# SPGRC

**SADC Plant Genetic Resources Centre**

# Twenty-Eighth Annual Report
# 2018/2019

**SPGRC**
**Lusaka, Zambia**
**2019**

*During media tour of SPGRC, media experts visited the SADC regional genebank in which more than 18,000 seed samples collected from the SADC region are conserved for long term in freezers under -18$^{O}$ Celsius and controlled humidity conditions*
*(Photo: Courtesy of Barnabas Kapange – SPGRC)*

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## Abbreviations

| | |
|---|---|
| **AAO** | Assistant Administrative Officer |
| **AFO** | Assistant Finance Officer |
| **APPSA** | Agricultural Productivity Program for Southern Africa |
| **CGIAR** | Consultative Group on International Agricultural Research |
| **CWR** | Crop Wild Relative |
| **DAR** | Department of Agricultural Research |
| **DRC** | Democratic Republic of Congo |
| **FANR** | Food, Agriculture and Natural Resources (Directorate at SADC Secretariat) |
| **FAO** | Food and Agriculture Organization (United Nations) |
| **FOFIFA** | National Centre for Applied Research & Rural Dev., Madagascar |
| **ICT** | Information & Communication Technology |
| **IITA** | International Institute of Tropical Agriculture |
| **ITPGRFA** | International Treaty for Plant Genetic Resources for Food and Agriculture |
| **Kbps** | Kilo-bit per second |
| **Mbps** | Megabit per second |
| **NPGRC** | National Plant Genetic Resources Centre |
| **NGO** | Non-Governmental Organization |
| **NPGRCom** | National Plant Genetic Resources Committee |
| **PGR** | Plant Genetic Resource |
| **PGRFA** | Plant Genetic Resources for Food and Agriculture |
| **SADC** | Southern African Development Community |
| **SDIS** | SPGRC Documentation and Information System |
| **SPGRC** | SADC Plant Genetic Resources Centre |
| **SPO** | Senior Programme Officer, SADC |
| **TCP** | Technical Cooperation Programme |
| **TEEAL** | The Essential Electronic Agricultural Library |
| **TO** | Technical Officer, SPGRC |

## SPGRC Profile

| Vision, Mission and Objectives | |
|---|---|
| **Vision:** | *Be the lead institution in the conservation and sustainable use of plant genetic resources, contributing to the enhancement of food security and livelihoods in the Southern African Development Community (SADC) region* |
| **Mission:** | *Mobilise, conserve and make available plant genetic resources using state-of-the-art technologies and standards, contributing to sustainable development, environment and food security for the wellbeing of the people of SADC* |
| **Objectives:** | – *Reduce plant genetic erosion and increase options of plant genetic resources (PGR) and seed systems to enhance productivity*<br>– *Promote generation of knowledge and exchange of information on PGR*<br>– *Influence policy environment so as to improve access to and use of PGR in the region*<br>– *Mobilize adequate financial resources for conservation and sustainable use of PGR in the SADC region* |

### Background

The Centre was established in 1989 as a 20-year project, initially funded by Nordic donors and, later supplemented with SADC member country contributions on an increasing scale - until the end of the project in 2011when Member States started to fully fund SADC Plant Genetic Resources Centre (SPGRC).

Located about 25 Km off Great East Road in Lusaka on an 89 ha land, generously provided by the Government of Zambia on a 99-year lease, the Centre has been entrusted and mandated with the conservation and evaluation for sustainable utilization of regional plant genetic resources for the present and future generations thus contributing to food security and improved livelihoods; and coordination of all activities through the network of National Plant Genetic Resources Centres (NPGRCs).

### Achievements and Challenges

Though challenged by lack of adequate funds, low germplasm utilization and domestication of the ITPGRFA, outstanding construction of the biotechnology facility at SPGRC; the Centre has trained staff up to PhD level, collected over 45,000 germplasm samples from the region, implemented several projects in developing policies, strategies, provided equipment o NPGRCs, *etc*.

# 1 MANAGEMENT AND ADMINISTRATION

## 1.1 35th SPGRC Board Meeting

The 35th SADC Plant Genetic Resources Centre (SPGRC) Board held its 35th Ordinary Board meeting from the 22nd to the 23rd of October 2018 at Holiday Inn Hotel in Johannesburg, South Africa. The objective of the meeting was to review the SPGRC network's work, get appraisals on the SADC region's policy decisions on agriculture and food security matters, review, and recommend the SPGRC business plan, budget and audit reports before they are submitted to SADC structures.

The meeting was well attended as out of the sixteen (16) Member States of SADC, fourteen (14) attended the meeting and these countries were Angola, Botswana, Comoros, eSwatini, Lesotho, Madagascar, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia and Zimbabwe. The Democratic Republic of Congo (DRC) and Malawi did not attend.

SPGRC Board, 2018

The Chairperson thanked South Africa for hosting the meeting and welcomed the Comoros as a new member of the Board and members who were attending the SPGRC Board meeting for the first time. The Board Chairperson, Dr. Lefulesele Lebesa thanked everyone for coming to the meeting and wished for fruitful deliberations. She further thanked SPGRC Management for organising the meeting and for circulating the documents on time.

The Guest of Honour, Dr Jaftha, who represented the Director General for the Department of Agriculture, Forestry and Fisheries in South Africa informed the Board that the country was conducting consultations with the Treaty Secretariat in preparation to accede to the International Conservation Instrument. He said that the SPGRC network forms a basis and buffer for agriculture and that PGR are the foundation of food and nutrition security for the people of Southern Africa. He emphasized that plant genetic resources need to be collected and conserved because they are under serious threat of extinction. DR Jaftha implored SPGRC to show that it is a centre for knowledge and information generation valuable for programmes aimed at preventing loss of plant genetic resources in the region. He further urged the SPGRC to ensure that material conserved be used for the improvement of crops for the benefit of communities and that the network needs to fully utilise these resources effectively and sustainably.

The Director of the Food Agriculture and Natural Resources (FANR) who by virtue of his office is an *ex officio* to the Board, Mr Domingos Gove, attended this important meeting. Mr Gove expressed his gratitude to be part of the meeting. The FANR Director indicated that Board meetings were a prime opportunity for the SPGRC to report progress on the implementation of the Board's recommendations from the previous sittings and also for it to share with the Board Members the challenges faced in order to have their guidance on the best way forward.

Mr D. Gove

He said the wish of SADC is to work with the region and ensure that Member States move together in the development trajectory. The FANR Director indicated that the region could achieve the dream of SADC by cooperating and working together.

At its meetings, the SPGRC Board deliberates on different issues pertaining to the welfare of the Centre and its operations across the SADC region. In 2018, the agenda of the meeting were to:

- appraise the SPGRC networks' progress report and take note of regional policy decisions in agriculture and food security;
- recommend for approval the Operational Plan and Budget for 2019/20, and audit report for submission to SADC Structures;
- get the feedback from SADC (Council) on the Addendum to the MoU establishing SPGRC; and
- discuss and deliberate on the integration and harmonization of policies on PGRFA in the region among others.

During the same week, the Board Members were later joined by other senior government officials from Member States for a back-to-back meeting from 24th to 25th October 2018 that was funded by The International Treaty for Plant Genetic Resources for Food and Agriculture (ITPGRFA) to discuss issues on the integration and harmonization of Plant Genetic Resources policies in the SADC region. SPGRC felt that even if most countries have rectified the Treaty, its domestication was still a challenge. The workshop aimed at bringing all the SADC Member States to the same level of understanding regarding this international instrument.

The meetings were very fruitful and important in shaping up the Centre.

## 1.2 Visitors

The SPGRC received many visitors from within and outside Zambia. These included university scholars, scientists, farmers and prominent individuals, listed in Appendix III.

## 1.3 Establishment of National Genebanks

The DRC, Madagascar, Seychelles and Comoros are members of the SADC Plant Genetic Resources Centre Network possessing wide genetic diversity. However, this diversity has not yet been fully explored and conserved as these countries joined the SADC later than the other 12 countries which have already fully developed plant genetic resources conservation programmes. Even though there is conservation efforts in these countries, their programmes are still lagging behind and negatively affected by lack of basic gene bank equipment like freezers, seed drying cabinets, and seed storage bags like aluminium foil bags as well as skills to carry out the conservation work. A lot of conserved plant genetic resources have been lost through insect and rodent attack because of lack of security as most of the seeds are stored in open wooden cabinets or shelves. Even the accessions still stored at different centres across the countries are still at risk of loss of viability as the storage facilities are makeshift exposing the seeds to the vagaries of weather. The countries, especially DRC and Madagascar, still have wide plant genetic resources diversity in the remote communities requiring rescuing from extinction but because of lack of resources very little has been done. There is need therefore for urgent intervention in these countries to rescue the plant genetic resources diversity from loss by collecting them and centrally conserving them at national genebanks, the SPGRC, and the backing them up at the Svalbard Global Seed Vault so that they are conserved "forever".

The SPGRC is therefore soliciting for funding (cash or in-kind) aimed at supporting the plant genetic resources conservation work in DRC, Madagascar, Seychelles and Comoros. The resources sought include Freezers, seed drying units, seed packaging materials, capacity building of genebank staff, and initial working capital for seed exploration and collections.

Expected Outcomes of the project include:

i) Establishment of National Genebanks in DRC, Madagascar, Seychelles and Comoros;

ii) Basic genebank equipment procured for the national gene banks in the five countries;

iii) At least five members of staff trained in the each of the four countries in plant genetic resources conservation; and

iv) Accessions from each of the four (4) member countries duplicated at the SADC regional genebank at SPGRC and the Svalbard Global Seed Vault for long term conservation.

## 1.4 Resource Mobilization

The SPGRC-Food and Agriculture Organization (FAO) Technical Cooperation Programme (TCP) project started being implemented in the four participating Member States (Angola, Eswatini, Namibia and Zimbabwe) with a total funding of US$350,000 to be utilized between September 2018 and June 2019.

In another development, SPGRC has in partnership with Bioversity International developed a project proposal on conservation of Crop Wild Relatives in the SADC region. The proposal was submitted for consideration for funding to the Darwin

Initiative. The project will be implemented in Malawi, Tanzania and Zambia and other Member States will benefit through capacity building programmes and the establishment of a network for *ex- situ* conservation of Crop Wild Relatives in the region coordinated from SPGRC.

Following a visit to the Democratic Republic of Congo on a mission to assess the status of PGR conservation, SPGRC developed a proposal seeking to raise funds to support the four SADC Member States (DRC, Madagascar, Seychelles and Comoros) establish centralised NPGRCs. The proposal was shared with partners including the Treaty, Crop Trust, Embassies of Sweden and Finland.

## 1.5 Status of MoU Establishing SPGRC

The SPGRC presented the draft amendment to the MoU establishing the SPGRC before the SADC Ministers of Agriculture, Food Security, Fisheries and Aquaculture in June 2018 who recommended it to the Ministers of Justice/Attorney Generals. The Draft agreement was presented to the senior officials in November 2018 who also cleared it for presentation to the Ministers of Justice. The Ministers of Justice met in March 2019 and considered the draft agreement. They could not clear it for approval in its current state but made some suggestions for improvement.

The Ministers of Justice noted that further work needs to be undertaken on the Draft Agreement Amending the Memorandum of Understanding Establishing SADC Plant Genetic Resource Centre to consider the following issues:

i) the legal status of the Memorandum of Understanding Establishing SPGRC;

ii) the nature of obligations;

iii) the institutional arrangements;

iv) drafting style and language of the text; and

v) possibility of terminating the Memorandum of Understanding Establishing SPGRC.

After the improvements suggested have been incorporated, the Draft Agreement will be presented to the same committee of Ministers of Justice in June 2019 for legal clearance to be presented to Council in August 2019 for final approval. Currently, SADC Secretariat is working on the legal issues raised.

## 2. PERSONNEL, EQUIPMENT AND SUPPLIES

### 2.1 SPGRC Personnel

During the reporting period, there was no change in staffing at SPGRC.

Three regional staff, namely, the Senior Programme Officers (SPOs) responsible for: *In-situ* Conservation, *Ex-Situ* Conservation, and Documentation & Information whose contracts ended in May 2018, were granted extension of their contracts up to February 2019. Interviews were conducted but no candidates were secured. Following unsuccessful recruitment process that aimed at recruiting other SPOs, holding officers were granted extension to their contracts that run up to August 2019.

### 2.2 Equipment and Supplies

*Vantage Station capable of monitoring wind speed and direction, temperature, humidity, wind chill, dew point, rainfall, barometric pressure and forecast FARS solar and UV sensors*

The SPGRC purchased a new germination cabinet for the *ex-situ* conservation laboratory that has the capacity to accommodate 400 samples at a time. This will speed up viability testing for accessions. Other pieces of equipment were also procured to enhance germination testing namely; vacuum planting systems ¾ HP with different planting heads, a purity board and a precision seed divider. The old germination cabinet has however, developed a fault which the SPGRC management is addressing. New farm equipment was procured using the asset replacement fund namely the disc harrow, mouldboard plough, boom sprayer and tractor mounted grader. In addition, the planter has been serviced. This equipment will help in land preparation at the SPGRC for effective accessions multiplication and regeneration.

A new walk-in seed drying cabinet has been procured to help speed up the seed drying process under *ex-situ* conservation. A new Vantage Automatic Weather Station equipment was procured and installed.

The leaking roof of the fieldwork room has been repaired and repainted. Three offices have been partitioned to create more working space for technical officers.

### 2.3 SPGRC Buildings (Offices and Staff Houses)

All the SPGRC staff houses and the wall fence have been repainted both inside and outside. The electric fence around the SPGRC houses was also re-done to give reliable security. Security of the whole SPGRC farm was upgraded by installing the veld-span fence and repairing the broken fence in general.

Potholes on the main road into the SPGRC from main Great East Road have been fixed and the road clearly marked.

While the SPGRC Boardroom has been refurbished with new furniture and equipment, the new furniture has also been procured for the SPGRC Library and the Lunch Room.

## 3. MEETINGS, TRAINING AND EDUCATION

### 3.1 Training of SPGRC Staff

The AAO attended the SADC SAGE VIP 300 HR Processes Training workshop, which was held in August 2018 whose main objective was to train users on how to capture information pertaining to staff in a holistic manner, prepare Human Resources reports, and how the ESS (Employee Self Services) systems can be effectively used by staff. Late in March 2019, the TO – Documentation & Information who is the appointed Risk Management Focal Point at SPGRC attended a Governance, Risk and Compliance (GRC) training workshop in Gaborone whose broad objective was to improve company's coordinated strategy for managing broad issues of corporate governance, enterprise risk management (ERM) and corporate compliance with regard to regulatory requirements.

Through running projects in which SPGRC participated, some training opportunities were utilized by staff such as training through the World Bank funded initiative, Agricultural Productivity Program for Southern Africa (APPSA) for participating Member States (Malawi, Mozambique and Zambia), *etc*.

### 3.2 Training and Education for NPGRC Staff

A number of network scientists and technicians attended a variety of training workshops and meetings that aimed at building capacity in conservation and sustainable utilization of PGRFA. A number attended workshops on Biodiversity, traditional knowledge and intellectual property, implementation of national biosafety frameworks, amongst others.

While Mrs Nolipher Mponya, Mr S. Kabululu (Tanzania) and Mr K. Kusena (Zambia) continued with their PhD study programme, Malawian Ms Ireen Nyirenda and Jackson Chikasanda as well as Mr F. Reis (Mozambique) continued with BSc studies in Malawi. Mr C. Gwafila (Botswana), Ms R. Hilukwa (Namibia), and Ms. G. Kanyairita (Tanzania) successfully completed MSc studies at various universities.

### 3.3 Some Important Meetings Attended by SPGRC Staff

**Table 3.1: Meetings attended by SPGRC Staff**

| | |
|---|---|
| **Apr 2018** | – SPO – *In-situ* and TO – ex-situ conducted a training workshop on root & tuber characterisation and PGRFA viability testing in Seychelles<br>– The Head, SPO – *ex-situ,* SPO – Doc. & Info, SPO – *in-situ*, AAO and AFO attended a FANR Annual Planning & Review meeting in Gaborone, Botswana<br>– The Head, SPO – *in-situ*, SPO – *Ex-Situ*, SPO – Doc. & Info, TOs for Doc. & Info., *ex-situ*, and *in-situ* attended the web-based SDIS Training Workshop; held in Pretoria, South Africa<br>– SPO and TO – Doc. & Info. undertook a technical support mission (system update, training) for Angola NPGRC |

| | |
|---|---|
| **May 2018** | – SPO – Doc. & Info. attended a workshop on capacity enhancement in biodiversity information management organized by World Vegetable in Arusha, Tanzania<br>– The Head and SPO – Doc. & Info conducted a mission to advance establishment of NPGRC in DRC<br>– SPO – *In-situ* Conservation together with SPGRC Driver undertook a mission to propagate strengthening of Community Seed Banks in Zimbabwe |
| **Jun 2018** | – SPO – *In-situ* Conservation together with SPGRC Driver undertook a germplasm collection mission in Southern Province of Zambia<br>– The Head attended the Joint Ministers of Agriculture and Food Security, Fisheries and Aquaculture meeting in Johannesburg, South Africa. |
| **Jul 2018** | – SPO and TO – Doc. & Info. configured, installed, updated and trained users of web-based SDIS in Seychelles<br>– The Head and AFO attended a SADC Finance Sub-committee meeting in Gaborone, Botswana |
| **Aug 2018** | – SPO – Doc. & Info together with TOs for ex-situ and in-situ conservation participated in the 92nd Zambia Agriculture & Commercial Show 2018, Lusaka<br>– The AAO attended the SADC SAGE VIP 300 Training Workshop in Gaborone, Botswana. |
| **Sep 2018** | – The Head, SPO – *in-situ*, SPO – *Ex-Situ*, SPO – Doc. & Info, AAO and AFO attended the FANR Annual Planning & Review meeting, Gaborone.<br>– The Head, SPO – Ex-Situ, SPO – Doc. & Info, AAO and AFO conducted a combined *ex-situ* and *in-situ* Curators' Workshop in Johannesburg, South Africa<br>– The Head and SPO – Doc. & Info conducted a mission to advance establishment of NPGRC in Madagascar |
| **Oct 2018** | – The Head, all SPOs, Asst. Admin. Officer, Sen. Finance Clerk, Personal Secretary attended 35th SPGRC Board Meeting and the back-to-back Integration and Harmonization of Plant Genetic Resources for Food and Agriculture (PGRFA) Policy Workshop, South Africa.<br>– The Head and AFO attended the SADC Annual Operational Plan meeting in Gaborone, Botswana<br>– The Head attended a regional workshop on the preparation of the national reports on the implementation of the International Treaty - Addis Ababa, Ethiopia<br>– SPO – *In-situ* Conservation together with SPGRC Driver undertook training of agricultural and research staff on agro biodiversity, local seed systems and climate change resilience crop production system in Lilongwe, Malawi. |
| **Nov 2018** | – SPO – Doc. & Info. configured, installed and trained users of web-based SDIS in Tanzania |
| **Dec 2018** | |
| **Jan 2019** | |
| **Feb 2019** | – SPO – in-situ conducted a farmers' workshop on crop genetic resources conservation and climate smart agriculture in Maun, Botswana. |

| | |
|---|---|
| **Mar 2019** | – SPO and TO – Doc. & Info. had a working retreat to undertake verification, compilation and loading of web-SDIS, Chisamba, Zambia<br>– The Head attended the SADC Ministers of Justice Meeting in Windhoek, Namibia<br>– The TO – Doc. & Info attended a training on Governance, Risk and Compliance (GRC) and visited the SADC ICT Unit, Gaborone, Botswana<br>– SPO – Doc. & Info and SPO – in-situ attended a workshop on health-promoting and disease-preventing properties of African food plants and animals from the SADC Region in Johannesburg, South Africa. SPO – Doc. & Info. presented an invited paper.<br>– SPO – in-situ attended a consultative workshop of the project: resilient seed systems in Eastern and Southern Africa in Kampala, Uganda. |

# 4. TECHNICAL ACTIVITIES

## 4.1 *EX-SITU* CONSERVATION

### 4.1.1 Accession Deposits at SPGRC by Member States

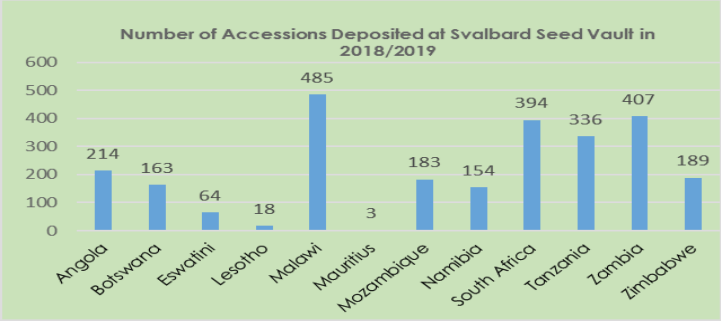
During the reporting period, a total of 766 accessions were deposited from the active collections in member states for base collection conservation at SPGRC's regional bank as shown in table below.

Table 4.1: Accessions deposited at SPGRC by Member States in 2018/19

| Country | Quantity of accessions deposited | Species |
|---|---|---|
| Botswana | 41 | *Vigna unguiculata* and *Vigna radiata* |
| Malawi | 35 | *Zea mays* |
| Mauritius | 7 | *Phaseolus vulgaris, Arachis hypogaea, Abelmosccus esculentum, Brassica campestris, Lablab purpureus,* and *Vigna radiata* |
| Mozambique | 239 | *Oryza sativa* |
| Namibia | 35 | *Arachis hypogaea, Hibulscus spp, Pennisetum glaucum, Sorghum bicolour, Vigna subterrranea, Vigna unguculata* and *Zea mays* |
| Tanzania | 280 | *Citrullus sp, Cucubita maxima, Cucubits spp. Eleusine corocana, Lagenaria sp.* and *Phaseolus vilgaris* |
| Zimbabwe | 129 | *Sorghum bicolor, Zea mays, Pennisetum glaucum, Eleusine coracana, Oryza sativa, Sesamum indicum, Vigna anguculata, Vigna subteranea, Phaseolus vulgaris, Helianthus annuus, Citrullus lanatus, Cucumis sp., Brassica sp. Lagenaria sp., Amaranthus hybridus, Trimfetta annua,* and *Ceratotheca sesamoides* |

### 4.1.2 Accession Deposit at Svalbard Global Seed Vault

A total of 2 623 accessions were deposited at the Svalbard Global Seed Vault in Norway. The first batch of 1600 accessions was deposited in October 2018 and the second batch was deposited in March 2019. That has brought the total of SADC seed accessions safely conserved at the Global Seed Vault to 4086 accessions.



### 4.1.3 Accession duplicated by SPGRC at the Svalbard for Member State as of 31 March 2019

During the reporting period, 4,086 accessions were deposited at the Svalbard Global Seed Vault in Norway for safe keeping

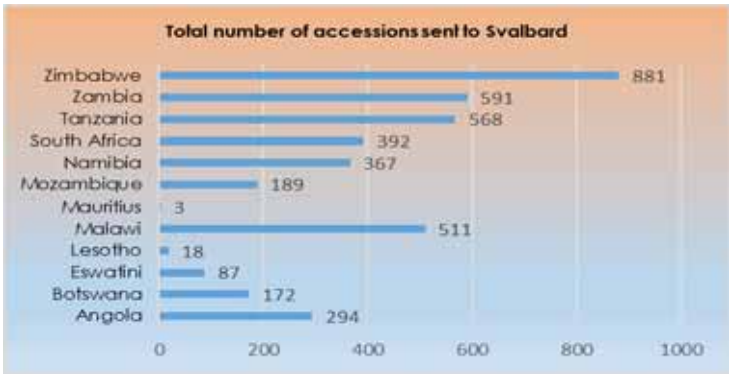



Fig. 1: Total number of accessions sent to Svalbard

### 4.1.4 Accession multiplication and characterization

A total of 600 accessions was planted for multiplication, rejuvenation and characterization at the SPGRC farm. The Breakdown is as shown in a chart below.

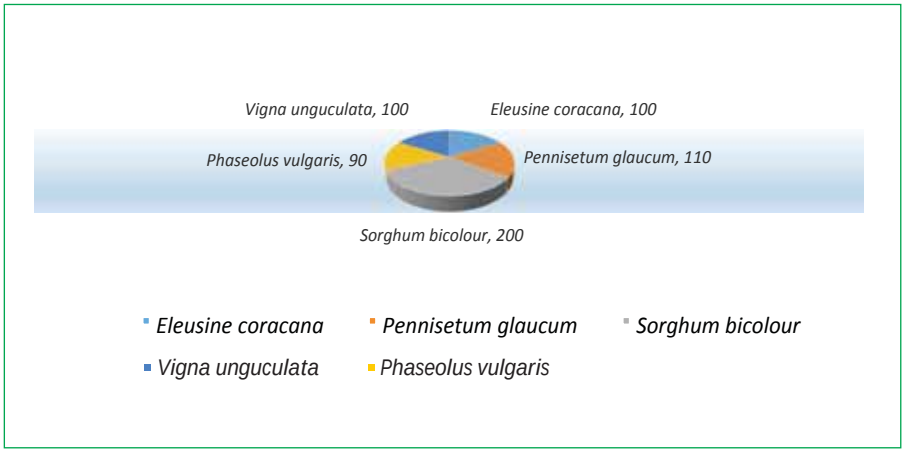



Fig. 2: Number of accessions multiplied and characterized

The 310 accessions of *Sorghum bicolor* (200) and *Pennisetum glaucum* (110) planted with the objective to increase their seed quantities and improve their seed qualities, were also subjected to synergy procedures for preliminary characterisation and the generated data will be used in future to determine the basic characteristics of those accessions.

### 4.1.5 Viability testing of accessions in the SPGRC Gene Bank

A total of 6636 accessions from the SPGRC regional gene bank were tested for viability by 31 March 2019. The breakdown is as shown in the table below.

Table 4.2: Results of viability tests conducted at SPGRC

| Species | Total number tested | Accessions Passed | Accessions Failed |
|---|---|---|---|
| *Abelmoschus esculentus* | 7 | 3 | 4 |
| *Amaranthus SP.* | 13 | 3 | 10 |
| *Arachis hypogaea* | 139 | 91 | 48 |
| *Brassica rapa* | 1 | 1 | 0 |
| *Cajanus cajan* | 72 | 50 | 22 |
| *Capsicum annuum* | 2 | 0 | 2 |
| *Cicer arietinum* | 81 | 81 | 0 |
| *Citrullus lanatus* | 34 | 20 | 14 |
| *Clotaralia sp* | 24 | 13 | 11 |
| *Corchorus sp* | 4 | 2 | 2 |
| *Cucurbita sp.* | 45 | 24 | 21 |
| *Cucumis sativus* | 3 | 2 | 1 |
| *Digitalis canata* | 1 | 0 | 1 |
| Elymus junceus | 1 | 1 | 0 |
| Cyamopsis tetragonoloba | 1 | 1 | 0 |
| *Eleusine coracana* | 778 | 622 | 156 |
| Fagopyrum sp. | 10 | 9 | 1 |
| Prosopis tamarugo | 1 | 1 | 0 |
| *Glycine max* | 15 | 9 | 6 |
| *Helianthus annuus* | 1 | 1 | 0 |
| *Hordeum vulgare* | 3 | 3 | 0 |
| *Lagenaria sp.* | 27 | 17 | 10 |
| Leersia hexandra | 1 | 1 | 0 |
| *Lens esculeutus* | 6 | 6 | 0 |
| *Luffa acutangula* | 2 | 1 | 1 |
| *Lupinus sp.* | 1 | 1 | 0 |
| *Oryza sativa* | 351 | 341 | 10 |
| *Pennisetum glaucum* | 421 | 355 | 66 |
| *Phaseolus acutifolius* | 1 | 1 | 0 |
| *Phaseolus vulgaris* | 286 | 232 | 54 |
| *Phaseolus lanutus* | 21 | 8 | 13 |
| *Pisum sativum* | 5 | 5 | 0 |
| *Ricinus communis* | 2 | 2 | 0 |
| *Sesamum sp.* | 37 | 28 | 9 |
| *Sesbania sp.* | 17 | 6 | 11 |
| *Solanum sp.* | 6 | 5 | 1 |
| *Sorghum bicolor* | 2, 802 | 2, 673 | 129 |
| *Sorghum halepense* | 1 | 1 | 0 |
| *Stizolobium deeringianum* | 31 | 31 | 0 |
| *Triticum aestivum* | 22 | 22 | 0 |
| *Vicia faba* | 2 | 0 | 2 |
| *Vigna radiata* | 46 | 33 | 13 |
| *Vigna subterranea* | 120 | 106 | 14 |
| *Vigna unguiculata* | 617 | 537 | 80 |
| *Zea mays* | 575 | 508 | 67 |
| **Totals** | **6, 636** | **5, 857** | **779** |

### 4.1.6 Drying and Processing of Seeds for Monitoring and Newly Received Materials

The following quantities of accessions were dried and processed for deposit into the genebank.

Table 4.3: Results of drying and processing of seeds

| Species | No. of Accessions | Species | No. of Accessions |
|---|---|---|---|
| *Abelmoschus esculentum* | 1 | *Parinary curatelifolia* | 1 |
| *Allium cepa* | 2 | *Pennisetum glaucum* | 19 |
| *Amaranthus sp.* | 5 | *Phaseolus vulgaris* | 18 |
| *Arachis hypogaea* | 25 | *Pisum sativum* | 2 |
| *Brassica oleraceae* | 1 | *Pterocarpus angolensis* | 1 |
| *Combretum collinum* | 1 | *Raphanus sativa* | 1 |
| *Capsicum sp.* | 4 | *Oryza sativa* | 148 |
| *Citrullus lanatus* | 8 | *Schiziophyton rautanenii* | 3 |
| *Cucumis sativum* | 2 | *Solanum melongena* | 1 |
| *Cucurbita sp.* | 4 | *Solanum nigrum* | 1 |
| *Daucus carota* | 1 | *Sorghum bicolor* | 243 |
| *Glycine max* | 1 | *Strychnos sp.* | 2 |
| *Guibuortia colesperma* | 1 | *Vicia faba* | 2 |
| *Lagenaria siceraria* | 2 | *Vigna mungo* | 1 |
| *Phaseolus lanatus* | 1 | *Vigna radiata* | 12 |
| *Luffa acutangula* | 4 | *Vigna subterranea* | 2 |
| *Lycopersicon esculentum* | 7 | *Vigna unguiculata* | 194 |
| *Mucuna sp.* | 1 | *Zea mays* | 444 |
| *Ozoroa okavangoensis* | 1 | **Total** | **1,167** |

### 4.1.7 Addition of New Germplasm Material to SPGRC Genebank

The following accessions were added to the Genebank as on 31 March 2019.

Table 4.4: List of added accessions to SPGRC genebank

| Species | No. of Accessions | Species | No. of Accessions |
|---|---|---|---|
| *Abelmoschus esculentum* | 1 | *Oryza sativa* | 137 |
| *Allium cepa* | 2 | *Ozoroa akovangolensis* | 1 |
| *Amaranthus sp.* | 1 | *Parinary curaterifolia* | 1 |
| *Arachis hypogaea* | 25 | *Pennisetum glaucum* | 19 |
| *Brassica oleracea* | 1 | *Phaseolus vulgaris* | 6 |
| *Canbretum collinum* | 1 | *Pisum sativum* | 2 |
| *Capsicum sp.* | 4 | *Pterocarpus angolensis* | 1 |
| *Citrullus lanatus* | 3 | *Raphanus sativa* | 1 |

| | | | |
|---|---|---|---|
| *Cucumis sativus* | 2 | *Schiziophyton rautanenii* | 3 |
| *Cucurbita sp.* | 3 | *Solanum sp.* | 2 |
| *Daucus carota* | 1 | *Sorghum bicolor* | 92 |
| *Glycine max* | 1 | *Strychnos sp* | 2 |
| *Guibortia colesperma* | 1 | *Vicia faba* | 2 |
| *Lablab purpureus* | 1 | *Vigna mungo* | 1 |
| *Lactuca sativa* | 1 | *Vigna radiata* | 12 |
| *Lagenaria siceraria* | 2 | *Vigna subterranea* | 2 |
| *Phaseolus lanatus* | 1 | *Vigna unguiculata* | 66 |
| *Luffa acutangula* | 4 | *Zea mays* | 127 |
| *Lycopersicon esculentum* | 7 | **Total** | **539** |

### 4.1.8 Facilities and Equipment

There were some electric power surges of the main power supply that affected genebanking processes; however, their potential to damage the freezers which would ultimately damage the conserved materials was saved through use of a stand-by electricity generator.

A new water purification unit was procured to replace the old water purifier before it could produce low water quality. The specialised walk-in seed drier was serviced to improve its seed drying efficiency; and, the germination cabinet was serviced and repaired to ensure smooth germination testing processes.

New equipment for the Gene Bank Laboratory has been procured to smoothen the seed handling process. The Equipment include Centrifugal Seed Divider, Purity Table, Vacuum Planting System.

New equipment for the SPGRC Weather Station has been procured from Sky View in the United Kingdom.

### 4.1.9 Herbarium

The aim was to increase herbarium specimens and data collection required to improve conservation and utilization of genetic resources. The work initiated and there were challenges in the way that could not be controlled and was postponed to later date.

### 4.1.10 Arboretum

SPGRC continued to maintain 25 species of wild fruit trees and medicinal plant at the regional centre. A total of 105 plants, all collected from various parts of Zambia are in the arboretum.

## 4.2 GERMPLASM COLLECTION AND *IN-SITU* CONSERVATION

The *In-Situ*/On-farm conservation section coordinates on-farm conservation, germplasm collection, conservation of root and tuber crops in field genebanks, *in-situ* conservation and crop production at the SPGRC Farm.

### 4.2.1 On-farm Conservation

The SADC Region has a total 131 farmers' groups and 29 Community Seed Banks established in seven countries.

During the reporting period, the SPO *in situ* visited Botswana, Malawi, Namibia, and attended a workshop on on-farm conservation in Entebbe, Uganda.

Summary of on-farm conservation activities conducted in the region during the year are presented in a table below.

Table 4.5: Summary of on-farm conservation activities

| Country | Nature of work | Outcome | Benefits to Member State |
|---|---|---|---|
| Botswana | Facilitation of the establishment of on-farm conservation activities | Trained farmers on linking on-farm conservation and climate smart agricultural farming practices; to build resilience to the negative effects of climate change | On-farm conservation activities to be established in Maun, Okovango West areas. |
| Malawi | Training of Extension Workers on the principles of on-farm conservation and climate change | Agriculture Extension Workers trained on the principles and importance of 0n-farm conservation in coping with climate change. A Crop and Food Diversity Fair was also held in the Chikwawa District | Farmers were encouraged to continue maintaining local crop diversity and Extension Worker to include the promotion of the use of local crops as adaptation measures to climate change |
| Namibia | Identify crop diversity hotspots for on-farm conservations and train farmers on sustainable farming practices for improve community seed systems. Train NPGRC staff on characterisation | NPGRC officers trained on characterization of maize, sorghum, pearl millet, bambara, groundnuts, cowpea and cucurbits. Crop diversity hotspots identified in Rundu Area where farmers were trained with the involvement of breeders from the Mannheim Research Station. | Crops will be characterised, information on preferred traits shared with breeders for crop improvement. Trained farmers will work with breeders in the selection of preferred traits and the continued management of crop diversity through on-farm conservation activities in the Rundu Area. |

| | | | |
|---|---|---|---|
| Uganda | Registration of Farmer Varieties | A workshop held with National Agricultural Research Organizations, Consultative Group on International Agricultural Research (CGIAR) centres, Private sector partners, donors and International and Local Non-Governmental Organizations (NGOs) working on farmer seed systems. A project paper presented on collaborative activities between partners to mobilise funds for the registration of farmer varieties including a field exposure to on-going activities on resilient seed systems by Bioversity international and partners in Uganda. | The SADC region will work in collaboration with other international organizations to facilitate the registration of farmer varieties. |

### 4.2.2 Progress on FAO-TCP Project

The SPGRC, in collaboration with the FAO Sub-Regional Office coordinated implementation of a TCP where four countries - Angola, Eswatini, Namibia and Zimbabwe, received funding for the development of national strategies for the conservation and use of Plant Genetic Resources for Food and Agriculture.

Progress and status of activities undertaken summarized in a table below.

Table 4.6: Progress and Status of Implementation of FAO-TCP Project as at 31 March 2019

| Country | Activities Undertaken | Status of Progress |
|---|---|---|
| Angola | Planted accessions to be multiplied and duplicated tot SPGRC. Held meetings with stakeholders to develop the national PGRFA conservation strategies. Identified hotspots for the establishment of on-farm conservation activities. | 135 accessions characterized (maize, sorghum, pearl millet, okra and beans) multiplied and initiation meetings for drawing up the national conservation strategies held. |
| Eswatini | Project initiation meeting held with the NPGRCom, a Consultant to be engaged to assist with the development of national strategies. Farmers trained for the establishment of on-farm conservation activities. Crops planted and some characterized. | The process of engaging a consultant still in progress. 60 crops multiplied for duplication to SPGRC (cucurbits, maize, pearl millet, cowpea, beans and okra). Farmers trained at Sandleni and kaShewula for the establishment of on-farm conservation activities. |

| | | |
|---|---|---|
| Namibia | 165 accessions planted and characterized. National strategies printed and distributed. Farmers trained for the establishment of on-farm conservation. Catalogues to be formulated and distributed | 165 crops were planted and characterized (maize, sorghum, pearl millet, bambara, cucurbits and ground nuts) |
| Zimbabwe | Project inception meeting held with key stakeholders. Draft national strategies developed. 160 crops planted for duplication to SPGRC. On-farm conservation activities and Community Seed Banks strengthened. | Draft National Strategies circulated to key stakeholders for comments. 160 crops multiplied and characterized for duplication at SPGRC. Farmers meetings held with farmers to roll-out on-farm conservation and Community Seed Banks. |

### 4.2.3 Other Collaborations

The SPGRC network has collaborated with other international organizations and the *in situ* unit has participated in meetings and workshops beyond the SADC region such as the Bioversity International, International Institute of Tropical Agriculture (IITA), East African countries.

Table 4.7: List of Collaborating institutions

| Collaborating Institution | Nature of Collaboration | Achievements as of 31 March 2019 |
|---|---|---|
| IITA | Documentation of Root and Tuber Crops | Discussions were made to share ideas of key fields to be created for the documentation of Root and Tuber Crops. This was to assist in the inclusion of vegetatively propagated material in the SPGRC Documentation & Information System (SDIS). Key fields were established. |
| Bioversity International | *In-situ* conservation of Crop Wild Relatives | A project proposal jointly formulated and submitted to the Darwin Initiative to seek for funding. If the project is considered, crop wild relatives (CWR) and conservation strategies will be done in Malawi, Tanzania and Zambia. |
| East African Countries | Registration of Farmer Varieties | SPGRC participated in two workshops and lessons learnt led to the drafting of the Draft SADC Farmer Registration Procedures that were submitted to FANR for further consideration. |

### 4.2.4 SADC Harmonized Seed Regulatory System: Proposed Registration Procedures for Farmer Varieties

SPGRC drafted proposed registration procedures to be discussed and incorporated in the SADC Harmonized Seed Regulatory System. The document was shared with FANR for further action.

### 4.2.5 SPGRC Farm Activities

During the 2018/2019 planting season, the unit managed to take soil samples and to apply lime in 8ha of land. This has contributed to a good crop stand for this season's seed and regeneration activity. Besides the genebank multiplication programme, 5ha of land in having maize, 1ha with beans and 0.25 ha with a variety of traditional crops used for educational purposes for students and farmers that visit the institution.

The following equipment has been procured for the SPGRC farm:

- Disc harrow
- Mouldboard plough
- Boom sprayer
- Tractor mounted surface grader

In order to capture precise weather conditions and forecasts, SPGRC acquired and installed a new weather station – Wireless Davis Vantage Pro 2+. Data is downloaded through the WeatherLink Data logger, collated and shared on daily basis.

## 4.3 DOCUMENTATION AND INFORMATION

### 4.3.1 Hardware and Software

Continuous updating of hardware and software reigned, evident by updated anti-viruses that is now running on the server, and renewed subscriptions for the library management software, *etc*.

Most of the ICT hardware such as computers and printers acquisitions and updating are now centrally done through the SADC Secretariat ICT Unit, which has that mandate.

The Centre continued with the maintenance of servers (mail, files). The SPGRC Local Area Network and associated IT equipment and facilities were kept running smoothly thus enhancing sharing of information and data resources across local and outside clients. Management and maintenance of the SUN accounting system is now centralized and done from the SADC Secretariat.

With SADC Secretariat support, SPGRC upgraded its ICT infrastructure including switches, routers and cabling; and increased its Internet bandwidth to 10

Farmer displays harvested crop realized from seeds sourced from genebank in Malawi

MBps, enabling it to access the SADC ICT applications with ease.

The Centre enforced presence of more than 95% uninterrupted high speed internet connectivity at SPGRC throughout the year. It also engaged and commissioned a local company – *NetOne* to provide offsite data backup on a daily basis.

### 4.3.2 Database Development

In the quest to improve accessibility and functionality of web-based PGR database, SPGRC managed to upgrade databases in Namibia, South Africa and Zambia. Even though the database has been updated with revised crop descriptors with other navigation and security features, upgrading all Member States could not be done due limited financial resources.

After noticing a few discrepancies and mix-up of crop descriptors in the database, SPGRC undertook to review system crop descriptors that are important in capturing and using characterization data from the system. Following the review, the system was updated and re-loaded with 32 verified crop descriptors.

*Web-SDIS training in session, South Africa*

### 4.3.3 Network News and Publicity

Two SPGRC newsletter issues for July 2018 and December 2018 were published and distributed to stakeholders. It also published and distributed 1500 pamphlets on PGR management and distributed them to Member States and other stakeholders.

*During the public lecture held at the University of Zambia*

In March 2019, in Lusaka, SPGRC held one public lecture on conservation of plant genetic resources under theme "*Acknowledging women achievements in conservation of plant genetic resources for food and agriculture and ensuring of household food and nutrition security*". The workshop attracted many stakeholders including academia, NGOs, students, policy makers, media, *etc*., who pleaded for making such a workshop an annual event to attract national and later regional and global attention towards conservation and sustainable utilization of PGRFA.

The SPGRC 2017/2018 annual report was printed and distributed in September 2018. Meanwhile, the SPGRC website (www.spgrc.org.zm) has remained a major conduit for updating information regarding activities and achievements made by SPGRC.

SPGRC continued writing and contributing articles to the monthly SADC Newsletter. It also contributed an article on the Svalbard Global Seed Vault's 10 Years (2008 – 2018) commemoration on safeguarding seeds for the future (access: https://www.seedvault.no/news/spgrc-in-zambia-urge-all-the-worlds-gene-banks-to-use-the-seed-vault/).

### 4.3.4 SPGRC Library

Annual subscription renewal for The Essential Electronic Agricultural library (TEEAL) was done in November/December 2018 with view to provide network scientists access to over 200 globally renowned agricultural journals.

While the Centre has strived subscribing to license-free online publications, it has also established links with the SADC Secretariat Central Library in Gaborone that has promised in future to support SPGRC library with reading materials and specific managerial tasks.

The SPGRC purchased new books, and renewed subscriptions to journals and serial titles as well as other publications that are related to biodiversity management. The library serves network scientists to keep them abreast with new information, technology and other developments in PGR conservation, management and utilization.

## 4.4 SPGRC TECHNICAL BACKSTOPPING TO NPGRCs

Compliance to international technical and legal obligations under the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and Global partnerships including service provision to the SPGRC network guides its coordination and management commitments. The Technical personnel travelled to the national genebanks during the year and provided technical backstopping on matters relating to commitment for implementation of best genebank standards to ensure longer term conservation and promotion of the use of germplasm, establishment and continuous management on on-farm/*in-situ* activities, and on standardized information sharing/exchange and propagation of use of ICTs in managing germplasm collections using databases.

Besides attending the general FANR Annual Planning & Review meeting in Gaborone, SPOs and TOs conducted training workshops on root & tuber characterisation and PGRFA viability testing (Seychelles), web-based SDIS (Angola, Seychelles), capacity enhancement in biodiversity information management organized by World Vegetable (AVRDC, Tanzania), and combined *ex-situ* and *in-situ* Curators' Workshop.

SPGRC was represented by the Head at the regional workshop on the preparation of the national reports on the implementation of the International Treaty, held in Addis Ababa, Ethiopia.

The SPGRC conducted a farmers' workshop on crop genetic resources conservation and climate smart agriculture in Botswana, as well as training of agricultural and research staff on agro biodiversity, local seed systems and climate change resilience crop production system in Malawi.

## 5. INTERIM FINANCIAL REPORT 2017/2018

**Table 5.1: Interim Statement of Financial Performance for the Year Ended 31st March 2019**

| | 2018/19 US$ | 2017/18 US$ |
|---|---|---|
| **Revenue from Non-Exchange Transactions** | **1,626,541** | **1,410,081** |
| Member States' contributions | 1,626,541 | 1,406,747 |
| Exceptional Revenue from Member States | - | - |
| Development Partners' contributions | - | 3,334 |
| **Revenue from Exchange Transactions** | **23,345** | **24,041** |
| Institutional property rentals | 23,345 | 24,041 |
| Investment revenue | - | - |
| **Total Revenue** | **1,649,886** | **1,434,122** |
| **Expenditure** | | |
| **Operating Expenses** | **1,511,796** | **1,353,008** |
| Staff costs | 910,746 | 900,438 |
| Transport, subsistence and conferences | 177,075 | 157,107 |
| Lease expenditure | - | - |
| Contingent rental on finance leases | - | - |
| General Expenses and Supplies | 233,616 | 160,120 |
| Communications | 56,170 | 17,634 |
| Audit and professional fees | - | 5,400 |
| Depreciation current year charge | 134,189 | 112,309 |
| Depreciation effect of changes in residual values | - | - |
| Finance cost | - | - |
| **Other Gains/(Losses)** | **(6,419)** | **10,124** |
| Gain/(Loss) on sale of assets | (172) | (18,753) |
| Gain/(Loss) on foreign exchange transactions | (6,248) | 28,877 |
| **Surplus/(Deficit) for the Year** | **144,509** | **70,990** |

***Source:*** *SADC Financial Statements for the Year Ended 31st March 2019*

**Table 5.2: Statement of Financial Position as at 31st March 2019**

| | 2018/19 US$ | 2017/18 US$ |
|---|---|---|
| **Assets** | | |
| **Current Assets** | | |
| Cash and cash equivalents | 1,080,454 | 899,788 |
| Receivables from exchange transactions | 52,693 | 34,864 |
| Receivables from non-exchange transactions | - | 10,330 |
| Prepayments | - | 25,839 |
| Value Added Tax receivables | - | - |
| | **1,133,147** | **970,821** |
| **Non-Current Assets** | | |
| Property, plant and equipment | 1,885,968 | 1,852,129 |
| | **1,885,968** | **1,852,129** |
| **Total Assets** | **3,019,115** | **2,549,700** |
| **Liabilities** | | |
| **Current Liabilities** | | |
| Trade and other payables from exchange transactions | 91,467 | 134,687 |
| Trade and other payables from non-exchange transactions | - | - |
| Finance lease liability | - | - |
| Post-employment benefit | 162,974 | - |
| Deferred Revenue from Development Partners | 2,421 | 2,421 |
| Member States' Special Funds | 109,051 | - |
| | **365,914** | **137,108** |
| **Non-Current Liabilities** | | |
| Post-employment benefit | 104,837 | 284,235 |
| Finance lease liability | - | - |
| | **104,837** | **284,235** |
| **Total Liabilities** | **470,751** | **421,343** |
| **Net Assets** | **2,548,364** | **2,401,607** |
| Reserves | 65,925 | 63,678 |
| Accumulated surplus | 2,337,930) | 2,266,940 |
| Surplus for the Year | 144,509 | 70,990 |
| **Total Net Assets and Liabilities** | **3,019,115** | **2,822,950** |

***Source:*** *SADC Financial Statements for the Year Ended 31st March 2019*

**Table 5.3: Statement of Cash Flows the Year Ended 31st March 2019**

| | 2018/19, US$ | 2017/18, US$ |
|---|---|---|
| **Cash Flows from Operating Activities** | | |
| Surplus/(Deficit) for the year | 144,509 | 70,990 |
| **Adjustments:** | | |
| Depreciation | 134,189 | 112,309 |
| Gain/(Loss) on sale of assets | (172) | 18,753 |
| Finance Income | - | - |
| Finance costs | - | - |
| Revenue from donations of assets | - | - |
| SADC House revenue realised | - | - |
| Member States Special Funds | 2,248 | (72,826) |
| SADC House contributions | - | - |
| Gratuity Funds | (16,424) | 43,302 |
| Development Partners Funds | - | - |
| (Increase)/Decrease in payables | - | (7,497) |
| (Decrease)/Increase in receivables | - | (18,753) |
| **Net Cash Flows from Operating Activities** | **264,350** | **146,566** |
| **Cash Flows from Investing Activities** | | |
| Purchase of property, plant, equipment | (168,278) | (93,189) |
| Proceeds from sale of property, plant and equipment | 422 | (18,753) |
| Interest received | - | - |
| Interest paid | - | - |
| **Net Cash Flows from Investing Activities** | **(167,856)** | **(111,942)** |
| **Cash Flows from Financing Activities** | | |
| Finance Charges Paid on SADC House | - | - |
| SADC House lease repayments | - | - |
| **Net Cash Flows Used in Financing Activities** | **-** | **-** |
| **Net Increase/(Decrease) in Cash and Cash Equivalents** | **180,665** | **37,228** |
| Effect of exchange rate adjustments | (6,419) | (2,178) |
| Opening cash and cash equivalents | 899,788 | 862,560 |
| Closing Cash and cash equivalents | 1,080,454 | 899,788 |

***Source:*** *SADC Financial Statements for the Year Ended 31st March 2019*

## 6. APPENDICES

### Appendix I: Members of the Board of SPGRC, 2018/2019

| | |
|---|---|
| Dr Lefulesele Lebeso | – Lesotho - Chairperson |
| Dr Pedro Moçambique | – Angola |
| Dr Wametsole Mahabile | - Botswana |
| | - Comoros |
| Prof Mbuya Kankolongo | – DRC |
| Dr Wiseman Kanyika | – Malawi |
| Dr Jacqueline Rakotoarisoa | – Madagascar |
| Mr Yacoob Mungroo | – Mauritius |
| Ms Carla do Vale | – Mozambique |
| Ms Johanna F. Andowa | – Namibia |
| Mr Finley Racombo | – Seychelles |
| Dr Noluthando N. Nkoana | – South Africa |
| Dr Innocentia S. Kunene | – Swaziland |
| Dr Godffrey Kajiru | – Tanzania |
| Mr Godfrey Mwila | - Zambia (Vice-Chairperson) |
| Dr Cames Mguni | – Zimbabwe |
| | |
| ***Ex-Officio Members*** | |
| Mr Domingos Gove | – SADC Secretariat |
| | – Donor REpresentative |
| Mr Justify Shava | – SPGRC (Secretary) |

**Appendix II: SPGRC Staff Members, 2018/2019**

| | |
|---|---|
| Justify G. Shava | Head, SPGRC (09 July 2017) |
| Ms Thandie J Lupupa | Senior Programme Officer – *In-Situ* Conservation (*16 May 2006)* |
| Mr Barnabas W Kapange | Senior Programme Officer - Documentation & Information (*09 May 2006*) |
| Mr Lerotholi L Qhobela | Senior Programme Officer – *Ex-Situ* Conservation (*15 May 2006*) |
| Mrs Mary B Phiri | Assistant Administrative Officer (*01 March 2000*) |
| Ms Florence C Chitulangoma | Assistant Finance Officer (*08 March 1993*) |
| Mrs Peggy S Ng'ono | Technical Officer-Conservation (*01 June 2005*) |
| Mr Mike Daka | Technical Officer - Documentation & Information (21 May 2012) |
| Mr Ferdinand Mushinge | Technical Officer – *In situ* (*01 March 2004*) |
| Mrs Phyllis M Litula | Personal Secretary (*12 November 2001*) |
| Mr Wilbroad M Chashi | Senior Finance Clerk (*01 July 2002*) |
| Mr Julius Daka | Driver/Messenger (*01 June 2016*) |
| Mr Kapelwa E Songa | Typist/Receptionist (*01 September 1989*) |
| Mr Gibson Zulu | General Worker (*01 August 1989*) |
| Mr John Mfwembe | Worker (*04 September 1989*) |
| Mr Stephen Siankachele | General Worker (*01 December 2016)* |
| Mr Olipen Phiri | General Worker (*05 January 2009*) |

## Appendix III: List of Some Prominent Visitors to SPGRC (2018/2019)

| Name | Contacts | Motivation |
|---|---|---|
| Maposa Edward | UMP District, Zimbabwe | Familiarization tour |
| Headman Jamadi | UMP District, Zimbabwe | Familiarization tour |
| Patrick Kasasa | CTDT, Zimbabwe | Depositing farmer seeds |
| Tinashe Sithole | CTDT, Zimbabwe | Familiarization tour |
| Onismus Chipfunde | NPGRC, Zimbabwe | Familiarization tour |
| Peter Msimolao | Copperbelt University | |
| Tito Supada Moto | NPGRC, Mozambique | FAO-TCP Inception and SPGRC/ NPGRCs Technical Review & Planning meeting |
| Emmanuel Bambala | NPGRC, DR Congo | - as above - |
| Jose Pedro | NPGRC, Angola | - as above - |
| Thomas T. Neema | MAWF, Namibia | - as above - |
| Gift Kamupingene | FAO, Namibia | - as above - |
| Rutendo Tinarwa | FAO-SFS, Zimbabwe | - as above - |
| Kumbirai B. Nyamwena | Min. Liv., Agric, & Rural Resettlemet, Zimbabwe | - as above - |
| Rakotoarisoa H. Lalaine | FOFIFA – Madagascar | - as above - |
| Anastacio R. Goncalves | FAO, Angola | - as above - |
| Justin Mutweba | Stanbic Bank, Zambia | |
| Lwembe Mwale | COMESA, Zambia | Participant COMESA climate-smart agriculture workshop |
| Tryness Nkhoma | Min. Nat. Res., Malawi | - as above - |
| Timothy J. Ogwang | Min. Agric, Kenya | - as above - |
| Doshanie Kadokera | Min. Agric., Malawi | - as above - |
| Mohamed A. Ismail | Min. Agric., Somalia | - as above - |
| Dusengimana Theofile | Min. Environ., Rwanda | - as above - |
| Mustafa Abu | Min. Agric., Ethiopia | - as above - |
| Osman H. Abdi | Min. Planning, Somalia | - as above - |
| Mupemzi Mutimura | Rwanda Agric., Board | - as above - |
| Richard Kyuma | Kenya Livestock Insurance Project | - as above - |
| Peter Masawe | CIDP-Mongu, Zambia | Familiarization tour, collaborative research potential assessment |
| Frida Masawe | CIDP-Mongu, Zambia | (as above) |
| Miga Wilfred | PELUM, Zambia | Consultations with SADC-FANR Director |
| Wesley L. Wakunima | Sust. Innovation Africa | Consultations with SADC-FANR Director |
| Domingos Z. Gove | FANR-SADC, Botswana | Familiarization tour |
| Thamsanga Sonile | Seed Trade Project, Zambia | Consultation on SADC Seed Centre establishment |

| | | |
|---|---|---|
| Charles Nkhoma | CTDT, Zambia | Farmers familiarization tour |
| Dickson L. Chisasa | CTDT, Zambia | Farmers familiarization tour |
| Ngulube Mike | CTDT, Zambia | Farmers familiarization tour |
| Joyce Saili | CTDT, Zambia | Farmers familiarization tour |
| Juliet Nangomba | CTDT, Zambia | Farmers familiarization tour |
| Kenji S. Mpande | CTDT, Zambia | Farmers familiarization tour |
| Mulife Likomono | CTDT, Zambia | Farmers familiarization tour |
| Ronany Chabala | Mettler Toledo, Zambia | Lab equipment supplier |
| Benson Mwenya | Min. Fisheries & Livestock, Zambia | Consultation on establishment of Animal Genetic Resources Centre |
| Petronella Halwiindi | Heifer Int'l, Zambia | Consultation on establishment of Animal Genetic Resources Centre |
| Mable Knight | ZNBC, Lusaka | Media coverage of SPGRC |
| Dante Bwalya | Diamond TV, Lusaka | Media coverage of SPGRC |
| Cleophace Mwemba | Diamond TV, Lusaka | Media coverage of SPGRC |
| Tryness Tembo | Zambia Daily Mail | Media coverage of SPGRC |
| Samuel Mubita | Millennium Radio, Lusaka | Media coverage of SPGRC |
| Elina Phiri | Min. Info. & Broadcasting | Media coverage of SPGRC |
| Mwanza Niza | Millennium Radio, Lusaka | Media coverage of SPGRC |
| Stephen Chinyama | Power FM Radio, Lusaka | Media coverage of SPGRC |
| Marvin Mwape | Power FM Radio, Lusaka | Media coverage of SPGRC |
| Kalaluka Mushaukwa | Komboni Radio, Lusaka | Media coverage of SPGRC |
| Kasonde Kasonde | Times of Zambia | Media coverage of SPGRC |
| Michelo Hachizibe | Radio Christian Voice | Media coverage of SPGRC |
| Melody Kasomwe | Hot FM Radio, Lusaka | Media coverage of SPGRC |
| Ethel Chanda | Min. Info. & Broadcasting | Media coverage of SPGRC |
| Mathews Mudenda | Min. Info. & Broadcasting -SADC Desk Officer | Media coverage of SPGRC |
| Mathews Musukwa | ZANIS, Lusaka | Media coverage of SPGRC |
| Agripah Chanda | Kwithu FM Radio, Lusaka | Media coverage of SPGRC |
| Lazarous Siluka | QTY/QFX | Media coverage of SPGRC |
| Godson Lupiya | ZANIS, Lusaka | Media coverage of SPGRC |
| Nosiku Mwanze | ZANIS, Lusaka | Media coverage of SPGRC |
| Pluzo Nyirenda | Coop. College, Lusaka | Student attachment tour |
| Chiboboka Elizabeth | Coop. College, Lusaka | Student attachment tour |
| Pandulen N. Elago | FANR-SADC, Botswana | Familiarization tour |
| Stephen Walsa | FAO Consultant | Study if agric. Progs in Zambia are pro-poor |
| Chibamba Mwansakilwa | FAO Consultant | Study if agric. Progs in Zambia are pro-poor |

**NOTES**

**NOTES**