Scientific Research Organisation of Samoa

Annual Report

2022 -2023

ANNUAL REPORT FY2022-2023

Please address all correspondences to:0020
Hon. Minister of Agriculture & Fisheries

Government of Samoa
OFFICE OF THE MINISTER
MINISTRY OF AGRICULTURE & FISHERIES
(SCIENTIFIC RESEARCH ORGANISATION OF SAMOA; SAMOA TRUST ESTATES CORPORATION)

31st October 2023

Honourable Speaker of the House
Legislative Assembly
Mulinuu

Honorable Speaker

Following the Scientific Research Organisation of Samoa's Acts 2006 (RDIS Act 2006) and 2008 (SROS Act 2008). I am pleased to submit the 16th Annual Report for the Scientific Research Organisation of Samoa (SROS) for the year ended 30th June 2023.

The Annual Report is the record of the Organisation's performance during this financial year, by its mandate and output structure, and to be laid before the Legislative Assembly of Samoa.

Ma le fa'aaloalo tele lava

Hon. Laaulialemalietoa Leuatea Polataivao Fosi Schmidt
MINISTER
SCIENTIFIC RESEARCH ORGANISATION OF SAMOA

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1.1 STATEMENT TO THE PARLIAMENT

I. INTRODUCTION

Talofa Lava,

The activities performed in this financial year has enabled the Organisation to maintain its target and future ambitions as laid-out in the corporate plan 2020-2024. The instalments of most of the heavy equipment for the production of ethanol and dehydrated products are completed. There is hope that there will be increased private sector interest in the value-added production lines and subsequent stimulation of crop production in the agriculture sector.

There has been an increase of support from local farmers for a combined effort with our agriculture division, in addressing the challenges of producing sufficient crops to meet growing consumer demand. SROS has the only operational micro propagation facility for plant tissue culture production and conservation of plant genetic materials which has been upgraded to increase the protection of Samoa's plant genetic material.

There is garnered support from international funding bodies for equipment and machines to enable a fully functional food innovation centre to support the growth of the food industry in Samoa. The food innovation centre will allow entrepreneurs to develop new products ands sourced from locally available resources in an incubator-type setting at SROS.

Due to requests from government entities for the analysis of drugs in biological samples, the Organisation actively identified and secured funding for equipment to perform the analysis. The procurement of the liquid nitrogen machine to store cancer cells is in progress. This new laboratory for a drugs and molecular analysis will be established at the Vailima compound.

There is continuining close partnerships of the organisation and the Environment Sector, Energy Sector, and Water Sector to provide research and technical assistance to support national projects.

The organisation utilises the different talents that each of its' 84 employees brings to SROS, observed through the richness of ideas, backgrounds and perspectives. SROS aspires to continue using the latest technologies for analysis and research which also provides learning opportunities for all staff.

The organisation has close ties with different national, regional and international institutions through formal and informal connections. This allows the organisation to be well informed and aware of the different challenges and opportunities that are before us. The financial support from the Government and our continuous bilateral partnership with external donors were paramount to SROS to achieving their goals and work plans for this financial year. Being one of the commissioned organisations in the Pacific to coordinate an ongoing ACIAR project has been a remarkable achievement and experience thus far.

This annual report highlights the utilisation of the government funds and donor funding by the Organisation in the financial year 2022-2023 and displays the critical work achievements by each division. Also attached are the audited financial statements and accounts for 2022-2023, and the Auditor's opinion on the Organisation's financial and budget performances.

2.1 SROS' VISION AND MISSION

SROS Vision

"To develop Samoa through science, technology and innovation".

SROS Mission Statement

"To drive, promote and improve the development of Samoa through research in the relevant economic sectors.

II. KEY OBJECTIVES AND PRIORITIES

The research and development activities performed are geared by the Organisations objectives, which are;

a. To undertake scientific and technical research with the primary aim of adding value and developing functional prototypes of products and processes for the local or overseas markets.

b. To provide relevant technical and quality testing services in goods, food & food products, narcotics, biological and environmental samples.

c. To investigate research pathways utilising local resources for renewable energy generation and conduct environmental monitoring and impact assessments.

d. To enhance the potential of Samoan natural products through biomedical, cosmetic and pharmaceutical research.

e. To improve agricultural production, postharvest techniques and establish effective pest & disease control measures.

f. To engage in consultancy services to improve the various developments sectors and promote science as a subject/career.

g. To strengthen the partnership with the private sector and stakeholders to support the commercialisation of the Organisation's prototypes.

h. To ensure effective staff development in scientific research and support services.

i. To effectively manage the Organisation's financial, I.T., human resources and assets.

3.1 MESSAGE FROM THE CHAIRPERSON

Talofa Lava

I am pleased to introduce the SROS annual report 2022 – 2023, as Chairman of the SROS Board of Directors. There has been a few challenges this financial year but the Organisation has been following a sound strategy to maintain progress of its work and meet the expected outcomes no matter what the difficulties. This also ensures that the Organisation is well-positioned to provide Samoa with enabling platforms, products and services for years to come.

The value of science in society and its application to the pool of scientific knowledge is strongly empahsized within the Organisation's operations, to satisfy Samoa's needs and improvement of living standards. The venture into researching for cures to noncommunicable diseases, the increased production of healthy foods, rational use of our natural resources and how they can be sustainable are examples of how the Organisation looks into being the driver of economic growth in the near future.

The Organisation has aligned itself to join the many research institutes in the world to satisfy the fundamental human thirst for knowledge and to maintain and enhance the human cultural heritage. With the growing number of published material by the Organisation, there is a push to diffuse the obtained scientific knowledge to our clients, the education system and the general public and be a mechanism to disseminate science in Samoa

The SROS Board of directors continues to nurture a culture in the Organisation which rewards high performance of staff based on a number of criterions but also seeks to build on the values of the Organisation. Maintaining a high standard of performance and continuous assessment has meant that staffs are always driven and committed. These warrant the organisation's objectives being exceedingly achieved and its' respectable reputation is upheld.

It is with great hope that in due time, the Organisation will achieve its' vision for cancer research to find its' cure. This will greatly assist our government and our people financially, economically and most importantly, save lives. Subsequently, the organisation will be focusing on incorporating animal science and marine research. Having animal scientists on board means the Organisation can assist with addressing problems associated with livestock production and management. On the other hand, the marine scientists can enable research and learn on the interactions with organisms in the sea, coastal areas and the atmosphere. This can also address the vulnerability of our coral reef ecosystems due to climate change and provide innovative solutions to assist with the change in weather.

I extend my gratitude to our fellow board members, the support of the management team and the dedicated staff that have provided certainty of continuing stable operations.

I pray that the Lord will continue to bless this organisation as well as the people of Samoa for years to come.

Sulamanaia Nu'uetolu Montini Ott

Chairman SROS' Board of Directors

4.1 CHIEF EXECUTIVE OFFICER REPORT

Talofa Lava,

This annual report depicts a challenging yet fulfilling and eventful financial year for the Scientific Research Organisation of Samoa. The organisation managed to successfully complete several projects and researches as well as gaining other new projects to be implemented by its' technical divisions.

For many years, SROS anticipated growth through additional projects and responsibilities received which simply require more working space and human resource. The Agriculture Research Division (ARD) building was renovated and extended to cater for such responsibilities as well as the increasing number of consultations and workshops with our partners and local farmers, as well as weekly prayer services of the organisation. The ARD also initiated the establishment of an association, namely the Samoa Scoiety of Agricultural Professions (SOAP), for all professional agriculturalists to assist with agriculture and its' associated activities in Samoa.

Furthermore, the installation of the distillery and other machinery for our multipurpose factory has been completed. We are keen on extending to mass production of SROS products provided there is more interest from our local and overseas markets.

The Organisation continues to extend partnerships with prestigious organisations, governments, universities and donors such as ACIAR, FAO, SPC, IAEA, MDF, PHAMA Plus, JICA, MFAT NZ, United Nations and Victoria University of Wellington. SROS remains committed to strengthening its reputation by building on such partnership with these national, regional and international Organisations. These partnerships aim to address, through scientific research, the important aspects, issues, developments in Samoa and the Pacific as well as resolutions for a sustainable future. Through these activities, not only is the Organisation building its profile, but the platforms also allow the Organisation to contribute to knowledge and information delivery and sharing in Science.

Additionally, SROS is the Project Leader for an ongoing project, the ACIAR CS 2020/191 Project that focuses on "Adopting a gender-inclusive participatory approach to address horticultural loss in the Pacific". This is a milestone achievement for the organisation being the coordinator of this regional project funded by ACIAR.

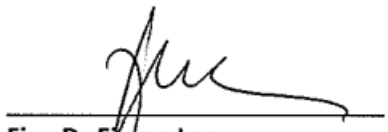
Analytical testing services which are pivotal for scientific studies, food quality and safety as well as material production have been provided by the organistion for many years. By applying optimal approaches and methodologies within a laboratory environment, analytical testing solves a number of unique challenges in complex focus areas. The internationally accredited testing laboratories offer leading services that quickly and correctly classify, identify, analyse and measure samples delivered by our clients. Nevertheless, the international accreditation status of a testing laboratory not enhance the confidence level but ensure that the reported results are reliable and accurate. Our biological, chemical, hard drugs and molecular testing services assist the many ministries, development sectors and the people of Samoa.

SROS continues to collect plants, soil and marine samples to investigate potential compounds which which haveanti-diabetic, anti-cancer and anti-microbial bioactivities. SROS testing services also conduct analysis to determine quality of water sources in Samoa, such as rivers, lakes and natural spring pools. These tests assess the presence of biological and chemical contaminants that causes long term health problems to acquatic life, animals and our people.

SROS' is proceeding well with the set objectives of our 2022-2024 Corporate Plan. The Organisation is making steady progress in completing planned activities to support and achieve objectives in the different development Sectors in Samoa. Although we have been heavily challenged financially this year, we believe that the unwavering support from our leaders, clients and stakeholders will allow us more opportunities to assist with our contribution to the development of Samoa, through science, technology and innovation.

Praise the Lord for His never-ending blessings upon this organisation. I would also like to thank you all for the constant support and assistance throughout the year.

Sincerely,



Fiso Dr Fiame Leo
Chief Executive Officer
Scientific Research Organisation of Samoa

5.1 TECHNICAL SERVICES DIVISION (TSD)

The Technical Services Division (TSD) is the testing arm of the Scientific Research Organisation of Samoa (SROS). It is consisted of the internationally accredited testing laboratories of competent scientists/analysts and the state of the art equipments. The TSD is mandated for the provision of relevant quality and safety testing services to goods, food and food products to ensure the excellent quality, food safety and their suitability for trade.

The TSD also performs various regulatory functions such as narcotics analysis for investigations and prosecution of offences as well as other environmental impact analysis on soil, air and water for environmental monitoring purposes. It is also responsible for technical analysis required by various research projects implemented by other SROS technical divisions.

The scope of the international accreditation is respectively for Biological and Chemical Testing laboratories.

For the critical functions of TSD, they have been executed by four (4) testing and one (1) research laboratories, namely;

- Chemical
- Biological
- Narcotics
- Molecular and Forensic
- Cancer Research

The capacity and the expertise of the Technical Services encompasses an array of microbiological, physical, chemical, narcotics, molecular diagnostic and forensic analyses for products including but not limited to foods, waters, oils, animal feed, illegal drugs (narcotics), soil and biological samples.

Apart from providing the analytical services, TSD has a research laboratory that focus on the bioprospecting for medicinal drugs which have the portential to cure or inhibit the growth of cancer.

T.S. Division's key achievements for this financial year 2022/2023 include:

a) Achieved the procurement of the gas chromatography (GC) and high performance liquid chromatography (HPLC) analytical equipment from the Republic of Korea Overseas Development Aid.

b) Achieved the procurement of the liquid nitrogen storage container for the cancer research laboratory. The storage container is very special and equipped with control sensors for safety measures. Having a liquid nitrogen is very important for the cancer research, as it is essential for the storage of cancer cell lines.

c) Achieved the developments of new methodologies for analytical tests requested by ministries andgovernment authorities for regulatory purposes. The developed methodologies were the determination of waste petroleum products in soil and water.

d) Achieved the development of the gas chromatography (GC) tests for vanillin content in vanilla beans. The vanillin aroma test was requested by clients in order to determine the efficiency of their curing process. Vanilla is a promising export for Samoa.

e) Achieved the continuation of the International Accreditation status for Biological and Chemical testing laboratories. The prestigious achievement was awarded after the routine assessment by the accrediting body namely International Accreditation New Zeland (IANZ). The IANZ highly recommended the continuation of international accreditation for SROS testing laboratories, after satisfying all the criteria stipulated in the international standard ISO17025:2017.

f) Achieved the satisfactory performance in the Global Proficiency Programes for the Biological and Chemical testing laboratories. The performance of the laboratories in these programes ensured the competency of the staffs, the good capacity of equipment and validated methodologies.

g) Continued partnership with government Ministries (MNRE, MOH, MAF, MCR, MOP, MJCA) and Authorities (SWA, AA, SSC) to monitor, regulate and evaluate projects according to their conformances to national & international standards and regulations, as well as providing testing reports for court cases.

h) Eight hundred and thirty four (834) samples were received for analytical analysis. It was a more than 30% decrease compared to the last financial year. The analyses were for physical, chemical and biological tests related to quality and safety. Other analyses were requirements of projects implemented by the technical division of SROS.

i) Five hundred and seventy four (754) biological samples were received for COVID 19 confirmatory tests. It was almost 24% decreased as compared to the last financial year. The 100% of the samples were obtained from private Medical Clinics and mainly from the sailors who have travelled for work overseas.

j) One hundred and twelve (112) suspected narcotic samples were received and analysed to confirm for controlled drugs under the Narcotics Act 1967. It was almost a 40% increased when compared to the last financial year. The samples were submitted by Ministry of Police for confirmatory analysis prior the prosecution in court. Seventy five (75) cases were for methamphetamine and thirty seven (37) for marijuana.

6.1 FOOD SCIENCE & TECHNOLOGY DIVISION (FSTD)

Food Science & Technology is responsible for research on food material through value addition using the appropriate technologies to develop new products and improve existing processing techniques. This involves food preservation, development of new and novel foods and ingredients, and food sensory, packaging and safety consideration.

FST Division's key achievements for this financial year 2022/2023 include:

a) MOU with FAO

Samoa is one of the seven Pacific islands nations now a part of FAO's Global Initiative themed 'One Country One Priority Crop' (OCOP) aimed at developing sustainable food value chains, supporting family and small holder farmers and improving their livelihood. Samoa has chosen cocoa as its priority crop as it supports many families and smallholder farmers. The SROS signed the MOU in June this year, for **SAT$80,130** to support activities focusing on promoting value added products and producing a long term development plan for improving the cocoa value chain. The MOU ends in December 2023

b) **MOU with Market Development Facility (MDF)**

A small preliminary study conducted by FST team in 2021 on the quality of powdered ava sold in shops confirmed a lot of non-conformance to the National Ava Standard. It also highlighted the need for evidence to possibly review the standard. The Market Development Facility (MDF-funded by Australia) accepted the proposal for national study of ava to confirm the lactone profile of different ava variety at different maturities as well as the chemotypes of Noble ava as stipulated in the standards. The MOU was signed in June providing SROS with **AUD$29000** to implement the study. The FST and Technical Services division will implement this project.

c) **MOU with PHAMA Plus**

For the first time, PHAMA Plus has signed a MOU with SROS to support many interventions at the same time rather than just one. This is a result from many consultation and meetings until a range of proposed activities were agreed to for support. The MOU is for 'Improved availability of scientific research and advisory services' and initially providing **AUD$142,005** to support a range of activities proposed by SROS. The Technical Services,PPT and FST all have activities supported by this funding for taro, ava, taro ethanol and staff capacity building for HACCP advisory services. This MOU is initially for two years.

d) MOU with the Government of Japan

A proposal submitted to the JICA office in 2022 to assist with the establishing of the Food Innovation Centre (FIC) and has been accepted for funding of small processing machinery to start the services of the FIC. The formal exchange of notes between the two governments has completed for the allocation of USD$1,000,000, ongoing negotiation with the assigned Japanese procurement agency have already started. The FST team with the agency to identify suitable equipment for the FIC, which should benefit SROS researcher, private business and entrepreneur as well as student.

e) **PIRAS's Project**

Secured funding under the Pacific Island Rural Agriculture Facility Project (Completed Phase 1) - value added project in the community. A project proposal entitled "Equipping youth and women to make a business out of agricultural value added products" was prepared and secured funding to assist various farmers particularly women and youth through the provision of essential equipment. Awaiting for the PHASE 2 to continue this project.

f) **Food Innovation Centre establishment**

The building extension is now complete to cater for this development. We are awaiting Japanese procurement agency(JICs) to source equipment's and machine to enable a fully functional innovation center where business people can work with our Staff to develop products using the equipment we have for a small fee.

g) **Republic of Korea Official Development Assistance Programs**

Purchase C02 Supercritical Fluid Extraction, Rota vapor, Aloe Vera and Essential Oils.

7.1 PLANTS & POSTHARVEST TECHNOLOGIES DIVISION (PPTD)

The Plants & Postharvest Technologies Division key functions are:

- Minimise agricultural postharvest losses
- Ensure food security and food safety through improved postharvest handling
- Open access to overseas markets and
- Investigate pharmaceutical and cosmetic potential of Samoan plant natural products

The PPT Division key achievements for this financial year 2022/2023 include:

Project Name:	**ACIAR HORT 2019/165 – Enhanced fruit systems for Samoa and Tonga**
Donor:	Australian Centre for International Agricultural Research (ACIAR)
Total Budget:	AUD$102,289
Timeline:	2022 - 2024
Objective:	To increase domestic citrus production in Samoa in support of pro-health outcomes and wider community development impacts
Key Activities:	- Expand fruit availability by introducing new early- and late-season varieties to complement local varieties fruiting seasons - Improve postharvest handling of fresh local citrus sold by vendors in markets & road side stalls - Provide value-addition options for farmers who do not sell fresh citrus produce

Achievements in FY22/23:

- Introduce the Australian project team to the group of 29 citrus farmers who were surveyed in the last FY surveys that formed the baseline of citrus production and practices, and conducted a workshop to introduce the project to the community of farmers and vendors
- Selected a farmer site for new material trials to assess how the plants are able to handle the weather and environmental conditions of NW Savaii, and monitor weather the fruiting season will compete with the current varieties or if they will complement the current season
- Commenced eight (8) shelf-life trials of five local citrus varieties found in the local markets, including (but not limited to) mandarins, Tahitian limes, and bush lemons.
- Conducted a week-long workshop of value addition of citrus with 10 participants (all women), to produce products made from citrus, such as marmalades, jams, cordials, syrups and sauces to name a few. Other products were also prepared using local produce that are available when citrus is not in season, to improve the sustainability of the value-addition venture.
- Received seven (7) varieties of citrus from Australia and currently stored in SROS's new Post Entry Quarantine (PEQ) facility that was established as part of this project. The new varieties received include Valencia orange, Washinton Navel orange, Freemont mandarin, Daisy mandarin, Afourer mandarin.

Project Name:	**ACIAR CS/2020/191 – Adopting a gender inclusive participatory approach to reducing horticultural food loss in the Pacific**
Donor:	Australian Centre for International Agricultural Research (ACIAR)
Total Budget:	AUD$926,827
Timeline:	2022 - 2025
Objective:	To investigate and remediate food loss in Pacific Island value chains using a gender inclusive participatory approach to widen fruit and vegetable choices for overall improvement of Pacific diets and nutrition
Key Activities:	- Quantify food loss across Fiji, Samoa, Solomon Islands and Tonga through vendor surveys - Conduct gender inclusive foresighting workshops to prioritize value chains for remediation - Identify the drivers of food loss in the selected value chains and potential interventions - On-farm and in-market trials of interventions to reduce food loss

Achievements in FY22/23:

- The contract for this project was executed in June and officially commenced July. The project had its first online inception workshop in September with all partners from Mainstreaming of Rural Development Innovation (MORDI) in Tonga, Fiji National University (FNU), Solomon Islands National University (SINU) in the Pacific, as well as partners in Australia including University of the Sunshine Coast (UniSC), Western Sydney University (WSU) and Griffith University. Following this meeting, the project team agreed to hold its first in-person meeting in Fiji in November
- The November workshop for the project was over two days, and included all project partners with the exception of the Griffith partner. This workshop concluded with a first draft of the food loss surveys to be conducted by all project partners, as well as clear time line of activities for the next few months
- In April, the project team met in Samoa to under training for foresighting methodologies, as well as gender-inclusive methodologies. The survey was also reviewed and trialled for any final amendments.

Project Name:	**ARSF3-ECR -17 SMS Samoa: Strengthening the taro value chain in Samoa by characterizing postharvest losses caused by corm rots**
Donor:	Australian Centre for International Agricultural Research (ACIAR)
Total Budget:	AUD$20,000
Timeline:	2022 - 2023
Objective:	To increase the efficiency of the taro value chain in Samoa through improvements in handling and transport
Key Activities:	- Identify the optimal cool storage temperature of taro corms for the export markets - Characterize symptomology of corm rots arising from dropping taro corms during postharvest handling - Characterize symptomology of corm rots arising from compression of taro corms during transport

Achievements in FY22/23:

- The project team procured the required consumables for the project – Although this was significantly delayed due to COVID, the items were finally received in March 2023.
- Laboratory experiments commenced with drop test for the local taro value chain – This was completed in April 2023. We determined that the higher the distance of taro drop, the deeper the rots arising from area of impact on the taro corms.
- Laboratory experiments commenced for cool storage trials to identify a narrower range of cool store temperatures of taro and are scheduled to be completed in the next quarter.

Project Name:	**ACIAR HORT 2018/195 – Improving root crop resilience and biosecurity in Pacific Island Countries and Australia**
Donor:	Australian Centre for International Agricultural Research (ACIAR)
Total Budget:	AUD$78,839
Timeline:	2023 - 2026
Objective:	To improve sweetpotato plant material (pathogen tested) and planting practices as part of a broader program for resilience root cropping systems, responding to the challenges of pests and diseases and climate change
Key Activities:	- Characterize the sweetpotato farming systems in Samoa and the role and values of sweetpotato in broader farming systems - Develop improved quality of sweetpotato planting material and support optimized planting practices in Pacific Island Countries - Improve diagnostic protocols for key sweetpotato virus, enhance diagnostic capacity and identify sweetpotato viruses currently present in Samoa

Achievements in FY22/23:

- Although the project was contracted in September 2022, the inception wasn't scheduled until March 2023. However, the inception workshop did not eventuate.
- This did not stop project activities from commencing, with meetings to discuss surveys between the Project Lead (Dr. Julie O'Halloran, Queensland Department of Agriculture & Fisheries QDAF Australia) and the Samoa SROS Team.
- The current Samoa partners for the project are MAF and SROS, however discussions are underway to shift the project to SROS only.

Project Name:	**SCIDI 2/SKIA Cocoa Phylogenetics Project**
Donor:	Ministry of Foreign Affairs & Trade, NZ through AgriChain/Chamber of Commerce
Total Budget:	NZD$20,000
Timeline:	2022- 2023
Objective:	To characterize the genetic composition of individual cococa plants for subsequent use in nursery establishment, tracking black pod rot resistance
Key Activities:	- Characterize genotype of 200 cocoa plants from 4 farms across Samoa (50 plants per farm, 2 farms in Upolu, 2 farms in Savaii)

	- Genotype 200 seedlings from 2 farms (5 seedlings per plant, 5 pods per plant, 4 plants per farm, 1 farm in Upolu, 1 farm in Savaii)

Achievements in FY22/23:

- We received 200 cocoa seedlings from STEC for DNA extraction, 100 grown from mother plants from Vaisala and 100 grown from mother plants in the STEC compound. We completed DNA extractions for all 200 seedlings, then discovered that there was no traceability to the mother plants.
- We sourced new pods from new mother plants, grew seedlings and have extracted DNA from 100 seedlings from Vaisala. We are awaiting maturity of STEC seedlings before they can be DNA extracted.

Project Name:	**Enhancing the potential of Samoan natural products as sources of new antimicrobial pharmaceuticals**
Donor:	SROS Funding
Total Budget:	NA
Timeline:	2022- 2025
Objective:	To identify Samoan natural products with antimicrobial activity and potential as new pharmaceuticals
Key Activities:	- Collect plant natural products and assess for antimicrobial activity - Collect marine natural products and assess for antimicrobial activity - Collect soil microbial natural products and assess for antimicrobial activity - Collect marine microbial natural products and assess for antimicrobial activity - Characterize the chemical profile of natural products with demonstrated antimicrobial activity

Achievements in FY22/23:

- We collected 36 plants, prepared 36 extracts, assessed 36 extracts for antimicrobial activity and found all 36 to be bioactive (100% bioactivity rate). Work has commenced to fractionate and characterize the chemical profile of the bioactive extracts.
- We collected 21 marine samples, prepared 42 extracts, assessed 42 extracts for antimicrobial activity and found 14 to be bioactive (33% bioactivity rate). Work has commenced to fractionate and characterize the chemical profile of bioactive extracts.
- No new soil samples were collected in this financial year, as the project team worked on processing isolates from previous samples. We resuscitated 128 strains and DNA extracted a total of 79 actinomycetes. We had previously sent out 60 DNA samples for sequencing and identified 641 biosynthetic gene clusters from 58 bacterial genomes. The 641 biosynthetic gene clusters can be grouped into 293 gene cluster families. The 641 biosynthetic gene clusters can be grouped into 43 gene cluster clans. From the 641 biosynthetic gene clusters, 34 were identified to be novel biosynthetic gene clusters (not previously identified). From the 293 gene cluster families, 34 were identified to be novel (not previously identified). From the 43 gene cluster clans, 1 was identified to be novel (not previously identified).

- We collected 24 marine samples, from which we isolated 81 strains of bacteria. We assessed 31 of the isolated actinomycetes for bioactivity and found 8 to have antimicrobial activity (25% bioactivity rate). Work is currently underway to DNA extract the bioactive actinomycetes for sequencing in New Zealand.
- We collected 14 matalafi plants, prepared 14 extracts, assessed 14 for antimicrobial activity and found 7 to be bioactive (50% bioactivity rate). We nursed 411 cuttings and 231 grew (56% success rate). An orchard of matalafi has been established with 41 cuttings, with more to be grown.

8.1 ENVIRONMENT AND RENEWABLE ENERGY DIVISION (ERED)

ERED is responsible for:

- Investigating research pathways utilising local resources for renewable energy generation
- Conducting environmental impact assessments, environmental baseline studies, and natural resource monitoring programs
- Liasing closely with the Environment Sector, Energy Sector, and Water Sector to provide research and technical assistance to support national projects

ERED key achievements for this financial year 2022/2023 include:

a) Incorporation of Savaii sites into water quality monitoring program. Water quality monitoring of 5 water ways (3 rivers and 2 natural springs) began in February 2023, and expected to continue for 12 months. This study is supported by the UN Joint SDG Fund, in partnership with UNESCO.

b) Capacity building opportunity - Secured support through Government of Australia to support two ERE scientists to travel to a research institute in Australia to exchange knowledge on renewable energy battery research. The opportunity will be implemented in the next financial year (2023-2024)

c) Continued implementation of the Ecosystem Services project, with project funding through the United Nation Joint Programme (UNJP).The main activities are: (i) support natural product research and conservation of medicinal plants, and (ii) expansion of water monitoring program to include water ecosystem sites in Savaii, and (iii) support data collection efforts for a pilot Oceans Account work – Vaiusu Bay.

d) Waste management – Successful completion of the shelter to house the paper waste processing equipment procured under the national Circular Economy for the Recovery of Waste (CERO Waste) programme under UNDP. The project looks to pilot paper waste processing into products.

e) Biogas systems – Successful completion of monitoring program field work for the 5 biogas systems under the IMPRESS project. Final technical report for the program is being drafted, to be submitted to the IMPRESS Coordination Committee on Dec 2023. Received a new biogas system through MAF and assistance from the Government of Israel. This new system will be utilized for biogas production to trial compressor trials.

f) Solar energy battery research – Major strides were made with this research despite the many hurdles and issues that arose. Sucesses included completion of a battery cell ‘template’. The

template ensures accuracy in alignment of the cells and battery pores. Report of battery performance to be submitted Dec 2023.

g) Bio-prospecting anti-diabetes research – Capacity building opportunity for 3 staff was implemented through the Victoria University of Wellington, for compound purification under this research. Additionally, collected and prepared extracts from an additional 38 local plants and screened for bioactivity against diabetes. Plant extracts were screened against the enzyme alpha-glucosidase, from which 2 species showed positive bioactivity.

9.1 AGRICULTURE RESEARCH DIVISION (ARD)

The ARD's key functions are:

- To improve agriculture crop production and protection in Samoa through research and development
- To provide relevant crop development solutions to issues raised by farmers
- Develop strategies for the efficient Management of insect pests and diseases of crops
- Maintain genetic material of improved crop varieties through micropropagation of pest and disease-free planting material

The achievements for this financial year 2022/2023 include:

a) **Responding to emerging pest and disease threats to horticulture in the Pacific islands. HORT/2016/185 ACIAR.**

This project at its inception has been reported in the previous year aiming to build on developing technologies that can support sustainable intensification of high-value crops, including addressing the increased incidence and severity of pests and diseases. The latter component of the project involves with plant health clinics where a manual has been developed with the input from the SROS Agriculture Division in its compilation.

It is a useful document to guide the advisory section of the Ministry of Agriculture and Fisheries with trouble shooting arising queries on pests and diseases reported by farmers and the recommended solutions to remedied the pests problems. It is a good guide for the universities and college curriculum for understanding on pests and diseases in the pacific region. It's a practical document and diagnostic approach and it is hope that funds from this project would assist the ARD to established its pathology and plant molecular laboratory to strengthen and sustain this project post donor assistance.

b) **Pacific Seed For Life (PS4L)**

The PS4L project Consultancy Service from the Secretariat for the Pacific Community is progressing well with periodic reports submitted as per the Project Agreement. Again the objective is to ensure that seeds are conserved in times of need and thus equipped the farmers of the process of how to go about in field harvest then processed to preservation stage and storage for later use. It's a practice to save costs especially with rural farmers that subjective to travel distance from where seed shops are located for purchasing.

The consutancy service will end in November this year and is well on target to be completed in time. Several farmers which are called Seed Champions for both Upolu and Savaii were selected and recommended from the Ministry of Agriculture and Fisheries Advisory Section are regularly visited and observe the trials on their farms with the seedlings that were given out to their fields for planting.

c) **Researching insecticide resistance in *Brassica* (cabbages) production.**

This project has been delayed due to unavailable of a laboratory to do its testings. It is hope that with assistance from identified donors partners like SPC would do good with such proposed study. Pests will be collected from commercial *Brassica* farms and exposed to a range of locally available insecticides. This controlled research will be performed in the SROS research laboratories.

d) Pest & Disease Diagnostic Agronomic Practices Services

This service contionue to be available for the farmers if help on farming practices is required**.** Is an available service to the high demand from farmers on pruning, grafting, budding as well as pest and disease observation and recommendation. It's a service where by research knowledge is shared with farmers for betterment of their agriculture farming practices. This also include developing and offered presentations for better understanding.

e) **FAO TCP/SAM/3803 Building capacities on tissue culture to support & sustain biodiversity for food security & nutrition**.

The Tissue Culture laboratory at nuu has preserved and accounts several local collected tradional planting materials collected through out Upolu and Savaii for future use. There was also a list of other tissue cultured materials that was brought in from the SPC-CePact laboratory in Suva via mutual request for the purpose of preservation and conservation for future evaluation and use in Samoa. It is also a good chance for duplication of these materials in case its lost or die off at SPC-Cepact while we have the materials in our possession.

Our TC staffs has been blessed with the opportunities to trained under the IAEA newclear technology for mutation breeding which is a new technique in the making and will assist with expediting breeding of taros and bananas in Samoa.

The IAEA has also donate some equipments for our TC lab given our commitment to this type of development and conservation of planting materials for future use and sharing via the plant genetic resource treaty on sharing of palnting materials, that Samoa already rectify several years ago.

f) FAO-SPC Efficacy Trials on Several Pesticides Products

Another study to be implemented in August to November this year which basically evaluating of pesticide formulation against a range of insect pest complex and diseases under a systematic design to eliminate biasness in the identification of appropriate dose, mode of action also an opportunity to identifying any adverse or unintended negative impacts.
Efficacy assessment also considers the claims made on the product labels are supported by data. This contributes to using the product in a targeted, responsible manner optimising its use as part of the integrated pest management (IPM).

10.1 COMMERCIAL DIVISION NAFANUA PURE PRODUCTS LIMITED (NPPC)

Commercial Division business vision is connecting farmers, businesses, and communities to a better future through product development and innovation:

- Aim to maintain better work relationships with the local farmers and businesses.
- Create work partnerships with the local farmers for the supply of raw materials.
- Increase product development process and systems to meet the local and overseas demand.
- Patent and register new product developments and innovative ideas as Samoan Made.

The Commercial Division and NPPC key achievements for this financial year 2022/2023 include:

a) Pot Still Installation – The new pot still has been successfully installed and trial, staff were trained on how to operate the pot still by the company technician. The technician also provides online support to the team by providing access to his network of suppliers and experts in this field.

b) Fermentation process for converting starch to ethanol – the current process requires improvement to yield extraction and this requires sourcing enzymes and yeast.

c) The PHAMA Plus MOU also provides funding for training, online and face to face to certify two staff as distillers.

d) Ongoing commercial supply and marketing process of Taro Hand Sanitizers and Herbal Tea for the local market.

11.1 CORPORATE SERVICES DIVISION (CSD)

The Corporate Service Division is responsible for the day to day operations of SROS, including a variety of responsibilities such as finance, human resources management, information technology (I.T.), marketing, administration functions, maintenance and general services.

The C.S. Division key achievements for this financial year include:

a) Completed and submitted the budget estimates for FY2023-2024 to the Ministry of Finance.

b) SROS' received a total grant of $4.5 million tala this financial year, a 15% decrease from the FY2021-2022. Income recorded was reduced by $1m or 15% compared to previous year due to reduction in government grant and a decrease in all revenue generators for the organisation such as Covid tests and income from whiskey and hand sanitisers. Expenses has increased by $620,516 or by 10% compared to previous year. This is due to increase in personnel costs and administrative costs. Net assets have reduced by 22% compared to the previous year.

c) Completed and submitted all four quarterly report updates to the Ministry of Public Enterprises (MPE). The Quarterly Report consists of two main sections the performance and work plan updates from each division and the financial updates.

d) The finance team completed the procurement of consumables and scientific equipment for all divisions, ensuring procurements are in line with SROS and MOF policies and that payments are made in due time.

12.1 PROGRESS IN ACHIEVING THE CORPORATE PLAN (CP) 2020-2024

Priority Objectives	Work Activities
a) **To undertake scientific and technical research with the primary aim of adding value and developing functional prototypes of products and processes for the local or overseas market.**	• 2 Samoan cocoa farmers received cocoa awards from Australia (gold & bronze) marking the successful completion of the ACIAR HORT/2014/078 Cocoa Project. • Nafanua Pure Products Company continues to produce gluten-free breadfruit and banana flour and is undergoing optimisation of ethanol production from taro using the commercial scale distillers. • Kava research continues with the identification of best variety and maturity for kava lactone content, with support from Market Development Facility (MDF). • Funding secured for equipping the Food Innovation Centre. • PIRAS Project was successfully completed following the distribution of equipment to farmers and fishers with emphasis on youth and women groups. • New FAO funded cocoa Project (OCOP) to further develop the sustainability of the cocoa value chain in Samoa.
b) **To provide relevant technical and quality testing services in goods, food, food products, narcotics, biological, and environmental samples.**	• Achieved International accreditation for biological and chemical testing laboratories. • Achieved the development of the methodologies for Covid 19 and ASF tests. • Achieved the development of petroleum products tests in soil and water • Achieved the development of vanillin content test in vanilla bean • Achieved the satisfactory performance of the testing laboratories- FAPAS and Global Proficiency Programme. • Total of 834 various samples received and tested. • Total of 574 biological samples for Covid19 tests. • Achieved 112 narcotics confirmatory case for hard drugs tested.
c) **To investigate research pathways utilising local resources for renewable energy generation and conduct environmental monitoring and impact assessment.**	• Completed monitoring program of new biogas systems throughout Upolu and Savaii under the IMPRESS project. • Secured funding to incorporate Savaii freshwater sites under the ongoing national water quality monitoring program. • Research trials into the phase 2 of the solar energy battery and assessment of battery performance in collaboration with EPC is ongoing. • Completed an environmental impact assessment for waste water sites in Apia urban area. • Completed a building facility to house the equipment for pilot study of paper waste processing. Paper waste processing trials to begin upon completion of electrical works. • Started a new project with UNESCO, to support biodiversity and conservation efforts in Samoa.

d) To enhance the potential of Samoan natural products through biomedical, cosmetic and pharmaceutical.	• Plant collections from across Samoa continues with the collection of 36 plants, producing 100% bioactivity rate • 21 marine samples were collected, 42 extracts prepared and assessed, with a 33% bioactivity rate • 128 bacterial strains were isolated from soil samples, and 79 were successfully DNA extracted. 641 biosynthetic gene clusters were identified. Further investigations into these BGC continues for the identification of novel compounds with antimicrobial activity. • 24 marine samples were collected from which 81 bacterial strains were isolated. These will be DNA extracted and sequenced. • 145 plant extracts were screened against the enzyme alpha-glucosidase, from which 4 species showed positive bioactivity. • A total of 8 soil samples were collected from which 64 bacterial isolates were grown from. A total of 26 marine samples were also collected, and we found 17/52 extracts to have antimicrobial activity (32% activity). • Plant extracts were screened against the enzyme alpha-glucosidase, from which 3 species showed positive bioactivity. • Procurement of liquid nitrogen storage container.
e) To improve agricultural production and postharvest techniques, and establish effective pest & disease control measures.	• The ACIAR HORT 2019/165 Citrus Project is on-going, with the consultations with farmers, women groups and youth to improve the citrus value chain in postharvest handling and processing. A total of 12 new products were created to make use of citrus during peak season, to reduce postharvest losses. A total of 7 new citrus varieties have been imported to assess their ability to complement the current fruiting season. • The ACIAR CS/2020/191 project of postharvest food losses is on-going with surveys to quantify horticultural losses experienced by vendors across the Pacific, including Samoa, Fiji, Tonga and Solomon Islands. • Laboratory-based research continues experiments to characterize postharvest taro rots to improve the taro value chain, both for local markets and overseas markets, by reducing postharvest losses • To enhance the cocoa value chain in Samoa, we continue to research optimal and elite cocoa genetics for the desired cocoa flavour profiles for chocolate production. This is an MFAT NZ funded-SCIDI project. • ACIAR Emerging Pests Project continues with disease diagnostics and emergency response to new incoming emerging pests. The project also provides support to farmers in the identification of pests and diseases in their plantations. • SPC Seeds for Life Project (MFAT NZ funded) is supporting sustainable production of vegetables through the distribution of open pollinated seeds, allowing farmers to produce and store their own seeds to reduce reliance on imported seeds. This is a strategy in response to COVID, with a sustainable outcome for long-term local production.

	• FAO/SPC funded project to assess the efficacy of several organic pesticides products as alternatives, to alleviate overuse of common pesticides on vegetables. • Nafanua fertilizer optimization continues to promote the use of locally available resources as fertilizers, and to reduce the reliance on imported fertilizers. We also continue to provide support to the private sector when they show interest in the Nafanua fertilizer • In collaboration with MAF, through funding support from MDF, we are involved in trialling different pig traps to address the increasing problem of wild pigs damaging taro plantations.
f) To engage in consultancy services to improve various development sectors and promote science as a subject/career.	• FAO/SPC pesticides project is a consultancy project secured under the Agricultural Research Division • SPC Seeds for Life is a consultancy service secured under the Agricultural Research Division
g) To strengthen partnership with the private sector and stakeholders to support the commercialisation of the Organisation's prototypes	• Ongoing collection of breadfruits and bananas from local farmers to produce gluten-free flour. • Strengthened partnership with local taro farmers through increased volumes of taro purchased over 2021-2022 for processing of sanitizing products
h) To ensure effective staff development in scientific research and support services	• Local technical trainings for the Staff • Online courses for FSTD, PPTD, ERED, ARD and TSD Staff. • Online IANZ accreditation process for TSD staff. • Support services staff attended trainings offered by Public Service Commission and MPE.
i) To effectively manage SROS' financial, information technology and human resources	• Submitted SROS' annual accounts for the FY2021-2022 • Prepared SROS' annual accounts for the FY2022-2023 • Submitted SROS' budget for the FY2023-2024. • Audit process for the FY2022-2023 Annual Accounts, payments, receipting, assets, and inventories. • Completed review of SROS' Human Resource Manual. • Completed all the staff performance appraisals. • Completed the recruitment and selection process for vacant positions.

13.1 Key Financial and Budget Performances

I. **Budget for FY2022-2023**

The total SROS budget was $4,506,385 from the Government, and 15% was the approved budget's decrease from the last financial year 2021-2022. SROS was encouraged to achieve cost recoveries through technical and testing services as well as sale of products that were developed to fund budget cuts.

II. **Summary of Expenditure Costs**

The total expenditure costs was $6,846,494. The total was spent on administrative, personnel, occupancy, director fees, and project cost expenses. At the end of the financial year, the current spending was over by 10% when compared to the last fiscal year spending of 2021-2022.

III. **Summary of Revenue Performance**

SROS' primary revenues source is from the Government Grant, technical services sampling fees, and Donor project income. After the 12 months, total income received and generated was $5,728,452, a reduction of 15% compared to last financial year's revenue. This was mainly due to reduction of government grant as a result of budget cuts and technical income as a result of the cessation of covid19 tests.

IV. **Summary of capital cost.**

New capital costs for the current financial year was $579,352 tala. The following information is the breakdown of the new assets or capital costs inside the FY2022-2023.

Buildings (new & renovation)	$92,053
Office Equipment	$40,417
Lab equipment	$446,883

14.1 Outlook for next year (FY2023-2024)

SROS aims to continue to improve its scientific research methods and assist the private sectors and the government ministries in scientific testing and consultancy services.
Therefore the following are the major tasks and targets for the Organisation inside the financial year of 2023-2024:

a) Maintain and continue the Technical Services testing IANZ international accreditation.
b) Offer consultancy services to Government Ministries, Government funded projects and private sectors.
c) Continue the capacity development and professional skills for the Staff through local and overseas training.
d) Continue to work closely with donor partners, private sectors, local and overseas Universities.
e) Secure funding from the Government and Donor partners for new scientific projects.

15.1 FUTURE RISKS AND UNCERTAINTIES

I. Future Risks

- ✓ One of the ongoing risks is staff turnover. SROS' scientists are becoming the target by other Government Ministries and Regional offices. These offices offered better salary benefits and attractive remuneration packages.
- ✓ Replacing existing scientific machines is very costly. SROS' need to replace and upgrade the existing experimental machines and devices to improve the quality of testing results.
- ✓ Increase of requests for scientific research that is outside of the organisation ability. There are multiple requests from local and exporters and SROS can carry out the work.
- ✓ Copyright and patent for high-value-added products and scientific methodologies such as the Medicinal Plants.

II. Uncertainties

- ✓ Government priorities and policies impact current work policies and plans. Therefore, SROS need to re-allocate funds and resources to accommodate the government's priorities for SROS.
- ✓ Scientific research to assist the country responds to current and future pandemics

16.1 CSO IMPLEMENTATION (WHERE APPLICABLE)

- ✓ Not applicable to SROS in this financial year.

Audited Financial Statements

The Scientific Research Organisation of Samoa
For the year ended 30 June 2023

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Financial statements
For the year ended 30 June 2023

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The Scientific Research Organisation of Samoa
Management responsibility statement
For the year ended 30 June 2023

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

The accompanying financial statements are the responsibility of Management. The financial statements have been prepared according to International Financial Reporting Standards and include amounts based on management's best estimates and judgements.

Management has established and maintained the accounting and internal control systems that include written policies and procedures. These systems are designed to provide reasonable assurance that our financial records are reliable and form a proper basis for the timely and accurate preparation of financial statements, and that our assets are properly safeguarded.

The Board of Directors oversees Management's responsibilities for financial reporting. The financial statements have been reviewed and approved by the Board of Directors on recommendation from Management.

Our independent auditors, Leota & Niumata Chartered Accountants, having been appointed by the Auditor General and Controller of the Independent State of Samoa, have audited our Financial Statements. The accompanying independent auditors' report of the Samoa Audit Office outlines the scope of their examination and their opinion.

Fiso Pousui Dr. Fiame Leo
Chief Executive Officer

Apia, Samoa

Dated: 25/10/ , 2023.

Faaea V. Talilai
Manager, Corporate Services Division

Apia, Samoa

Dated: 25/10/ , 2023.

The Scientific Research Organisation of Samoa
Directors' report
For the year ended 30 June 2023

The Directors present their report together with the financial statements of The Scientific Research Organisation of Samoa for the year ended 30 June 2023 as set out on the accompanying pages and the auditors' report thereon in accordance with the Public Finance Management Act 2001 and the Public Bodies and Accountability Act 2001.

Directors

The Directors of the Organisation at any time during the financial year were:

Sulamanaia Nu'uetolu Montini Ott	Chairman (Contract expired in March 2023)
Asiata Dr. Satupaitea Viali	Director (Contract expired in March 2023)
Tusani Iosefatu Reti	Director (Contract expired in March 2023)
Nive Tauiliili	Director (Contract expired in March 2023)
Shelly Burich	Director
Tilafono David Hunter	Ex-Officio/CEO

Principal Activity

The principal activity of The Scientific Research Organisation of Samoa is to conduct scientific research and develop technologies which outcomes are of great value in the development and sustainability of value-added goods and services for export and to achieve reduction on fuel imports and greenhouse gas emissions. There has been no significant change in the principal activity of the Organisation during the year or any of the classes of business that it operates in.

State of Affairs

In the Opinion of the Directors:

i. the accompanying Statement of Financial Performance, Statement of Changes in Equity and Statement of Cash Flows are drawn up so as to give a true and fair view of the operations and results of the Organisation for the year ended 30 June 2023.
ii. the accompanying Statement of Financial Position is drawn up so as to give a true and fair view of the state of affairs of the Organisation as at 30 June 2023.

Operating Results

The net loss for the year is	**$ (1,118,042)**	2022: Net Profit	**$ 529,916**

Going concern

The financial statements of the Organisation have been prepared on a going concern basis. We consider the application of the going concern principle to be appropriate in the preparation of these financial statements as we believe that the Organisation has adequate funds to meet its liabilities when they fall due over the next 12 months from the date of the Directors' report.

Current assets

Prior to the completion of the Organisation's financial statements the directors took reasonable steps to ascertain that the current assets of the Organisation were shown in the accounting records at a value equal to or below the value that would be expected to be realized in the ordinary course of the business.

At the date of this report, the directors are not aware of any circumstances which would render the values attributable to the current assets in the Organisation's financial statements misleading.

Related party

All related party transactions have been adequately recorded in the financial statements and disclosed in the notes to the financial statements.

Events subsequent to balance date

No matters or circumstances have arisen since the end of the financial year which would require adjustment to or disclosure in the financial statements.

Other circumstances

As at the date of this report:

- no charge on the assets of the Organisation has been given since the end of the financial year to secure the liabilities of other person(s);
- no contingent liabilities have arisen since the end of the financial year for which the Organisation could become liable;
- no contingent liabilities or other liabilities of the Organisation have become or are likely to become enforceable within the period of twelve months after the end of the financial year which, in the opinion of the directors, will or may substantially affect the ability of the Organisation to meet its obligations as and when they fall due.

As at the date of this report, the directors are not aware of any circumstances that have arisen, not otherwise dealt with report or the Organisation's financial statements, which would make adherence to the existing method of assets or liabilities of the Organisation misleading or inappropriate.

Unusual transactions

The result of the Organisation's operations during the financial year and up to the date of this report, has not in the opinion the directors, been substantially affected by any item, transaction or event of a material and unusual nature other than those disclosed in the financial statements.

This report is made in accordance with a resolution of the board of directors and signed on behalf of the board:

Sulamanaia Nu'uetolu Montini Ott
Chairman

Apia, Samoa

25 / 10 / 2023

Manuleleua Dr. Sonny Lameta
Director

Apia, Samoa

25 / 10 / 2023

The Scientific Research Organisation of Samoa
Statement of financial performance
For the year ended 30 June 2023

	Notes	2023 SAT$	2022 SAT$
INCOME			
Grant from Government of Samoa		4,506,386	5,270,735
Technical services income		241,298	245,752
Donor project income	**12**	931,171	1,073,582
Other income	**13**	49,597	165,825
Total income		**5,728,452**	**6,755,894**
EXPENDITURES			
Audit fees		24,150	27,755
Depreciation	**11**	799,755	794,885
Personnel costs	**14**	3,729,358	3,616,427
Occupancy costs	**15**	207,728	214,397
Administrative costs	**16**	820,211	522,871
Donor project costs	**17**	806,234	560,071
Other costs	**18**	384,098	407,021
Directors fees & board expenses	**20**	74,961	82,550
Total expenditures		**6,846,494**	**6,225,978**
Net Profit / (Loss)		**(1,118,042)**	**529,916**

The accompanying notes form part of this financial statement.

The Scientific Research Organisation of Samoa
Statement of financial position
As at 30 June 2023

	Notes	2023 SAT$	2022 SAT$
Accumulated Funds			
Opening balance		5,078,985	4,549,069
Add: Net Profit/(Loss)		(1,118,042)	529,916
Closing balance		**3,960,943**	**5,078,985**
Represented by:			
Current assets			
Cash and cash equivalent	**5**	331,864	364,053
Term deposit	**6**	52,365	51,275
Trade and other receivables	**7**	113,594	266,965
Prepayments		4,787	4,787
Stock on hand		125,430	129,843
Total current assets		**628,039**	**816,922**
Current liabilities			
Trade payables		23,320	49,255
Other creditors and accruals	**8**	453,787	271,635
Allowance for staff benefits	**9**	133,415	174,289
Deferred income	**10**	405,024	235,757
Total current liabilities		**1,015,546**	**730,936**
Working capital		(387,506)	85,987
Non Current assets			
Property, plant and equipment	**11**	4,991,527	5,636,075
		4,991,527	**5,636,075**
Non Current Liabilities			
Deferred Income	**10**	643,077	643,077
		643,077	643,077
Net assets		**3,960,943**	**5,078,985**

Signed for and on behalf of the Directors of The Scientific Research Organisation of Samoa:

Sulamanaia Nu'uetolu Montini Ott
Chairman

Apia, Samoa

25 / 10 / 2023

Manuleleua Dr. Sonny Lameta
Director

Apia, Samoa

25 / 10 / 2023

The accompanying notes form part of this financial statement.

The Scientific Research Organisation of Samoa
Statement of changes in equity
For the year ended 30 June 2023

	2023 SAT$	2022 SAT$
Accumulated funds		
Opening balance	5,078,985	4,549,069
Add: Net Profit/(Loss)	(1,118,042)	529,916
Closing balance	**3,960,943**	**5,078,985**
Total accumulated funds	**3,960,943**	**5,078,985**

The accompanying notes form part of these Financial Statements

The Scientific Research Organisation of Samoa
Statement of cash flows
For the year ended 30 June 2022

	Notes	2023 SAT$	2022 SAT$
Cash flows from/(to) operating activities			
Cash received from Government of Samoa		4,506,385	5,270,735
Cash received from - Technical services		241,298	245,752
- ACIAR Projects		-	17,772
- Other income		48,508	165,825
Cash paid for expenses		(4,250,117)	(5,231,266)
Net cash flow by operating activities		**546,074**	**468,818**
Cash flows from/(to) investing activities			
Interest Received		1,089	1,275
Purchase of property, plant and equipment	**11**	(579,352)	(236,614)
Net cash used by investing activities		**(578,263)**	**(235,339)**
Net increase/(decrease) in cash		(32,189)	233,478
Cash and cash equivalent at the beginning		364,053	130,575
Cash and cash equivalent at the end	**5**	**331,864**	**364,053**

The accompanying notes form part of these Financial Statements

1. General

The Research and Development Institute of Samoa is an independent corporate body constituted and operating under the provisions of the Research and Development Institute of Samoa (RDIS) Act 2006 and amendments. Its name changed to The Scientific Research Organisation of Samoa (SROS) on 20th November 2008 following amendment of the Act. It is currently located at Nafanua.

The SROS objectives are:

a) to promote the national economy of Samoa based on research and development;
b) to undertake scientific and technical research with the primary aim of adding value to local resources or services;
c) to develop functional prototypes of products and processes based on scientific and technical research for the local or overseas markets;
d) to establish partnership with the private sector and commercial interests to support the Organisation's activities; and
e) Ensure effective training for researchers and professionals engaged in scientific and technical research.

2. Adoption of new and revised standards

There were no new standards adopted during the financial year.

3. Statement of significant accounting policies

a. Basis of preparation

The financial statements of The Scientific Research Organisation of Samoa ("Organisation") have been prepared in accordance with International Financial Reporting Standards ("IFRS").

The financial statements have been prepared on the historical cost basis, except for the revaluation of certain properties and financial instruments that are measured at revalued amounts or fair values at the end of each reporting period, as explained in the accounting policies below.

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Organisation takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in these financial statements is determined on such a basis.

b. Functional and presentation currency

Items included in the financial statements are measured using the currency of the primary economic environment in which the Organisation operates (the "functional currency") which is the Samoan Tala (SAT). The Organisation operates in Samoa and therefore the financial statements are presented in Samoan Tala which is the Organisation's functional and presentation currency.

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the transactions at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the profit or loss. Monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the year-end date.

Statement of significant accounting policies (continued)

Foreign exchange gains and losses that relate to borrowings and cash equivalents are presented in profit or loss together with all other foreign exchange gains and losses and are presented in profit or loss at a net amount.

c. Government grants

The fair value of government grants are not recognised until there is reasonable assurance that the Organisation will comply with the conditions attaching to them and that the grants will be received.

Government grants are recognised in profit or loss on a systematic basis over the periods in which the Organisation recognises as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Organisation should purchase, construct or otherwise acquire non-current assets are recognised as deferred income in the statement of financial position and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Organisation with no future related costs are recognised in profit or loss in the period in which they become receivable.

Government grants towards staff re-training costs are recognised as income over the periods necessary to match them with the related costs and are deducted in reporting the related expense.

Government grants relating to the acquisition of property, plant and equipment are treated as deferred income and released to profit or loss over the expected useful lives of the assets concerned.

d. Financial instruments

Recognition and derecognition

Financial assets and financial liabilities are recognised when the Organisation becomes a party to the contractual provisions of the financial instrument.

Financial assets are derecognised when the contractual rights to the cash flows from the financial asset expire, or when the financial asset and substantially all the risks and rewards are transferred. A financial liability is derecognised when, it is extinguished, discharged, cancelled or expires.

Classification and measurement of financial assets

Classification and initial measurement

Except for those trade receivables that do not contain a significant financing component and are measured at the transaction price in accordance with IFRS 15, all financial assets are initially measured at fair value adjusted for transaction costs (where applicable).

Financial assets of the Organisation are classified into the amortised cost category only and consist of cash and cash equivalents, bank term deposits and trade receivables. The classification is determined by both:

- the entity's business model for managing the financial asset
- the contractual cash flow characteristics of the financial asset.

All income and expenses relating to financial assets that are recognised in profit or loss are presented within finance costs, finance income or other financial items, except for impairment of trade receivables which is presented within other expenses.

Statement of significant accounting policies (continued)

Subsequent measurement of financial assets at amortised cost

Assets that are held for the collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortized cost. A gain or loss on a debt investment that is subsequently measured at amortized cost and is not part of a hedging relationship is recognized in profit or loss when the asset is derecognized or impaired. Interest income from these financial assets is included in 'interest income' using the effective interest rate method.

Impairment of financial assets

The Organisation assesses on a forward-looking basis the expected credit loss associated with trade and other receivables carried at amortized cost. The impairment methodology applied depends on whether there has been a significant increase in credit risk. For trade receivables, the Organisation applies the simplified approach due to the short term nature of the financial assets, which requires expected lifetime losses to be recognized from the initial recognition of the receivables.

Offsetting of financial instruments

Financial assets and liabilities are offset, and the net amount reported in the statement of financial position where there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the assets and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Organisation or the counterparty.

The Organisation's financial liabilities include trade and other payables and are classified into the amortised cost category.

Financial liabilities are initially measured at fair value, and, where applicable, adjusted for transaction costs unless the Organisation designated a financial liability at fair value through profit or loss.

Subsequently, financial liabilities are measured at amortised cost using the effective interest method.

All interest-related charges and, if applicable, changes in an instrument's fair value that are reported in profit or loss are included within finance costs or finance income.

e. Cash and cash equivalents

Cash and cash equivalents comprises of petty cash, cash at bank and cash held by other Government Ministries for relevant projects form an integral part of the Organisation's cash management are included as a component of cash and cash equivalents for the purpose of the statement of cash flows.

f. Property, Plant and equipment

Items of property, plant and equipment are measured at cost less accumulated depreciation and any accumulated impairment losses.

Depreciation is charged so as to allocate the cost of assets less their residual values over their estimated useful lives, using the straight-line method.

Statement of significant accounting policies (continued)

The following rates are used for the depreciation of property, plant and equipment:

Buildings and improvements & roads	5%
Motor vehicles	20%
Laboratory equipment	20%
Furniture and fittings	20%
Office and other equipment	20%
Work in progress	0%

g. Income tax

The Scientific Research Organisation of Samoa is not subject to taxation.

h. Stock on hand

Stock on hand are stated at the lower of cost and net realisable value.

i. Leases

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases. Rentals payable under operating leases are charged to statement of income and expenditure on a straight-line basis over the term of the relevant lease.

IFRS 16 'Leases'

IFRS 16 will replace IAS 17 'Leases' and three related Interpretations. It completes the IASB's long running project to overhaul lease accounting. Leases will be recorded in the statement of financial position in the form of a right-of-use asset and a lease liability. There are two important reliefs provided by IFRS 16 for assets of low value and short-term leases of less than 12 months.

The current location (land) of the Organisation is leased from Ministry of Natural Resources and Environment with a fixed amount of $16.00 per annum. The Organisation is a beneficiary body which offers services that supported the community and most of its research findings are funded and supported by the Government funds and resources including the land. The Scientific Research Organisation of Samoa's location (land) is the property of the Government and Ministry of Natural Resources and Environment is the responsible entity who manages and allocates land properties with the sole purpose of serving the people. In case the Organisation becomes a trading body then further discussion with the responsible Ministry to review the terms and conditions of the lease. At the moment, for any development by The Organisation such as the construction of a new building requires permission from the Land Board.

The 2 acre land leased from Samoa Land Corporation with a fixed amount of $2,300.00 per annum is situated at Salelologa. SROS's long-term plan is to expand its services in the future for people living in Savaii. Another plan is to establish a commercial warehouse for processing value-added raw materials and a centralised location for farmers. The long term plans that were mentioned are not yet implemented because of the limitation of financial resources.

The Organisation has sought relief under the standard since its leases are of low value.

j. Provisions

A provision is recognized in the statement of financial position when the Organisation has a present legal or constructive obligation as a result of past event, and it is probable that an outflow of economic benefits will be required to settle the obligation.

Statement of significant accounting policies (continued)

k. Employee benefits

i. Salaries and wages, annual leave and long service leave

Liabilities for employees' entitlements to salaries and wages, annual leave, long service leave and other current employee entitlements (that are expected to be paid within twelve months) are accrued at undiscounted amounts, and calculated at amounts expected to be paid as at reporting date.

Liabilities for other employee entitlements, which are not expected to be paid or settled within twelve months of reporting date, are accrued in respect of all employees at the present value of future amounts expected to be paid. A provision of one-third of sick leave balance as at year end is taken into account as a liability.

ii. Superannuation contributions

The Organisation contributes towards the National Provident Fund, a defined contribution plan in accordance with local legislation and to which it has no commitment beyond the payment of contribution. Obligations for contributions to the defined contribution plan are recognised immediately in the statement of income and expenditure.

4. Financial risk management

Financial risk factors

The Organisation's activities expose it to financial risks such as market risks related to cash flow interest risk, credit risk and liquidity risk. Risk management is carried out by management and the Board of Directors. They evaluate and monitor financial risks in all areas of the business.

Cash flow interest risk.

Cash flows interest rate risk is the potential for a change in interest rates to change net interest costs and earnings in the current reporting period and in future years. The risk is managed closely by the management and the directors within approved policy parameters.

The Organisation has interest-bearing asset in the form of term deposits. This is at fixed interest rate and hence, there are no interest rate risks during the period of investment.

For re-investment of term deposits, the Organisation negotiates an appropriate interest rate with the banks and invests with the bank which offers the highest interest return. Given the fixed nature of interest rates, the Organisation has a high level of certainty over the impact on cash flows arising from interest income derived from these term deposits.

Credit risk

Credit risk is the risk of financial loss to the Organisation if a customer or counter-party to a financial instrument fails to meet its contractual obligations and arises principally from the Organisation's receivables from customers. The Organisation's exposure to credit risk is influenced mainly by individual characteristics of each customer.

The Organisation's exposure to credit risk is influenced mainly by the individual characteristics of each customer. The Board through Management monitors and manages the approval of credit whereby each new customer is analysed individually for creditworthiness before the Organisations' standard payment and delivery terms and conditions are offered. A good portion of accounts receivable customers include Government Ministries and State Owned Enterprises. Management consider these accounts receivable as representing a low risk of credit default.

However specific provision has been made for those customers where the organisation has assessed that there is no chance of recovery. Refer to note 6 for details of the movement in impairment provision.

Liquidity risk

Liquidity risk is the risk that the Organisation will not be able to meet its financial obligations as they fall due. The Organisation's approach to managing liquidity risk is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Organisation's reputation. The Organisation carries out cash flow projections taking into account cash inflows and outflows annually which assist it in monitoring cash flow requirements and optimizing its cash returns on investments. Typically, the Organisation ensures that it has sufficient cash on demand to meet expected operational expenses, including the servicing of financial obligations. Cash position is monitored on a daily basis.

Other risks

Operational risk

Operational risk is the risk of loss arising from systems failure, human error and fraud. When controls fail to perform, operational risks can cause damage to reputation, have legal or regulatory implications, or lead to financial crisis. The Organisation cannot eliminate all operational risk, but through a control framework and by monitoring and responding to potential risks, the Organisation is able to manage risks. Controls include effective segregation of duties, access, authorisation and reconciliation procedures, staff education and assessment procedures.

5. Cash and cash equivalent

	2023 SAT$	2022 SAT$
Petty cash	500	500
Cash at ANZ Bank (Samoa) Ltd - main account	25,107	17,633
Cash at ANZ Bank (Samoa) Ltd - project account	334,384	
Cash at BSP Bank Ltd - Main Account	(80,026)	78,094
Cash at BSP Bank Ltd - Project Account	18,234	167,052
Cash at BSP Bank Ltd - Technical Services	33,665	100,773
	331,864	364,053

6. Term deposit

	2023 SAT$	2022 SAT$
Term Deposit - BSP Bank (Samoa) Ltd	52,365	51,275
(deposit held with 1 year maturity)	52,365	51,275

7. Trade and other receivables

	2023 SAT$	2022 SAT$
Trade receivables	275,942	268,450
Other receivables	-	21,069
Less: Provision for doubtful debt	(162,348)	(22,554)
Total trade and other receivables	**113,594**	**266,965**

The Organisation uses the simplified model for calculating lifetime expected credit losses (ECL) and has applied the probability of default (PD) to the overall portfolio of debtors as they share similar credit characteristics being mainly Government Ministries and State-Owned Enterprises.

8. Other creditors and accruals

	2023 SAT$	2022 SAT$
Accrued expenses	39,434	55,375
PAYE Taxes	370,327	162,030
Audit fees	24,150	24,150
Electricity	17,125	27,764
Land lease	2,751	2,316
Total other creditors and accruals	**453,787**	**271,635**

9. Allowance for staff benefits

	2023 SAT$	2022 SAT$
Staff annual leave entitlements	133,415	174,289
Total allowance for staff benefits	**133,415**	**174,289**

10. Deferred income

The following projects are currently carried out and implemented by SROS where funds are received within SROS's account. The following balances represent the unused/used funds at balance date.

Donors	Opening balance (2022)	Additional funding	Expenses	Ending balance (2023)
Current				
SPC/ACIAR cocoa project	-	77,014	62,529	14,485
ACIAR CS2020/191 Food Loss Project	-	508,988	174,527	334,460
COVID19 testing machine - UNDP	17,481		17,481	-
ARSF3/ECR Project	-	24,422	10,808	13,613
SFFI Project	-	15,000	15,000	-
SPC Seeds for Life Project	-	43,200	38,323	4,877
CITRUS - University of Sunshine	44,686	59,606	72,951	31,341
Hunter H2O Holdings Project	8,715		8,715	-
SCIDI Project 2	16,045		9,518	6,527
IWSA Project	23,345		23,345	-
PIRAS	124,925		125,205	(280)
Prissco Project	560		560	-
	235,757	**728,230**	**558,963**	**405,024**
Non-current				
Coconut Oil Refinement Fund	270,769			270,769
Avocado Margarine Fund	182,117		-	182,117
TCM EIF Tier II Project Fund	190,191			190,191
	643,077	-	-	643,077
Total Deferred Liability	878,834	728,230	558,963	1,048,101

11. Property, plant and equipment

Cost	Buildings & Roads SAT$	Furniture & Fittings SAT$	Equipment & Furnitures SAT$	Lab Equipment SAT$	Motor vehicles SAT$	Assets transferred from MAF SAT$	Work in Progress SAT$	TOTAL SAT$
1 July 2021	5,241,328	-	2,316,010	5,858,441	602,483	35,000	-	14,053,262
Additions	83,433	-	68,713	84,469	-	-	612,187	848,802
Disposals	-	-	-	-	-	-		-
1 July 2022	5,324,761	-	2,384,723	5,942,910	602,483	35,000	612,187	14,902,064
Additions	92,053		40,417	446,883				579,352
Adjustments				-			(424,147)	(424,147)
Disposals	-	-	-	-	-	-		-
At 30 June 2023	5,416,814	-	2,425,140	6,389,793	602,483	35,000	188,040	15,057,270
Accumulated depreciation								
1 July 2021	1,582,793	-	1,995,657	4,327,636	558,650	6,367		8,471,103
Depreciation	257,132	-	104,379	401,707	24,667	7,000		794,885
Disposals	-	-	-	-	-	-		-
1 July 2022	1,839,925	-	2,100,036	4,729,343	583,317	13,367	-	9,265,988
Depreciation	261,945		103,818	407,825	19,167	7,000		799,755
Disposals								
At 30 June 2023	2,101,870	-	2,203,854	5,137,168	602,484	20,367	-	10,065,743
Carrying amount								
30 June 2022	**3,484,836**	**-**	**284,687**	**1,213,567**	**19,166**	**21,633**	**612,187**	**5,636,075**
30 June 2023	**3,314,944**	**-**	**221,286**	**1,252,624**	**(0)**	**14,633**	**188,040**	**4,991,527**

Work in progress relates to lab equipment not yet installed and used.

12. Donor project income

	2023	2022
Projects - Ministry of Finance	**SAT$**	**SAT$**
Ecosystem Project Income	75,488	-
ACIAR Cocoa Project	54,729	106,446
CPRDESS Project	69,209	337,318
ACIAR HORT 2016/185 Emerging Pests	-	15,036
UNESCO ST & I Project	-	17,482
CERO Waste Project Income	181,757	-
	381,183	476,282
Donor project funds		
SPC Pacific Seedlings Project Rev (ARD)	38,323	-
ARSF3/ECR Project Income	10,808	-
PIRAS Project Income	125,205	-
SFFI Project Income (ARD)	15,000	-
ACIAR COCOA	46,777	-
MNRE - Water Stream Profiling Income	28,830	1,305
TCM EIF Tier II Project fund	-	17,772
Value Chain development Consultancy Project Income	-	11,955
MNRE - Rainwater Harvesting Project	-	11,000
SPC ACIAR Cocoa Project Income	-	11,066
COVID19 testing - UNDP	-	22,816
Commercialization Project	-	471,212
ACIAR CS2020/191 Food Loss Project Income (PPTD)	174,527	-
CITRUS - University of Sunshine	72,951	7,549
Prissco Project	-	325
Consultancy World Bank Project #1	-	13,000
Consultancy World Bank Project #2	-	11,500
Hunters H2O Project	7,395	6,399
IWSA Project	20,653	2,561
PHAMA Plus Hot Water Project	-	8,000
SCIDI Cocoa II Project	9,519	840
	549,988	597,300
Total Donor project income	**931,171**	**1,073,582**

13. Other income

	2023 SAT$	2022 SAT$
Interest received	2,079	1,457
Other income	47,519	164,368
Total Other income	**49,597**	**165,825**

14. Personnel costs

	2023 SAT$	2022 SAT$
Salaries and wages	3,324,383	3,242,754
NPF employer contributions	329,469	320,837
ACC employer levies	34,541	31,770
Higher duty allowances	40,965	21,067
Total Personnel costs	**3,729,358**	**3,616,427**

15. Occupancy costs

	2023 SAT$	2022 SAT$
Electricity	204,977	212,081
Land lease	2,751	2,316
Total Occupancy costs	**207,728**	**214,397**

16. Administrative costs:

	2023 SAT$	2022 SAT$
Advertising and promotions	5,278	5,673
Bank charges	3,921	10,831
Internet charges	110,825	116,095
Fees, license and registrations	8,444	7,434
Rental / hire	53,346	34,516
Fuel and oil	52,796	25,976
Printing and stationery	36,976	27,275
Repairs and maintenance	136,683	110,800
Subscriptions	29,246	4,300
Telephone, fax and postages	25,002	25,970
DSA / transit / permit visa & incidental allowances	62,576	1,033
Water supplies	7,223	14,800
Insurance	70,484	71,812
Local travel	4,282	7,721
Overseas travel	33,748	-
General expenses	33,824	51,331
Loss on foreign exchange	5,764	2,803
Provision for doubtful debt	139,794	4,502
	820,211	**522,871**

17. Donor project costs

	2023	2022
(a) Projects - Ministry of Finance	**SAT$**	**SAT$**
ACIAR Hort 2016/185 Emerging Pests	84,841	15,036
Ecosystem Services Project	89,883	-
CPRDESS Project	45,016	238,219
Cero Waste Project Exp	39,790	-
ACIAR Cocoa Project	30,444	106,445
	289,974	359,700
(b) Donor project funds		
ACIAR CS2020/191 Food Loss Project Exp	168,832	-
PIRAS Project Expenese	125,205	-
ARSF3/ECR Project Expenses	10,808	-
Breadfruit flour processing project	3,500	-
SFFI Project	10,000	-
SPC Seed for Life Project Expenses	38,323	-
TCM EIF Tier II Project costs	-	7,926
ACIAR PACIFIC SOIL PROJECT (PHASE 2)	2,298	-
Value Chain Consultancy Project	-	11,955
COVID 19 - UNDP	-	1,255
SCIDI Cocoa II Project	9,518	840
MNRE - Rainwater Harvesting	-	11,000
Stream Profiling Project - Water Sector	-	1,305
SPC/ACIAR Cocoa Project	-	11,066
Commercialization	-	88,208
ACIAR Cocoa	46,777	-
CITRUS 2019/165 University of Sunshine	72,951	7,549
Hunter H2O Project	7,395	6,399
IWSA Project	20,653	2,561
PHAMA Plus Hot Water Project	-	8,000
Prissco Project	-	325
UNESCO ST&I Project	-	17,482
World Bank Consultancy Project 1	-	13,000
Other project expenses	-	11,500
	516,260	200,371
Total donor project costs	**806,234**	**560,071**

18. Other costs

	2023	2022
	SAT$	SAT$
Lab consumables	161,078	216,501
Freight and handling costs	48,964	12,149
Accreditation costs	6,628	10,834
Plant hire expenses	1,604	789
Interviewing panel allowances	131	250
Gas expenses	23,023	34,636
Clothing allowance costs	13,200	-
Cleaning expenses	19,172	10,290
Staff training costs		2,227
Staff medical reports costs	380	
Professional services expenses	38,299	51,751
Awareness expenses	288	920
Other internal project costs	63,288	59,600
Office catering costs	8,045	7,075
		-
	384,098	**407,021**

19. Project grants

The following projects are currently carried out by the Organisation as the Implementing agency, in which the actual Organisations funds are held by Government via the Ministry of Finance (MOF). Per confirmation from MOF, the following balances represent the unused Organisations funds at balance date

	Project description	Balance as at 30/06/2022	Funds received	Funds expended	Balance as at 30/06/2023
i	IUCN Biodiesel Project Funds - MNRE	23,283			23,283
ii	Building forward better by safeguardng Natural Capital and Ecosystems Service Project	-	160,701	75,493	85,208
iii	Soil Management for Farm Resilience Project	1,688			1,688
iv	Pacific Cocoa Project	84,938		51,486	33,452
v	Respond to Emerging Pests and Disease Threats to Horticulture in the Pacific	103,267			103,267
vi	UNESCO ST & I Policy Project	32		32	-
vii	CERO Waste (Paper Waste Machinery)	135,403	245,177	380,549	31
viii	COVID19 Preparedness and Recovery	114,706	85,477	200,183	0
	Total Project Grants held at MOF	**463,317**	**491,355**	**707,743**	**246,929**

i IUCN Biodiesel Project Funds – Ministry of Natural Resources & Environment: To determine the optimum conditions and characteristics of the alkali process for biodiesel production using Jatropha oil as a feedstock.

ii The overall aim of this joint national project is to support policy and planning, collection of data and valuation of ecosystem services to support development of scenarios for future. The project will build on the baseline scenario by strengthening conservation management in the selected sites and enabling key information to be gathered on the biological data of in-situ medicinal plants harvested, their status and their habitats. This information can be used to derive appropriate management practices within the sites.

iii Soil Management: This project aims to ensure that soil knowledge is enhanced in the Pacific Island Countries Territories and provides a reliable foundation for sustainable intensification of agricultural systems. Funded by ACIAR.

iv Pacific Cocoa Project: This project is strengthening cocoa value chains in the South Pacific Islands, including Fiji, Samoa, Solomon Islands and Vanuatu, and Australia. This project encompasses research activities involved in fermentation technologies, and establishing laboratory tests for toxins associated with long-term storage of fermented cocoa beans. Funded by ACIAR

v Responding to Emerging Pests & Disease Threats to HORT in the Pacific: This project aims to develop integrated pest and disease management strategies for the sustainable intensification of fruit and vegetable crop production, addressing the threats posed by the inappropriate use of pesticides, emerging pests and diseases and climate change. Funded by ACIAR.

vi UNESCO ST & I Policy Project: Aim to improve productivity and efficiency of budgets made available for Science. Open Science may also allow for citizen participation in public research. This will in turn promotes citizens' trust in Science.

vii CERO Waste: To utilitise by-products for value added products to produce value added products

viii COVID19 Preparedness, Response & Recovery Project: The Scientific Research Organisation of Samoa was contracted by UNDP to procure the equipment and consumables required to allow for in-country testing of COVID-19. The overall goal was to build Samoa's capacity to test for COVID-19 locally, eliminating the reliance on sending samples to New Zealand and Australia for testing, particularly in light of reduced flights and board closures.

20. Related parties

a) Directors

The names of persons who were Directors of the Organisation with sitting allowances and annual directors fees paid out during the financial year were as follows:

Sulamanaia Nu'uetolu Montini Ott	Chairman (Contract expired in March 2023)
Asiata Dr. Satupaitea Viali	Director (Contract expired in March 2023)
Tusani Iosefatu Reti	Director (Contract expired in March 2023)
Nive Tauiliili	Director (Contract expired in March 2023)
Shelly Burich	Director

Directors Fees & Board Expenses	**2023 SAT$**	**2022 SAT$**
Balance represents board expenses for meetings Held throughout the year:		
Board expenses	1,312	3,977
Directors' fees	73,649	78,573
	74,961	**82,550**

b) Key Management Personnel

The key management personnel are those persons having authority and responsibility for planning, directing and controlling activities of the Organisation during the financial period were:

- Chief Exceutive Officer - Dr Seuseu Tauati (resigned in March 2023)
- Corporate Services Manager - Faaea V Talilai
- Technical Services Manager - Dr Pousui Fiame Leo
- Environmental & Renewable Energy Manager - Toleafoa Annie Toailoa
- Plant & Postharvest Tchnology Manager - Dr Masuisuialemalietoa Seeseei Molimau-Samasoni
- Food Technology Manager - Tuimaseve Kuinimeri Finau
- Agriculture Research Manager – Mataeliga Pelenato Fonoti

The remuneration of key management salaries for the period was as follows:

	SAT$	**SAT$**
Salaries and short-term employee benefits	720,871	701,791

21. Capital commitments

The Cabinet approved on the 9th March 2022 (FK(22)08) the transfer of the building and land where Medcen (Vailima) was located to The Scientific Research Organisation of Samoa for building of its laboratory for molecular diagnostic and narcotics. This plan is implemented through a lease agreement in accordance with laws and policies of the Government of Samoa. This matter is currently in discussion and no formal agreement is in place.
No other matters or circumstances have arisen since the end of the financial year which would require adjustment to or disclosure in the financial statements.

22. Subsequent events

There was no impact of the Covid19 on the Organisation’s operations in the current financial year. Government of Samoa continues to support the Organisation through financial and budget support. The Scientific Research Organisation of Samoa was also appointed by the Government as one of the key agencies to assist the Government to respond to any COVID19 outbreak.

23. Approval of financial statements

These financial statements were approved by the board of directors and authorised for issue on the date the accounts were signed.

Telephone: 27751
Fax: 24167
Email: info@audit.gov.ws
Website: www.audit.gov.ws

Please address all correspondences to the Controller and Auditor General

P.O Box 13
APIA, SAMOA

AUDIT OFFICE

REPORT OF THE AUDIT OFFICE

TO THE GOVERNING BODY IN CHARGE OF GOVERNANCE – SCIENTIFIC RESEARCH ORGANISATION OF SAMOA

Audit Opinion

We have audited the accompanying Financial Statements of the Scientific Research Organisation of Samoa which comprise the Statement of Financial Position as at 30 June 2023, the Statement of Financial Performance, Statement of Changes in Equity and Statement of Cash flows for the year ended 30 June 2023, including a Summary of Significant Accounting Policies. The Accounting Firm of Leota and Niumata Chartered Accountants assisted in the audit. The Engagement Partner on the audit resulting in this Independent Auditor's Report is Alice Niumata-Leota.

In our opinion, the financial statements give a true and fair view of the financial position of the Scientific Research Organisation of Samoa as at 30 June 2023, and of its financial performance and cash flows for the year then ended, in accordance with International Financial Reporting Standards (IFRSs).

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of Financial Statements* section of our report. We are independent of the Scientific Research Organisation of Samoa in accordance with the ethical requirements that are relevant to our audit of financial statements in Samoa, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

Responsibilities of Those Charged with Governance for the Financial Statements

Directors and Management are responsible for the preparation and fair presentation of the financial statements in accordance with International Financial Reporting Standards, and for such internal control as directors and management determine 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, directors are responsible for assessing the Organisation'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 directors and management either intends to liquidate the Scientific Research Organisation of Samoa or to cease operations, or have no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Organisation's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our 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 our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with International Standards on Auditing 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 these International Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We 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 our 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 Organisation'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 the directors and 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 Organisation's ability to continue as a going concern. If we conclude that material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Organisation 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.

We communicate with those charged with governance regarding, among other matters, the significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on Other Legal and Regulatory Requirements

In our opinion the financial statements of the Organisation have been prepared in accordance with and complies with the requirements of:

i. Public Bodies (Performances and Accountability) Act 2001, and the
ii. Public Finance Management Act 2001 (and amendments).

We also confirm that:

a. We have been given all information, explanations and assistance necessary for the conduct of the audit; and
b. The Organisation has kept financial records sufficient to enable the financial statements to be prepared and audited.

Our audit was completed on the 27th October 2023 and our opinion is expressed as at that date.

Apia, Samoa
31 October 2023

Vaofusi Terence Su'a
ASSISTANT CONTROLLER AND AUDITOR GENERAL