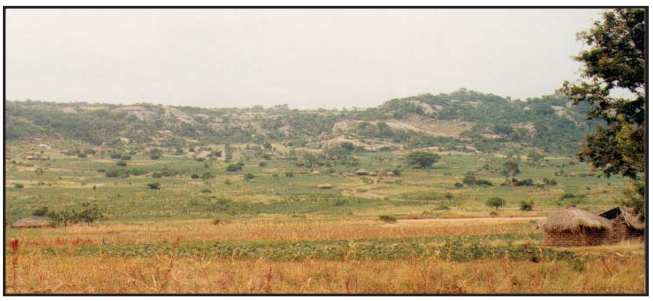
SPGRC

SADC PLANT GENETIC RESOURCES CENTRE

Sixteenth Annual Report
2004-2005

SPGRC
Chalimbana
2006



Cover: A typical farmland around Lake Victoria showing a diversity of plant resources, natural vegetation, homesteads.

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1. LIST OF ABBREVIATIONS

AVRDC	Asian Vegetable Research and Development Centre
IARC	International Agricultural Research Centre
IPGRI	International Plant Genetic Resources Institute
NARS	National Agricultural Research System
NGB	Nordic Gene Bank
NGO	Non-Governmental Organisation
NPGRC	National Plant Genetic Resources Centre
RCWG	Regional Crop Working Group
SADC	Southern African Development Community
SDIS	SPGRC Documentation and Information System
SEK	Swedish Kronor (currency)
Sida	Swedish International Development Co-operation Agency
SPGRC	SADC Plant Genetic Resources Centre

2. THE YEAR'S HIGHLIGHTS

* The The Board of SPGRC met in November 2004 in Luanda, Angola

* SPGRC hosted the Silver Jubilee celebrations to mark the 25 years of SADC on 1 April 2005.

3. MANAGEMENT AND ADMINISTRATION

3.1 Board of Directors

The Board of SPGRC , which is made up of chairpersons of the National Plant Genetic Resources Committees, governs SPGRC. The Board develops the general policy aspects of plant genetic resources in SADC. It also ensures high scientific and technical level of work in the SPGRC network.

The Board met in November 2004 in Luanda, Angola. The meeting was officially opened by the Honourable Minister of Agriculture and Rural Development in Angola Eng. Gilberto Buta Lutucuta.

Official opening of the 2004 Board Meeting in Luanda, Angola

During the meeting, Board members took time to tour the facilities at the NPGRC. A small biotechnology laboratory for molecular characterisation and tissue culture has been established.

Dr Elizabeth Matos on the left, Chairperson of NPGR Committee of Angola, takes the Board Members on a tour of the NPGRC laboratory facilities

Dr Mitawa, the Board member from Tanzania, bade farewell to the Board. He has since been replaced by Dr Mohamed Msabaha.

3.2 Workshops and Meetings

SPGRC continued to organise meetings and workshops during the year. SPGRC staff also attended various meetings and workshops.

Annual Technical Review and Planning Meeting

The Annual Technical Review and Planning Meeting took place at SPGRC in September 2004. The objectives of the meeting were to review the implementation of the technical activities for 2003/2004 cropping season, to evaluate the technical plans for the 2004/2005 cropping season and to discuss other technical and networking issues. The meeting brought together Curators and other technical staff from all the NPGRCs in the SPGRC network.

The meeting also deliberated on the SPGRC Sustainability Strategy draft and the Global Crop Diversity Trust programme for enhancing seed drying capacity in the network. Both the Crop Diversity Trust and IPGRI participated in the meeting.

The meeting also discussed in more detail than previously the issue of germplasm distribution and use. It was established that there was actually much more usage of genebank collections than is usually reported.

SPGRC/NPGRC Technical Review and Planning Meeting

3.3 Regional Crop Working Groups

Regional Crop Working Groups (RCWGs) assist SPGRC in formulating strategies and priorities for in situ and ex situ conservation and developing standards for handling plant genetic resources. Three RCWG meetings were held during the year.

The Fruit and Nut RCWG met at SPGRC from 10 to 11 May 2004. The group finalised criteria required to develop a priority list of fruit and nut trees. The priority list was used to develop draft conservation strategies for fruit and nut trees.

The In Situ & Under-Utilised Plants RCWG Meeting was held at SPGRC from 13 to 14 May 2004. The report of the pilot study on on-farm conservation carried out in Malawi, Zambia and Zimbabwe has been published. Regional strategies for in situ/on farm and under-utilised plants conservation were finalised for publication.

The Fifth Oil Producing Plants RCWG Meeting was held from 17 to 18 May 2004. The group continued with the process of developing priority lists and commenced the formulation of the collection and conservation strategies.

4. PERSONNEL

The vacant post of Director will be filled in 2006. Changes have been made to the post and the title has now been changed to Project Manager. At the time of going to print, Dr Bonga Nkosi, a national of Swaziland had assumed duties of Head of Institution.

4.1 SPGRC Staff Training

The Technical Officer for in situ conservation attended a short course in Management of Diversity on-farm and genebank collections in the Netherlands. The course was for two weeks from 26 April to 7 May 2004 and was part of a longer course on Agrobiodiversity, Biotechnology, Plant Breeding and Seed Sector Development.

The Assistant Administrative Officer attended a four-days course in Cost Effective Procurement and Stores Management from 27 to 30 April 2004 in Lusaka, Zambia.

The Assistant Finance Officer attended a three-days course in Report and Proposal Writing Skills from 21 to 23 April 2004 in Lusaka, Zambia

NPGRC Staff Training

Twelve SADC nationals attended the annual short course that was held at NGB in Sweden from 19th June to 8th August 2004.

Name of Candidate	Country
Ms I F C Chichi	Angola
Mr Mbaki Muzila	Botswana
Mr J S Ratsiu	Lesotho
M T Kapewa	Malawi
Mr L Y G Manda	Malawi
Mr M K Nujjoo	Mauritius
Mr H Köllings	Namibia
Mr E Gwebu	Swaziland
Mr L P Millinga	Tanzania
Mr Abel Chalwe	Zambia
Mr Daniel Maringa	Zimbabwe

Table 1. List of participants who attended the short course on plant genetic resources management at NGB.

Mr Laurent Pungulani and Mr David Mutigwa from Malawi and Zimbabwe respectively completed the MSc degree course on plant genetic resources conservation at the University of Birmingham in 2004. Mr Thembinkosi Gumedze enrolled for the same course in September 2004.

So far 47 have been trained at MSc level while 181 have attended short courses in plant genetic resources. These are shown in Table 2.

Table 2. Personnel trained under the SPGRC Programme in plant genetic resources from 1990 to 2004.

Country	Certificate*	MSc.**	Total
Angola	11	3	14
Botswana	12	5	17
Lesotho	11	4	14
Malawi	22	6	28
Mauritius	8	3	11
Mozambique	16	3	19
Namibia	11	3	14
Seychelles	1	1	2
South Africa	9	3	12
Swaziland	18	3	21
Tanzania	23	4	27
Zambia	19	4	23
Zimbabwe	21	5	26
Total	182	47	229

* Certificate in plant genetic resources in Denmark and/or Sweden, or short course in conservation and utilisation of plant genetic resources in U.K., or short course in Plant taxonomy in Sweden or SPGRC short course in Zimbabwe, or SPGRC Documentation Workshop in Zambia.

4.3 Obituaries

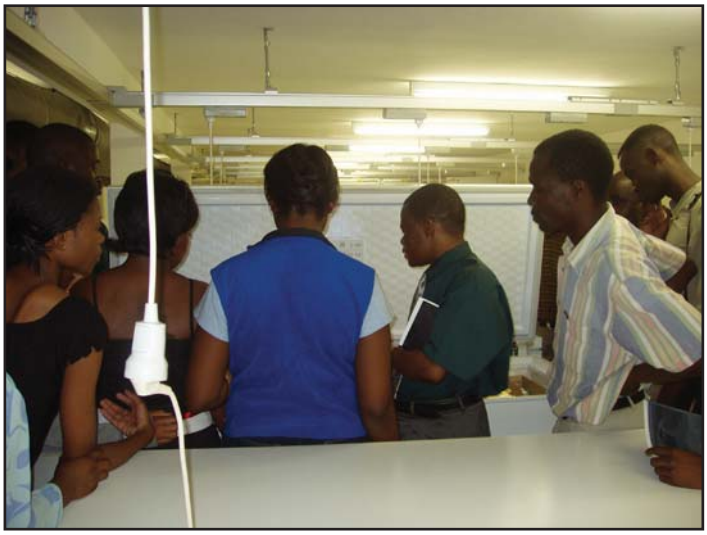
Mr Floyd Mwanza, Technical Officer responsible for ex situ conservation since 1993 passed away on 30 September 2004. He is survived by a wife and four children. At the time of going to print, his wife also passed away.

Mr Parichi H Mnyenyembe, the Senior Programme Officer for In Situ Conservation passed away on 6 February 2005 from an illness. The post is still vacant but has been advertised and is also expected to be filled by January

2006. At the time of going to print, the post had been filled by Ms Thandie Lupupa, a national of Swaziland.

5. Visitors

A number of visitors come to SPGRC for various purposes ranging from familiarization tours to study visits. Students from higher learning institutions visit the institution every year to familiarise themselves with the facilities used in plant genetic resources conservation.



Students from the University of Zambia being taken on a guided tour of the genebank.

6. SADC SILVER JUBILEE CELEBRATIONS

After 25 years of its existence, the Southern African Development Community (SADC) celebrated a distinct southern African personality and identity that underpins political, economic and social cooperation which are at the centre of the achievement of the region's goals.

In Zambia, this was celebrated at the SADC Plant Genetic Resources Centre (SPGRC) on 1st April 2005.

A Guest of Honour, Zambian Minister for Foreign Affairs,
Hon. Lt. Gen. Ronnie Shikapwasha, MP. being welcomed at SPGRC

In commemoration, the Silver Jubilee Ordinary Summit was held in Botswana, where His Excellency, President Festus Mogae, of the Republic of Botswana, welcomed the SADC Heads of State and Government, and other delegates to Botswana and expressed his gratitude to all Heads of State and Government for their resolve to continuously pursue the common objectives and shared vision of SADC which should propel the region to greater prosperity through deeper regional integration.

Speaking at the Summit, President Armando Emilio Guebuza of Mozambique underscored the importance of adopting creative and proactive measures in the mobilisation of the private sector and civil society organisations for them to invest in the implementation of the region's integration programmes.

Guests at SPGRC were entertained by local dancers

Agriculture which remains a major source of livelihood to many SADC citizens accounts for over 70 percent of the region's labour force. Despite the occurrence of drought and floods, the region has remained resolute to ensure food security through various strategies and programmes, which are already under implementation. These include collection, conservation and utilization of plant genetic resources for ensuring food security and self-sufficiency.

After general meeting, guests were taken around SPGRC

Seeing what SPGRC has in conservation for the region

Identifying some of the near-extinct species

7. PLANT GENETIC RESOURCES MANAGEMENT

7.1 Plant Genetic Resources Inventory

As the mandate species list is being drawn up, literature search continues to be carried out. SPGRC is developing an inventory database that will be a source of information about all the mandate species.

7.2 Germplasm Collecting

A total of 2,378 accessions of different species were collected in Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Tanzania and Zambia. There were no species collected from Zimbabwe. Most of the collected accessions were deposited in the Ake Welving Base Collection at SPGRC.

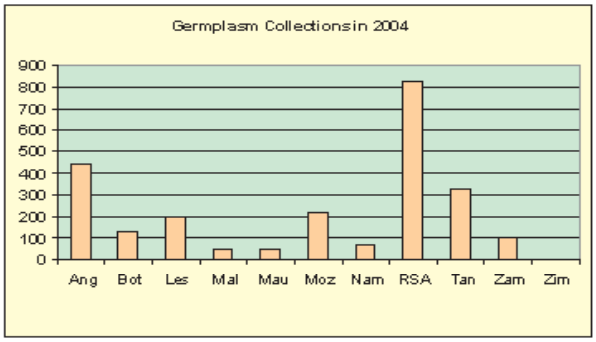


Figure 1. Germplasm collections in 2004

7.3 Seed Handling and Storage

A total of 640 accessions of different plant species were received by SPGRC from the NPGRCs for the base collection storage (pie chart). These have been processed and stored. Germination tests and seed moisture analyses were also routinely done as part of germplasm handling before storage.

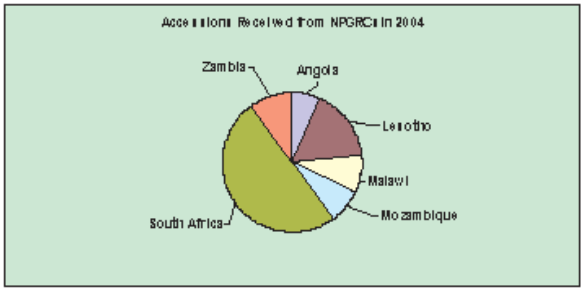


Figure 2. Germplasm received

Of the total number of species that are in the base collection, more than 50% are cereals and legumes. Table 3 shows the major species in the base collection.

Species	Common name	Number of accessions
*Sorghum bicolor (*L.) Moench	Sorghum	3,498
Eleusine coracana	Fingermillet	1,069
Arachis hypogaea L.	Groundnut	503
Cajanus cajan (L.) Millsp.	Pigeon pea	108
Cicer arietinum L.	Chick pea	89
Citrullus lanatus	Watermelon	133
Cucurbita spp.	Pumpkin	161
Pennisetum glaucum (L.) R. Br.	Pearlmillet	774
Lagenaria spp.	Gourd	33
Oryza longistaminata	Wild rice	55
Oryza sativa L.	Rice	283
Phaseolus vulgaris L.	Bean	425
Pisum sativa L.	Pea	66
Sesanum indicum L.	Sesame	53
Triticum aestivum L.	Wheat	116
V. subterranea (L.) Verdc.	Bambara g/nut	241
V. unguiculata (L.) Walp.	Cowpea	558
Zea mays L.	Maize	1,062
Others		779
	Total	10,006

Table 3. Major species and number of accessions at SPGRC.

7.4 Multiplication, Regeneration and Characterisation

SPGRC multiplied 92 accessions of bambara groundnuts and beans in order to increase amounts for the base and safety duplicate storage.There was no characterization undertaken at SPGRC. Accessions amounting to 2,450 were multiplied by the NPGRCs. The chart below shows the proportion of these accessions multiplied by each NPGRC.

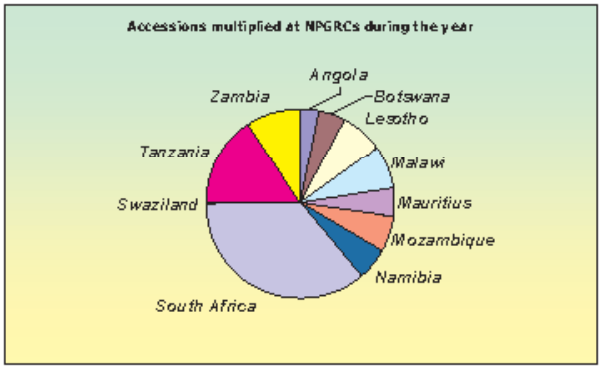


Figure 3. Accessions multiplied at NPGRCs.

A total of 1,852 accessions representing more than 20 species were multiplied at the NPGRCs in 2004. Table 4 shows some of the major species that were multiplied.

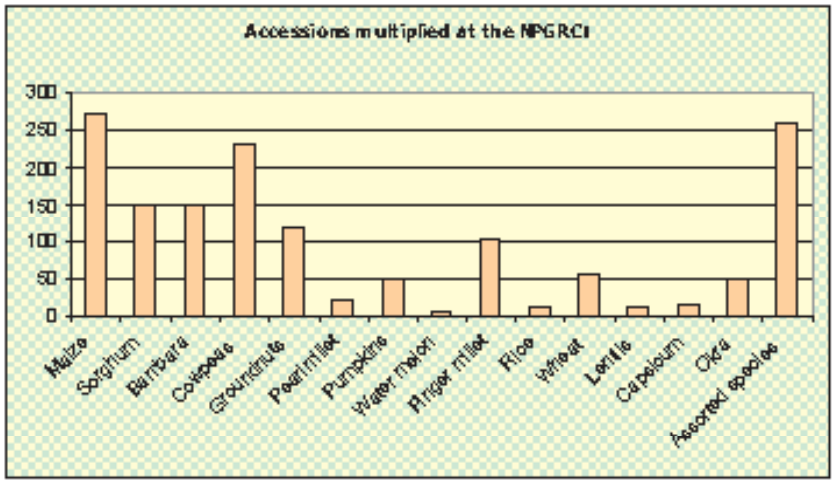


Figure 4. Accessions multiplied at NPGRCs.

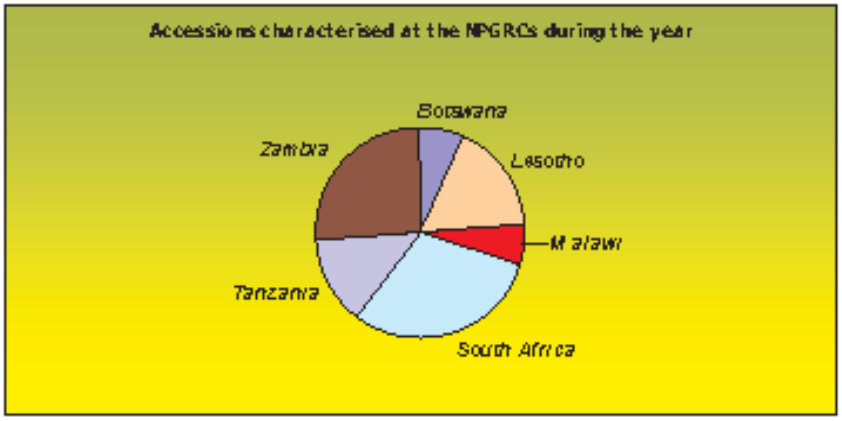


Figure 5. Accessions characterized at the NPGRCs.

The NPGRCs characterised a total of 713 accessions.

Species Diversity Demonstration

A total of 30 accessions representing 10 different plant species were planted to demonstrate diversity within species and between species of germplasm accessions held in the base collection at SPGRC.

7.5 Conservation Strategies for Fruit and Nut Trees

Indigenous fruit and nut species provide food security and economic livelihood to rural households. In most cases they assume greater importance during famine and food shortage. Though few are frequently used, the fruits and the nut species play important role in the provision of vital minerals, vitamins and carbohydrates when eaten raw. Besides they can also be processed into other products such as juices, jams, fritters, beverages and spirits, which provide income to rural populations.

Unfortunately the majority of these fruit and nuts species in SADC region are in danger because of pressures from deforestation, agriculture development, urbanisation, overgrazing and human encroachment into forest reserves due to population pressures. It is therefore imperative that SADC indigenous fruit and nut species should be developed and strategic measures to conserve them put in place. This realisation led to the formation of the fruits and nuts crops working group.

The group was assisted by SPGRC staff with the technical backstopping of the Nordic Genebank and IPGRI, the SAFORGEN Programme. The group was constituted with the following terms of reference:

- Priorities for plant species to be collected and conserved ex situ;
- Priorities for plant species and areas for in situ conservation;
- Guidelines for acceptance of material for inclusion in the collections;
- Standards for seed quality and quantity of samples to be stored in the collection;
- Methods and techniques for regeneration and multiplication of accessions in order to ensure genetic integrity; and
- Any other issues relevant to conservation and utilisation of the species presented to WG by SPGRC or the Board.

Picking wild fruits

The working Group has provided the list of priority species and also information that are available on the species. However, some gaps on important data that are necessary for either in situ or ex situ conservation purposes of the selected species need to be filled.

7.6 Conservation Strategies for Oil Producing Plants

The importance of developing regional strategies for the collection and conservation of oil producing plant species within the SADC region cannot be overemphasized. Oil producing plant species can be broadly classified according to their traditional uses and economic importance. The basic uses of the oil vary from edible, industrial and essential purposes.

A number of oil producing plant species are also threatened due to deforestation, urbanization and other factors. Consequently, there is a strong need to have a documented inventory of the major oil producing species within the SADC region and take the necessary steps towards their collection and conservation

A regional crop working group was constituted whose major task was to develop a priority list of the mandate species and also to advise the SPGRC on stretegies for the collection and conservation of oil producing plant species within the region.

The working group members consisted of five scientists from SADC member states who are specialists in their mandate species. Staff members from the SP-GRC provided the Secretariat while scienstists from IPGRC and NGB provided the necessary expertise.

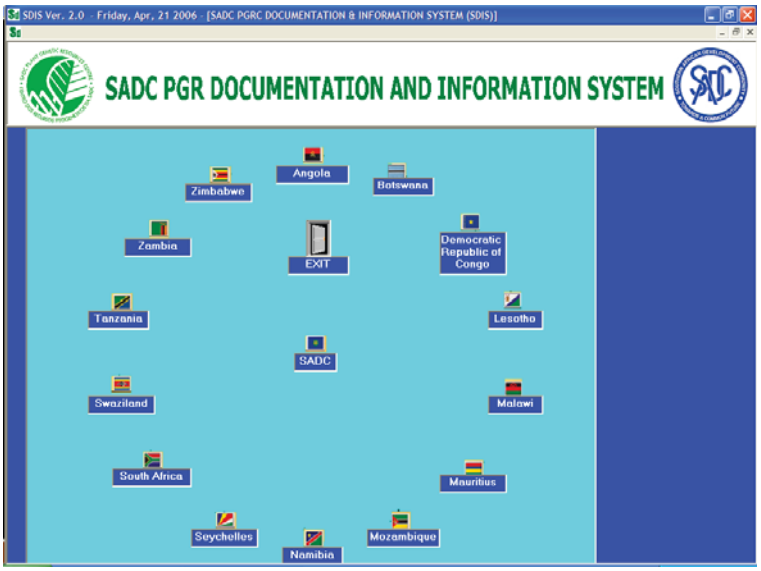
In their report, the group stresses the need to understand the extent of threats of particular priority species and assess their genetic diversity status as a basis upon which to decide the type of conservation method to employ .i.e ex-situ or in situ. Species that are more threatened should be conserved ex-situ. There will be need to understand seed behaviour of priority species through existing information and conducting studies. It should be appreciated that seeds of oil producing plants may be more problematic than others in terms of storability.

The group recommends as much as possible to aim to collect the fullest range of the existing genetic diversity and that collection strategies should be based on existing guidelines. In some cases specific guidelines will need to be developed where general guidelines may not be applicable

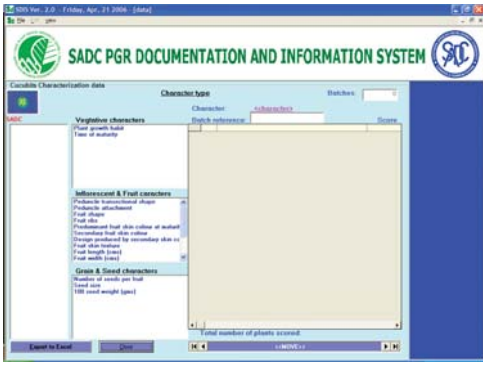
SPGRC is seen to play the role of ensuring that it focuses on wild species that are not being taken care of by others in the region in terms of conservation and research related to use such as seed behavior and propagation methods

7.7 Database Development in the SPGRC Network.

The development of a windows version of SDIS (SPGRC Documentation and Information System) continue to take place. SDIS is a genebank management tool that has been developed for use by the network. Active participation by the NPGRCs in the development process has ensured that the resulting product answers the needs of the network.



The system continues to be improved and a major addittion to the system was the characterisation module which has added more value to the characterisation data than before. Another improvement is that a maximum of 100 plants can now be characterised.



8. FINANCIAL REPORT 2004-2005

8.1 Statement of Income and Expenditure for the year ended 31 March 2005

	2005 US$	2004 US$
Income		
Contributions from member states	442,191	338,109
Donations and grants	274,814	255,360
Interest receivable	511	1,827
Exchange difference	123,947	109,380
Other income	15,862	15,102
	857,323	719,778
Amortisation of capital grants	87,155	142,032
	944,480	861,810
Overhead expenditure		
Administration and office expenses	121,695	116,032
Audit fees	8,000	6,936
Communication expenses	24,307	19,975
Depreciation	87,155	142,032
Exchange losses	-	-
Financial expenses	4,366	2,331
Motor vehicle running expenses	9,752	9,698
Professional, consultancy and legal expenses	3,560	862
Rent	-	-
Staff emoluments	266,152	234,990
Transport travel and subsistence	41,104	42,670
	566,095	575,526
Operational expenditure		
Conference and documentation Services	-	-
Programme and technical services	142,703	167,941
	142,703	167,941
Total expenses	708,798	743,467
Surplus/(deficit) for the year transferred to unutilised contribution	235,682	118,343
Represented by:		
Unutilised contributions	233,759	118,343
Other income	1,923	-
	235,682	118,343

8.2 Balance Sheet as at 31 March 2005

	2005	2004
	US$	US$
Employment of capital		
Fixed assets	2,104,593	2,156,493
Current assets		
Bank balances and cash	253,732	80,605
Accounts receivable	166,192	241,555
Deposits and prepayments	1,022	1,509
Other receivables	8,884	8,296
	429,831	331,965
Total Assets	2,534,424	2,488,458
Accounts payable	14,334	3,546
Accrued expenses	15,061	43,461
Provisions	8,000	7.000
Provision for leave	6,676	4,934
	44,071	58,941
Gratuity fund	25,408	36.171
Accumulated fund	90,456	79,043
Unutilised contribution	232,710	120,476
Capital grants	2,098,479	2,150,379
Other institutional funds		
Reserve fund	18,719	18,869
Loan fund	24,581	19,169
Total Liabilities and Equity	2,534,424	2,488,458

9. APPENDICES

9.1 Appendix A: Members of the Board of SPGRC

Board Members

1. Dr H Rojoa-Mauritius (Chairman)
2. Dr S S Mlambo-Zimbabwe (Vice Chairperson)
3. Dr L Matos-Angola
4. Dr S Chite-Botswana
5. Mr R M N Lepheana-Lesotho
6. Dr A P Mtukuso-Malawi
7. Mr M A C da Silva-Mozambique
8. Dr G L Maggs-Kölling-Namibia
9. Dr J Jaftha-South Africa
10. Dr B Nkosi-Swaziland
11. Dr G M Mitawa-Tanzania
12. Dr S W Muliokela-Zambia

Ex-officio Members

13. Dr K F Molapong-SADC Secretariat
14. Dr Atta-Krah-IPGRI, Kenya
15. Dr B M Fatih-NGB, Sweden
16. Mr Peter Herthelius - Sida
17. Mr C N Nkhoma -SPGRC (Secretary)

9.2 Appendix B: SPGRC Staff Members

C N Nkhoma - Acting Director

G P Mwila - Senior Programme Officer – Ex Situ Conservation (on secondment from 1 May 2003)

P H Mnyenyembe - Senior Programme Officer - In Situ Conservation

B Chirwa - Senior Programme Officer - Documentation and Information

M B Phiri (Ms) - Assistant Administrative Officer

F C Chitulangoma (Ms) - Assistant Finance Officer

F S Mwanza - Technical Officer-Conservation

K K Hamudulu - Technical Officer - Documentation and Information

F Mushinge - Technical Officer-In Situ

P M Kamitondo (Ms) - Personal Secretary

M W Chashi - Finance Clerk

A M Nyambe - Driver

K E Songa - Office Orderly

G Zulu - General Worker

J Fwembe - General Worker

W Banda - General Worker

B Ngoma - General Worker

9.3 Appendix C: Members of the Regional Crop Working Groups

In Situ and Under-Utilised Plants

Members from National Programmes:
Ms K Braun, Ecologist, Swaziland
Dr W Mziray, Botanist, Tanzania
Dr R P Ellis, Botanist, ARC-GRU, South Africa
Mr A T Mushita, NGO, Zimbabwe
M C Marunda, Forester, Zimbabwe

Members from SADC Project/IARCs:

Mr P Maundu, IPGRI, Kenya

Vegetable Crops

Members from National Programmes:
Mr J M Tembe, Agronomist, Mozambique
Mr R E A Swai, Horticulturist, Tanzania
Mr D Mingochi, Horticulturist, Zambia
Mr F Chigumira, Horticulturist, Zimbabwe

Members from SADC Project/IARCs/Private Sector:

Dr M L Chadha, AVRDC Africa Regional Programme
Mr P Maundu, IPGRI, Kenya

Vegetatively Propagated Crops

Members from National Programmes:
Dr Moses S C Simwambana, Agronomist, RTIP, Solwezi, Zambia
Dr Ibrahim M S Phiri, Horticulturist, Malawi
Mr Michael H Nxumalo, Research Officer, Swaziland
Mr Antonio Chichicuhua, Angola
Mr James Allemann, Project Manager, ARC-Roodeplaat, South Africa

Members from SADC Project/IARCs:

Dr Q Ng, IITA,Ibadan, Nigeria
Mr P Maundu, IPGRI, Kenya
Dr I N Kasele, SARRNET, Zimbabwe

Fruit and Nut Trees Crops

Members from National Programmes:
Ms E. Florisbela de Almeida, Angola
Ms C Torre do Vale, Mozambique
Ms R du Preez, South Africa
Mr N Nalumino, Zambia
Ms I Kadzere, Zimbabwe

Members from SADC Project/IARCs:
Dr Oscar Eyog Matig, IPGRI/SAFOGEN, Cotonou, Benin

Oil Producing Plants Working Group

Members from National Programmes:
Ms G. Mashungwa, Botswana
Ms P. N. Balfour, South Africa
Mr E Gwebu, Swaziland
Dr O. K. Mponda, Tanzania
Ms B. Lubhozya, Zambia

Members from SADC Project/IARCs:
Dr O. Eyog-Matig, IPGRI/SAFOGEN, Cotonou, Benin

9.4 Appendix D: Terms of Reference of the Regional Crop Working Groups

THE COMPOSITION:
The Regional Crop Working Groups (RCWGs) for the SADC Plant Genetic Resources Centre (SPGRC) shall comprise the following members:

- Five scientists nominated in their personal capacity from the SADC Member States who are working the National Agricultural Research Systems (NARS) and Non-Governmental Organisations (NGOs) as specialists in their mandate species;
- Researchers from the SADC Regional Programmes, Projects and scientists from IARCs as required;
- SPGRC will provide the secretariat;
- NGB will provide the technical backstopping; and
- The RCWG will elect a chairperson who will serve for a period of three years

TERMS OF REFERENCE:
The RCWGS will make recommendations to the Director of SPGRC with respect to:

- Strategies;
- Priorities for plant species to be collected and conserved ex situ;
- Priorities for plant species and areas for in situ conservation;
- Guidelines for acceptance of material for inclusion in the collections;
- Standards for seed quality and quantity of samples to be stored in the collection;
- Methods and techniques for regeneration and multiplication of accessions in order to ensure genetic integrity; and
- Any other issues relevant to conservation and utilisation of the species presented to the RCWG by SPGRC or the Board.

The Regional Crop Working Groups will meet once a year.

9.5 Appendix E: Extracts from the minutes of the Regional Crop Working Groups.

The Fifth Oil Producing Plants RCWG Meeting

Matters Arising

The following matters arose from the meeting:

Mrs. Mashungwa, who together with Ms. Balfour had been tasked to do the first task, explained the difficulties encountered in undertaking the task which included not having a computer for a period of time because of changing jobs. The team also had difficulties in getting some information. The two however had gone to Pretoria and collected some information which was available for presentation at the meeting. It was further said that the two did not have the preliminary priority list developed at the last meeting ,which was requested for from SPGRC.

Dr. Mponda observed that the list of "Oil plant list 1" provided did not seem to be complete as some species from Tanzania were missing. The group agreed to update the list.

Task reports from members of RCWG

Mrs Mashungwa reported that Ms. Balfour and herself had gone to Pretoria to collect information on species from Botswana and South Africa. Information was compiled on 149 species.

The group decided that the new list from Mrs Mashungwa be combined with the existing list, a print out made and used to check species missing from different countries.

The combined list was printed out and given to each member to enable them indicate whether or not species occured in a particular country

Developing the priority species list

An updated list of plants was provided for use in the development of a priority list. The first criterion used was oil use (whether edible, industrial, essential, soap etc). All species without information on oil use were eliminated. The second criterion used was the oil concentration, picking species with medium and high concentration levels. This process resulted in a preliminary priority list of 78 species.

The Sixth Fruit and Nut Trees RCWG Meeting

Matters Arising

The following matters arose from the meeting:

Mr Nalumino told the group that he still needed to do some work on Grewia species. He promised to work on these species and send information to SPGRC.

SPGRC reported that data analysis had not been done as the design of the database had just been completed. Since the database had now been completed, the analysis would be done.

Task reports from members of RCWG

The database design for fruit and nut trees was presented to the group. SPGRC promised to refine the design further so that it could be a useful tool for PGR management.

In the previous meeting, members of the group were required to come up with priority lists, which would be consolidated into a single priority list. Mr Nalumino and Ms du Preez each made an attempt and presented their priority lists. In order to come up with a draft priority list, the two lists together with the list from the database were used. The following criteria were used to come up with a draft priority list:-

a) Extent of use
b) Forest reserve
c) Density
d) Endemism
e) Threat
f) Conservation status

In order to come up with a document outlining the conservation strategies, the group brainstormed on what needed to be included in the document. A task force comprising Dr O Eyog-Matig, Ms R du Preez and Mr N Nalumino was appointed to draft the strategies document.

The draft document was developed and sent to the members of the group for comments.

The Thirteenth In-situ, Under-utilised Plants RCWG Meeting

Matters Arising

The following matters arose from the meeting:

Database design to be developed should specify the outputs and should indicate which parts of it should be country specific.

The group agreed that the following should be included in the strategy document:

Additions/elaboration/corrections
Policy issues
Materials
Indigenous knowledge
Property rights
Gender

The On-farm Database should provide species specific information (taxonomic information, biology, etc) and country level information.

Species specific database should include:

Nutritional value
Wild species of these species
Sexuality
Ploidy level
Breeding system
Pollination agents
Seed behavior
Natural propagation method
Phenology (range of flowering period)
Status (indigenous or naturalized)
Geographical distribution (localized, widespread, rare or sparse)
Widespread

- Occasional
- Common
- Abundant
- Rare

Within countries the following should be spelled out:

Specify natural/regional (if localized, specify area)
Species use

- Shelter
- Aesthetic
- Subsistence
- In come generating

Extent of use (local, national or export)
Kind of use (food security emergence food)
Cropping system
Farming practices
Harvesting methods
Storage methods
Gender/age issues
Cultural beliefs

Outputs will include:
Summary data (by species regional distribution)
Number of species
Detailed reports (by category/form)
Distribution (more countries)
Threats

Task reports from members of RCWG

Mr. Chiwona presented a discussion paper on the methodology and guidelines for on-farm conservation. The paper summarized the entire process of plant genetic resource from selection of target species through to utilization. The paper was written based on the model developed by Maxtel. The working group agreed that the draft paper should be sent to Mr. Mushita for his review and additions.

SPGRC informed the group that the on-farm conservation report was ready for publication.

SPGRC was requested to upgrade the guidelines for project/collaboration relating to In Situ/On-farm and underutilized species conservation.

9.6 Appendix F. List of Some Prominent Visitors to SPGRC

Mr Etnders Wellving	Karl XI G13 268 33 Svalov, Sweden
Ms Brigitte Laliberte	Global Crop Diversity Trust (C/O IPGRI), Rome, Italy
Ms Tiina Huvio	Ministry of Foreign Affairs, P O Box 176, FIN-00161, Helsinki, Finland
Mr Christopher Lungu	Ministry of Tourism, Environment and Natural Resources, P O Box 34011 Lusaka
Mr Bruce M Gyassy	University of Illinois, USA
Mr Marin Pisher	Karl XI G13 268 33 Svalov, Sweden
Mrs Stella Mapipo	Stanbic Bank P O Box 31955 Lusaka
Ms Marie Gibbous	Directory Publishers, (Zambia Review), Lusaka
Mr Munshimbwe Chitalu	Ministry of Tourism, Environment and Natural Resources, P O Box 34011 Lusaka
Dar Kameswara Rao	IPGRI-SSA P O Box 30677 Nairobi, Kenya
Mr Aggrey Ambali	University of Malawi P O Box 280 Zomba, Malawi
Mr Mathews Mubili Mumbi	American Embassy P O Box 32053, Lusaka, Zambia
Mr Amanuel Mahdere Zerenghi	Ministry of Agriculture, Asmara, Eritrea
Ms Nchimunya Bbebe	University of Zambia
Ms Tamara Tonga Kambikambi	University of Zambia
Jan-Erik Studsrob, First Secretary	Royal Norwegian Embassy, Lusaka, Zambia
Pedro Figueredo, First Secretary	Embassy of Sweden, Lusaka, Zambia
Tarja Saarela-Kaonga - Programme Officer	Embassy of Finland, Lusaka, Zambia
Mr Jacob Jepsen, Programme Advisor	Tree Africa, Harare, Zimbabwe
Charlotte Ronne	Tree Africa, Harare, Zimbabwe
Mr Andrew Mushita	Community Technology Development Trust, P O Box 7232, Harare, Zimbabwe
Mr Irvine T Marimo	Community Technology Development Trust, P O Box 7232, Harare, Zimbabwe

Appendix F. cont.

Mr Irvine T Marimo	Community Technology Development Trust, P O Box 7232, Harare, Zimbabwe
Mr Manyara Angeline Munzara	Community Technology Development Trust, P O Box 7232, Harare, Zimbabwe
Mr John Volk	University of Zambia
Mr Everisto Mwaba Kapungwe	University of Zambia
Mr Stefan Andersson	Embassy of Sweden, Botswana
Mr Davies Chitundu, Regional Advisor	Sida/Norad Hiv/Aids Regional Team, Lusaka, Zambia
Sijmen Schoustra	Luzi Road, Lusaka Road
Mr Buchisa Mwalongo	PACRO Lusaka, Zambia
Mr Mikael Segerros	ASP P O Box 50181, Lusaka, Zambia
Mr Harry W Ngoma	ASP P O Box 50181, Lusaka, Zambia
Mr Emmaroid E Mneney	ARI-Mikocheni P O Box 6226, Dar es salaam, Tanzania
Mr William K Chishimba	NISIR P O Box 21210, Kitwe, Zambia
Mr Filipo Zulu	National Science of Technology Council P O Box 51309, Lusaka, Zambia
Mrs Sharon L Kattundu	Gemistar Travel and Tours
Mr Charles Siatontola	Gemistar Travel and Tours
Mr Agrom M Kamanga	Madison Insurance P O Box 37017, Lusaka
Mr Antonette Kruger	Office of the Auditor General P O Box 446, Pretoria
Mr Negroes M Kgosietsile	SADC Secretariat, P/Bag 0095, Gaborone, Botswana
Ms O N Kamanga and 26 Students	University of Zambia
Dr Theodore Munyuli	CRSN-Lwiro D.S. Bukavu, Kivu, Democratic Republic of Congo
Ms Anne Luzongo Mtamboh	Ministry of Foreign Affairs, Lusaka, Zambia