulted from the dry conditions that prevailed at the beginning of the year. Otherwise, the disease was insignificant due to cultivation of resistant varieties.

The level of infection by brown rust (*Puccinia melanocephala*) was considered as negligible in areas favourable to the disease, although some mild symptoms were observed in varieties M1176/77 and M 2593/92.

The dry climatic conditions that prevailed during the early months of 2021 were not conducive for yellow spot (*Mycovellosiella koepkei*) infection (Figure 25). The highly susceptible non-commercial reference variety B 3337 and cultivated varieties M703/89, R570 and R579 at Union Park experimental station showed an infection rate of 0.6%, 0.4%, 0.4% and 0.2% respectively at the end of February. However, infection rates thereafter increased and in June they reached 36.6% in B 3337, 39.6% in M 703/89, 33.8% in R570 and 30.2% in R579 (Figure 26). In variety M703/89, which is declining in its area under cultivation, an infection of 40.2% was noted at Beau Bois located in the superhumid zone.

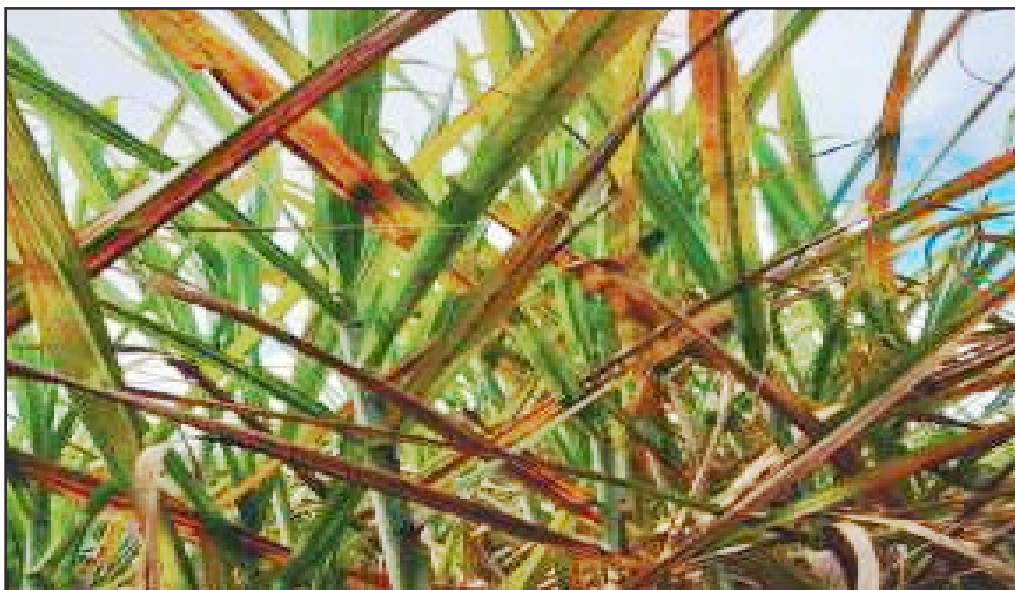


Fig 25. Highly infected leaves caused by yellow spot disease

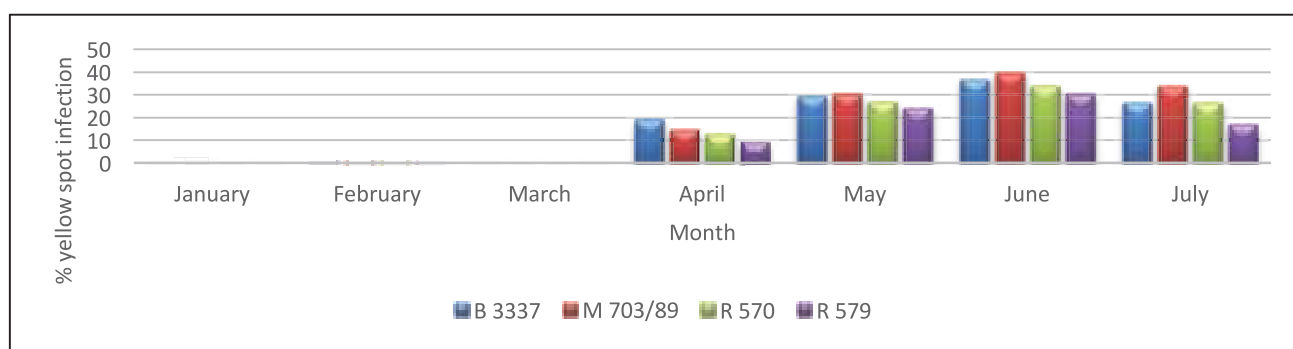


Fig 26. Yellow spot infection (%) observed in varieties B 3337, M 703/89, R 570 and R 579 for the period January-July 2021 at Union Park Experimental Station

Orange rust (*Puccinia kuehnii*) was encountered in all sugarcane growing areas. However, more infection was observed in the North and areas with high humidity particularly in the eastern, central and southern sectors. Observations made on the highly susceptible non-commercial variety M2705/06 at Union Park showed high infection in April, followed by a peak after flowering in May and complete death of the foliage by July (Figure 27). No cultivated commercial variety showed susceptibility to the disease, even at the peak of infection. The level of infection in M2705/06 subsided during the cooler months of winter and remained very low till the end of the year.



April



July

Fig 27. Orange rust infection in the highly susceptible test variety M 2705/06 in April and complete death of foliage by July

The evaluation of varieties for resistance to the major diseases is a major activity in the variety development programme of MSIRI. The information gathered is useful in the selection of varieties and for recommendations on the regions where newly released varieties could be planted.

In a trial at Ferney with sixteen varieties to screen for resistance to race 2 of gumming disease, seven did not show any symptoms, while only short stripes in old leaves were observed in three varieties. These varieties were therefore classified as resistant. Five varieties were rated as slightly susceptible and one variety, M 810/12, as susceptible.

The yellow spot trial planted in 2018 at Union Park Experimental Station was completed. Out of 33 varieties evaluated, only variety M 1649/09 was rated as highly susceptible. Among the others, seven were susceptible, twelve slightly susceptible and thirteen were resistant.

The resistance trial for smut planted in 2018 at Ferret in the subhumid zone completed its cycle in 2021. Out of 28 varieties evaluated, seventeen were resistant to the disease. Among the remaining eleven varieties, one was slightly susceptible, five were susceptible and five were highly susceptible.

In 2020, two trials for orange rust were established, one each in the superhumid and subhumid irrigated zones to assess the development of this new fungal disease in cultivated and promising varieties. A third trial was planted in 2021 at Réduit, in the humid zone to complete this assessment in the three agro-climatic zones. Preliminary data from the first two trials indicate that the level of the disease was higher in the superhumid zone. All trials will need to be harvested concurrently in 2022 so as to have a better evaluation of the development of the disease under different contrasting climatic conditions.

Ten varieties for the quarantine cycle 2018-2020 completed their observation in the national closed quarantine facility during the year. Five of them were released for open quarantine in May, while the remaining five varieties found to be infected by molecular diagnostic tests were cleaned by tissue culture and disease-free plantlets were released in November 2021 for planting and observation in an open quarantine. A new quarantine cycle 2021-2023 was initiated with a total of 24 varieties received from Australia (5), Barbados (5), Réunion (4), Philippines (5) and South Africa (5).

Thirty-nine varieties comprising of 24 from Mauritius, seven from Guatemala and eight from

USA that were maintained in the International Sugarcane Quarantine facility were harvested in May. During the year, disease-free tissue culture plantlets of variety M 833/05 were also introduced in the facility. The number of foreign varieties maintained in the quarantine remained at fifteen. Cuttings of M-varieties were used for export to Australia, Philippines and South Africa under the exchange programme.

Microbiological Analysis

A number of tests for the determination of spoilage microorganisms, are offered by the Plant Pathology Laboratory, namely mesophilic and thermophilic bacteria, yeasts, moulds, thermophilic acidophilic bacteria and osmophilic yeasts, in sugars, in intermediate products and in water. In addition, the laboratory performs tests for the determination of pathogenic bacteria such as *Escherichia coli*, coliforms and *Bacillus cereus* amongst others. During the year, some 308 samples of white refined, raw, special sugars, massecuite, molasses and syrup were analysed. Fifteen soil samples were also analysed for the bacterial wilt pathogen, *Ralstonia solanacearum*.

The studies pertaining to the extension in the scope of accreditation of the Plant Pathology Laboratory were pursued. Four additional tests, namely determination of Thermophilic Acidophilic Bacteria (TAB) and Guaiacol Producing TAB (GP-TAB), Enterobacteriaceae, *Pseudomonas aeruginosa* and *Clostridium perfringens* in sugars received ISO/IEC 17025: 2017 accreditation from MAURITAS in October 2021, following an assessment conducted in May 2021.

Valorisation of Trash

The pilot project on the conversion of sugarcane trash to bioplastics undertaken in collaboration with Queensland University of Technology, Australia, was completed in 2021. Promising results were demonstrated using trash hydrolysate as substrate to produce polyhydroxybutyrate (PHB) in the bacterial strain *Cupriavidus*

necator H16. Additionally, the potential of using sugarcane molasses or sugarcane juice to produce biodegradable plastic was proposed and these avenues would be further pursued.

A new strain of *C. necator*, DSM 545, a mutant of *C. necator* DSM 529 which constitutively expresses glucose-6-phosphate dehydrogenase, was investigated. Preliminary results following culture of the stain in either a nutrient medium containing glucose or on sugarcane trash hydrolysate as substrate showed an increase in cell dry weight and PHB accumulation as compared to the previous strain.

Pests

Pronounced leaf yellowing due to a moderate to severe infestation by the soft scale, *Pulvinaria iceryi*, was reported over an area of about 3ha in nurseries at Trois Ilets. Coccinellid predators were rather scarce while a high level of larval parasitism was observed in the infested fields. A slight infestation was also recorded in a plant cane field under variety M 2593/92 in the same locality. At Olivia, a severe infestation with pronounced yellowing occurred on about 2 ha under M 2256/88. The level of predation by the coccinellid, *Cryptolaemus montrouzieri*, was low. Early harvest of the severely infested fields was effective in controlling the pest. At Savannah, a slight infestation was observed in most of the surveyed fields planted with variety R579. Level of larval parasitism and the population of predatory coccinellids were both low. Removal of thrash was recommended to reduce the pest population and to prevent spread of the pest.

Damage by sugar cane armyworms occurred at Mon Trésor in young re-growths of mechanically harvested fields over an area of about 107 ha of variety R573 and 215 ha of R579. At Britannia, 23.5 ha under R579 and 18.7 ha under M 1861/89 were also damaged.

Dead heart symptoms due to the white borer, *Tetramesa schistaceana*, were prominent over an area of 140 ha in ratoon fields under R573 at Mon Trésor. No important infestation of the newly introduced yellow sugar cane aphid, *Sipha flava*, was observed in sugar cane during field surveys conducted at some selected sites namely Trois Ilots, L'Avenir, Belle Vue and Helvétia. An unusually high and localized infestation of the sugar cane whitefly, *Neomaskiella bergii*, was observed at Beau Plan in

M 1002/02. The development of sooty mould on the leaves showed an advanced stage of infestation. Water stress and severe borer infestation in that area led to the death of cane stools. Syrphid larvae were found actively preying upon the pest (Figure 28). These were reared in the laboratory and emerged adults were morphologically identified as *Allobacha* sp.



Fig 28. Syrphid larva preying upon the sugarcane whitefly

In the context of the implementation of the White Grub Protocol, light traps operated in January, November and December did not reveal any presence of the white grub, *Hoplochelus marginalis* in Mauritius. Beetles collected comprised of *Heteronychus licas* (63.9%), *Alissonotum piceum* (7.1%), *Phyllophaga smithi* (3.6%) and *Adoretus* spp. (25.4%). Soil samplings, carried out in young plant cane fields at Ferney, Trois Ilots, Caroline and Mon Désert Alma from June to September to identify infested fields for setting up insecticide trials, revealed a low larval population of the main local white grubs *Heteronychus licas* and *Alissonotum piceum* and thus the trials did not go ahead.

In view of promoting biological control and reducing reliance upon conventional insecticides,

steps were taken to review the status of the sugarcane armyworm, *Mythimna* spp., its biological control under natural conditions and the recommended management practices. From September to December, a total of 924 larvae comprising of various stages were collected from various regions namely Mon Trésor, Queen Victoria, Bon Air and Beau Séjour. Larvae were kept individually under observations in plastic boxes for a period of 3-4 weeks. The emerged parasitoid species were morphologically identified as the dipteran fly *Alsomyia anomala* Villeneuve (Figure 29) and the parasitic wasps namely *Enicospilus hova* Gauld and Mitchell and *Disophrys lutea* (Brulle). The overall per cent parasitism was 18.8 % and *A. anomala* was the predominant species accounting for 78.7 % of the total number of parasitoids.



Fig 29. *Alsomyia anomala* fly emerging from parasitized armyworm

Surveys were carried out in mechanically harvested fields at Beau Séjour and Mon Trésor. At Beau Séjour, the larval population comprising of very young stages was important in three out of a total of more than 50 fields surveyed. An advanced stage of infestation was observed in most of the damaged fields surveyed at Mon Trésor, but the larval population was below the economic threshold level. Field trials were established at Beau Séjour with variety M 2593/92 and at Mon Trésor with R579 in November and December respectively, with the objective to determine the need for chemical control of armyworms.

Six promising varieties, M 1669/08, M 1952/07, M 3818/06, M 1423/02, M 833/05 and M 821/07 were assessed for their reaction to the stalk borer, *Chilo sacchariphagus* and the armoured scale insect, *Aulacaspis tegalensis*. At Ferret, borer damage was found to be below the economic threshold of 5 % internodes bored (IB) in the four former varieties, while a moderate infestation of 7.1% was recorded in variety M 833/05; the scale insect was not observed. At Chebel, varieties M 1669/08 and M 1952/07 were slightly affected by the borer with 2.2 and 1.6 % respectively. At Sauveterre, a moderate infestation was observed in varieties M 3818/06 (9%), M 1423/02 (8.8%), M 821/07 (6.2%) and M 1669/08 (10.7%) while variety M 1952/07 (4.4 %) was slightly infested. The incidence of the scale insect was low in all the varieties except in M 1423/02, which was moderately infested at Sauveterre.

The project on the possible development of a sterile insect technique for the spotted borer was pursued. Borer larvae were collected in infested sugarcane fields mainly at Belle-Vue and reared in the insectary at Réduit. Artificial diets, using the carcass milling technique developed by the Stellenbosch University, South Africa when tested on neonate larvae from the oviposition cages proved to be ineffective for *C. sacchariphagus*. Rearing of larvae on these diets was discontinued.

Agronomic Practices and Mechanization

The project initiated in 2019, in collaboration with the Mauritius Chamber of Agriculture, Terragri Ltd and Alteo Agri Ltd, to evaluate the inclusion of leguminous crops as 'Plantes de Service' (PdS) in sugarcane cropping systems, was pursued in 2020 and 2021. The incorporation of a PdS aims at using less herbicides through a better control of weeds, in addition to a partial supply of organic N through atmospheric fixation. Experimentations with *Lablab purpureus* cv. Highworth were carried out at Britannia, Benares, Ferret, Mauricia and Solitude. At all sites, the leguminous crop was found to grow rapidly and provided a good ground cover, with no weeds emerging through. However, the sugarcane leaves acted as support for the leguminous crop and favoured twining and climbing of the PdS on the crop, causing severe competition (Figure 30). This invasive characteristic was minimized by delaying the sowing of the PdS in a trial at Mauricia as compared to the sugar cane crop (Figure 30).



Fig 30. *Lablab purpureus* cv. Highworth twining and climbing on sugarcane (up), twining minimized by sowing PdS at a later stage of growth of cane (left).

The leguminous crop was also found to produce very few nodules, with little N fixation despite being inoculated with a rhizobium species, prior to sowing. The low nitrogen fixation initially attributed to the compactness of the soil within the cane interrows; was further studied at Mauricia and Solitude, where a partial decompaction and localized tillage were attempted prior to sowing. However, N fixation did not improve.

In all trials, weed control was very satisfactory with the PdS; no herbicide treatment was required in the plots with a PdS until the next harvest at Gibraltar, weed infestations were even lower than the standard where two rows of the PdS were incorporated (Figure 31). This positive contribution of a PdS is very promising for general weed control, particularly for organic sugarcane production.

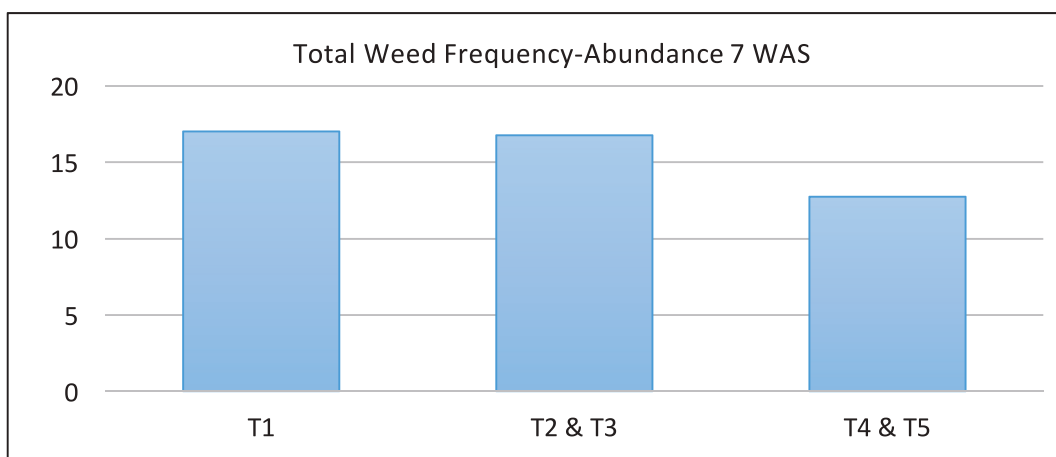


Figure 31. Weed infestation in plots without PdS + standard herbicide treatment (T1), single rows of PdS + no herbicides (T2 and T3), and double rows of PdS + no herbicides (T4 and T5) seven weeks after sowing

The use of leguminous crops as PdS is also being evaluated on an industrial scale with fallow periods before replanting with sugarcane. Canavalia ensiformis, another PdS species with a bushy-type morphology, is also being multiplied locally and will be evaluated with the objective to avoid twining and creeping on sugarcane leaves.

In 2019, two drones were acquired for agronomic applications and herbicide spraying. In 2021, applications and models were developed to

identify, map and quantify weed infestations in sugarcane fields (Figure 32). Ground-truthing confirmed the efficacy of the models when applied to weeds emerged during the early growth stage of the cane as well as for assessing vine weeds at advanced growth stages. R&D works are currently focusing on the estimation of weed infestations at a stage of cane growth equivalent to the usual second application of herbicides, together with the classification of the weeds present.

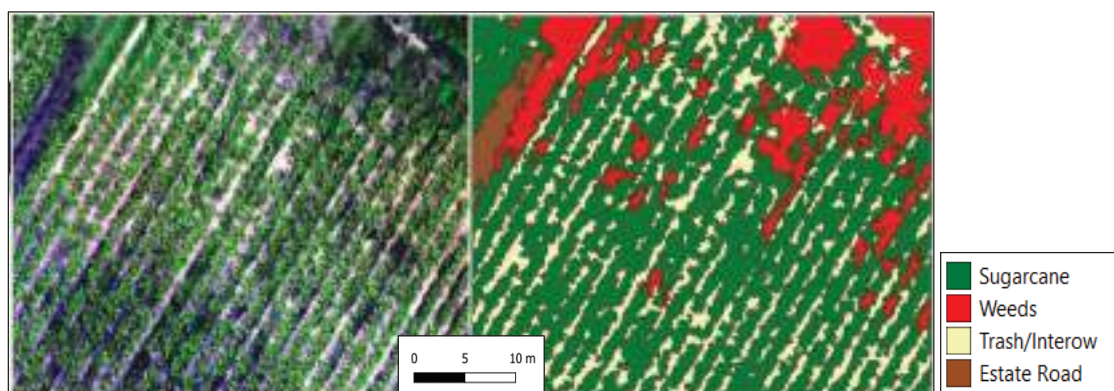


Fig 32. Mapping weeds in sugarcane fields using drone imagery

Another application to estimate gaps, empty spaces larger than 0.80 m between two consecutive stools along a sugarcane row, was tested in the field at Terragri Ltd and a precision of 86% was attained (Figure 33). The model is being refined and further trials are being implemented in various sites.

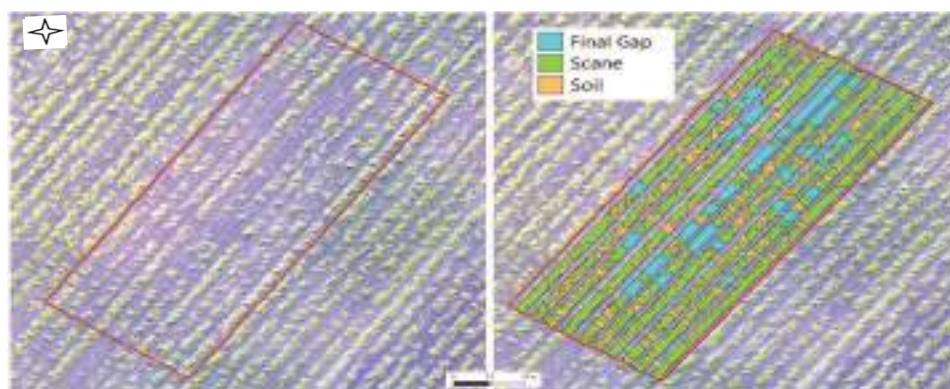


Figure 33. Identification and quantification of gaps in sugarcane fields

In a third application, Crop Surface Models (CSM) generated from point clouds, were used to extract stalk height of sugarcane. Ground truthings, on a monthly basis until canopy closure, were carried out during the year to develop a model for its potential use to monitor cane elongation during the growth period.

As regard to the drone sprayer, selective herbicide spraying on localized vine weeds infestations in sugarcane fields was carried out. Trials were also initiated to evaluate the efficacy of herbicide treatments in pre-emergence of weeds and cane, in early post-emergence of weeds in presence of sugarcane, and as over-canopy spraying with fluroxypyr for control of vine weeds (Figure 34) as well as to optimize rates of active ingredients, flight height and swath width (flight overlapping).



Fig 34. Herbicides spraying using a drone in early post-emergence of weeds (left), and on vines at an advanced stage of cane growth (right)

National Biomass Framework

Government in its 2021-2022 budget speech announced a green energy industry as a new pillar of growth to allow for integrated green energy projects combining the use of biomass, and other sources of energy, with the object to reach 60% of renewable energy mix by the timeline of 2030 concurrently with the phasing out of coal. In order to provide for implementation of these budgetary measures, a National Biomass Framework (NBF) was developed by the MCIA with the main objective to attain the new renewable energy mix through increased use of biomass and other green sources.

Projects within the NBF included more efficient use of sugarcane bagasse, more trash collection, exploitation of higher fibre sugar cane varieties, and the cultivation of energy crops such as energy cane

and eucalyptus on marginal sugar cane lands. Trials, established in collaboration with Alteo Ltd, with two common local species of eucalyptus, namely *E. robusta* and *E. tereticornis* gave a relatively low dry matter productivity of about 12-15 t/ha annually. Additional trials were established with imported species of eucalyptus and energy canes in order to compare their dry matter production with the two local species of eucalyptus.

In 2019, a trial planted at Belle-Rive, for assessing the optimum agronomic practices and biomass production in those marginal lands comprising of *E. tereticornis*, five imported species of eucalyptus, energy cane WI 79460, and Beema bamboo variety (Figure 35) was followed. The energy cane that was planted in both continuous furrows and pits; was again harvested in first ratoon with the “Coupeuse Pei”, a small cane-cutting machine (Figure 36).



Fig 35. Aerial view of trial comparing Eucalyptus species and one variety of energy cane (harvested strip in between the Eucalyptus plots) at Belle Rive

The eucalyptus trees and bamboo variety will be harvested after 3-4 years. The comparative analysis will be carried out after first harvest of the eucalyptus.



Fig 36. Harvesting of energy cane with “Coupeuse Pei” harvester

During the year, MSIRI participated in the establishment of five trials at Alteo Agri (2), Terragri (2) and ENL Agri (1) with nine out of eleven eucalyptus species, namely *E. tereticornis*, *E. urophylla*, *E. pellita*, *E. robusta*, *E. grandis*, *E. citriodora* (*Corymbia citriodora*), *E. dunnii*, *E. camaldulensis* and *E. brassiana*. all imported from Australia. A variety of energy cane was also included in some of the trials for total biomass comparison.

Weed Management

Research on the development of resistance to glyphosate in *Eleusine indica* enabled the identification of susceptible population. The latter is one of the established criteria of the Herbicide Resistance Action Committee (<https://hracglobal>).

com/) in order for a weed to be classified as “herbicide resistant”. Seeds of *E. indica*, obtained from the Mauritius Herbarium and collected in the year 1853, 1940, 1967 and 1980, were sown to produce planting materials for herbicide resistance tests. The population of *E. indica* grown from seed

specimen of 1940 showed the highest susceptibility to the recommended rate of glyphosate at 1.0 kg a.e./ha, causing total kill (Figure 37). In contrast, all the other populations demonstrated resistance to this rate, requiring at least seven times more glyphosate to cause a 50% growth reduction (GR_{50}).

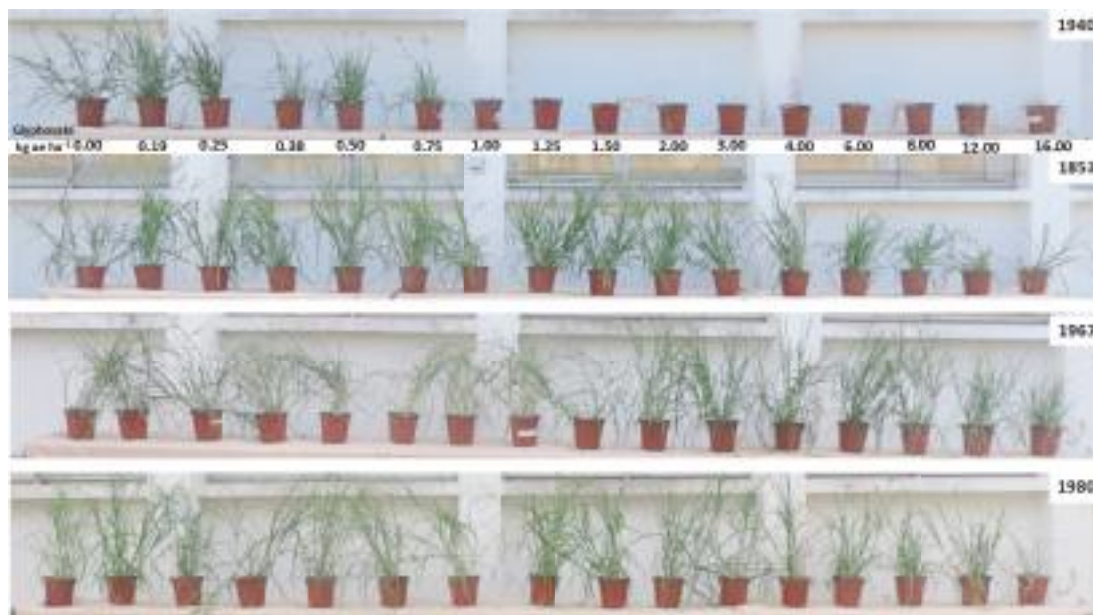


Figure 37. Dose response effects of glyphosate on four populations of *Eleusine indica* grown from seeds preserved in the Mauritius Herbarium. The rates of glyphosate (kg a.e. ha⁻¹) for the different pots in the year 1940 applied correspondingly to other years

Further investigations will be carried out to confirm these results and also to understand the dynamism of herbicide resistance development in *E. indica* in Mauritius. Alternative herbicide treatments to glyphosate for the control of *E. indica* are also being investigated.

In December 2019, Omnicane received its certification from Bonsucro and, in the same year, a similar project was undertaken at Alteo for the Beau Champ region. The support of MSIRI was again solicited with regards to the compliance to the total amount of active ingredients of agrochemicals used. The project was conducted in two phases; the efficacies of a few new tank-mixes containing lower amount of active ingredients were firstly validated with the Alteo team and, secondly, to assist in the recommendation of specific herbicide tank-mixes for the various agroclimatic conditions.

The proposed herbicide treatments have provided very satisfactory levels of control as compared to conventional treatments.

An assessment in the total amounts of active ingredients, together with their impact on levels of control and costs, were completed in 2021. The average amount of active ingredients was reduced below the 5 kg a.i. /ha level and this allowed Alteo to successfully complete its certification process with Bonsucro.

The Bonsucro projects revealed some good levels of weed control achieved with a few new tank-mixes containing lower amount of active ingredients. This motivated the establishment of further trials to assess some of the new tank-mixes for general weed control, including grasses, sedges, shrubs and vines, in ratoon cane (Table 49).

Table 49. New tank-mixes evaluated for their efficacies for general weed control

Treatment No.	Tank-mixes	kg or L ha ⁻¹
1	Hexazinone + trifloxysulfuron + diuron	0.5 + 0.05+1.8
2	Hexazinone + trifloxysulfuron + diuron	0.5 + 0.05 + 2.4
3	Hexazinone + trifloxysulfuron + diclosulam	0.5 + 0.05 + 0.07
4	Hexazinone + trifloxysulfuron + Dinamic	0.5 + 0.05 + 1.2
5	Dinamic + trifloxysulfuron + mesotrione	1.5 + 0.05 + 1.0
6	Dinamic + Krismat	1.5 + 2.0
7	Hexazinone + diuron + 2,4-D	0.8 + 2.4 + 3.0
8	Hexazinone + diclosulam + fluroxypyr	0.8 + 0.07 + 1.8
9	Control (Untreated)	-

The new herbicide treatments (1 to 5) that contained lower rates of diuron and hexazinone compared to currently recommended rates were compared to the standard/recommended tank-mixes (7-9) in a trial set up at Alma. The main weeds present in the field were mainly *Paspalum* spp., *Digitaria* spp., *Kyllinga* spp. and the broadleaf species *Ageratum conyzoides* and *Solanum americanum*. A weed

survey, carried out 6 weeks after spraying, showed that the new tank-mixes were comparable to or better than the standard treatments (Figure 38).

Further trials will be carried out in different agro-climatic conditions with other weed species to confirm these results. Some of these lower rates could also be applied on susceptible cane varieties.

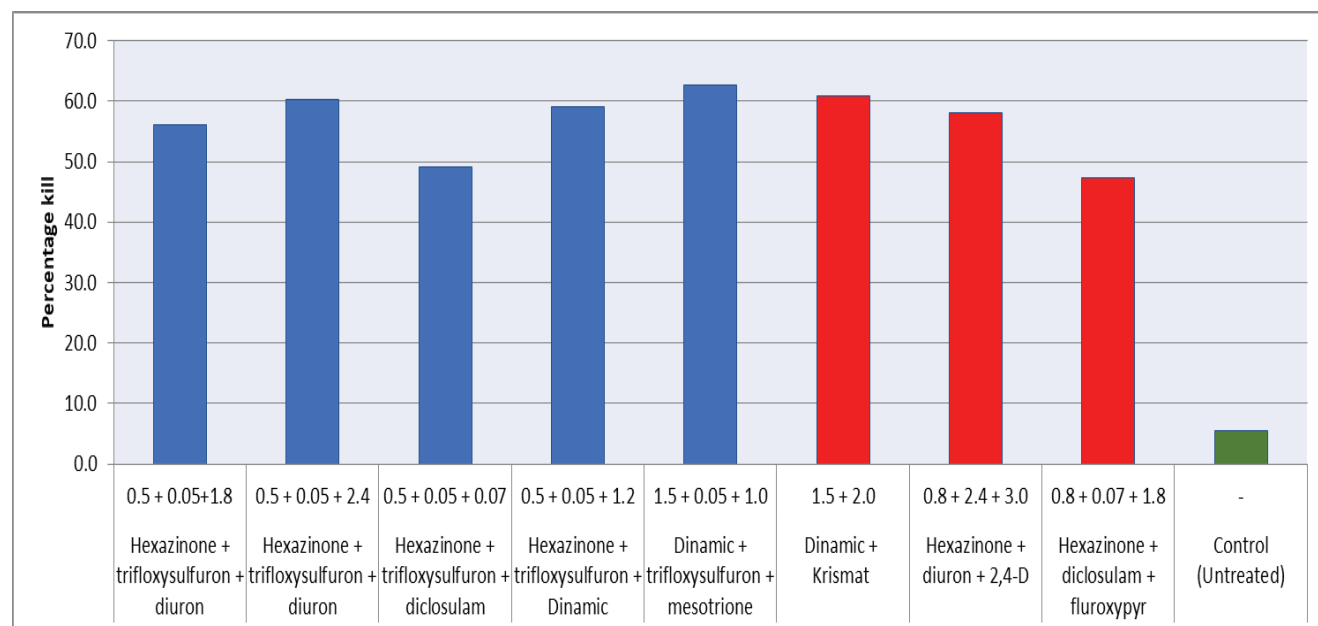


Figure 38. Efficacy 6 weeks after spraying of new tank-mixes (blue columns) compared to the standard treatments (red columns) and the untreated control (green bar) tested in a trial at Alma. Results are expressed as a percentage kill of the initial weed infestation present before spraying. The rates are in kg or L ha⁻¹.

Fertilizer Management

A pot trial was implemented at Réduit to ascertain whether the following biofertilizers could be isolated from soil samples after application: (1) Azofort (*Acetobacter* spp.) and *Azospirillum* spp., (2) Phosfort (phosphorus solubilizing bacteria), and (3) K-active (potassium mobilizing bacteria notably *Frateuria aurantia* spp.). Two applications with each biofertilizer were made, the first one at 6 weeks after planting, and a second 6 weeks after the first application. The standard rate for each product was 1.2 L/ha and was applied directly to the soil near the rhizosphere. Other rates of biofertilizers tested consisted of 50%, and 150% of the standard (recommended) rate, together with an untreated control.

The bacterial cultures that were evaluated showed that, at the initial stage of the pot experiment, the highest application rate, i.e. at 150% the recommended rate, was needed in order to obtain a high bacterial population. Over time, this population was maintained and 2 weeks after the 2nd application, it was found that the lowest rate, that is 50% of the recommended rate, sufficed to achieve high counts.

Analytical Services

Routine analytical services were provided to small and medium planters and sugar estates for the determination of pH, as well as available P, K and Si in soils. A total number of 752 soil samples were analyzed and reports provided, together with relevant recommendations wherever requested.

Monitoring of N, P, K and Si status in TVD leaves on ratoon cane was undertaken as per usual practice, with leaf samples originating from 183 Permanent Sampling Units (PSUs) being analyzed. Results were reported to stakeholders to guide the fine-tuning of the fertilization of ratoon crops.

In addition to routine soil and plant testing, non-routine analytical services were provided upon request and 376 samples comprising of a wide range of matrices including liquid and granular fertilizer,

sugar, molasses and water were analyzed. It is worth noting the increasing importance of concentrated molasses stillage (CMS) as a fertilizer source, with 168 such samples being analyzed during 2021.

Accreditation of MSIRI Laboratories

The Agricultural Chemistry, Plant Pathology and Biotechnology laboratories were granted accreditation against the ISO/IEC 17025: 2005 standards in 2008 and transitioned to the revised ISO/IEC 17025: 2017 in 2020. In May 2021, MAURITAS carried out its first surveillance assessment of the 4th accreditation cycle. During this surveillance assessment, approval of new technical signatories and an extension of scope exercise were also carried out. A total of eighteen non-conformities were raised and cleared by the end of July 2021. In September 2021, the Accreditation Committee approved the following:

1. maintenance of accreditation of the MSIRI laboratories
2. extension of scope for four new tests
3. two new technical signatories in Biotechnology Laboratory and one new technical signatory in Plant Pathology Laboratory.

The scope of accreditation of the MSIRI laboratories includes seven tests for the chemical scope, thirteen tests for the biological scope and one test for the environmental scope. It is currently available at <http://mauritas.org/files/T004.pdf>.

Regional Support for the Persistent Organic Pollutants (POPS)

The Republic of Mauritius, along with fifteen other African countries, was selected by UNEP to participate in the GEF-funded project entitled 'Continuing Regional Support for the POPs Global monitoring Plan (GMP) under Stockholm Convention in the African Region, Phase II'. This second phase started in 2016 and ended in 2021. Its main objectives were to strengthen the national capacity for generating data and monitoring POPs in air and human milk in the African region.

The National Environment Laboratory (NEL) of the Ministry of Environment, Solid Waste Management & Climate Change and the MCIA collaborated with the Government Analysis Division (GAD) to develop national capacity for the analysis of POPs in different matrices. The national samples chosen by Mauritius included air, human milk, sediment, fish and top soil collected in Mauritius. These samples were sent to foreign expert laboratories in Sweden and the Netherlands, and were also analyzed in Mauritius to assess the capability of laboratories to perform the tests.

The Agricultural Chemistry Department of MSIRI was assigned the responsibility of analyzing all sample extracts gathered from NEL and GAD on the gas chromatography-mass spectrometer detector (GC-MSD) and also hosted a one-week training on POPs extraction and GC-MSD analysis in 2017, offered by international experts from the Department of Environment and Health, Faculty of Science, Vrije Universiteit Amsterdam, the Netherlands.

As part of the capacity building objective of the project, the Republic of Mauritius generated data for POPs in air and human milk samples for the global monitoring plan of the Stockholm Convention. The results obtained showed that the level of POPs in national samples were generally very low and often below the method detection limit.

Training Services

The Nigerian Sugar Institute (NSI) of the National Sugar Development Council (NSDC), Nigeria, is a recently created institute whose objectives are to provide R&D programmes to enhance the development of the Nigerian sugar industry and its competitiveness and sustainability. The NSI has recruited a number of trainers who must acquire expertise in various fields of sugarcane agronomy and in this context, a group of six trainers was trained at the MSIRI Training Centre in sugarcane agronomy from February to June 2021, over an effective training period of 12 weeks.

After basic training focusing on an overview of biological aspects of the sugarcane crop and an overview of the agronomy of sugarcane, the group was split into three groups of two trainers, who were trained in three different specialist aspects under the broad headings of: (1) agronomy (2) agricultural engineering and (3) sugarcane technology. The training included classroom presentations where theoretical aspects were developed, reinforced by field visits and practical exercises, as well as laboratory visits, demonstrations and practical work. At the end of the course, a formal evaluation of knowledge acquired was conducted and was successfully completed by all six trainers.

Two requests were received from sugarcane producers for audits of centre pivots that were in operation or had been refurbished. For the first request which concerned five pivots, it was observed that only one unit operated at an acceptable efficiency. In fact, test results were so poor for one specific pivot that urgent maintenance and refurbishment had to be undertaken by the estate. This pivot was subsequently tested again and found to be operating at an acceptable efficiency. Thorough servicing and regular maintenance of all pivots was recommended to improve irrigation quality. For the second request, a single unit was investigated and was found to have an acceptable efficiency. The fact that the tests allowed the pivot operators to identify and correct flaws in their equipment highlights the need for testing whenever there are doubts about the quality of the irrigation from older centre pivot units.

Achievements

- In 2021, some 42,000 sugarcane seedlings were planted in the field for selection purposes over the next 12 to 15 years. Three new promising varieties reached advanced multiplication stage in nurseries and are awaiting final decision for release. One high yielding biomass variety was also being multiplied in nurseries, and awaiting final performance data before a decision is taken on its potential release.
- Four new tests for determination of *Clostridium perfringens*, *Enterobacteriaceae*, *Pseudomonas aeruginosa* and Thermophilic acidophilic bacteria in sugars received accreditation for ISO/IEC 17025:2017 by MAURITAS.
- Analyzed some 750 soil samples, of which 286 were from small planters' fields, and provided relevant fertilizer recommendations. Also analysed some 300 sugar samples for the determination of spoilage and pathogenic microorganisms.
- Provided analytical services for persistent organic pollutants (POPs) for UNEP project on POPs Global Monitoring Plan under the Stockholm Convention in African Region, Phase II.
- MSIRI assisted the Agricultural Services of the MOAIFS and FAREI in identification of new insect pest incursions in the country using molecular techniques.
- The MSIRI/MRIC Pole of Innovation for Biotechnology project initiated in July 2018 was completed in December 2021 and major achievements were made in molecular breeding, molecular diagnostics and tissue culture techniques.
- A project with Queensland University of Technology, Australia, on a pilot production of bioplastics from sugarcane trash was completed and a techno analysis report prepared.
- The International Atomic Energy Agency (IAEA) agreed to fund a project on the 'Improvement of the mass rearing of lepidopteran pests for the development of an eco-friendly Sterile Insect Technique' for the period 2022-2026.
- Training was provided to five staff from the National Sugar Development Council, Nigeria on sugarcane cultivation over a period of 4 months.
- MSIRI Acquired two Next Generation Sequencing platforms, namely the Oxford Nanopore and Illumina Miseq for implementing projects in Agriculture, while a Tapestation for preparing high quality DNA/RNA samples was also purchased.
- Successful transformation of sugarcane varieties was achieved, aiming at knocking out flowering genes in sugarcane using the CRISPR/Cas9 gene editing technology.

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) Enter into management contracts on behalf of planters.
- (iii) Devise agricultural credit schemes in consultation with financing agencies.

(iv) Ensure that arrangements are made so that cane of small planters are harvested at their optimal sucrose content.

(v) Assist cooperative societies in benefitting from the Fair-Trade initiative or such other similar projects.

(vi) Set up a Planters Data Bank.

Operations of the Farmers Service Agency (FSA)

The Farmers Service Agency (FSA) operates in a decentralized manner with nine centres around the island. It ensures that essential services are provided to sugar cane planters. It acts as a facilitator and networks with all stakeholders. The strength of the FSA lies in its front liners who are extension agents having very strong relationship with the planting community.

FSA technical staff are responsible for providing technical advice so that small sugarcane planters adopt good agricultural practices and benefit from incentive schemes.

The Table below illustrates the coverage of FSCs on a factory area basis:

Table 50 - Distribution of Sugar Cane Planters in Different FSCs							
Region	FSC	No. of Planters	Total Area under cane (ha)	Owing <10 ha		Owing >10 ha & <42 ha	
				Planters	Acreage (ha)	Planters	Acreage (ha)
EAST	Beau Champ	1,156	1,553.02	1,141	1,335.01	15	218.01
	Bon Accueil	784	892.66	774	776.73	10	115.94
	Unité	1,888	1,880.03	1,878	1,763.50	10	116.54
CENTRE/WEST	St Pierre	2,189	2,516.74	2,179	2,393.04	10	123.71
NORTH	Riv du Rempart	1,037	1,078.68	1,036	1,036.85	1	41.83
	Solitude	1,381	1,361.72	1,377	1,283.18	4	78.55
SOUTH	St Felix	862	1,386.45	842	1,094.69	20	291.76
	Rose Belle	2,247	1,940.40	2,242	1,879.29	5	61.11
ISLAND		11,544	12,609.70	11,469	11,562.27	75	1,047.43

Source: SIFB Registration 2021

The FSA also promotes the “one-stop-shop” concept where various service providers in the agricultural sector offer their services under one roof. Organizations which are present at the Head Office and the different FSCs are as follows:

- (i) Ministry of Agro-Industry & Food Security – Agricultural Service Centre
- (ii) The Co-operative Business Centre - Ministry of Industrial Development, SMEs and Cooperatives
- (iii) Food and Agricultural Research Extension Institute
- (iv) Small Farmers Welfare Fund
- (v) Sugar Insurance Fund Board
- (vi) Agricultural Marketing Board
- (vii) The Mauritius Fairtrade Cooperative Federation Ltd
- (viii) The Mauritius Cooperative Agricultural Federation Ltd
- (ix) Blychem Ltd

The Farmers Information Management System at the FSA (FIMS)

Computerisation of activities of FSCs

The setting up of a planter databank has been one of the priorities at the FSA. The Farmers Information Management System (FIMS) has enabled the FSA to manage efficiently the Advance Fertilizer Subsidy and the Agricultural Land Management schemes. Further development of the cloud-based data management system encompasses all extension activities, management of the nursery system and hiring of land preparation machinery.

Field Visits

For year 2021/22, 22,459 field visits were carried out of which 51.3% were targeted towards projects such as replanting and post-replanting operations in the Agricultural Land Management System Cane Replanting Scheme (ALMS-CRS). The remaining field visits included surveys, home visits and visits on request from specific organizations.

Table 51 – Field Visits in Small Planters’ Fields

Year	2020/21	2021/22
ALMS-CRS	6,678	11,541
Other visits	7,937	10,918
Total	14,615	22,459

The uplifting of restriction due to lockdown has enabled our technical staff to carry out field visits. As such, compared to FY 2020/21, there has been a considerable increase in number of field visits from 14,615 to 22,459 in FY 2021/22.

Demonstrations

Emphasis has been laid on the adoption of newly released varieties. The objective being to encourage small planters to adopt a proper varietal mix for early, mid and late harvest. The demonstrations with newly released varieties represented 66% of all the demonstrations. The varieties M 683/99, M 1256/99, M 1989/99 and M 1392/00 are being progressively accepted by the planting community.

Table 52. Demonstrations carried out in Small Planters’ Fields

Type	2020/21	2021/22
Sugar Cane Varieties	65	91
Herbicide Mix	35	36
Bio-Fertilizers		6
Others		4
Total	100	137

Emphasis was also laid on creating awareness among the planting community on the use of alternative sources of fertilizers. As such, a joint project was initiated with the Mauritius Chemical and Fertilisers Industries Ltd (MCFI) in collaboration with the MCAF and MSIRI to promote the use of biofertilizers.



Fig 39. Trial carried out with Bio-Fertilizer at Petit Camp

Ten demonstrations using bio-fertilizers have been carried out throughout the island. It is to be pointed out that the trials will span over 3 years and follow a strict protocol using a simple with and without trial design at the rates recommended by the product manufacturer in addition to the usual chemical fertilizers applied by planters to enable a proper evaluation of its efficacy.

Conducted Tours

A total of 26 conducted tours were organized around the island and were attended by 196 planters which were mainly focused on the adoption of newly released varieties, mechanized harvest and the judicious use of pesticides. For the period 2020-21, only 136 growers participated in such conducted tours.

Group Meetings

Group meetings are held to promote the adoption of good agricultural practices among the planting community. Group meetings were also organized to create awareness on pertinent issues affecting

the small planters, for instance, for period 2021/22, emphasis was laid on judicious use of fertilizers, good harvest practice and adoption of newly released varieties.

Table 53 – Group Meetings held with Small Planters

SN	Topic	2020/21	2021/22
1	Regrouping/Cane Replantation Scheme	11	11
2	Cane Fire Mitigation	1	1
3	Cane Harvest	17	21
4	Good Management Practice	5	5
5	Fertilization in Sugar Cane	1	11
6	Planters Schemes/Fairtrade	13	5
7	Nursery and Sales	32	19
Total		82	73



Fig 40. Meeting with Planters at St Pierre FSC on Harvest Campaign 2022 in June 2022

Info Sheets

Nine (9) Information Sheets were distributed to 918 growers as compared to last year where twelve information sheets were distributed to 1191 growers. Emphasis was laid on judicious use of fertilizers, good harvest practice, adoption of newly released varieties and proper weed control measures.

Table 54. Info-Sheet Distributed to Planters

SN	Tank-mixes	No of Planters
1	Judicious use of fertilizer	161
2	Clean cane	201
3	Cane fire	78
4	Weed control	122
5	Cane harvester	28
6	Newly released cane varieties for planting in different soil types	159
7	Cane harvest period	75
8	Contracting services	47
9	Post emergence herbicides	47
	TOTAL	918

Soil Sampling

FSA field staff normally collect soil samples from small planters' fields at land preparation stage. These are then sent to the MSIRI Soil Chemistry Laboratory for analysis. The recommended fertilizer application rates are communicated to the planters concerned. For the FY 2021/22, 233 samples were collected throughout the island mostly from fields that were replanted under the ALMS-CRS project. There has been an increase of 35.7% of soil samples taken as compared to last year.



Fig 41. Soil Sampling Process

Visit by Planters to FSC

A total of 13,836 planters called at the Farmers Service Centers for technical advice, supply of seed cane, as well as to apply for schemes such as ALMS-CRS, Advance Supply of Fertilizers.



Fig 42. Planter's Visit at St Pierre FSC

Liaison Meetings

Six liaison meetings were held with the main stakeholders of the sugar cane sector for the FY 2021/22. Representatives of planters and different service providers are invited to share information pertaining to the sugar cane small planter sector.

Zonal Meetings

Zonal meetings were set up with a view to ensure close collaboration between the FSA and AMU for the implementation of the ALMS-CRS. Twenty-four such meetings were held at the FSCs with the participation of field staff from both departments. Zonal meetings also served for the monitoring of land preparation services by SME contractors.

Seed Cane Supply

Seed cane supply remains one of the main activities of the FSA. 6,082 t of planting material of twelve sugar cane varieties were sold to 899 planters in FY 2021/22. Seed cane are normally sold from established nurseries in small planters' fields. These fields follow established procedures and standards to be qualified as nurseries under the Seed Cane Subsidy Scheme. Under this Scheme, planters benefit from free cane setts and pre-emergence herbicide at planting. A cash grant as well as a subsidy/t of cane sold as setts are also paid to nursery owners.

It should also be pointed out that apart from setts received from established nurseries, FSA organises sales from commercial fields to fulfill the high demand at time of replanting.

Table 55 - Seed Cane Supply for the Period July 2021 – July 2022 from Established Nurseries and Commercial Fields.

Table 55. Seed Cane Supply				
Variety	2020/21 (t)	No of Beneficiaries	2021/22 (t)	No of Beneficiaries
R 570	1,982	399	1,125	219
M 683/99	1,354	167	2,151	416
M 1400/86	949	64	1,211	267
R 579	499	99	456	87
M 3035/66	364	69	386	67
M 1959/03			42	12
M 1989/99	185	55	269	48
M 1392/00	81	6	93	22
M 915/05	77	17	47	14
M 1256/04	75	11	150	43
M 2283/98	44	8	36	10
M 1176/77			81	14
M 3779/06			34	7
M 216/02	3	2	1	1
M 1698/02	3	2		
TOTAL	5,616	899	6,082	1,227

Compared to FY 2020/21, there has been an increase of 8.2% in the seed cane supply representing 446 t of setts. Adoption of newly released varieties remains one of the main strategies of the FSA. Sales of variety R570 saw a sharp decline from 35.2% in 2020/21 to 18% in 2021/22. Likewise, sales of newly released varieties increased from 18,225 t in 2020/21 to 2,904 t in 2021/22 representing a 15.9% increase.

Sale of Setts from Commercial Fields

Out of the 6,082 t of setts, 3,704.6 t were sold from commercial fields which are commonly known as converted nurseries. It is to be noted that the converted nurseries are cane fields replanted under ALMS-LRS Schemes in FY 2020/21 and which meet standards as per the nursery establishment procedures.

Table 56. Sale of Setts from Commercial Field

Variety	Total Extent (ha)	t
R 570	22.60	1,112.00
M 683/99	12.10	768.00
M 1400/86	20.70	999.00
R 579	13.60	402.00
M 3035/66	6.30	371.00
M 1989/99	0.20	19.20
M 1392/00	0.60	13.20
M 2283/98	0.30	20.20
TOTAL	76.50	3,705.60



Nurseries Established

During the year 2021/22, the total area under established cane nurseries stood at 44.74 hectares out of which 35.59 ha represented newly released cane varieties.

Table 57. Sale of Setts from Commercial Field

Variety	Area (ha)	
	2020/21	2021/22
R 570		0.84
M 3035/66		0.41
M 683/99*	5.2	21.13
M 1176/77		0.95
M 2283/98*	0.5	0.76
M 1256/04*	-	2.69
M 1392/00*	4.6	3.59
M 915/05*	2	1.4
R 579	-	2.31
M 1400/86	-	4.64
M 64*	0.4	3.08
M 1989/99*	0.5	0.84
M 216/02*	0.1	
M 1698/02*	0.1	
M 3779/06*	0.3	2.1
TOTAL	14.4	44.74

*Newly released varieties

Fig 43. Sale of Setts M1392/00 from a Commercial Field at Hollyrood



Fig 44. Newly released varieties in small planters' field

Agricultural Land Management System (ALMS-CRS)

ALMS-CRS (2021/22) for FY 2021/22, contracts were signed for a total area of 471.2 ha concerning 721 planters. As at end of June 2022, 377.5 ha

representing 80% of the project had already been completed. It should be pointed out that last year the area of signed contracts was 570.4 ha and concerned 863 planters.

Table 58 - ALMS Established in 2021/22

SECTOR	Area contracted (ha)	YEAR 2021/22		No. of Planters
		No. of Planters	Area Completed (ha)	
NORTH	142.20	260	116.50	223
EAST	144.90	220	120.20	167
CENTRE	81.70	85	58.70	53
SOUTH	102.40	156	82.10	136
TOTAL	471.20	721	377.50	579

Rehabilitation of abandoned lands has also been encouraged through the ALMS-CRS. For the year 2021/22, 81.5 ha concerning 138 planters were replanted under cane.

Table 59 - Rehabilitation of Abandoned Land under ALMS

SECTOR	YEAR 2020/21		YEAR 2021/22	
	Area contracted (ha)	No. of Planters	Area Completed (ha)	No. of Planters
NORTH	34.30	54	28.67	50
EAST	11.80	16	34.09	56
CENTRE	3.10	8	7.06	12
SOUTH	3.70	4	11.68	20
TOTAL	52.90	82	81.50	138

For the FY 2021/22, out of the total area contracted under ALMS-CRS, 17.3% of abandoned land has been rehabilitated as compared to 9.2% in FY 2020/21. It is to be pointed out that for the last three years 208.8 ha of abandoned cane land concerning 359 planters have been replanted.



Fig 45. Land Clearing of Abandoned Land at Le Ravin, Rivière du Rempart

Services of SME Contractors for Land Preparation in ALMS-CRS Project 2021/22

With a view to accelerate land preparation under ALMS-CRS Scheme, MCIA had recourse to private land preparation contractors.

Following an Expression on Interest exercise, four SME's were selected to offer their services in this project and 62.8 ha belonging to 89 planters were prepared by SMEs.



Fig 46. Bulldozing by SME tractor at Le Ravin, Rivière du Rempart

Table 60. Area of Land Preparation Carried by SMEs Tractors as at end of June 2022			
SN	Region	Acreage Completed (ha)	No. of Planters
1	East	8.7	17.0
2	Centre/West	8.9	6.0
3	North	21.9	37.0
4	South	20.0	29.0
		62.8	89.0

Planters Fund

Upgrading of road infrastructure in small planters' fields was pursued to facilitate access in small planters' fields.



Fig 47. Upgrading of Access Road at Mexico, Bois Chéri

During financial year 2021/22, some 20.570 km of field access roads were repaired mainly through laying of rough stones followed by compaction and road levelling. In addition, clearing/opening of drains was carried out on a length of some 6.5 km. A total of 652 planters benefitted from this scheme as follows:

Table 61 - Upgrading of in-field road during FY 2021/22

Factory Area	Activity	Length (m)	No. of Planters
Beau Champ	Road levelling	3,200	21
Bel Ombre		1,500	12
Britannia		300	2
Riche-en-Eau		1,500	8
Riche-en-Eau	Clearing and opening of drains	14	12
Total		6,514	55

Table 62. Road mending and compaction of roads

Factory Area	Activity	Length (m)	No. of Planters
Beau Champ	Road mending and compaction of roads	270	2
Britannia		6,800	105
Highlands		6,000	45
Mon Désert Alma		6,000	376
Riche-en-Eau		500	5
Rose Belle		4,000	59
St Félix		1,000	5
Total		24,570	597

A total of MUR1,377,773 was spent under this item.

Advance Supply of Fertilizers

The Fertilizer Subsidy Scheme (FSS) was reconducted for the FY 2021/22 under the same terms and conditions as in previous years. Vouchers equivalent to 197,858 25-kg fertilizer bags were issued to planters.

The Scheme provides for a 50% grant and 50% of cost of fertilizer to be recouped from sugar proceeds of each beneficiary through the Mauritius Sugar Syndicate. Out of a total 7,279 planters who benefitted from the Scheme, 6,834 planters opted for fertilizer vouchers while 445 planters benefitted from a refund.

Radio Talks

Table 63 - Radio Talks Broadcasted During Year 2021/22

Topic	Date
Pre-harvest measures and harvest planning	22-Jul-21
Land preparation and replanting under Agricultural Land Management System	18-Aug-21
Post-harvest operations	22-Sep-21
Pesticide handling and container management	01-Oct-21
Fertilization in plant and ratoon cane	24-Nov-21
Herbicides selection	22-Dec-21
Land preparation and long season replanting	16-Feb-22
Natural disasters affecting sugarcane and precautionary measures	23-Mar-22
Threats and challenges of small planters' sector	20-Apr-22
Roles of service providers and registration procedures	18-May-22
Good harvest practices	22-Jun-22

The Agricultural Radio Programme is of 15-min duration in Bhojpuri and Creole on the Radio Mauritius (AM) and Cool FM channels respectively. These talks are normally broadcast on the third Wednesday of each month. The participants involved in the preparation and delivery of the radio talks come from the technical cadre of the FSA.

Apart from the radio talks, FSA participated in two live radio programme in collaboration with the Citizen Support Unit.

Events

Three meetings were held in connection with the Harvest Campaign of Crop 2022. The Hon. Minister of Agro-Industry and Food Security addressed planters' representatives at Solitude, St Pierre and Rose Belle FSCs.

Training

The Mauritius Qualifications Authority has granted a Certificate of Registration of a Training Institution to the Farmers Service Agency on 27 June 2022.

Table 64 - Training held During FY 2021/22

SN	Grade	Course Title	Month	Place	Resource Person
1	TO/STOs	Establishment and Sales Procedures Nursery	July 2021	St Pierre	Mr A.K. Awotarowa
2	New TA/STAs	Induction Course on basic principles of Sugar Cane Agronomy	August 2021	St Pierre	Mr A.K. Awotarowa
3	All Technical Staff	Application of Bio-Fertiliser in sugar-cane	January 2022	MSIRI	Dr R. Ng Cheong
4	OMA & TA/STA	Productivity tools using PCs: Use of Emails	January 2022	St Pierre	Mr N. Pokhun
5	TO/STOs New TA/STAs	Good Agricultural Practices	January/ February 2022	St Pierre	Mr A.K. Awotarowa
6	TO/STOs TA/STAs	Online training on Sugar Refinery Technology for Developing Countries	March 2022	St Pierre	Guangxi International Business Vocational College
7	All Technical Staff	Developments on Farmers Information Management System	April 2022	St Pierre	Mr R. Woodun
8	Managers & TO/STOs	Bonsucro Production Standard - Online	May/June 2022	Online	Bonsucro
9	TA/STAs SIFB MSIRI	Identification of sugarcane varieties at MSIRI	June 2022	Boname Hall	Dr M.G.H. Badaloo Mr S. Coonjah



Fig 48. Online Training Course on Sugar Refinery Technology for Developing Countries from 10 to 23 March 2022



Fig 49. Training on Identification of Varieties for SIFB and FSA officers



Fig 50. Induction Course with New Recruits

Committees

The FSA represented the MCIA on the following:

Table 65. Committees		
Name	Grade	Committee
Mr Y. Ramdharee	Director	Environment Coordination Committee, Ministry of Environment, Solid Waste Management and Climate Change Anti-Corruption Committee, Mauritius Cane Industry Authority Mount and Beau Plan Planters Fund National Vulnerability Assessment Committee, Ministry of Environment, Solid Waste Management and Climate Change
Mr A. Awotarowa	Ag Assistant Director	Standards Committee, Mauritius Qualifications Authority Sectoral Committee, HRDC Capacity for Disaster Risk Reduction Initiative (CADRI)

E. SERVICE TO FARMERS (AGRICULTURAL MECHANISATION)

Objectives and Functions

- (i) To maintain a pool of machinery for agricultural purposes
- (ii) 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, Rollers, as well as various equipment and accessories. Table 66 shows the different types and numbers constituting the fleet.

Table 66. Services to the Planting Community

SN	Description	TYPE	CAPACITY	QTY
1	Crawler Tractor	'D6'	165 - 185 HP	22
2	Crawler Tractor	'D7'	220 HP	8
3	Crawler Tractor	'D8'	300 HP	2
4	Excavator	PC - 350	35 Tonnes	2
5	Bell Loader	1250 Cane Loader	38 HP	5
6	Roller	3410P	130 HP	1
7	Wheel Tractor	-	90 HP	1
8	Wheel Tractor	-	175-185 HP	11
9	Wheel Tractor	-	250 HP	1
				53

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

- Land Clearing
- Derocking
- Levelling to facilitate mechanisation
- Furrowing
- Road tracing
- Cane Loading

Approximately 80% of the work performed by AMU machines is for sugarcane plantation and approximately 15% is for foodcrop planters.

Main Categories of Hirers

1. Small sugarcane planters

This category of planter consists mainly of small sugarcane planters and constitutes approximately 80% of the AMU's workload. More than 85% of planters found in this category 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 than small sugar cane planters.

3. Small non-sugar planters

This category consists mainly of foodcrop growers. The demand for land preparation services is increasing and represents approximately 16% of the total hours work done by AMU's tractors.

4. Revenue

Table 67. Revenue July 2021 – June 2022		
	Effective Hrs	Revenue (MUR)
Small sugarcane planters	26,794.20	16,215,017.50
Sugar Estates	402.25	530,970.00
Parastatal	449.75	1,019,403.75
Small non-sugar Planters	5,430.75	7,132,662.50
Total	33,076.95	24,898,053.75

There was a 31% increase in effective hours relative to 2020/2021 and a 35% increase in revenue relative to 2020/2021 representing an increase of MUR6.5M

F: CONTROL AND ARBITRATION DEPARTMENT

Introduction

The Control and Arbitration Department (CAD), formerly known as the Cane Planters and Millers Arbitration and Control Board is a Department of the Mauritius Cane Industry Authority (MCIA) since the proclamation of the MCIA Act No.40 of 2011, on 19 March 2012.

The CAD is managed by a Director who is responsible for the execution of the policy of the Control and Arbitration Committee (CAC) and the day-to-day business of the department. In the discharge of his functions, the Ag. Director is currently assisted by four Sugar Technologists.

Composition of Control and Arbitration Committee

The composition of the Control and Arbitration Committee during period 01 July 2021 to 30 June 2022 was as follows:

Vision:

To provide effective service to planters, millers and other institutions of the sugar industry to promote and sustain social stability among partners of the Sugar Industry.

Mission:

To control milling activities, arbitrate disputes between planters and millers and determine the quantum of sugar and by-products accruing to growers.

Table 68: Composition of the Committee 2021 - 2022

Table 68: Composition of the Committee 2021 - 2022	
Chairperson	
Mr. Dheerendra Kumar Dabee, G.O.S.K	
Members	
Mr. Jean Li Yuen Fong	Representative of millers
Mrs. Indira Rugjee	Representative of Ministry of Agro- Industry and Food Security
Mr. Soobas Muniah	Representatives of small planters
Mr. Vhinaye Dookhony P.M.S.M	Representatives of small planters
Mr. Amal Kumar Mohabeer Mungur	Representative of the MCIA Board
Vacant	Independent member

The Committee held twelve meetings during period 1st July 2020 to 30 June 2021 and the attendance of each member is provided in Table 69.

Table 69. Attendance for period 1st July 2021 to 30 June 2022	
Mr. Dheerendra Kumar Dabee, G.O.S.K	12
Mrs. Indira Rugjee	12
Mr. Jean Li Yuen Fong	10
Mr. Soobas Muniah	10
Mr. Vhinaye Dookhony P.M.S.M	11
Mr Amal Kumar Mohabeer Mungur	12

Functions and powers of the Control and Arbitration Committee

(1) The Control and Arbitration Committee shall

- (a) arbitrate disputes between planters, millers and middlemen;
- (b) control the milling of canes and the manufacture of sugar;
- (c) determine the quantity of sugar and co-products accruing to planters and millers; and
- (d) perform the functions assigned to it under Parts IV, V, VI and VII.

(2) The Control and Arbitration Committee may

- (a) summon witnesses and examine them on oath;
- (b) authorize an employee to enter –
 - (i) any premises other than a private dwelling used in connection with the milling of canes or the manufacture of sugar and co-products; or
 - (ii) on any land used for the cultivation of canes;

- (c) order the production of any document believed to contain any matter relating to the milling of canes or the manufacture of sugar and co-products which it may wish to inspect;
 - (d) undertake, or cause to be undertaken by an employee authorized for the purpose, any operation, test or experiment which it thinks necessary;
 - (e) require a planter or miller to undertake or to cause his employees to undertake on his land or business premises any operation, test or experiment which it thinks necessary;
 - (f) make an order for the payment of the cost of any operation, test or experiment required by it to be undertaken;
 - (g) use or cause to be used for the purposes of any operation, test or experiment any implement, plant, laboratory, machinery or apparatus belonging to a planter or miller;
 - (h) set up such committees as may be necessary to assist it in the discharge of its functions and exercise of its powers.
- (3) In the discharge of its functions under subsection (1), the Control and Arbitration Committee shall not be subject to the direction or control of any other person.

Arbitration of disputes and handling of grievances

No formal dispute was reported to the Committee for arbitration during period 01 July 2021 to 30 June 2022. However, twenty two complaints have been registered during the same period as compared to eight during the previous financial year. The complaints were mainly on the operation of the weighbridges, cane quotas during factory breakdowns, waiting time at the weighbridges, unavailability of chains and cane transportation and all were successfully resolved by the officers of the Control and Arbitration Department.

Registration of Cane contracts

Prior to the start of the harvest season, any planter, after having registered his sugarcane plantations with the Sugar Insurance Fund Board is required to enter into a cane contract agreement with the miller to enable him to deliver his canes at the factory. These cane contracts are then forwarded to the Control and Arbitration Committee for registration.

All cane contracts are normally entered into between planters and millers at latest by the 31 May of each crop year and are forwarded to the Control and Arbitration Committee for registration not later than 15 June. After 31 May, a permit from the Head Office of the Control and Arbitration Department is needed and this permit is issued free of charge to any planter on presentation of the planter's Sugar Insurance Fund Board card for the current crop year.

For Crop 2022, due to sanitary conditions imposed by the government, cane contracts have been renewed automatically for planters having no changes in their harvestable area and area under cane cultivation. However, all new planters and existing planters who replanted sugarcane on their land were required to enter into new cane contract agreements with the millers.

Start and End of Crop 2021

During Crop 2021, three factories were in operation namely Terra, Alteo and Omnicane. The milling of canes started on 14 June 2021 at Alteo factory and ended on 9 January 2022 at Terra. The maximum number of crushing days has been recorded at Alteo factory (157 days) while Omnicane which was the last factory to start its operations completed its milling activities in 128 days. The start and end of milling activities of each sugar factory is provided in Table 70 below.

Table 70 – Start and End of Crop

Factory	Start date receiving estate canes	Start date receiving planters' canes	Date start of milling operations	Date end of milling operations	Number of crushing days
Terra	07 July	13 July	13 July	09-Jan 22	145
Alteo	14 June	14 June	16 June	23-Dec	157
Omnicane	12 July	12 July	13 July	18-Dec	128

Canes Milled

During Crop 2021, a total of 2,671,709 t of canes were supplied to the mills by sugarcane growers out of which 2,668,465 t were milled while the remaining 3,244 t were lost during transportation between the cane transit sites and the receiving factories.

Figure 51 below illustrates the tonnage of canes crushed by each factory and their respective percentage. It is observed that Alteo factory has crushed about 40% of total canes and the remaining 60% have been milled by Omnicane and Terra.

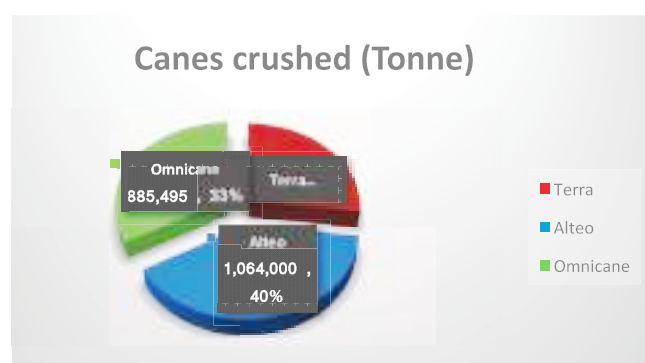


Fig 51. Cane Crushed per Factory - Crop 2021

Sucrose Content Tests

Any planter or group of planters, either individually or collectively having an amount of 300 t of canes may apply for a separate sucrose content test in case he wants his canes to be assessed separately. As at the closing date of 15 March 2021, the department did not receive any application for new separate tests or cancellation of separate tests apart from a few renewals of tests. Subsequently, the same final list of separate tests for Crop 2020 was maintained for Crop 2021.

During the harvest season, cane samples taken at random from cane consignments were analysed for the following parameters Brix, Pol% and Fibre% at Terra, Alteo, Medine and Omnicane laboratories by means of InfraCana Cane Analysers. The predicted test results were then used for the determination of the amount of sugar accruing to each planter.

Table 71. Number of valid tests			
Factory	Total number of tests	Number of cancelled tests	Number of valid tests
Terra	26,620	2,077	24,543
Alteo	32,551	3,920	28,631
Omnicane	26,200	2,895	23,305
Total	85,371	8,892	76,479

Sugar Production

The total sugar production tel-quel for Crop 2021 is 255,817 t as compared to 270,875 t during Crop 2020, representing a decrease of 5.56%.

The amount of sugar produced by each factory during Crop 2021 is provided in Table 72 below.

Table 72. Sugar Production (kg)				
Factory	Sugar Tel Quel Crop 2020	Sugar produced - Crop 2021		
		Tel Quel	Ave. Eff	@ 98.5° Pol
Terra	78,978,291	71,951,710	72,570,857	72,593,963
Alteo	103,873,752	98,202,504	97,617,187	98,189,958
Omnicane	88,023,290	85,662,971	86,941,686	86,370,886
Total	270,875,333	255,817,185	257,129,729	257,154,807

A summary of total amounts of sugar produced, the start and end of crop dates, the number of crushing days, the tonnages of canes received and milled, the losses in cane the richesse of cane and sucrose extracted % of each factory is provided in Table 80.

Assessment of sugar and molasses

The average amount of sugar accruing to planters and millers based on canes received and as approved by the Control and Arbitration Committee on 23 February 2022 is shown in Table 73.

It is observed that the highest extraction rate has been obtained at Terra (78.5 kg sugar/t cane) while the lowest is at Alteo (71.83 kg sugar/t tonne cane).

Moreover, Terra and Alteo factories have performed above average efficiency while Omnicane factory has operated below average efficiency.

Table 73. Sugar Production (kg)

Factory	Planter		Miller		Sugar @ 98.5 o Pol (kg)	
	Sugar (kg)	kg sugar/t cane	Sugar (kg)	kg sugar /t cane	Average efficiency	Produced
Terra	56,644,333	78.75	15,949,630	22.17	72,570,880	72,593,963
Alteo	76,479,464	71.83	21,710,494	20.39	97,617,213	98,189,958
Omnicane	67,824,402	76.58	18,546,484	20.94	86,941,729	86,370,886
Total	200,948,199	75.27	56,206,608	21.05	257,129,823	257,154,807

Final Assessment of Molasses

The Final Assessment of Molasses for Crop 2021 based on canes received and inclusive of molasses from platform canes as approved by the Committee on 23 February 2022 is provided in Table 74 below.

It is observed that the rate of molasses is higher at Omnicane and this reflects the performance of the mill.

Table 74. Final Assessment of Molasses for Crop 2021

Factory	Brix of molasses	Molasses % Cane	Kg Mol/t cane @ 860Brix
Terra	86.997	3.126	31.625
Alteo	86.206	3.077	30.840
Omnicane	84.351	4.014	39.371

Assessment of scum for Crop 2021

The final assessment of scum for Crop 2021 based on average quantity of scum produced during Crop 2020 is shown in Table 75 below.

Table 75 – Final Assessment of Scums for Crop 2021

Factory	Moisture % scum	Kg scum per t cane
Terra	67.98	29.71
Alteo	71.70	53.95
Omnicanne	72.46	0.48

Since Omnicanne factory has produced a limited amount of scums during Crop 2020, planters of that factory area were provided 7 tons of scums/acre during replantation only as per a previous decision of the Committee taken on 30 May 2013.

Final Road Rate for Crop 2021

In accordance with section 40 of the MCIA Act, sugarcane growers are entitled to a refund of the transport cost of their canes where the distance over which the canes are transported to a factory or a cane transit site is greater than 6.4 kilometers.

In practice, small planters supplying up to 100 t of cane benefit from a special rate (+ 10%) as they pay a higher cost of transport due to bad state of roads leading to their fields and lower bargaining power as compared to big planters who benefit from economies of scale due to larger production. The variable costs as determined by the Committee on 26 February 2022 based on an increase of 4.1% in the average price index for Crop 2021 over Crop 2020 as provided by Statistics Mauritius is shown in Table 76 below.

Table 76 - Variable Cost (MUR/t per km)

Crop	2020	2021
Variable Cost	7.31	7.61
Special Variable Cost	8.04	8.37

Alternatively, where the transport is undertaken by the miller, a fixed cost and the variable cost over the first 6.4 km only are refunded as per Table 77 below.

Table 77 – Fixed and Variable Costs

Crop	2020	2021
Variable Cost	7.31	7.61
Fixed Cost	26.20	27.28

Determination of Final Price of Molasses for Crop 2021

Pursuant to Section 39(2)(c) of the MCIA Act, where a planter has opted to receive the molasses to which he is entitled wholly or partly in cash, the value of the molasses shall be determined, where the molasses is sold by a miller or otherwise, on the average price of the molasses.

For Crop 2021, a total of 90,797 tonnes of molasses at 86° Brix was produced by the three factories, out of which 86,632 t were allocated to Grays, Medine, Omnicanne and Oxenham distilleries for production of alcohol for both the domestic and international markets. The remaining 4,164 t of molasses were supplied to the livestock breeders and livestock feed factories.

The price applicable to each category of users and the Final Price of Molasses for Crop 2021 at 86° degree Brix are as follows:

- (1) Sale Price to Livestock Breeders:
MUR 3,000/t;
- (2) Deemed FOB price of molasses to distillers producing alcohol destined for exportation: MUR 2,620.41/t;
- (3) Price to distilleries producing potable alcohol for the domestic market:
MUR4,000/t;
- (4) Average Blended Price of Molasses:
MUR 2914.75 /t at 86° Brix; and
- (5) Final Price of Molasses payable to planters inclusive of Distiller/Bottler Contribution: MUR 4,096.34/t of molasses at 86° Brix.

Weighbridge Calibrations and Checks

Prior to the start of the harvest season, all weighbridges used for the weighing of canes, sugar and by-products of sugar are tested and calibrated by officers of the department using sets of standard calibrated weights. After a weighbridge is found to be in accordance with established regulations, a weighbridge certificate to that effect is then issued to the miller. The accuracies of all the weighbridges are also verified regularly throughout the harvest season and calibrated again whenever discrepancies in weights are observed beyond the tolerance limits.

During Crop 2021, in all 29 sugar weighing platforms were in operation and 3,853 accuracy checks have been performed on those weighbridges by the officers of Control and Arbitration Department in addition to 45 calibrations and 102 tarings (Table 78).

Table 78: Weighbridge calibrations and Accuracy checks

Type of Checks	Number of checks
Calibration/ Recalibration	45
Taring	102
Daily weighbridge accuracy checks	3,853
Total	4,000

Value added products

During the recent years, there has been an increasing demand for the use of sugarcane or sugarcane juice for the production of value-added products namely cane juice for direct consumption and Rum Agricole both for the domestic and international markets. Overall, an amount of 9,504 t of canes have been used for value-addition during Crop 2021, equivalent to approximately 950 t of sugar (Table 79).

Table 79 – Production of Value-Added Products

Value-Addition	Equivalent sugar @ 98.5°Pol (t)	Tonnage of cane (t)
Sale of Cane Juice	32	320
Rum Agricole from Mixed Juice	723	7,230
Rum Agricole from Sugarcane	195	1,954
Total	950	9,504

Closure of weighbridges

For Crop 2021, the CAD received applications for the closure of several weighbridges namely Britannia, Constance and Mon Loisir from Omnicane, Alteo and Terra Milling Companies respectively.

As per the existing procedures, meetings were held with representatives of planters and millers but there was no consensus on the proposed closures due to the high transport costs claimed by lorry owners for the transportation of planters' canes to the new delivery sites.

The Control and Arbitration Department, with the collaboration of the Farmers Service Agency therefore made a determination of the maximum cane transport charges that lorry owners may claim from planters for the transport of their canes to the factories during Crop 2022 and same was approved by the Committee along with a proposed amendment to section 40 of the Mauritius Cane Industry Authority Act. However, the proposed maximum cane transport charges and the closure of weighbridges have been kept in abeyance by the Board of Directors of the Mauritius Cane Industry Authority owing to fluctuations in the price of petrol following the outbreak of Covid-19 and the war in Ukraine.

Model Development

During period 27 September - 23 October 2021, two Sugar Technologists received a training on model development by officers from the Mauritius Sugarcane Industry Research Institute who have been experimenting on the Infracana Cane Analyser since 2015 under the supervision of Mr. Chris Henderson. Following the training, they developed a new Calibration Model M2022 which was successfully tested at Terra and Alteo laboratories during period November - December 2021.

The newly developed Model M2022 was found to be a more robust model which gave better predictions when compared to Model M2014 which has been in use during period 2014 - 2021. Moreover, the percentage of outliers after BIAS adjustment was lower (2.78%) with Model M2022 as compared to 3.74% with Model M2014.

The Committee subsequently gave its approval to the use of Model M2022 in all Infracana Cane Analysers for the determination of parameters Brix, Pol and Fibre% Cane as from the start of Crop 2022.

Amendment to MCIA Act

Section 39 of the MCIA Act has been amended as follows:

- (i) in subsection (3), by deleting the words "every planter, shall, in addition, be entitled to receive out of the value of the bagasse so sold, transferred or utilised, an amount equivalent to the fraction represented by the quantity of canes supplied by him over the quantity of canes milled at the factory in that crop year" and replacing them by the words "every planter or producer, as the case may be, shall, in addition, be entitled to receive out of the contribution made to the Sugar Cane Sustainability Fund in respect of the proceeds of bagasse an amount equivalent to his sugar entitlement";
- (ii) in subsection (4), by inserting, after the word "planter", the words "or producer".

Staff matters

Mr. A. Jugnauth and Mrs. L. Lutchmanen were nominated by the Ministry of Public Service, Administrative and Institutional Reforms to follow an overseas on-line Training Course on Sugar Refinery Technology for Developing Countries from 15 to 30 March 2022. The training course was hosted by Guangxi International Business Vocational College located in the city of Nanning and was attended by participants from several developing countries, namely Mauritius, Ethiopia, Thailand, Uruguay, Jamaica and Sri Lanka.

Table 80 - Summary of Crop 2021

Factory	Crushing Period		Crushing days	Canes (t)			Richesse (Sucrose % Cane)	Extraction (Sucrose Extracted % Cane)	Sugar Produced (t)				Molasses Produced tel quel (t)
	Start	End		Received	Crushed	Loss in Transit			Tel Quel	Produced @ 98.5	Average Efficiency	Diff	
Terra	13-Jul	09-Jan-22	145	719,319	718,969	350	11.61	9.95	71,952	72,594	72,571	23	22,489
	15-Jul	21-Dec-20	134	705,179	704,629	550	13.16	11.14	78,978	79,713	80,642	-929	25,615
Alteo	16-Jun	23-Dec-21	157	1,064,723	1,064,000	723	10.69	9.09	98,203	98,190	97,617	573	32,758
	17-Jun	09-Dec-20	145	1,038,297	1,037,788	509	11.41	9.86	103,874	103,886	102,986	900	28,146
Omnicanne	13-Jul	16-Dec-21	128	885,624	885,495	129	11.37	9.61	85,663	86,371	86,942	-571	35,549
	01-Jul	04-Dec-20	128	876,645	876,597	48	11.77	9.97	88,023	88,749	88,694	55	35,151
Total				2,669,667	2,668,465	1,202	11.16	9.49	255,817	257,155	257,130	25	90,797
				2,620,121	2,619,015	1,107	12.00	10.26	270,875	272,347	272,322	25	88,912

Note: Figures in italic relate to Crop 2020

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, Fort William, Port Louis.

Initially, at its inception in 1980, the main activities at the Terminal were to receive, store and bulk load into sugar vessels 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 sugar each and an efficient out-loading station with a loading rate of 1,440 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 (SSHU) are mainly focussed on the sugar receipt, storage and delivery of both plantation white sugar (PWS) and non-originating sugars (NOS) to the two refineries of the island. Presently PWS and NOS is delivered to Terra Milling Ltd and Omnicane Milling Operations Ltd (OMOL) respectively.

Receiving Station

Sugar is transported in trucks from the sugar factories (PWS) or from the Terminal Quay / Mauritius Port Authority (MPA) 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 52. Unloading sugar boxes



Fig 53. Storage of Non Originating Sugar (NOS) and Loading of trucks



Fig 54. Transport by trucks



Fig 55. Grabs filling chute

The Storage Sheds

Two sugar 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 designed to resist cyclonic winds of approximately 300 km/h. The storage sheds are protected against fire outbreaks through a state-of-the-art fire detection and firefighting system. Since 2009, Shed No. 2 is dedicated to the storage of special sugars in 1-t bags, 25-kg Jumbo bags and 50-kg Jumbo bags, and soft sugars in 50 kg bags (slings) destined for exportation. Part of Shed No. 1 is devoted to the storage of special sugars in 1-t bags and soft sugars in 50-kg bags (slings).



Fig 56. 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, depending on prevailing climatic conditions. The operations are complex with several operators within the port sector working simultaneously and converging towards the same goals and objectives of unloading NOS from the sugar vessels to the Terminal's receiving station or directly to the sugar factory (i.e., OMOL). Thus, proper coordination, cooperation, communication and control are key factors for successful end results. The unloading rate is approximately 4,000 t per 24 h with some 2,000 trucks involved in the to and fro movements from the wharf to the receiving station for the whole operations.

Delivery of Sugar to Refineries

Plantation White Sugar (PWS) and Non-Originating Sugar (NOS) from Shed No. 1 were previously delivered through the C14 conveying system, which was located inside Shed No. 1. The C14 conveyor system has been relocated and is now annexed to the batch weigher tower. During the process of delivery, 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 refinery



Fig 57. Delivery of sugar from Shed No.1

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



Fig58. 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.

All provisions of the Occupational Safety and Health Act 2005 were complied with and all the equipment at the Sugar Storage and Handling Unit are 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 during Crop Year 2021/2022

Plantation White Sugar received for Year 2021/2022

Table 81. Receipt of Plantation White Sugar for Year 2021 (01.07.2021 – 30.06.2022)

Terra Milling	(MT) 819.200
Total	819.200

Plantation White Sugar delivered for Year 2021/2022

Nil

Non Originating Sugar delivered for Year 2021/2022

Table 82. Delivery of Non-Originating Sugar for Year 2021 (01.07.2021 – 30.06.2022)

Omnicanne Milling Operations Ltd	(MT) 48,500.550
Total	48,500.550

Closing Stock of PWS and NOS as at 30 June 2022 were as follows:

Plantation White Sugar: **819.200 MT**

Non-Originating Sugar: **15,540.020 MT**

Importance of the Terminal Wharf / Quay

The Terminal Wharf / Quay is an integral part of the SSHU Terminal infrastructure and since its construction in the 80's, it became a critical component associated with the provision of efficient and effective activities to the industry and economy. The SSHU quay accommodates both sugar vessels for unloading of non-originating sugars and also for the offloading / uploading of HFO's for the account of CEB and STC as well as for anchorage purposes.

At least three sugar vessels amounting to a total of 120,000 t of sugar are uploaded on a yearly basis.

Furthermore, the Terminal Wharf is also used as and when required by the MPA for the free berthing of inter-island passengers vessels / cruise vessels. The berthing operations (except for passengers' / cruises' vessels) at the wharf represent a source of revenue to meet MCIA's operational costs.

The table below summarises the berthing operations at the Terminal Wharf during the period 01.07.2021 - 30.06.2022.

Table 83. Berthing operations at Terminal Wharf during period 1 July 2021 - 30 June 2022

Operations at the Terminal Wharf	Number of Operations
Unloading of non-originating sugars	2
Offloading / Uploading of HFO's & anchorage	53
Inter-Island Passengers' Vessels	-
Cruise Vessels *	-

* Due to Covid-19 Pandemic

Major Achievements during the Financial Year

The major achievements at SSHU are summarised below:

- Preventive and continuous maintenance works to ensure that all electrical, mechanical and on-site infrastructures are fully operational and efficient at all time to ensure receipt, storage and delivery sugar under optimal conditions.
- Retrofit works of Shed No. 1 to optimise utilisation of available storage capacity for both bulk and bagged sugars.
- Relocation of C14 conveyor system to facilitate the delivery of bulk sugar to the refinery and sugar factory in modified tandem type sugar trucks so as to reduce transport cost.
- Installation and commissioning of a second sugar loading bay at Shed No. 1 for the delivery of bagged sugar in containers.

- (v) Modifications works were effected at the weighbridges of the receiving station. The system now operates on an electronic mode with multiple load cells, which provides more accurate readings, compared to the previous mechanical system.
- (vi) Construction of a new bridge to facilitate transfer of passengers from the Terminal wharf to the MPA Cruise Terminal.
- (vii) An area of land of 16.08 arpents located at Riche Terre Industrial Business Park has already been vested to the MCIA for the construction of a modern sugar storage facility of the capacity of 150,000 t of bagged sugar.

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



Fig 59. 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.

The sugars are received from Terra Milling Ltd, Alteo Milling Ltd and Omnicane Milling Ltd in 25 kg, 50 kg and 1-ton bags.

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

- (a) MCIA Shed No 1
- (b) MCIA Shed No 2
- (c) Caudan

The weight of sugar received for the past 8 years is as shown in the Table 84.

Crop Year	2014	2015	2016	2017	2018	2019	2020	2021
Sugar Received from Sugar Estates (t)	126,714	104,172	134,566	87,457	93,990	96,183	104,348	117,370

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.

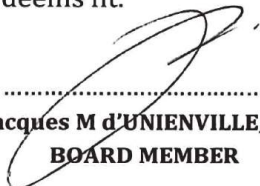
The Directors confirm that, in preparing these financial statements, they have ensured that proper accounting records which disclose with reasonable accuracy at any time the financial position of the Authority; the assets of the Authority have been safeguarded by maintaining appropriate internal control 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 Public Sector Accounting Standards (IPSASs) 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 AND 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

There is an Audit and Risk Committee to which the Internal Auditor reports on all risky issues. The Board is also responsible for taking appropriate action to mitigate risks, if any, using such measures, policies, procedures and other controls that it deems fit.



.....
Jacques M d'UNIENVILLE, G.O.S.K.
BOARD MEMBER



.....
Mrs Moheen NATHOO
Senior Chief Executive,
Ministry of Agro-Industry
and Food Security
CHAIRPERSON

I. INDEPENDENT AUDITOR'S REPORT



NATIONAL AUDIT OFFICE

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

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 at 30 June 2022 and the statement of financial performance, statement of changes in net assets/equity, cash flow statement and statement of comparison of budget and actual amounts for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In my opinion, the accompanying financial statements give a true and fair view of the financial position of the Mauritius Cane Industry Authority as at 30 June 2022, and of its financial performance and cash flows for the year then ended in accordance with International Public Sector Accounting 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.

Key Audit Matters

Key Audit Matters are those matters that, in my professional judgement, 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. I have determined that there are no key audit matters to communicate in my report.

Emphasis of Matter

I draw attention to Note 23 of the financial statements which showed an accumulated deficit of Rs 1,456,745,977 as at 30 June 2022 as compared to the deficit of Rs 1,059,595,443 as at 30 June 2021.

My opinion is not modified in respect of this matter.

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, 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 Public Sector Accounting 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 for 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 Responsibilities for Compliance

In addition to the responsibility for the preparation and presentation of the financial statements described above, management is also responsible to ensure that the Mauritius Cane Industry Authority's operations are conducted in accordance with the provisions of laws and regulations, including compliance with the provisions of laws and regulations that determine the reported amounts and disclosures in an entity's financial statements.

Auditor's Responsibilities

In addition to the responsibility to express an opinion on the financial statements described above, I am also responsible to report to the Board whether:

- (a) I have obtained all the information and explanations which to the best of my knowledge and belief were necessary for the purpose of the audit;
- (b) the Statutory Bodies (Accounts and Audit) Act and any directions of the Minister, in so far as they relate to the accounts, have been complied with;
- (c) in my opinion, and, as far as could be ascertained from my examination of the financial statements submitted to me, any expenditure incurred is of an extravagant or wasteful nature, judged by normal commercial practice and prudence;
- (d) in my opinion, the Mauritius Cane Industry Authority has applied its resources and carried out its operations economically, efficiently and effectively; and
- (e) the provisions of Part V of the Public Procurement Act regarding the bidding process have been complied with.
- (f) the Mauritius Cane Industry Authority has complied with the National Code of Corporate Governance in accordance with the Financial Reporting Act

I performed procedures, including the assessment of the risks of material non-compliance, to obtain audit evidence to discharge the above responsibilities.

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

Statutory Bodies (Accounts and Audit) Act

I have obtained all information and explanations which to the best of my knowledge and belief were necessary for the purpose of my audit.

As far as it could be ascertained from my examination of the relevant records:

- (a) the Mauritius Cane Industry Authority has complied with the Statutory Bodies (Accounts and Audit) Act; and
- (b) no direction relating to the accounts has been issued by the responsible Minister to Mauritius Cane Industry Authority.

Based on my examination of the records of Mauritius Cane Industry Authority, nothing has come to my attention that causes me to believe that:

- (a) expenditure incurred was of an extravagant or wasteful nature, judged by normal commercial practice and prudence; and
- (b) the Authority has not applied its resources and carried out its operations economically, efficiently and effectively

Public Procurement Act

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

Corporate Governance Report

My responsibility under the Financial Reporting Act is to report on the compliance with the Code of Corporate Governance disclosed in the annual report and assess the explanations given for non-compliance with any requirement of the Code. From my assessment of the disclosures made on corporate governance in the annual report, the Mauritius Cane Industry Authority has, pursuant to section 75 of the Financial Reporting Act, complied with the requirements of the Code.



DR. D. PALIGADU
Director of Audit

National Audit Office
Level 14,
Air Mauritius Centre
PORT LOUIS

21 June 2023

J. FINANCIAL STATEMENTS

THE MAURITIUS CANE INDUSTRY AUTHORITY

FINANCIAL STATEMENTS

YEAR ENDED 30 JUNE 2022

THE MAURITIUS CANE INDUSTRY AUTHORITY

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1. The Directors have the pleasure to submit the financial statements of the Mauritius Cane Industry Authority (MCIA) for the year ended 30 June 2022.
2. State of affairs and review of activities

The Statement of financial position as at 30 June 2022 is set on page 2 and the Statement of financial performance for the year then ended on page 3.

The main activity of the Mauritius Cane Industry Authority, is unchanged since 30 June 2021.

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.

A handwritten signature in black ink, appearing to read 'D. Prashad', with a horizontal line underneath.


CHAIRPERSON
MCIA Board of Directors

STATEMENT OF FINANCIAL POSITION

AS AT 30 JUNE 2022

	Notes	30 Jun 2022	30 Jun 2021
		MUR	MUR
ASSETS			
Current assets			
Cash and cash equivalents	9	349,552,078	371,535,186
Trade receivables	10	245,867,004	167,745,600
Loan receivables	11	8,024,035	9,509,347
Inventories	12	51,774,765	49,692,969
Prepayments		1,096,200	1,290,817
		656,314,083	599,773,919
Non-current assets			
Trade receivables	10	24,193,333	26,711,082
Loan receivables	11	18,652,303	20,204,646
Investment in financial assets	13	482,000	452,250
Property, plant and equipment	14	2,224,069,307	2,298,040,609
Investment property	15	8,140,000	8,510,000
Intangible assets	16	3,092,247	4,087,841
		2,278,629,190	2,358,006,428
Total assets		2,934,943,273	2,957,780,347
LIABILITIES			
Current liabilities			
Trade payables	17	283,675,125	98,756,628
Short term borrowings	18	1,558,522	1,701,196
Short term employee benefit provisions	19	35,000,000	38,000,000
Other short term provisions	19	52,132,400	500,000
		372,366,047	138,957,824
Non-current liabilities			
Trade payables	17	953,292	2,288,286
Long term borrowings	18	13,023,760	15,937,696
Long term employee benefit provisions	19	179,488,249	168,511,056
Other long term provisions	19	3,159,343	36,273,680
Retirement benefits obligations	20	1,522,273,929	1,254,772,914
		1,718,898,573	1,477,783,632
Total Liabilities		2,091,264,620	1,616,741,456
Net Assets		843,678,653	1,341,038,891
NET ASSETS/EQUITY			
Contributed capital	21	300,000,000	300,000,000
Revaluation reserve		2,000,080,380	2,100,319,835
Fair value reserve		344,250	314,500
Accumulated deficit	22	(1,456,745,977)	(1,059,595,443)
Total Net Assets/Equity		843,678,653	1,341,038,891

Approved by the MCIA Board of Directors on 25 May 2023



Mrs Moheene Nathoo
Chairperson



Mr Jacques Marrier d'Unienville, G.O.S.K
Board member

The notes on pages 7 to 35 form an integral part of these financial statements.

STATEMENT OF FINANCIAL PERFORMANCE
FOR THE YEAR ENDED 30 JUNE 2022

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		Year ended 30 Jun 2022	Year ended 30 Jun 2021
	Notes	MUR	MUR
Revenue			
Non - Exchange Transactions			
Grants	24	1,379,866,495	969,664,976
Levy on sale of sugar	25	129,721,792	115,302,789
Other non-exchange income	26	758,568	839,600
		1,510,346,855	1,085,807,365
Exchange Transactions			
Hire of tractors and trailers	27	25,798,326	19,332,759
Other exchange income	26	87,970,213	39,449,097
		113,768,539	58,781,856
Expenses			
Salaries and salary related expenses	28	(449,938,956)	(397,498,086)
Administrative and general expenses	29	(187,845,692)	(174,507,740)
Ex- dockers pensions	30	(111,484,166)	(113,672,225)
Depreciation of property, plant & equipment	14	(135,296,867)	(128,373,588)
Depreciation of investment property	15	(370,000)	(370,000)
Amortisation of intangible assets	16	(1,339,902)	(1,309,290)
Cane setts and SPRP expenses		(9,643,556)	(18,923,104)
Planters fund expenses		(9,885,585)	(28,621,016)
ALMS expenses		(47,584,023)	(56,715,862)
Sugar cane sustainability expenses	31	(891,120,492)	(352,580,181)
VRS expenses		(9,063,088)	-
Finance costs		(432,041)	(404,300)
Increase in retirement benefits obligations	20	(56,668,885)	(24,629,657)
		(1,910,673,252)	(1,297,605,050)
Deficit for the year		(286,557,858)	(153,015,829)

The notes on pages 7 to 35 form an integral part of these financial statements.

STATEMENT OF CHANGES IN NET ASSETS/ EQUITY

YEAR ENDED 30 JUNE 2022

	Contributed Capital	Accumulated Surplus/(Deficit)	Fair Value Reserve	Revaluation Reserve	Total
	MUR	MUR	MUR	MUR	MUR
As previously stated at 01 July 2021	300,000,000	(1,059,595,443)	314,500	2,100,319,835	1,341,038,892
Transfers	-	100,239,455	-	(100,239,455)	-
Deficit for the year	-	(286,557,859)	-	-	(286,557,859)
	300,000,000	(1,245,913,847)	314,500	2,000,080,380	1,054,481,033
*** Actuarial losses on defined benefit pension plans	-	(210,832,130)	-	-	(210,832,130)
Increase on investment revaluation	-	-	29,750	-	29,750
Restatement of opening retirement benefit obligations	-	-	-	-	-
As at 30 June 2022	300,000,000	(1,456,745,977)	344,250	2,000,080,380	843,678,653

*** Actuarial losses on defined benefit pension plans (MUR 210,832,130) is net of funds transferred from MSIRI Pension Fund to MCIA Pension Fund (MUR 97,141,339).

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.

	Contributed Capital	Accumulated Surplus/(Deficit)	Fair Value Reserve	Revaluation Reserve	Total
	MUR	MUR	MUR	MUR	MUR
As previously stated at 01 July 2020	300,000,000	(1,038,868,800)	265,200	2,230,372,713	1,491,769,113
Transfers	-	130,052,878	-	(130,052,878)	-
Deficit for the year	-	(153,015,829)	-	-	(153,015,829)
	300,000,000	(1,061,831,751)	265,200	2,100,319,835	1,338,753,284
Actuarial losses on defined benefit pension plans	-	370,814,668	-	-	370,814,668
Increase on investment revaluation	-	-	49,300	-	49,300
Restatement of opening retirement benefit obligations	-	(368,578,360)	-	-	(368,578,360)
As at 30 June 2021	300,000,000	(1,059,595,443)	314,500	2,100,319,835	1,341,038,892

The notes on pages 7 to 35 form an integral part of these financial statements.

CASH FLOW STATEMENT
YEAR ENDED 30 JUNE 2022

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	Notes	Year ended 30 Jun 2022	Year ended 30 Jun 2021
		MUR	
Cash flows from operating activities			
Cash absorbed in operations	37.1	32,789,572	59,666,192
Interest paid		(273,531)	(277,940)
Net cash used in operating activities		32,516,041	59,388,252
Cash flows from investing activities			
Capital expenditure		(60,273,282)	(15,194,713)
Disposal proceeds		3,272,215	5,057,226
Interest received		1,132,320	1,409,963
Net cash generated from/(used in) investing activities		(55,868,747)	(8,727,524)
Cash flows from financing activities			
Staff loans recovered		12,966,366	15,405,024
Staff loans granted		(9,928,710)	(7,777,867)
Repayment of loans		(1,668,058)	(1,562,211)
Net cash flow generated from financing activities		1,369,598	6,064,946
Net Increase/ (Decrease) in cash and cash equivalents		(21,983,108)	56,725,674
Movement in cash and cash equivalents			
		MUR	MUR
As at 01 July 2021		371,535,186	314,809,512
Increase / (Decrease)		(21,983,108)	56,725,674
As at 30 June 2022	37.3	349,552,078	371,535,186

The notes on pages 7 to 35 form an integral part of these financial statements.

STATEMENT OF COMPARISON OF BUDGET AND ACTUAL AMOUNTS

YEAR ENDED 30 JUNE 2022

	ORIGINAL BUDGET		ACTUAL RECEIVED/PAID		VARIANCE		AMOUNTS AS PER FINANCIAL STATEMENTS		VARIANCE		REASONS
	(A)	(B)	(B)	(B)	(A-B)	(A-B)	(C)	(C)	(C-B)	(C-B)	
	MUR	MUR	MUR	MUR	MUR	MUR	MUR	MUR	MUR	MUR	
RECURRENT EXPENDITURE											
Salaries, Salary related expenses and Travelling	348,988,000	367,558,513			(18,570,513)		387,070,234		19,511,721		Implementation of PRB and new recruitment
Pension and Insurance of employees	61,536,000	70,224,079			(8,688,079)		71,820,017		1,595,938		Effect of over expenditure in salary and CSG
MSS Ex- Dockers Pension	116,000,000	110,804,557			5,195,443		111,484,166		679,609		Reduction in number of pensioners and lower COLA
Rent, Rates and Utilities	20,874,400	22,555,657			(1,681,257)		23,908,914		1,353,257		
General Office Expenses	6,247,100	5,811,068			436,032		7,888,095		2,077,027		
Maintenance and Insurance	75,098,900	90,923,097			(15,824,197)		93,831,150		2,908,053		Higher breakdowns & successive increases in cost of fuel
Welfare and Health & Safety	4,002,000	2,710,526			1,291,474		2,859,978		149,452		
Finance Cost	482,300	402,086			80,214		432,041		29,955		
Mission	-	241,404			(241,404)		241,404		-		
Field Experimentation	150,000	69,764			80,236		229,493		159,729		
Publication and Advertisement	450,000	330,604			119,396		447,789		117,185		
Training & Support Services	400,000	92,000			308,000		92,000		-		
Security	31,650,000	21,458,755			10,191,245		23,283,961		1,825,206		Security services maintained on a month to month basis
Air Pollution Monitoring Expenses	1,500,000	326,162			1,173,838		331,829		5,667		
Research & Development	11,233,000	9,796,166			1,436,834		9,966,372		170,206		
	678,611,700	703,304,438			(24,692,738)		733,887,442		30,563,004		
CAPITAL EXPENDITURE											
Non Current Assets	58,803,500	63,018,492			(4,214,992)		63,229,316		210,824		
Repayment of Loans	1,426,600	1,668,057			(241,457)		1,668,057		-		
	60,230,100	64,686,549			(4,456,449)		64,897,373		210,824		
TOTAL EXPENDITURE	738,841,800	767,990,987			(29,149,187)		798,784,815		30,793,828		
REVENUE											
Hire of Tractors & Trailers	21,319,000	25,798,326			4,479,326		25,798,326		-		Higher effective hours
Co - financing from Government	474,550,000	1,192,254,057			717,704,057		1,280,616,495		88,362,438		All Grants, on top of co-financing from Govt included
MSS - Refund of BSSD Expenses	99,250,000	99,250,000			-		99,250,000		-		
Levy on sale of sugar on local market	125,800,000	117,669,412			(8,130,588)		129,721,792		12,052,380		Sugar Consumption exceeded budget
Air Pollution Monitoring Income	3,000,000	2,505,550			(494,450)		3,694,550		1,189,000		
Others	14,922,800	21,292,632			6,369,832		81,401,771		60,109,139		Higher proceeds from sale of cane & Agronomic Services
	738,841,800	1,458,769,977			719,928,177		1,620,482,934		161,712,957		

The notes on pages 7 to 35 form an integral part of these financial statements.

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 12 months ending 30 June 2022 and are presented in accordance with International Public Sector Accounting Standards (IPSASs)

3 REPORTING CURRENCY

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

4 MEASUREMENT BASE

As from financial year ending 30 June 2018, the Authority adopted International Public Sector Accounting Standards (IPSASs), issued by the International Public Sector Accounting Standards Board (IPSASB) which is a Board of the International Federation of Accountants (IFAC), as appropriate for the measurement and reporting of the financial position and financial performance on an accrual basis.

5 ADOPTION OF IPSASs

- 5.1 The Financial Statements comply in all material respects with applicable International Public Sector Accounting Standards. In the current period, the Mauritius Cane Industry Authority has adopted all of the improvements and amendments to the Standards effective at the reporting date.

NOTES TO THE FINANCIAL STATEMENTS

YEAR ENDED 30 JUNE 2022

5.2 Non-application of IPSASs

IPSAS 3 (Accounting Policies, Changes in Accounting Estimates and Errors) requires disclosure of new IPSAS that have been issued but are not yet effective. In November 2020, the IPSASB published the final pronouncement, COVID-19: Deferral of Effective Dates, which delayed the effective dates of recently published Standards and Amendments to IPSAS by one year to January 1, 2023.

- *IPSAS 41 - Financial Instruments (Initially set to be effective as from 1 January 2022, now effective on 1 January 2023)*
IPSAS 41 replaces IPSAS 29, while providing entities a transition option to continue to apply the hedge accounting requirements of IPSAS 29. It sets out requirements for recognition and measurement of financial instruments, including impairment, derecognition and general hedge accounting.
- *IPSAS 42 - Social Benefits (Initially set to be effective as from 1 January 2022, now effective on 1 January 2023)*
IPSAS 42 helps users of the financial statements and general purpose financial reports assess the nature of social benefits provided by the entity, the features of the operation of social benefit schemes; and the impact of social benefits on the entity's financial performance, financial position and cash flows.
- *IPSAS 43 - Leases (Effective as from 01 January 2025)*
IPSAS 43 prescribes the principles for the recognition, measurement, presentation and disclosure of leases. The objective is to ensure that leases and lessors provide relevant information in a manner that faithfully represents those transactions. This information gives a basis for users of financial statements to assess the effect that leases have on the financial position, financial performance and cash flows of an entity.
- *IPSAS 44 - Non-current Assets held for Sale and Discontinued Operations (effective as from 01 January 2025)*
IPSAS 44 prescribes the accounting treatment for assets held for sale and the presentation and disclosure of discontinued operations. The standard requires:
 - (i) Assets that meet the criteria to be classified on hold for sale to be measured at the lower of carrying amount and fair value less costs to sell and depreciation on such assets to cease; and
 - (ii) Assets that meet the criteria to be classified as held for sale to be presented separately in the statement of financial position and the results of discontinued operations to be presented separately in the statement of financial position.

5.3 Use of estimates and judgement

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 Public Sector Accounting 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 Public Sector Accounting Standards (IPSASs). Where an IPSAS does not address a particular issue, the appropriate International Financial Reporting Standards (IFRSs) and International Accounting Standards (IASs) issued by the International Accounting Standards Board (IASB) are applied.

YEAR ENDED 30 JUNE 2022

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 equity 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 financial performance.

Each period the difference between depreciation based on the revalued carrying amount of the asset charged to the statement of financial performance and depreciation based on the asset's original cost is transferred from revaluation reserve to accumulated surplus/(deficit).

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% - 10%
Plant, Machinery and Motor Vehicles	4% - 50%
Fixtures, Furniture and Fittings & Office Equipment	3.33% - 50%
Computer & Associated Equipment	10% - 50%
Laboratory Equipment	10% - 50%

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 financial performance.

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 4% 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 equity in the period in which they arise.

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 equity 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 fair value.

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 is removed from equity and recognised in the statement of financial performance

(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 financial performance. 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 financial performance.

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.

6.7.3 Cash and Cash Equivalents

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

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) Defined contribution plans

A defined contribution plan is a pension plan that defines an amount of pension benefit that an employee will receive on retirement, dependent on the amount of contribution by the employee and the employer made to the plan.

A defined contribution plan is implemented for new entrants in the Authority after 1 January 2013 as recommended in the PRB report 2013.

(iii) 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:

(i) Revenue from Non - Exchange Transactions

- Capital grant - Capital grant received to finance acquisition of property, plant & equipment is recognised in the period in which it is received.
- 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.
- Levy on sale of sugar - Levy on sale of sugar is recognised when imported & locally produced sugar is delivered for sale on the local market.
- Anchorage dues - Anchorage due from Mauritius Ports Authority is recognised when vessels berth at the Sugar Terminal wharf.
- Berthing dues - Berthing due from Central Electricity Board (CEB) is recognised when vessels berth at Sugar Terminal wharf to upload heavy fuel oil product from Fort Williams depot for CEB in Rodrigues.
- Cane juice application fee - When application is received for the production of cane juice for direct consumption.

(ii) Revenue from Exchange Transactions

- Hire of equipment - Upon completion of work at the invoiced value for hire of equipment. No value added tax is charged.
- Interest income - Interest is recognised on a time-proportion basis that takes into account the effective yield on the asset.
- Dividend income - Dividend income is recognised when the Authority's right to receive payment is established.
- Royalties - Royalty is recognised as they are earned in accordance with the substance of the relevant agreement.
- Sales of cane - Sale of cane is recognised when goods are delivered and title has passed.
- Cash advance to and contribution from planters - Cash advance is recognised when it is probable that economic benefits will flow to the Authority.

YEAR ENDED 30 JUNE 2022

6.10 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 482 000 (at fair value on 30 June 2022) 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.

	Due within 12 months	Due after 1 year	Total
	MUR	MUR	MUR
At 30 June 2022			
Borrowings	1,558,522	13,023,760	14,582,282
Trade Payables	283,675,125	953,292	284,628,417
	285,233,647	13,977,052	299,210,699
At 30 June 2021			
Borrowings	1,701,196	15,937,696	17,638,892
Trade Payables	98,756,628	2,288,286	101,044,914
	100,457,824	18,225,982	118,683,806

(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 30 June 2021. The capital structure of the Authority consists of accumulated surplus/(deficit), revaluation reserve and other 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 IPSAS 26 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.

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 equity. Independent valuation specialists were engaged to determine fair values.

YEAR ENDED 30 JUNE 2022

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 CASH AND CASH EQUIVALENTS

	30 Jun 2022	30 Jun 2021
	MUR	MUR
- Bank account with SBM Ltd- FORIP Account	15,943,337	57,968,826
- Bank account with SBM Ltd- Main Account	161,417,443	195,083,042
	177,360,780	253,051,868
- Other bank balances	172,023,926	118,310,230
- Cash	167,372	173,088
TOTAL	349,552,078	371,535,186

The effective rate of interest on bank overdrafts at the reporting date is 4.75 %.

10 TRADE RECEIVABLES

10.1

	30 Jun 2022	30 Jun 2021
	MUR	MUR
Receivables - Exchange transactions	253,167,691	168,785,333
Receivables - Non-exchange transactions	16,892,646	25,671,349
	270,060,337	194,456,682

analysed as follows:

	MUR	MUR
Current		
Exchange transactions	228,974,358	148,074,251
Non-exchange transactions	16,892,646	19,671,349
	245,867,004	167,745,600
Non-Current		
Exchange transactions	24,193,333	20,711,082
Non-exchange transactions	-	6,000,000
	24,193,333	26,711,082
TOTAL	270,060,337	194,456,682

NOTES TO THE FINANCIAL STATEMENTS

YEAR ENDED 30 JUNE 2022

10.2 Receivables consist of:

	30 Jun 2022 MUR	30 Jun 2021 MUR
Planters - Hire of tractors	4,784,477	4,381,305
Planters funds	3,000,000	9,000,000
MSS - Levy on sale of sugar	12,052,380	16,671,349
Analytical & Agronomic Services	4,299,007	4,540,502
Air Pollution Monitoring Unit	2,226,500	1,431,500
Rodrigues Assembly	3,147	3,147
MSIRI Support Staff	4,680	40,981
MPA, CEB and Others	994,481	468,538
MCAF - Harvesters & Others	13,832,568	6,279,949
Blychem	73,200	73,200
Platinum Farms Ltd	228,387	228,387
University of Mauritius	1,005,003	74,912
Planters - Fertilizer Scheme - Crop 2019 - 2021	7,653,778	54,679,909
MSS - Royalties	1,840,266	10,084,384
RTC Rentals	330,000	600,000
Planters - Fertilizer Scheme - Crop 2022	74,710,941	-
MSS - Government Support	142,804,675	-
Dividend	17,000	-
MSS - Advance on Crop 2021	-	84,593,678
MSS - Non Originating Sugar	-	652,350
SICOM Ltd	-	606,865
Others	199,847	45,726
	270,060,337	194,456,682

10.3 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.

10.4 Receivable non - exchange transactions comprises of amount due by MSS with respect to levy on sale of sugar:

11 LOAN RECEIVABLES

11.1 Staff loans

	30 Jun 2022 MUR	30 Jun 2021 MUR
Car loans	24,344,799	28,196,669
Motorcycle loans	2,127,139	1,377,574
Personal loans	204,400	139,750
	26,676,338	29,713,993

analysed as follows:

	MUR	MUR
- Current	8,024,035	9,509,347
- Non-current	18,652,303	20,204,646
	26,676,338	29,713,993

YEAR ENDED 30 JUNE 2022

11.2 Movement in Staff Loans

	Car Loans MUR	Motorcycle Loans MUR	Personal Loans MUR	TOTAL MUR
Opening balance	28,196,669	1,377,574	139,750	29,713,993
New loans	8,103,100	1,341,610	484,000	9,928,710
Repayment	(11,954,970)	(592,045)	(419,350)	(12,966,365)
Closing balance	24,344,799	2,127,139	204,400	26,676,338

- 11.3 Car loans are issued to employees at concessionary rates of 3% to 8% interest per annum and are refundable over a period of five to seven years. Personal loans consist of both interest free loans and loans bearing interest at 7.5% per annum.

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

The effective rate of interest on bank overdrafts at the reporting date is 4.75%.

12 INVENTORIES

	30 Jun 2022 MUR	30 Jun 2021 MUR
Cost of spare parts and consumables		
SSHU	23,760,332	24,073,516
AMU	27,467,613	25,069,076
MSIRI	546,820	550,377
	51,774,765	49,692,969

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 some items of inventories is estimated to be less than their carrying amount.

Impairment loss is debited to the statement of financial performance.

13 INVESTMENT IN FINANCIAL ASSETS

Investment represents .

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

Fair Value

	30 Jun 2022 MUR	30 Jun 2021 MUR
SIT	74,000	74,000
SBM Ltd	408,000	378,250
	482,000	452,250
Cost		
Available-for-sale financial assets		
At 30 June 2022	222,750	222,750

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2022

14 PROPERTY, PLANT AND EQUIPMENT

14.1

	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 July 2021	2,012,033,000	505,025,185	10,041,990	8,987,075	21,023,872	2,557,111,121
Additions	11,064,749	39,326,732	978,854	1,496,459	10,018,214	62,885,008
Disposal	-	(1,560,000)	-	(44,725)	-	(1,604,725)
As at 30 June 2022	2,023,097,749	542,791,917	11,020,844	10,438,808	31,042,087	2,618,391,404
DEPRECIATION						
As at 01 July 2021	138,534,707	103,497,727	3,496,548	4,452,823	9,088,707	259,070,512
Charge for the Year	69,267,354	54,512,284	2,075,865	2,715,867	6,725,498	135,296,867
Disposal	-	(22,920)	-	(22,362)	-	(45,282)
As at 30 June 2022	207,802,061	157,987,091	5,572,413	7,146,328	15,814,205	394,322,097
NET BOOK VALUE						
As at 30 June 2022	1,815,295,688	384,804,826	5,448,431	3,292,481	15,227,881	2,224,069,307
As at 30 June 2021	1,873,498,293	401,527,459	6,545,441	4,534,252	11,935,165	2,298,040,609

YEAR ENDED 30 JUNE 2022

- 14.2** Property, plant and equipment, investment property and intangible assets of the Authority have been revalued at 30 June 2019 by Strategos Co. Ltd. Strategos Co. Ltd hired the services of Mr. Vyas S. Ramphul, MRICS, Chartered Valuation Surveyor.
- 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.

On 01 July 2019, the revaluation surplus was credited to revaluation reserve.

15 INVESTMENT PROPERTY

	30 Jun 2022	30 Jun 2021
	MUR	MUR
15.1 COST OR VALUATION		
As at 01 July 2021	9,250,000	9,250,000
Revaluation adjustment	-	-
Additions	-	-
As at 30 June 2022	9,250,000	9,250,000
DEPRECIATION		
As at 01 July 2021	740,000	370,000
Revaluation adjustment	-	-
Charge for the year	370,000	370,000
As at 30 June 2022	1,110,000	740,000
NET BOOK VALUE		
As at 30 June 2022	8,140,000	8,510,000

- 15.2** The following have been recognised in the statement of financial performance:

	30 Jun 2022	30 Jun 2021
	MUR	MUR
Rental income	300,000	300,000
Direct operating expenses arising from investment property that generates rental income	1,432	4,748

16 INTANGIBLE ASSETS

	30 Jun 2022	30 Jun 2021
	MUR	MUR
<u>Computer software</u>		
COST OR VALUATION		
As at 01 July 2021	6,716,221	6,644,621
Revaluation adjustment	-	-
Additions	344,308	71,600
As at 30 June 2022	7,060,529	6,716,221
DEPRECIATION		
As at 01 July 2021	2,628,380	1,319,090
Revaluation adjustment	-	-
Charge for the year	1,339,902	1,309,290
As at 30 June 2022	3,968,282	2,628,380
NET BOOK VALUES		
As at 30 June 2022	3,092,247	4,087,841

NOTES TO THE FINANCIAL STATEMENTS

YEAR ENDED 30 JUNE 2022

17 TRADE PAYABLES

	30 Jun 2022	30 Jun 2021
	MUR	MUR
17.1 Payables	284,628,417	101,044,914
17.2 analysed as follows:		
	MUR	MUR
- Current	283,675,125	98,756,628
- Non-current	953,292	2,288,286
	284,628,417	101,044,914
17.3 Ex- dockers pensioners	8,026,932	7,572,363
National Resilience Fund	157,904,675	-
Planters - SPRP, ALMS & Cane Setts	25,579,133	33,064,296
Mauritius Revenue Authority	2,396,663	2,133,427
Scomat Ltee	8,343,284	204,143
University of Mauritius	461,400	461,400
Vivo Energy & Total Ltd	489,021	2,603,694
CEB , CWA, MT and others	1,431,750	1,487,313
MCIA Employees	8,718,699	2,083,895
RSL Security Services	1,796,192	6,220,049
National Audit Office	500,000	1,000,000
NVision IT	671,904	1,962,407
Ercane	3,680,532	26,149,348
Ministry of Agro-Industry - Advanced Fertilizer Scheme	53,183,240	9,633,332
MECOM	633,840	316,118
Annual Report	598,320	556,300
VRS Expenses	3,906,834	-
Pest Metal Engineering	503,700	-
Rey Lenferna	1,437,500	-
Separation Scientific Ltd	571,588	-
ABC Motors Co. Ltd	230,610	-
MCAF - Harvester Garage	-	2,282,773
Others	3,562,600	3,314,056
	284,628,417	101,044,914

18 BORROWINGS

	30 Jun 2022	30 Jun 2021
	MUR	MUR
Loans		
- EDF loan	14,555,967	17,586,264
- Australian aid loan	26,315	52,628
	14,582,282	17,638,892
Repayable as follows:		
- Within one year	1,558,522	1,701,196
- Within two to five years	6,128,829	6,725,844
- After five years	6,894,931	9,211,852
	14,582,282	17,638,892
analysed as follows:		
- Current	1,558,522	1,701,196
- Non-current	13,023,760	15,937,696
	14,582,282	17,638,892

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 gain of MUR 1,388,553 is recognised on translation of the EDF loan.

19 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	Rental & Other Services	Legal Cost	TOTAL
	MUR	MUR	MUR	MUR	MUR	MUR
Balance as at 01 July 2021	89,421,278	29,996,764	87,093,013	36,403,680	370,000	243,284,735
Transferred	-	-	-	-	-	-
Earned	15,724,891	10,429,641	16,925,311	-	-	43,079,843
Increased / (Decreased)	6,345,015	176,953	(6,410,176)	19,345,601	(140,000)	19,317,394
Paid	(16,316,563)	(12,950,152)	(5,947,726)	(632,539)	(55,000)	(35,901,980)
Balance as at 30 June 2022	95,174,621	27,653,206	91,660,422	55,116,742	175,000	269,779,992

analysed as follows:

	MUR	MUR	MUR	MUR	MUR	MUR
Current	16,000,000	13,000,000	6,000,000	52,057,400	75,000	87,132,400
Non-Current	79,174,621	14,653,206	85,660,422	3,059,342	100,000	182,647,591
	95,174,621	27,653,206	91,660,422	55,116,742	175,000	269,779,992

Current Liabilities		MUR
Employee benefit provision		35,000,000
Others		52,132,400
Non-Current Liabilities		
Employee benefit provision		179,488,249
Others		3,159,343
		269,779,992

YEAR ENDED 30 JUNE 2022

20 RETIREMENT BENEFITS OBLIGATIONS

20 A 30 JUNE 2022 - DEFINED BENEFIT PENSION SCHEME

20 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) IPSAS 39 figures are computed by qualified actuaries -SICOM Ltd.

(iii) IPSAS 39 *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 IPSAS 39, 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 have 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) The three components of the defined benefit plan are accounted as follows:

- Service cost and net interest components accounted for in the statement of financial performance. 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 net assets/equity.
- Plan obligations and plan assets reported in the statement of financial position.

20 A.2 Amount recognised in statement of financial position

	30 Jun 2022 MUR	30 Jun 2021 MUR
Defined benefit obligation	2,006,257,563	1,705,824,908
Fair value of plan assets	(483,983,634)	(451,051,994)
	1,522,273,929	1,254,772,914

20 A.3 Amount recognised in statement of financial performance

	30 Jun 2022 MUR	30 Jun 2021 MUR
Service cost:		
Current service cost	31,763,371	29,070,272
Past service cost	-	-
Employee contributions	(11,098,001)	(10,337,815)
Other contributions - redeployed members	(54,252)	-
Fund Expenses	689,841	724,285
Net Interest expense/(revenue)	59,402,237	27,560,641
Charge to statement of financial performance (Note 20 A.7)	80,703,196	47,017,383
Remeasurement:		
Liability (gain)/loss	283,975,126	517,783,928
Assets (gain)/loss	23,998,343	(5,945,489)
Remeasurement recognised in net assets/equity	307,973,469	511,838,439
Total	388,676,665	558,855,822

YEAR ENDED 30 JUNE 2022

20 A.4 Movements in liability recognised in statement of financial position

	30 Jun 2022	30 Jun 2021
	MUR	MUR
At start of period		
- As previously reported	1,254,772,914	861,564,897
- Effect of restatement	-	-
- As restated	1,254,772,914	861,564,897
Amount recognised in statement of financial performance	80,703,196	47,017,383
Past service funding	(1,524,631)	(7,699,701)
Actuarial reserves transferred in	-	(74,412,443)
Transfer of fund	(95,616,708)	(61,147,935)
Employer contributions and direct benefits	(23,925,951)	(22,387,726)
Other contributions - redeployed members	(108,360)	-
Amount recognised in net assets/equity	307,973,469	511,838,439
Effect of curtailment	-	-
At end of period	1,522,273,929	1,254,772,914

20 A.5 Reconciliation of the present value of defined benefit obligations

	30 Jun 2022	30 Jun 2021
	MUR	MUR
Present value of obligation at start of period	1,705,824,908	1,195,776,795
Restatement	-	-
Current service cost	31,763,371	29,070,272
Interest cost	81,879,596	42,450,076
Benefits paid	(97,185,438)	(79,256,163)
Fund Expenses & Life Insurance	-	-
Effect of curtailment	-	-
Expected present value of obligation at end of period	1,722,282,437	1,188,040,980
Liability (gain)/loss	283,975,126	517,783,928
Actual present value of obligation at end of period	2,006,257,563	1,705,824,908

20 A.6 Reconciliation of fair value of plan assets

	30 Jun 2022	30 Jun 2021
	MUR	MUR
Fair value of plan assets at start of period	451,051,994	334,211,898
Restatement	-	-
Adjustment in fair value	-	74,412,443
Expected return on plan assets	22,477,359	14,889,435
Employer contributions	23,925,951	22,387,726
Employee Contributions	11,098,001	10,337,815
Other employer contributions - redeployed members	108,360	-
Other employee contributions - redeployed members	54,252	-
Transfer of fund	95,616,708	61,147,935
Funds Expenses & Life Insurance	-	-
Past service funding	1,524,631	7,699,701
Benefits paid + other outgo	(97,875,279)	(79,980,448)
Expected fair value of plan assets at end of period	507,981,977	445,106,505
Asset gain/(loss)	(23,998,343)	5,945,489
Actual fair value of plan assets at end of period	483,983,634	451,051,994

YEAR ENDED 30 JUNE 2022

20 A.7 Amount recognised in the Statement of financial performance regarding retirement benefits obligations is as follows:

	30 Jun 2022 MUR	30 Jun 2021 MUR
<i>Included in Salaries and salary related expenses</i>		
Contribution to SICOM - MCIA employees	23,925,951	22,256,206
Contribution to SICOM - Ex MSA employee	-	39,150
Contribution to SICOM - Redeployed employees	108,360	92,370
	24,034,311	22,387,726
<i>Other Increase in net retirement benefits obligations</i>	56,668,885	24,629,657
<i>Total charge to Statement of financial performance</i>	80,703,196	47,017,383

(note 20 A.3)

20 A.8 Distribution of plan assets at end of period

Percentage of assets at end of year

	30 Jun 2022 %	30 Jun 2021 %
Fixed interest securities and cash	58.0	54.8
Loans	2.9	2.8
Local Equities	13.6	11.8
Overseas bonds and equities	25.0	30.1
Property	0.5	0.5
Total	100.0	100.0

20 A.9 Additional disclosure on assets issued or used by the reporting entity

Percentage of assets at end of year

	30 Jun 2022 %	30 Jun 2021 %
Assets held in the entity's own financial instruments	0	0
Property occupied by the entity	0	0
Other assets used by the entity	0	0

20 A.10 Components of the amount recognised in NAE

	30 Jun 2022 MUR	30 Jun 2021 MUR
Asset experience gain/(loss) during the period	(23,998,343)	5,945,489
Liability experience gain(loss) during the period	(283,975,126)	(517,783,928)
	(307,973,469)	(511,838,439)
Year	2022-2023	
Expected employer contributions	24,875,512	
Weighted average duration of the defined benefit obligation (Calculated as a % change in Present Value of liabilities for a 1% change in discount rate)	13 years	

YEAR ENDED 30 JUNE 2022

20 A.11 Pension Plan Risks

The plan is exposed to actuarial risks such as Investment risk, Salary risk, Mortality and Longevity risk, Financial risk, Interest Rate risk and Regulatory risk.

(i) Investment Risk

The actual investment return achieved on the assets held could be lower/higher than assumed in the valuation exercise. A decrease in the real returns compared to salary increases will generate future deficit and require increases in rates of contributions and vice versa.

(ii) Salary Risk

The salary increases could be higher or lower than that assumed. In case of high salary increases relative to investment returns, this would decrease the real return, creating future deficit and hence require further annual contributions.

(iii) Mortality and Longevity Risk

In the same manner, post-retirement pension increases have a significant impact on the liabilities of the fund. The higher the increases compared to the return on the assets backing the liabilities, the higher the impact on the pension costs. In addition, the risk is magnified by the impact of improving mortality rates among pensioners. The longer the pensioners live, the higher the pension costs.

(iv) Financial Risk

MCIA may face unforeseen financial difficulties and be unable to pay contributions or fund for deficits when required.

It is to be highlighted that as from the year 2022-23, the Central Government has decided to inject Rs 52 million yearly in the MCIA pension fund for a period of 10 years to reduce the pension deficits.

(v) Interest Rate Risk

A decrease in the market yield on bond will increase the plan liability; however, this may be partially offset by an increase in the return on the plan's debt investments and a decrease in inflationary pressures on salary and pension increases.

(vi) Regulatory Risk

There may be changes in legislation and regulation governing Pension Funds that might adversely affect the Fund; for example, the introduction or increase of taxation, government fees and minimum benefits.

20 A.12 The cost of providing the benefits is determined using the Projected Unit Method. The principal assumptions used for the purpose of the actuarial valuation were as follows:

	Year ending 30 June 2022	Year ending 30 June 2021
Discount rate	4.95%	4.80%
Future salary increases	3.50%	3.00%
Future pension increases	2.50%	2.00%
Mortality before retirement	Nil	
Mortality in retirement	PA (90) Tables rated down by 2 years	
Retirement age	65 years	

The discount rate is determined by reference to market yield on bonds.

Significant actuarial assumptions for determination of the defined benefit obligation are discount rate, expected salary increase and mortality. The sensitivity analyses below have been determined based reasonably on possible changes of the assumptions occurring at the end of the reporting period.

NOTES TO THE FINANCIAL STATEMENTS

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- If the discount rate would be 100 basis points (one percent) higher (lower), the defined benefit obligation would decrease by MUR 279 million (increase by MUR 228.8 million) if all other assumptions were held unchanged.
- if the expected salary growth would increase (decrease) by 1%, the defined benefit obligation would increase by MUR 101.3 million (decrease by MUR 91.1 million) if all assumptions were held unchanged.
- if life expectancy would increase (decrease) by one year, the defined benefit obligation would increase by MUR 62.2 million (decrease by MUR 61.7 million) if all assumptions were held unchanged.

In reality one might expect interrelationships between the assumptions, especially between discount rate and expected salary increases, given that both depend to a certain extent on expected inflation rates. The analysis above abstracts from these interdependence between the assumptions.

20 A.13 Data Summary

Active members

As at 30 June 2022	Male	Female	Total
No of Members	297	62	359
Average Age	55	54	55
Average Salary	39,160	53,564	41,648
Average Service	330	341	332
As at 30 June 2021			
No of Members	309	57	366

Pensioners

As at 30 June 2022	Male	Female	Total
No of Members	267	42	309
Average Age	70	69	69
Average Monthly Pension	19,540	17,049	19,201
As at 30 June 2021			
No of Members	258	39	297

20 B 30 JUNE 2022 - TRANSFER OF MSIRI PENSION FUND ASSETS TO SICOM LTD

The Financial Services Commission approved the transfer of MSIRI Pension Fund to MCIA Pension Fund on 30 December 2020. The transfer of MSIRI Pension Fund assets which included local listed equities, foreign investments, fixed interest bearing securities and land at Balaclava started in early 2021 and was completed during the financial year ended 30 June 2022.

20 C 30 JUNE 2022 - DEFINED CONTRIBUTION PENSION SCHEME

A Contributory Defined Contribution (DC) Pension Scheme is implemented for new entrants in the public sector after 1 January 2013 as recommended in the PRB report 2013.

Total contributions with respect to employees appointed after 2013 amount to MUR 2,353,082 (MUR 1,763,454 for 2021).

YEAR ENDED 30 JUNE 2022

21 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
	<u>300,000,000</u>

22 RECONCILIATION OF ACCUMULATED SURPLUS OR DEFICIT

	30 Jun 2022 MUR	30 Jun 2021 MUR
As at 01 July 2021	(1,059,595,443)	(1,038,868,800)
Transfer of revaluation reserve	100,239,455	130,052,879
Deficit for the year	(286,557,859)	(153,015,829)
Actuarial losses on defined benefit pension plans	(210,832,130)	(368,578,360)
Restatement of opening Retirement Benefit Obligations	-	370,814,667
As at 30 June 2022	<u>(1,456,745,977)</u>	<u>(1,059,595,443)</u>

23 RECONCILIATION OF NET ASSETS / EQUITY

	30 Jun 2021 MUR	Movement MUR	30 Jun 2022 MUR
Contributed Capital	300,000,000	-	300,000,000
Accumulated Surplus / (Deficit)	(1,059,595,443)	(397,150,534)	(1,456,745,977)
Fair Value Reserve	314,500	29,750	344,250
Revaluation Reserve	2,100,319,835	(100,239,455)	2,000,080,380
TOTAL	<u>1,341,038,892</u>	<u>(497,360,239)</u>	<u>843,678,653</u>

24 GRANTS

24.1 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 and all related conditions are fulfilled.

24.2 Cess on sugar proceeds

Following the impact of reform in the EU Market, the main export market of the sugar industry, together with the response of the market to surplus supply of sugar, the price of sugar has experienced a substantial decrease. Ex MSS estimated price fell drastically. Ministry of Agro-Industry informed MCIA of the decision to suspend cess for crop year 2017. Grants from the Parent Ministry were received to meet MCIA's operational costs as from January 2018. The decision has been extended to crop year 2021.

NOTES TO THE FINANCIAL STATEMENTS

YEAR ENDED 30 JUNE 2022

24.3 Grants

	30 Jun 2022	30 Jun 2021
	MUR	MUR
Government of Mauritius - Co-financing	466,101,756	370,641,150
MSS - Refund of BSSD expenses	99,250,000	103,110,000
MOAFS - Sugar Cane Sustainability grant	* 351,100,000	465,913,826
NRF - Sugar Cane Sustainability grant	* 613,300,000	-
NRF - Fertilizer Scheme	** 75,500,000	108,000,000
MOAFS - Agricultural Land Management System grant	40,500,000	30,000,000
MOAFS - Harvesting Equipment	15,000,000	-
MOAFS - Bonsucro Labels	1,686,895	-
MOAFS - Grant for Medine Transport Cost	1,832,519	-
	1,664,271,170	1,077,664,976
Used to clear opening receivables	-	(98,366,668)
Used in 2021-2022	-	(9,633,332)
* Previous years funds to finance Govt share disbursed in 2021-2022	(51,000,000)	-
* Used to finance SIFB Premium for Crop year 2019 to 2021	(104,855,142)	-
* Unutilised amount refundable to NRF	(53,049,533)	-
** Used to finance Govt share disbursed in 2021-2022	(22,316,760)	-
** Used to finance Govt share disbursed after 2021-2022	(53,183,240)	-
	1,379,866,495	969,664,976

MUR 6,352,301 was received to acquire, on behalf of Small Farmers Welfare Fund, an agricultural tractor and associated implements.

25 LEVY ON SALE OF SUGAR

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

Levy earned during the period:

- Received
- Receivable

30 Jun 2022	30 Jun 2021
MUR	MUR
117,669,412	98,631,440
12,052,380	16,671,349
129,721,792	115,302,789

26 OTHER INCOME

Other income consists of:

Non - Exchange Transactions

	30 Jun 2022	30 Jun 2021
	MUR	MUR
Anchorage dues	165,393	218,600
Berthing dues	518,175	560,000
Cane juice application fee	75,000	61,000
	758,568	839,600

YEAR ENDED 30 JUNE 2022

Exchange Transactions

ACP Projects and WIKWIO Bank accounts	44,318,701	-
MRC grant	3,357,985	2,355,000
Air Pollution Monitoring income	3,694,550	2,377,000
Sale of cane	3,318,577	664,752
Interest on loans	1,132,320	1,409,963
Rent received	9,056,588	9,105,893
Analytical & agronomic services	3,798,717	12,284,561
Sale of varieties	1,684,713	470,623
Refund of medical expenses	369,362	171,758
SICOM - refund for damages & accidents	118,884	25,100
Loading of non originating sugar	1,405,566	1,925,250
Accountant General	21,175	73,000
Revenue from recycled oil	4,400	2,000
IAEA grant	285,239	282,560
Profit on disposal of assets	1,712,773	1,163,323
Amounts written back	967,114	706,362
MCAF - Part refund of cost of Harvester	7,269,537	6,167,921
MCAF - Refund for Garage	1,164,214	-
Exchange gain	3,632,460	-
Sale of Aluminium sheets	330,000	-
Calibration of Weighbridges	210,000	-
Interest & dividend received	17,000	-
Others	100,339	264,031
	87,970,213	39,449,097
TOTAL	88,728,781	40,288,697

27 HIRE OF TRACTORS AND TRAILERS

	30 Jun 2022	30 Jun 2021
	MUR	MUR
Hire of tractors	24,842,981	18,142,529
Hire of trailers	955,345	1,190,230
	25,798,326	19,332,759

NOTES TO THE FINANCIAL STATEMENTS

YEAR ENDED 30 JUNE 2022

28 SALARIES AND SALARY RELATED EXPENSES

	30 Jun 2022	30 Jun 2021
	MUR	MUR
Salaries and salary related expenses consist of:		
Salaries & wages	290,958,455	261,164,384
Overtime	16,525,659	13,420,449
Travelling	25,338,748	27,735,789
Uniforms	1,848,169	1,599,419
Pension - Ex-MSIRI	511,987	496,016
Pension contribution - SICOM	26,279,033	24,058,810
National Savings Fund	3,326,517	3,119,035
Pension contribution - MSIRI Pension Fund	-	2,967,222
Insurance of Employees - AMAS	-	39,745
National Pension Scheme	-	199,522
Family Protection Scheme	3,712,083	3,432,055
Contribution Sociale Generalisee	15,187,963	10,306,819
Civil service FPS	73,027	60,372
PRGF Contribution	169,753	-
HRDC Training Levy	413,064	256,750
Sick leave	15,903,085	12,672,512
Vacation leave & retirement gratuity	16,925,311	15,063,777
Passage benefits	10,507,719	10,055,274
Insurance of employees - GPA & others	10,825,339	5,653,791
Medical expenses	11,321,251	11,041,003
Increase / (Decrease) in provision	111,793	(5,844,659)
	449,938,956	397,498,086

YEAR ENDED 30 JUNE 2022

29 ADMINISTRATIVE AND GENERAL EXPENSES

	30 Jun 2022	30 Jun 2021
	MUR	MUR
Audit Fees	500,000	500,000
Board & Committee Fees	2,807,189	1,557,916
Consultancy Fees	-	46,000
Legal & Professional Fees	357,750	250,200
Subscriptions	445,698	438,849
Cleaning	2,258,888	1,675,215
Maintenance and Repairs	19,036,136	10,314,175 *
Security	23,283,961	24,677,569
Computer Maintenance	657,439	669,091
Remote Connection	-	31,315
Computer Supplies	939,643	922,462
Software licences	495,783	696,996
Field Experimentation Expenses	229,493	306,425
Other Office Expenses	275,149	170,067
Welfare	690,814	954,080
Advertisement	167,969	181,996
Maintenance of Office Equipment	632,523	462,576
Printing , Photocopy , Postage and Stationery	1,029,333	995,135
Health & Safety	2,182,764	2,660,689
Publications	285,830	559,540
Rent	9,532,817	2,525,496
Rates	134,233	26,134
Electricity	9,357,509	9,131,479
Water	2,382,079	2,056,952
Telephone , Internet & E-Mails	2,502,276	2,695,859
Research & Development	9,966,371	9,825,996
Running Expenses - Tractors ,Cranes & Other Vehicles	69,577,586	52,584,404
Training	92,000	339,800
Increase In Provision	19,205,601	28,499,342
Royalties	1,840,266	13,174,039
Insurance of Building and Equipment	2,149,105	2,149,027
Other Funds Expenses	2,928,326	2,849,100
Air Pollution Monitoring Unit Expenses	331,829	347,892
Compensation & Car benefits	-	126,000
Loss on Exchange	-	105,925
Missions	241,404	-
Assets written off	1,327,928	-
	187,845,692	174,507,740

* Maintenance and Repairs includes construction of a garage at D' epinay for MUR 2,282,773 to house the harvester financed by the Ministry of Agro-Industry and Food Security.

30 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 sugar on the local market. The number of pensioners as at 30 June 2022 was 1462 (June 2021: 1525).
- (ii) Charge to Statement of financial performance is made up of the following:

	30 Jun 2022	30 Jun 2021
	MUR	MUR
Paid during the period	110,804,557	111,696,462
Add Pension due at end	8,026,932	7,572,363
	118,831,489	119,268,825
Less Pension due at start	(7,347,323)	(5,596,600)
	111,484,166	113,672,225

NOTES TO THE FINANCIAL STATEMENTS

YEAR ENDED 30 JUNE 2022

31 SUGAR CANE SUSTAINABILITY EXPENSES

Sugar Cane Sustainability expenses consist of support provided to small planters and are made up of the following:

	30 Jun 2022	30 Jun 2021
	MUR	MUR
GoM - Assistance to planters for Crop 2020	-	352,580,181
GoM - Assistance to planters for Crop 2021	891,120,492	-
	891,120,492	352,580,181

At 30 June 2022, MUR 142,804,675 was overpaid to MSS with respect to Crop 2021.

32 FERTILIZER SCHEME EXPENSES

- 32.1** In September 2018, the Government approved the Fertilizer Scheme to support sugarcane planters through the provision of fertilizers as an advance. Since then, the Government decided to renew the Fertilizer Scheme for all planters cultivating less than 100 ha. of land and are eligible to a supply of 250 kg of fertilizer per arpent as an advance for the upkeep of their ratoon crop (repousse).

The Scheme provides for 50 per cent of the cost of fertilizers to be recouped from sugar proceeds of each beneficiary through the Mauritius Sugar Syndicate. The remaining 50 per cent is borne by the Government out of the National Resilience Fund.

- 32.2** Under the Fertilizer Scheme, advances were made to eligible sugarcane planters as follows:

Crop Year	MUR
2019	102,771,172
2020	109,279,568
2021	102,916,055
2022	189,332,486

33 FINANCIAL COMMITMENTS

Financial commitments relating to goods and services already contracted for

30 Jun 2022	30 Jun 2021
MUR	MUR
29,744,976	24,152,175

34 RELATED PARTY TRANSACTIONS - COMPENSATION OF KEY MANAGEMENT PERSONNEL

- (i) Remuneration paid during the period to and on behalf of executive and non-executive Directors, including pension contributions.

30 Jun 2022	30 Jun 2021
MUR	MUR
13,970,573	11,587,051

The aggregate remuneration for key management personnel and the number of individuals receiving remuneration were as follows:

Chairperson of MCIA Board of Directors and Committees	3	3
MCIA Board and Committee Members	22	22
Chief Executive Officer	1	1
Directors	4	4

The Authority has made no contribution to any defined contribution plan for its key management personnel.

YEAR ENDED 30 JUNE 2022

(ii) Mr Devendra Nath Busgeeth, Acting Director of Control and Arbitration Department, and Mr Amal Kumar Mohabeer Mungur, Board Member, are sugarcane planters and have benefitted facilities under the various incentive schemes available.

(iii) Since 1980 the Regional Training Centre (RTC) has occupied a building which was constructed on the premises of MSIRI through funds obtained from UNDP. RTC has been managed by the Mauritius Sugar Planters Association (MSPA) since 1996. After the closure of MSPA, RTC has been managed by the Société Omnicane, Alteo and Terra.

Rental fee has been MUR 300,000 since 1996 and has been revised to MUR 330,000 for the year ended 30 June 2022 onwards until next revision. In 2018, a rental valuation was carried out and the monthly rental was assessed at higher than the actual rental.

MCIA Board of Directors approved that the rental fee amounting to MUR 600,000 for the years 2020 and 2021 be waived as a result of difficult economic conditions following COVID-19 pandemic.

The Chairman of the RTC is also a Board member of the MCIA.

35 IMPAIRMENT OF ASSETS

The Authority carries out annual impairment test for its assets. The carrying amount of the assets is compared with its recoverable amount. Any impairment loss is then recognised in the financial statements in accordance with IPSAS 21 *Impairment of Non Cash Generating Assets*.

At 30 June 2022, no impairment loss for the Authority's assets is noted.

36 OPERATING LEASES

The Authority as Lessee

36.1 The Authority has contractual operating leases with Landscape (Mauritius) Ltd, Ministry of Housing and Land Use Planning, Mauritius Ports Authority, Rose Belle Sugar Estate, Sugar Investment Trust, ENL Agri Ltd and Terragri Ltd in the normal course of its business operations.

36.2 Lease payments recognised as expense in the period are as follows:

	Site Description	MUR
Landscape (Mauritius) Ltd	Riche Terre	2,302,186
Ministry of Housing and Land Use Planning	Reduit	155,498
Ministry of Housing and Land Use Planning	Ex-MSTC H.O	1,170,000
Ministry of Housing and Land Use Planning	Cassis	1,200,000
Mauritius Ports Authority	WSS - 2.1873 ha	5,180,000
Mauritius Ports Authority	Terminal - 24A735m ²	13,775,000
Rose Belle Sugar Estate	Union Park - 26.34A	480,000
Sugar Investment Trust	Belle Rive	38,500
ENL Agri Ltd	La Souridine	33,327
Terragri Ltd	Ferret	300,510

36.3 MCIA has subleased the ex- MSTC Head Office to the Mauritius Police Force to house the National Coast Guard headquarters. The annual rental is MUR 1,575,000 and MUR 1,170,000 for the building and the land respectively.

The lease agreement has been renewed for a further period of two (2) years up to 3 July 2024 against payment of a monthly rental of MUR 164,063 for the building as from 4 July 2022 and an annual rental of MUR 2,331,000 for the land.

MCIA has also subleased buildings at Reduit and various outlets located at Farmers Service Agency (FSA) centres.

NOTES TO THE FINANCIAL STATEMENTS

YEAR ENDED 30 JUNE 2022

The annual rental is as follows:

	MUR
Reduit - Ex Plant Breeding	1,845,600
Reduit - RTC	330,000
FSA Centres	3,904,440

36.4 Future minimum lease payments under operating leases for future periods are as follows:

	Per Annum MUR (M)
Within 1 year	25
Within 2 to 5 years	25
More than 5 years	25

Time value of money is not taken into consideration.

36.5 Under the operating leases held by MCIA, there exist no purchase option and no escalation clause.

The lease arrangements do not impose any restriction on additional debt and further leasing.

37 CASH FLOW STATEMENT

	Year ended 30 Jun 2022	Year ended 30 Jun 2021
	MUR	MUR
37.1 Cash absorbed in operations		
Deficit for the year	(286,557,858)	(153,015,829)
<i>Adjustments for:</i>		
Depreciation on property, plant and equipment	135,296,868	128,373,588
Depreciation on investment property	370,000	370,000
Amortisation of intangible assets	1,339,902	1,309,290
Loss /(Profit) on disposal	(1,712,773)	(1,163,323)
Exchange Loss/(Gain)	(1,517,271)	1,936,317
Interest paid	273,531	277,940
Interest received	(1,132,320)	(1,409,963)
Actuarial loss	56,668,885	24,629,657
Operating deficit before working capital changes	(96,971,036)	1,307,677
(Increase) / decrease in accounts receivables (excluding car loans)	(75,474,937)	(20,585,315)
(Decrease) / increase in accounts payables	180,627,468	33,178,004
Increase / (decrease) in provisions	26,495,256	45,981,001
Decrease / (increase) in inventories	(2,081,796)	(512,358)
(Increase) / decrease in prepayments	194,617	297,183
Cash absorbed in operations	32,789,572	59,666,192

37.2 Non cash transactions

The principal non cash transactions are the adjustments for depreciation and amortisation, interest received, exchange gain, profit on disposal and actuarial 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 2022	30 Jun 2021
	MUR	MUR
Cash in hand and at bank	349,552,078	371,535,186
Bank overdraft	-	-
	349,552,078	371,535,186

K. BOARD CHARTER

BOARD CHARTER OF THE MCIA

1.0 Introduction

The MCIA is governed by the MCIA Act (No. 40 of 2011) and as subsequently amended in 2014. 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) which was proclaimed on 19 March 2012. MCIA is a non-profit and a Public Interest Entity whose ultimate objectives are not commercial, being dictated by State interests. It falls under the aegis of the Ministry of Agro-Industry and Food Security.

1.1 Role and Responsibilities of the MCIA Board of Directors

The main role of the MCIA Board of Directors is to define the values to which the MCIA adheres. It has to abide to the general procedures in order to perform the duties and responsibilities entrusted to it in all integrity, transparency, accountability and fairness in the interest of:

- the Authority
- relevant stakeholders
- the planting community
- the public

1.2 Board Charter

The Board Charter is a policy document that clearly establishes the framework and definition of respective roles, responsibilities, powers, authority, and accountability of the board of Directors. The charter sets a direction towards adopting principles of good governance and practice as per applicable laws.

The charter will be posted in the website of the MCIA.

The information contained on the MCIA's website can be consulted in a spirit of openness and disclosure. However, all queries or comments should be addressed to the Chief Executive Officer.

1.2.1 Gender appreciation

In this Charter, the word 'HE' also would mean to express 'SHE'.

K. BOARD CHARTER

BOARD CHARTER OF THE MCIA

1.2.2 Purpose of Charter

The Code of Corporate Governance for Mauritius recommends the disclosure of the Board Charter on the organization's website and that a statement that the Board has approved its charter shall be included in the corporate governance section of the MCIA Annual Report. The Board Charter outlines the composition roles, responsibilities, powers, authority, accountability and operating procedures of the Board of Directors of the MCIA.

2. Board Profile, Constitution of the Board, Principles, Committees

2.1 Board Profile

The main objective of the MCIA Board of Directors is to ensure good performance within a framework of Good Governance in order to serve the interests of Mauritius.

2.1.1 Constitution of the MCIA Board of Directors

The composition of the MCIA Board of Directors for effective execution of its responsibilities as per Section 8(2) of the Act is as follows:

- (a) Chairperson, appointed by the Minister;
- (b) a representative of the Ministry of Agro-Industry & Food Security;
- (c) a representative of the Ministry responsible for the subject of finance;
- (d) 4 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.

Every member, other than members referred to in sub section (2)(b) and (c), shall hold office for 2 years and shall be eligible for reappointment.

All Members of the Board are Non-Executive Members.

BOARD CHARTER OF THE MCIA

2.1.2 General principles

The Board shall ensure that:

- its members shall act independently;
- each Board member has the ability to assess the responsibilities of the MCIA;
- the Board member matches the Board Profile;
- at least one Board member is a financial expert, meaning he/she has expertise in financial administration and accounting.

2.1.3 Quorum

The quorum necessary to conduct a meeting shall be at least three members.

2.1.4 Composition made public

The composition of the MCIA Board of Directors and any changes shall be available on the Authority's website and in its Annual Reports.

2.1.5 Roles and Responsibilities of the Board of Directors

The MCIA Board of Directors exist to provide strategic guidance, oversight and direction to the organization. The Board is responsible to ensure that the organization is fulfilling its mission, acting in accordance with its values and operating in a financially responsible and sustainable manner.

The Board has delegated authority to the Chief Executive Officer who will be responsible-

- to effectively manage the day-to-day business and activities of the Authority,
- to act in accordance with such directives as he may receive from the Board;
- to achieve such annual performance targets as may be set by the Board; and
- to submit to the Board, every 3 months, a report on the activities and finance of the Authority.

BOARD CHARTER OF THE MCIA

2.2 Strategy

- Ensure that the vision, mission and objectives are met.
- Provide effective leadership, strategic guidance, oversight and direction in:
- Ensuring that the cane industry is sustainable and become an important pillar within the socio-economic framework in Mauritius by using latest technologies and mechanization.
- Promoting the development of the cane sector and its clusters through systematic policy measures which will enable an innovative environment and enhance the provision of effective and efficient services to the planting community.
- Carrying out effective research and development using latest technologies that will assist in adding more value and meet current and future challenges in the sugar industry.
- Monitoring the performance of the Chief Executive Officer with regard to strategic plan and ensuring that performance indicators are met.

2.3 Role and Responsibilities of the Chairperson

The Chairperson of MCIA Board of Directors is appointed as per the Act.

2.3.1 Duties

The Chairperson of the Board is primarily responsible for the activities of the Board and its Committees. He shall act as the spokesman of the Board. The Chief Executive Officer and the Chairperson of the Board shall meet regularly to discuss matters pertaining to the Authority.

2.3.2 Responsibilities

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 Chairperson ensures:

- smooth functioning of the MCIA in the interest of good governance
- active participation of members in discussions and board matters
- all relevant information and facts are placed before the Board to enable members
- to reach informal decision
- contracts are executed, jointly with the Chief Executive Officer, on behalf of the Authority
- The agendas of the Board meetings are determined
- The meeting the MCIA Board of Directors are chaired effectively
- The MCIA Board of Directors has sufficient time for consultation and effective and efficient decision making
- Minutes of the MCIA Board of Directors are properly kept
- The performance of the MCIA Board of Directors is evaluated every year
- Problems related to the performance of individual Board members are addressed effectively

BOARD CHARTER OF THE MCIA

2.4 Secretary of the MCIA Board of Directors

2.4.1 Secretary

The Secretary shall assist the Board in its proper functioning and establishing of procedures. He shall be accessible to the Chairperson for purposes/duties related to the Authority.

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

2.4.2 General Access

All Board members may consult the Board Secretary for advice or use his or her services.

2.4.3 Responsibilities

The Secretary shall ensure that the Board adheres and complies with correct procedures and he shall assist the Chairperson of the Board to organize the activities relating to Board, for instance, searching and preparing information for Board, setting an agenda, reporting to Board and etc.

2.5 Committees

2.5.1 Establishment of Committees

The Board may appoint members to perform specific tasks in committees. The Board shall determine the members of any Committee. The Board has the power to set up and establish an Audit and Risk Committee, a Staff Committee, a Finance Committee and a Corporate Governance Committee.

2.5.2 Board Responsibility for Committee Action

The MCIA Board of Directors shall collectively be responsible for the decisions and actions taken by any Committee. The latter shall perform the tasks as delegated to it by the MCIA Board of Directors and has to abide as per the authority or powers of the Board.

2.5.3 Committee Reporting

Each Committee shall immediately inform the Board important actions which it has taken and thus shall keep the Board informed of major developments. A report shall be provided by the Committee concerning any action and findings.

2.5.4 Website and public Disclosure

The Board Charter and the composition of the Committees shall be posted on the MCIA's website and detailed in the Annual Report.

BOARD CHARTER OF THE MCIA

3. Duties and Powers

3.1 General Duties and Powers

3.1.1 General Responsibilities

The Board oversees the general performance of the MCIA and is responsible for such supervision.

3.1.2 Action of the Board in the Interest of the Organization

The Board shall act in the best interests of the MCIA and its Departments.

3.1.3 Quality of Performance

The Board is responsible for the quality and effective performance of the MCIA.

3.1.4 Provision of Information

The Chief Executive Officer and the Secretary of the MCIA Board of Directors shall see to it that Management, in a timely manner, provides Board and its Committees with important information for effective and efficient function.

3.1.5 Responsibility for Securing Information

The Board and its individual members each has responsibility to get all information from Management and the internal and external auditors required in order to carry out their duties efficiently and effectively.

3.2 Duties Regarding the Supervision of Management

3.2.1 Nature of Supervision

In supervising the Management, the Board shall consider:

- that the Corporate Vision and Mission and objectives are met;
- strategy and associated risks in the activities of the MCIA;

BOARD CHARTER OF THE MCIA

3.2.2 Financial Reporting

There should be frequent financial reporting.

3.2.3 Annual Risk Review

At least once a year, the Board shall meet and discuss the strategies and associated risks at the MCIA. It has the responsibility to make an assessment of the internal risk and control systems.

3.3 Other Duties of the Board

The other duties of the Board shall include:

- duties as described in this Board Charter
- other duties imposed by law/MCIA Act/SIE Act
- Duties/ Requirements of Accounting Procedures and Policies in use or adopted by the MCIA.

3.4 Annual Report and Accounts

An Annual Report and Accounts shall be presented to the MCIA Board report describing its activities in the financial year, and containing the statements and information in line with Finance Reporting Council.

As far as practicable, MCIA will have to adopt the latest and most recent Good Practices and Reporting Policies.

4. Supervision of Financial Reporting

4.1.1 General Supervision Responsibilities

The Board, in consultation with the Audit & Risk Committee, will need to manage and supervise in compliance with written procedures for the effective preparation and publication of the annual report and accounts and any other financial information. The Board, through the Audit & Risk Committee, also need to supervise and guide the internal control and audit.

4.1.2 Discussion of Financial Reports

The Finance Committee shall provide the Board with the annual report and accounts of the MCIA for each year.

The Annual Report and accounts shall be discussed in a meeting with the Board within four months (i.e mid-August/start of September) before the end of the year.

BOARD CHARTER OF THE MCIA

5. Conflicts of Interest

To ensure the independence of the Board, directors shall disclose actual or perceived conflicts of interest so that the Board can function independently and objectively in the best interests of the population.

On appointment and on a continuous basis, all directors shall disclose any business or other interest that is likely to create a potential conflict of interest. The other recommendations are as hereunder: -

5.1 It is the duty and responsibility of all directors to act in the interest of MCIA;

5.2 The Chief Executive Officer should inform the Board if he needs prior consultation in a matter before a decision is made.

Board will deliberate on perceived or actual conflict of interest in the absence of the concerned person.

6. Board Meetings and Decision-Making

6.1 Frequency, Notice, Agenda and Venue of Meetings

6.1.1 Frequency

The Board shall meet at least once every month at such time and place as the Chairperson may determine.

6.1.2 Notice and Agenda

Meetings of the Board are called by the Chairperson. The agenda for a meeting shall be sent to all Board members at least five days before the meeting. For each item on the agenda, related documentation will be attached or sent by electronic means, wherever disclosure is possible. The Secretary shall consult the Chief Executive Officer on the proposed agenda and then seek approval of the Chairperson before convening any meeting.

BOARD CHARTER OF THE MCIA

6.1.3 Venue

Board meetings are normally held in the Conference Room/Committee Room of the MCIA but may also take place elsewhere as may be designated.

6.2 Attendance of and Admittance to Meetings

6.2.1 Attendance by Chief Executive Officer

The Chief Executive Officer shall be in attendance at Board meetings.

6.3 Chair of the Meeting

Board meetings are chaired by the Chairperson of the Board. In the absence of the Chairperson, a Member may be designated as Chairperson.

6.4 Decision-Making within the Board

6.4.1 Preference for Unanimity

The Board members shall try to unanimously adopt resolutions. However, Board members are encouraged to voice their opinions to be recorded in the Minutes.

6.4.2 Individual Vote

Each appointed Board member has the right to cast one vote. The Chairperson shall have a casting vote in case of deadlock.

6.4.3 Majority Vote, Quorum

Where unanimity cannot be reached, Resolutions of the Board are adopted by a majority of the votes cast.

6.4.4 Written Consent/approval by circularization

Board resolutions may also be adopted in writing, provided the proposal is submitted to all Board members and no member objects to this form of adoption. Adoption of resolutions in writing shall be effected by statements in writing from all the Board members. A statement from a Board member who wishes to abstain from voting on a particular resolution which is adopted in writing must reflect the fact that he does not object to this form of adoption.

Approval by circularization is used in corporate decision making processes. Normally, a circular/notice is sent to all board members to request them to indicate their preference or give their approval on a particular matter. Once their responses are received and based on the results, a decision is taken relating to the issue.

BOARD CHARTER OF THE MCIA

6.5 Minutes

Minutes must be produced by the Board Secretary and certified for each Board meeting.

The Minutes will have to be signed by the Chairperson of the Board and the Chief Executive Officer or Secretary and then recorded properly in files.

Each member of the Board may request a note to explain how he voted or that a formal declaration by him be included in the Minutes.

7. Other Provisions

7.1 Confidentiality

7.1.1 Information to be kept Confidential

Unless required to do so by law, no Board member shall, during his or her membership on the Board or afterwards, disclose any information of a confidential nature regarding the information of the organization and/or any companies in which it holds a stake, that came to his or her knowledge in the capacity of his or her work for the organization and which he/she knows or should know to be of a confidential nature. A Board member shall not use such confidential information for his or her personal benefit.

7.1.2 Return of Confidential Information

At the end of each Board member's term of office, he/she shall return all confidential documents or other material in electronic or other form in his or her possession to the organization or guarantee their disposal in a manner that ensures confidentiality (This includes data storage equipment including CD, pen drive etc.).

7.1.3 Notice of Disclosure

A Board member may not disclose to a third party confidential information related to the MCIA.

8. Review of Charter

The Board may review this charter at its sole discretion regularly to ensure that it stays consistent with its objectives and responsibilities.

L. LIST OF ABBREVIATIONS

<i>Agricultural Land Management Scheme</i>	<i>ALMS</i>
<i>Agricultural Land Management System Cane Replanting Scheme</i>	<i>ALMS-CRS</i>
<i>Agricultural Mechanization Unit</i>	<i>AMU</i>
<i>Annual General Meeting</i>	<i>AGM</i>
<i>Cane Replantation Scheme</i>	<i>CRS</i>
<i>Comprehensive Economic Cooperation and Partnership Agreement between Mauritius and India</i>	<i>CECPA</i>
<i>Concentrated Molasses Stillage</i>	<i>CMS</i>
<i>Control and Arbitration Committee</i>	<i>CAC</i>
<i>Control and Arbitration Department</i>	<i>CAD</i>
<i>Crop Surface Models</i>	<i>CSM</i>
<i>Development Bank of Mauritius Ltd</i>	<i>DBM Ltd</i>
<i>Early Retirement Scheme</i>	<i>ERS</i>
<i>European Union</i>	<i>EU</i>
<i>Farmers Information Management System</i>	<i>FIMS</i>
<i>Farmers Service Agency</i>	<i>FSA</i>
<i>Field Operations Regrouping Irrigation Project</i>	<i>FORIP</i>
<i>Framework Implementation Committee</i>	<i>FIC</i>
<i>Gas chromatography-mass spectrometer detector</i>	<i>GC-MSD</i>
<i>Global Environmental Facility</i>	<i>GEF</i>
<i>Government Analysis Division</i>	<i>GAD</i>
<i>International Atomic Energy Agency</i>	<i>IAEA</i>
<i>International Public Sector Accounting Standards</i>	<i>IPSAS</i>
<i>International Sugar Organisation</i>	<i>ISO</i>
<i>land conversion right</i>	<i>LCR</i>
<i>Mauritian Rupees</i>	<i>MUR</i>
<i>Mauritius Cane Industry Authority</i>	<i>MCIA</i>
<i>Mauritius Chemical and Fertilisers Industries Ltd</i>	<i>MCFI</i>

<i>Mauritius Port Authority</i>	<i>MPA</i>
<i>Mauritius Sugar Authority</i>	<i>(ex MSA)</i>
<i>Mauritius Sugar Producers' Association</i>	<i>MSPA</i>
<i>Mauritius Sugar Syndicate</i>	<i>MSS</i>
<i>Mauritius Sugar Terminal Corporation Employees Union</i>	<i>MSTCEU</i>
<i>Mauritius Sugar Terminal Corporation Staff Association</i>	<i>MSTCSA</i>
<i>Mauritius Sugarcane Industry Research Institute</i>	<i>MSIRI</i>
<i>Memorandum of Understanding</i>	<i>MoU</i>
<i>Multi Annual Adaptation Strategy</i>	<i>MAAS</i>
<i>National Biomass Framework</i>	<i>NBF</i>
<i>National Environment Laboratory</i>	<i>NEL</i>
<i>National Sugar Development Council</i>	<i>NSDC</i>
<i>Non-originating sugars</i>	<i>NOS</i>
<i>Permanent Sampling Units</i>	<i>PSU</i>
<i>Plantation white sugar</i>	<i>PWS</i>
<i>Research and Development</i>	<i>R&D</i>
<i>Rose Belle Sugar Estate Board</i>	<i>RBSEB</i>
<i>Service Providing Institutions</i>	<i>SPI</i>
<i>Small Medium Enterprise</i>	<i>SME</i>
<i>South African Development Countries</i>	<i>SADC</i>
<i>State Land Development Corporation</i>	<i>SLDC</i>
<i>State Owned Enterprise</i>	<i>SOE</i>
<i>Steering Committee</i>	<i>SC</i>
<i>Sugar Industry Efficiency</i>	<i>SIE</i>
<i>Sugar Investment Trust</i>	<i>SIT</i>
<i>Sugar Storage and Handling Unit</i>	<i>SSHU</i>
<i>Sugarcane Planters Regrouping Project</i>	<i>SPRP</i>
<i>The Nigerian Sugar Institute</i>	<i>NSI</i>
<i>Voluntary Retirement Scheme</i>	<i>VRS</i>
<i>Working Groups</i>	<i>WG</i>



Farmers Service Agency

Agricultural Mechanization Unit

MSIRI

Control & Arbitration Department

Sugar storage & Handling Unit (Sugar Terminal)

Sugar storage & Handling Unit (Bagged Sugar)



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