



**African Regional Workshop on the  
Global Strategy for Plant Conservation  
Walter Sisulu National Botanic Garden  
South Africa  
February 13-15, 2012**



**Workshop Report**

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## **Introduction**

In October 2010, the Conference of the Parties to the Convention on Biological Diversity (CBD), through Decision X/17, adopted a consolidated update of the Global Strategy for Plant Conservation (GSPC) 2011-2020 and decided to pursue implementation of the Strategy as part of the broader framework of the Strategic Plan for Biodiversity 2011-2020. In adopting the updated GSPC, the Parties emphasised the need for capacity-building to facilitate implementation of the Strategy and requested the Executive Secretary, in collaboration with the Global Partnership for Plant Conservation and other partners and relevant organisations, to organise regional capacity building and training workshops on national, sub-regional and regional implementation of the Strategy.

In 2011, the CBD Secretariat (SCBD) signed a Memorandum of Understanding with Botanic Gardens Conservation International (BGCI) creating an effective partnership to take forwards the implementation of the GSPC. In 2012, a Small Scale Funding Agreement was signed between SCBD and BGCI, outlining a series of GSPC-related activities to be undertaken by BGCI, including the organisation of (sub)-regional workshops on GSPC implementation.

In 2011, BGCI was also successful in securing a grant from the UK's Department for Environment, Food and Rural Affairs (Defra), through its International Sustainable Development Fund, to organise a plant conservation training course in Africa.

Using the funds available from the CBD Secretariat and Defra, in February 2012, BGCI, in collaboration with the South African National Biodiversity Institute (SANBI) organised two back-to-back plant conservation workshops. The first workshop addressed the GSPC from a policy perspective and focused on how to integrate the GSPC targets into updated and revised NBSAPs. The second workshop was a more practical training course looking at best practice in *ex situ* conservation techniques.

This report provides details of the first, policy focused workshop.

## **Workshop participants**

The workshop was attended by 14 participants from 11 countries in East and Southern Africa. This included 3 participants from South Africa. Most participants came from Ministries of the Environment, but one South African participant represented the Ministry of Agriculture. In addition, a senior policy officer from the Food and Agriculture Organization (FAO) also attended. A full list of participants is provided in Annex 1.

Facilitation was provided by Suzanne Sharrock (BGCI) and an independent consultant, Stella Simiyu.

## **Workshop location**

The workshop was hosted by SANBI and held at the Walter Sisulu National Botanical Garden in Johannesburg, South Africa.

## **Aims of the workshop**

The aims and objectives of the workshop were to:

- Raise awareness of the GSPC amongst relevant stakeholders in Africa
- Gain information on on-going activities that contribute to GSPC implementation in Africa
- Consider linkages between the GSPC and the CBD' Strategic Plan for Biodiversity 2011-2020
- Identify ways and means for GSPC targets to be integrated into National Biodiversity Strategies and Action Plans
- Introduce the GSPC toolkit and identify resources to be included
- Identify capacity building needs and consider how these might be filled

## **Agenda**

The workshop included the following sessions:

- Welcome by the South African GSPC focal Point – the Senior Policy Officer: Biodiversity Conservation, Department of Environmental Affairs.
- An introduction to the GSPC
- A review of GSPC implementation in South Africa
- Presentations on the role of botanical and agricultural stakeholders at the international level in GSPC implementation
- Identification of relevant stakeholders in national GSPC and NBSAP implementation (working groups and individual work)
- Linkages between the GSPC and the Strategic Plan for Biodiversity 2011-2020
- Incorporating GSPC targets into National Strategies and Action Plans (working groups and individual work)
- National audits on GSPC implementation in each participant's country (individual work and feed-back)
- A review of the GSPC toolkit
- Capacity building needs – group and individual work.

The full agenda is provided in Annex 2.

## ***Working group sessions***

The results of the working group sessions are provided below:

## **Session 1: How to link GSPC implementation with the NBSAP process**

### **Process questions:**

#### **Question 1: Who are the stakeholders in the NBSAP process?**

**Response:** A wide range of stakeholders were identified which varied from country to country. These stakeholders were further elaborated for each country by participants as part of their individual work.

#### **Question 2: Do they adequately represent the plant conservation community?**

**Response:** Generally 'yes' but some stakeholders may be less involved in the process.

Examples of such stakeholders are:

- Ministries /Departments of finance, gender, land planning, fisheries, education...
- Community based organisations, indigenous groups, farmers groups,
- Private sector
- Media
- Local government
- Customs
- Amateur botanists

#### **Question 3: Is there a national GSPC focal point or national plant conservation committee that can represent the plant conservation community?**

**Response:** This varies from country to country

#### **Question 4: How can we ensure that the biodiversity policy makers are aware of, and take into account the GSPC and its targets?**

### **Response:**

- Improving communication between sectors
- Preparing cabinet papers before and after relevant meetings
- Raising awareness through the press
- Making presentations at relevant committees / working groups etc.

### **Technical questions**

#### **Question 1: Are activities going on at the national level which address all the GSPC targets?**

**Response:** A wide range of activities are going on at national level which address many, if not all of the GSPC targets. Further details of these were provided through the individual presentations.

**Question 2: Are the results of this work communicated nationally?**

**Response:** These activities are often not well communicated or coordinated nationally

**Question 3: Do we have the information and tools to demonstrate the contribution plant conservation activities make to national biodiversity targets?**

**Response:** Information is largely made available through publications, websites etc. but there are many gaps.

**Question 4: Where are the main gaps in implementation of the GSPC at the national level?**

**Response:** There are many gaps, but especially in Objectives, 2, 3, 4 and 5 of the GSPC

Some constraints to GSPC implementation and integration with NBSAPs were identified:

- Difficulties in interpreting targets
- Cultural differences
- Lack of resources for coordination (travel allowances, DSA etc.)
- Coordination capacity within institutions / individuals
- Lack of mechanisms at the national level for briefing and feedback
- Lack of integration of information and institutions
- Lack of mechanisms to gather information from relevant stakeholders and consolidate such data
- GSPC focal points need to take responsibility for delegated duties under the CBD
- CBD focal points are often administrators and do not understand technical issues.

## **Session 2 - Capacity building**

### **Why: Define Priority Areas for Capacity Building**

- Integration / alignment of capacity (between and within institutions / regions / countries) to enable outcomes to be realised
- Strengthening of technical capacity and facilities for specific specialisations (regional and national)
- Enhancing communication at all levels
- Increasing genebank facilities to conserve PGR from all agro-ecological zones
- Increasing community genebanks to allow farmers to conserve and have access to germplasm across all agro-ecological zones
- Establishment of botanic gardens in countries where there are none, and strengthening existing ones to address *ex situ* conservation
- Improving access to literature and technical information
- Increasing the number of qualified people available to work in plant conservation

**What: Define type of capacity building needed – human, institutional, technological, process etc.**

- Scientific capacity (taxonomists, botanists, molecular biologists etc.)
- IT capacity for managing databases and documentation systems
- Capacity to share information
- Development of programmes / policies for skills transfer, succession planning and staff retention
- Capacity to develop and interpret relevant policy and legal instruments
- Communication, education and awareness skills
- Increased capacity in research methodologies and scientific paper writing
- Establishment of national clearing house mechanisms to act as portals for information dissemination
- Resource mobilisation skills
- Development of cross-disciplinary capacity (to enable scientists, IT specialists, legal specialists etc. to work together)
- Capacity to review and harmonise policies and legal instruments
- Capacity in project planning, management, monitoring and evaluation
- Negotiation skills – to bring biodiversity to the fore in international fora
- Knowledge management skills

**How: Proposals for how effective capacity building can be undertaken**

- Courses and partnerships at regional level between advanced and less advanced countries
- Exchange programmes
- Mentorship – between and within institutions and countries
- Regional and national workshops
- On-line courses
- Long-term studies (MSc, PhD, fellowships)
- Professional courses
- Building career options and providing bursaries etc. to motivate students to study plant science

**Where and When? Indicate any existing opportunities**

- Training opportunities at the National Gene Bank of Ethiopia and at community genebanks
- Regional networks (Southern Africa Plant Genetic Resources Centre - SPGRC)
- East Africa network developed under the JRS Biodiversity Foundation/BGCI partnership
- African Plants Initiative – training in herbarium skills, digitisation of records etc.
- Donor-funded projects (e.g. Millennium Seed Bank Partnership)
- Student attachments to existing conservation programmes

- Projects funded through GEF
- Internships provided by Government departments and others
- University – funded projects
- Projects conducted by large conservation NGOs and CBOs

#### **Priorities for projects in Africa**

- Development of negotiation skills to promote conservation action and ensure funds are committed when Decisions are adopted by the CBD
- Completion of a vegetation map of Africa
- Development of Centres of Excellence in the region

#### **Priorities for projects at the sub-regional level**

- Re-develop regional networks, such as SABONET
- Enhance linkages and partnerships
- Develop regional collaboration in areas such as exchanges, study tours, mentoring etc.
- Information sharing initiatives

#### **Priorities for projects at national level**

- Identification of Important Plant Areas (Mozambique / Zambia)
- Update Red Data List (Mozambique / Zambia)
- Identify species for conservation and utilisation (Mozambique)
- Develop national working groups for information sharing and communication (South Africa / Tanzania / Mozambique / Uganda)
- Develop scientific / botanical expertise – all countries
- Develop expertise in institutional processes (Lesotho / Zambia / Mozambique)
- Updated vegetation maps (Swaziland / Zambia)
- Establish, strengthen and empower CBD / GSPC focal points (Kenya / Tanzania)
- Alien invasives control programme (Swaziland / Namibia)
- Conservation and sustainable use of timber species (Namibia)
- Inter-institutional projects (all countries)

### ***National Audits***

All participants provided an overview of GSPC implementation in their own countries. In some cases this was supplemented with additional information provided after their return home from the workshop. A summary of these national audits is provided below and the original reports provided by the participants can be found in Annex 3.

### Summary of national GSPC audits

Country	Do we have the necessary Information?	Are protected areas working for plant conservation?	Are plant resources being used sustainably?	Are linkages with agric. sector in place?	Is indigenous knowledge being preserved?	Challenges
Botswana	Some information available but may need updating	Insufficient protected areas	Lack of capacity to monitor	Yes generally	Yes to some extent	
Ethiopia	Information available	Generally yes, but there is a lack of inventories	Land races are being lost due to improved variety introduction	Linkages are weak	No	Genetic erosion, population growth, invasive species
Kenya	Information is available	Generally yes	Little baseline information	Limited linkages	A number of initiatives on-going	
Lesotho	Information is limited and some is outdated	No inventories of protected areas	Generally not, but some successes e.g. <i>Pelargonium sidoides</i>	Some coordination	Little work being done	Lack of resources and capacity. Fragmented legislation
Mozambique	Information lacking	Little information on threatened species	Main problem is illegal logging	Yes		Lack of capacity, habitat loss
Namibia	Plant checklist and red list available. Info available for in situ and ex situ conservation	Yes to a large extent. Some IPAs and veg. zones not covered	Mainly yes. Some concerns re. deforestation	Yes but could be improved	Yes, but no centralised system to hold all information	Habitat loss and over-harvesting
Swaziland	Information needs updating	Lack of information	No - especially medicinal plants	No formalised linkages	Some information is preserved	Lack of priority at govt. level. Unsustainable harvesting
Tanzania	Information available but scattered and needs updating	In some cases	Some monitoring is being carried out	Some linkages in place for specific activities	Documentation is fragmented	Changing political priorities, lack of resources, weak enforcement of legislation
Uganda	Regional and national floras available. Some info. on ex situ conservation	No deliberate focus on plants. Preliminary identification of IPAs	Some attempts, but not comprehensive	No	Good efforts with databases	Lack of coordination, linkages, partnerships. Lack of resources
Zambia	Information exists but some needs updating	No monitoring tools in place to check	No - main problem is charcoal production and medicinal plants	Yes some linkages are in place	To some extent	Lack of botanical capacity

## **Workshop outcomes**

The workshop outcomes were reviewed against the original aims and objectives and it was agreed that at the end of the workshop:

- All participants were familiar with the GSPC and its targets
- Relevant stakeholders and status at the national level had been identified
- The linkages between the GSPC and the CBD's Strategic Plan for Biodiversity 2011-2020 were understood by all participants
- Ideas for integrating the GSPC into NBSAPs were identified and could be more widely shared
- Participants would become 'champions' for the GSPC on their return home
- Participants were aware of the GSPC toolkit and would review this further on their return home
- Capacity building needs had been identified and ideas generated on how to address these

It is hoped that as a result of these outcomes, in the longer term, GSPC activities would be better reflected in biodiversity plans and reporting at the national level, that there will be enhanced GSPC implementation at the national level and that there will be enhanced regional collaboration.

## **Workshop evaluation**

### ***Overall evaluation***

It was clear from the beginning of the workshop that participants had different levels of understanding and previous exposure to the GSPC. Efforts were therefore made to accommodate this and ensure that everyone came to the same level of understanding during the workshop. Some of the key issues and challenges in GSPC implementation and reporting that emerged during the workshop were:

- Differences in interpretation of targets at national and regional levels
- Cultural differences leading to different prioritisation of targets at national and regional level
- Lack of coordination between sectors at the national level and lack of resources to overcome this
- Limited collaboration and communication between the different national focal points, such as GSPC, CBD, ITPGRFA, FAO etc.
- Limited capacity within coordinating institutions and need for delegating activities to enable efficient implementation
- Lack of feedback and briefing mechanism at national and regional level

- Lack of integration of data and information at institutional level to assess implementation progress
- Limited capacity to gather and disseminate existing information
- Limited delegation by CBD focal points to GSPC focal points.
- Need to balance administrative versus technical capacity of focal points
- Limited integration between and within relevant sectors
- Limited technical and institutional capacity.

Overall it was felt that the workshop was productive and effective, but the content was ‘heavy’ for a three-day workshop. The participatory approach adopted was popular with participants, but the balance between presentations and working groups was perhaps still weighted too much in favour of presentations.

### ***Individual evaluations***

At the end of the workshop, all participants completed a workshop evaluation form. The compiled responses are available in Annex 4.

It is clear from these individual evaluations that all the participants found the workshop useful particularly in relation to developing a greater understanding of the GSPC and its linkages with the CBD Strategic Plan for Biodiversity and how this relates to the work of their own institutions. The opportunity to network with colleagues from the region and gain an insight into the situation in other countries was also considered very beneficial. A wide range of actions to be taken on return home were identified. These included:

- Document how my work relates to the GSPC
- Share information with colleagues
- Propose a national workshop to share ideas from the workshop
- Find out who the GSPC focal point is, and if there isn’t one, establish it
- Check out the GSPC toolkit and submit relevant information

All participants agreed that the workshop administration, venue and accommodation were very good and that overall the workshop was well-run. Indeed one participant summarised by saying that this was one of the most important workshops he had attended as it brought about a paradigm shift in his understanding of what he and his institution does.

## **Recommendations**

A number of recommendations were made by workshop participants and facilitators and these will be taken into account in the organisation of future such workshops:

- The time for the workshop was too short – consider having at least 4 days, if not 5, to cover all the issues in detail

- Participants should be better briefed before the workshop so that they can collect relevant background information before the workshop
- More time during the workshop should be dedicated to group work and more in-depth discussions
- Consider inviting more than one person per country (e.g. technical and policy specialists)
- Include other stakeholders, not just environment, forestry and agriculture
- Consider organising follow-up activities

## **Conclusions**

This GSPC workshop was the first in a planned series of such workshops to be held during 2012. As such it provided a useful 'pilot' exercise and allowed facilitators as well as participants to learn much about the needs and issues that must be addressed.

The feedback and evaluations provided by the participants indicated that all felt this was a very useful and timely workshop, and all agreed that the GSPC deserves greater attention at national and regional level. It is clear that, although many activities relevant to the GSPC may be on-going within a country, lack of coordination and communication between the various stakeholders at the national level is a major constraint.

The workshop provided an excellent opportunity for networking at the regional level and for participants to learn first-hand from the experiences of South Africa.

## **Acknowledgements**

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## **List of Annexes**

- Annex 1: List of participants
- Annex 2: Workshop agenda
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## *Annex 1 List of participants*

### African Regional Workshop on the Global Strategy for Plant Conservation Walter Sisulu National Botanic Garden South Africa February 13-15, 2012

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*Annex 2 : Workshop Agenda*

**African Regional Workshop on the  
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**Agenda**

**Monday February 13**

08.30 – 09.00	Registration
09.00 – 09.30	Welcome – Representative of the Department of Environmental Affairs, South Africa
09.30 – 10.00	Introduction of participants – to include information on individual experiences with the GSPC, challenges, opportunities etc.
10.00 – 10.30	Introduction to the Workshop
10.30 - 11.00	Introduction to the GSPC and its targets (Stella Simiyu)
11.00 – 11.30	Coffee break
11.30 – 12.15	Presentation: The South African response to the GSPC. Domitilla Raimondo (SANBI)
12.15 – 13.00	General discussion
13.00- 14.00	Lunch

14.00 – 15.30	GSPC stakeholders: The botanical community (BGCI) The agriculture sector (FAO) Monitoring and implementation (UNEP-WCMC)
15.30 – 16.00	Coffee break
16.30 – 17.30	Identifying GSPC stakeholders and relevant activities at the national level (national audit): Individual work – Homework 1
18.00	Welcome reception – Walter Sisulu National Botanic Garden

## **Tuesday February 14**

09.00 – 09.30	The Strategic Plan for Biodiversity and linkages with the GSPC (Stella Simiyu)
09.30 - 10.00	General discussion
10.00 – 11.00	Incorporating GSPC targets into National Strategies and Action Plans (introduction and working groups)
11.00-11.30	Coffee
11.30 – 13.00	Working groups (Contd.)
13.00 – 14.30	Lunch and tour of the garden
14.30 – 15.30	Feedback from Working Groups and consideration of national situation (Homework 2)
15.30 – 16.00	Coffee break
16.00 – 16.30	Working Groups (contd.)
16.30 – 17.00	Feedback from Working Groups

## **Wednesday February 15**

09.00 – 10.30	Feedback from participants – national audits (Homework 1 and 2)
10.30 – 11.00	Introduction to the GSPC toolkit
11.00 – 11.30	Coffee break
11.30 – 13.00	GSPC toolkit (discussion and recommendations.)
13.00 – 14.00	Lunch
14.00 – 15.30	Capacity building needs for the GSPC
15.30 – 16.00	Coffee break
16.00 – 17.00	Workshop conclusions, evaluation and wrap up

## **Thursday 16 February**

Departure of participants

## ***Annex 3: National GSPC Audits:***

### **1. Kenya**

#### **National Audit (Kenya) on tools and information to inform Linkage of GSPC to NBSAP**

**Geoffrey Mwachala**

1. Floras: Flora of Tropical East Africa, Upland Kenya Wildflowers, Kenya Trees, Shrubs and Lianas (KTSL)
2. Red Lists. A small percentage of plants have been assessed using IUCN criteria and methods. Assessments are also embedded in the later Flora of Tropical East Africa fascicles. In addition rapidList (IUCN software) has been piloted using the Kenya flora.
3. Ex-Situ and in-Situ Conservation of endangered plants: Arboreta, City/Municipal parks and Botanic gardens (public and private) are in place. For example Nairobi Arboretum, Mombasa Municipal Botanic Gardens, Nairobi Botanic Garden, City Park (Nairobi); ); Seed banks -(National Genebank of Kenya (Kenya Agricultural Research Institute, East African Herbarium Seed Bank (National Museums of Kenya)
4. Protected Areas working for plants. In place, notably Kaya World Heritage Sites, Kenya's Marine National parks, Mount Kenya World Heritage Site, and Mountain National Parks (Mts Kenya, Elgon, Aberdares).
5. Sustainable Use. No. We have no baseline data to inform sustainable use initiatives, except for minor plant groups, e.g. medicinal plants (ICIPE, NMK initiatives)
6. Linkages with Agriculture limited. These are limited to cultivation of wild plants to improve sustainability, e.g. cultivation of *Mondia whytei* and *Aloe secundiflora*. Some-large agribusiness corporations have set aside large tracts of their property for conservation.
7. Indigenous knowledge conservation. The National Museums of Kenya set up the Resource Centre for Indigenous Knowledge (KENRIK) to document and conserve indigenous knowledge. Programs to date include programmes on Traditional Food Plants, Vegetables (recipes, ritual and nutritive values). Linkages formed with NGOS, Kenya Intellectual Property Institute, Kenya Institute of Education.
8. Linkage to NBSAPS. Yes. Border /Quarantine Agencies (Kenya Plant Health Inspectorate Service (KEPHIS) works with National Museums of Kenya, Kenya Wildlife Service, GeneBank to ensue effective controls. National Museums of Kenya is CITES/CBD Scientific Authority, while Kenya Wildlife Service is the Management Authority. National Environment Management Authority (NEMA) is the focal point for CBD, GSPC, works with Lead Agencies (KWS, NMK ) to execute its mandate.

## 2. Lesotho

### Lesotho's situation on the implementation of GSPC

#### 1. National audit on GSPC stakeholders in Lesotho

<b>Stakeholders</b>	<b>Target</b>
Department of Environment	Lead agency on all environmental issues, therefore all targets will be coordinated. However specific targets to be addressed will be 1, 2, 3, 4, 5, 7, 10, 11, 12
Katse Botanical Garden	This is housed under the Lesotho Highlands Development Authority (LHDA) and is currently the main national botanical garden in the country. The garden also has a gene bank. It will address target 8
National University of Lesotho, Department of Biology	This institution carries out research and is also the Lesotho CITES Scientific Authority. Targets 1, 2 and 3 will be addressed.
Ministry of Forestry and Land Reclamation	This Ministry is responsible for all issues relating to forestry, range management, soil and water conservation. Targets 4, 5 and 10 will be coordinated.
Ministry of Local Government and Chieftainship	Under the decentralization Division of this ministry coordination of local authorities occurs. Local authorities have been bestowed with regulatory powers over natural resources at community level.
Ministry of Agriculture and Food Security	The Department of Crops and Agricultural Research and Development Division will be responsible for implementation of target 5, 6, 8 and 9
Ministry of Natural Resources	The Department of Mines and Geology under this Ministry will implement target 6, 10.
Ministry of Health and Social Welfare	The Traditional Medicine Division housed under this ministry deals with plant based preparations and as such targets 12 and 13 will be dealt with.
Department of Tourism and Lesotho Tourist Development Cooperation	These two institutions are sister institutions to the Department of Environment because they fall under the Ministry of Tourism, Environment and Culture. Lesotho practises eco-tourism hence the two institutions have

	a stake in plant conservation. Target 8 will be implemented.
Ministry of Finance and Development Planning	This ministry is responsible for formulation of National Strategic Development Plan (NSDP) and allocation of Government's budget to various ministries. Therefore funds to implement the GSPC will be sourced from this ministry. Additionally, the NSDP incorporates the environment and climate change chapter whereby plant conservation issues can be addressed. Hence all targets will be tackled.
Ministry of Trade, Industry and Cooperatives	This ministry is tasked with trade-related issues including issuance of trading licences. Additionally attraction of investors and formulation of cooperatives are other responsibilities of MTIC. Therefore matters such as biotrade will be dealt with and as such target 11 will be implemented.
Ministry of Public Works and Transport	This ministry is responsible for major construction e.g. roads and as such is directly responsible for destruction of plants in their habitats. Since a lot of biological invasions occur as a result of machinery, target 10 will be implemented.
Ministry of Education and Training- National Curriculum Development Centre	Being responsible for education and training and in particular development of national curriculum, target 14 and 15 will be dealt with.
Prime Minister's Office-Poverty Reduction Division	The Poverty Reduction Division deals with some projects which use plants to alleviate poverty. For example, <i>Aloe ferox</i> is utilised by communities to do cosmetic products. Targets 7, 11, 12 and 13 will be implemented.
Lesotho Revenue Authority-Customs	Since there are no environmental inspectors at border gates and airport, customs officers will help mitigate illegal trade in plants. By so doing, target 11 will be dealt with.
Lesotho Council of Non-Governmental Organizations (LCN)	Most non-governmental associations are registered with LCN including those dealing with environmental conservation particularly at grassroots level. As such target 4, 5, 6, 7, 8, 9, 11, 12, 13 and 14
Community Based Organizations	Some of these organizations are involved in

	environmental conservation and food security programmes. In this way targets such as 4, 5, 6, 7, 8, 9 11, 12 and 13
Women Associations	Women are the main users of plants and their associations will help address targets such as 4, 5, 6, 7, 8, 9 and 13
Traditional Healers Associations	Traditional healers also use plants daily in their practice. Therefore they will be main stakeholders to implement target 4, 5, 7, 8, 11, 12 and 13
Herdboys Associations	These types of associations address range management issues therefore targets to be dealt with will include 4,5, 7 and 13
Farmers Associations	These associations will deal with target 6, 8 and 9

2. **Does Lesotho have right information and tools to gather information?**

- Overall Lesotho does not have the right information and tools to gather the necessary information on plant conservation. For instance limited work has been done on national flora and red data list as well as information on threatened plants both in in situ and ex situ conservation. However, up until recently the information was patchy, outdated and scattered in different documents. For example it was only in 2000 through the development of a book called Biological Diversity in Lesotho: a desktop study that the information was incorporated into one document. Currently the information is still outdated as it refers to some work carried out as late as 1969. Despite this, efforts have been done to improve the situation although not by Lesotho specifically but through regional programmes such as SABONET and red data listing of Southern African Plants initiative by SANBI. Also recently the Data Management Division under the Department of Environment has developed a national database on Lesotho's flora. Moreover, it is possible though that there is a lot of information housed under various institutions such as the National University of Lesotho under the Biology Department, Katse Botanical Garden under the Lesotho Highlands Development Authority and the Ministry of Forestry and Land Reclamation through the Department of Range Management and Department of Forestry. The only problem is probably access to such information as well as coordinative role that should be played by relevant institutions in managing the information.

3. **Are plant resources in Lesotho being used sustainably?**

- Lesotho is generally failing in this aspect of plant conservation. Firstly, it is not possible to implement sustainable use practices if there is no information mentioned in 2 above. Secondly, no resource assessments have been done on all most all Lesotho's flora rendering any efforts towards sustainable use of plant resources difficult. Thirdly, protected areas coverage in Lesotho falls short of even the 10% target set by the IUCN hence the country dismally fails in meeting targets 4 and 6 of the GSPC. Lastly there is no monitoring at all of highly utilised plant resources such as medicinal plants. However, Lesotho is slowly striving towards sustainable use of its plant resources through the

successfully commercialised *Pelargonium sidoides* (wild geranium, dysentery herb). *P. sidoides* is a medicinal plant that has been involved in both local and international trade since 2007. Because wild populations of the species have been harvested extensively to meet trade demand, Lesotho listed *P. sidoides* as a protected plant. Following this, *P. sidoides* trade became the first biotrade project in Lesotho to follow legal procedures in bioprospecting activities as well as Access and Benefit Sharing (ABS) issues. Furthermore, in 2007, through TRAFFIC, a Non-Detriment Finding (NDF) exercise for *P. sidoides* was carried out for Lesotho. Consequent to this, research into sustainability of wild harvest of the species followed in 2008 to 2010. This resulted in a resource assessment funded by the *Pelargonium* industry in 2010. Concurrently a management plan for *P. sidoides* for Lesotho and South Africa was developed and submitted to both countries in 2010.

4. **Are there linkages with the Agricultural sector in Lesotho?**

- Uncoordinated efforts have been quoted in several reports as being one of major setbacks in environmental management in the country. Plant conservation issues are no exception. Despite this, there is some collaboration with the Agricultural sector through linkages between the Department of Environment as a coordinating body on environmental issues and the Ministry of Agriculture and Food Security. For example, a lot of officers from the Ministry of Agriculture are members of several committees that are coordinated by the Department of Environment.

5. **Is indigenous knowledge on plants being protected and conserved in Lesotho?**

- Protection and conservation of indigenous knowledge in Lesotho is a new phenomenon hence why ABS issues are still difficult to deal with. As a result not much is being done in this regard.

6. **What are the gaps in achieving all the above?**

- Major gaps in ensuring successful implementation of GSPC in Lesotho are lack of:
  - Financial resources typical of developing countries
  - Expertise, for example botanists, ecologists and taxonomists
  - Law enforcement and fragmented legislation
  - Institutional arrangements

### 3 Namibia

## **NATIONAL PLANT DIVERSITY AUDIT: NAMIBIA** **PREPARED BY SILKE RÜGHEIMER**

**FOR THE AFRICAN REGIONAL GSPC WORKSHOP**  
**13 – 15 FEBRUARY 2012, JOHANNESBURG**

#### **A: Important Stakeholders**

National Botanical Research Institute (Ministry of Agriculture, Water & Forestry)

- \*National Herbarium
- \*National Plant Genetic Resource Centre
- \* National Botanic Garden
- \*Red List Section
- \*Vegetation Ecology Section
- \* Plant Product Development Section

Ministry of Agriculture, Water & Forestry

- \*Crop Division
- \*Extension officers
- \*Forestry

Ministry of Environment & Tourism (MET)

- \*Permits Section
- \*National Parks- Conservation officers & scientific staff  
- Park wardens
- \*National Biodiversity Action Group
- \*National Biodiversity Steering Committee

University of Namibia & Polytechnicon

Ministry of Education// Schools

NGO's: Desert Research Foundation (DRFN)

- CRIAA
- Indigenous Plant Task Team
- Millennium Seed Bank Project (MSBP)
- IUCN
- Botanical Society of Namibia

## **B: Do we have the right information and tools available**

### **National Flora**

- yes, but outdated (1966 - 1972)
- originally in German, but translated into English in 2010
- updated gradually with the assistance of regional and international taxonomic experts
- National Checklist available: approximately 4430 taxa
- Online-checklist to be launched soon

### **National Red List: -**

- yes, approximately 34% of all Namibian taxa assessed
- last update February 2012

### **In situ and ex situ collections**

#### **In situ:**

- 21 national parks, accounting for approximately 15% of Namibia's total surface area
- National Forests
- Conservancies
- National Botanic Garden of Namibia
- Red List assessment & monitoring programmes (ongoing)
- Information gathering of threatened plant species by various private initiatives e.g. landowners

#### **Ex situ:**

- 1) National Plant Genetic Resource Centre
  - currently holds 3 900 accessions
  - list available
- 2) National Botanic Garden living collection:
  - currently holds over 400 taxa of which 56% rare or threatened
  - Species list available available

**Are the protected areas working to conserve threatened species?**

Yes, to a large extent, as many of them overlap with the important plant areas, but some vegetation zones and IPA's are not covered.

**Are plant resources being used sustainably? How is this achieved?**

Yes, to a great extent, but not always (e.g. deforestation in the north-east and overharvesting of *Hoodia* some years ago)

Monitored through harvesting permits and quotas (MET)

Farmers Seed Act Bill

Resource surveys

Propagation programmes for over-utilised timber species (Forestry)

Education and awareness creation by various stakeholders

**Are linkages with the Agricultural Sector in place?**

Yes, but communication and networking between the Agricultural sector and GSPC stakeholders needs to be improved.

**Is indigenous knowledge on plants being protected and conserved?**

Yes, there is quite a bit of research and documentation on ethno-botanical knowledge going on, but there is a need for a centralised system to hold and preserve the information, and regulate access and benefit sharing

**Challenges to plant conservation in Namibia**

- Habitat loss through mining and urban development and excessive tourism
- Deforestation, particularly in the north-east
- Over-exploitation of natural resources
- Clearing of land for pasture and crops
- Charcoal production
- Illegal collecting by succulent enthusiasts

**Does Namibia have a National Biodiversity Strategy and Action Plan?**

- Yes, covering the period 2001-2010
- Currently under review
- Driven by the National Biodiversity Programme under Ministry of Environment & Tourism

## 4. Tanzania

**AFRICAN REGIONAL WORKSHOP ON THE GLOBAL STRATEGY FOR PLANT  
CONSERVATION WALTER SISULU NATIONAL BOTANIC GARDEN SOUTH  
AFRICA 15 /2/ 2012  
BY ZAINABU SHABANI FROM TANZANIA**

### **A: Important Stakeholders in NBSAP**

- ❖ Division of Environment (NBSAP Focol Point, CBD Focol Point, SBSTA Focol Point, Biosafety Focal point, National Environmental Management Council)
- ❖ Ministry of Finance and Economic Development
- ❖ Ministry of Health (Health Department, NIMR, Traditional Medicine)
- ❖ Ministry of Agriculture and Food Security
- ❖ Ministry of Water
- ❖ Plant Genetic Resource Centre
- ❖ Research and Academic Institute
- ❖ Ministry of Natural Resources and Tourism (Forest and Beekeeping Division, Wildlife, Tourism, Museum, Wetland Department)
- ❖ Ministry of Fisheries
- ❖ National Herbarium
- ❖ National Botanical Garden
- ❖ Tanzania Forest Research Institute
- ❖ Tanzania Tree Seed Agency
- ❖ Ministry of land
- ❖ Ministry of Minerals and Energy
- ❖ Ministry of communication (Media)
- ❖ Department (Customs and Quarantine)
- ❖ Private Sectors
- ❖ Prime Minister's Office Local Government Authority

❖ Department of Gender and Disabled

**B: How to Link with NBSAP? Do we have the right Information and tools together information?**

**ANSWERS.**

**a. National Floras**

- Yes, but not all floras have been identified, the information can be found in Journals, website, Sokoine University of Agriculture Library, University of Dar es Salaam Botany Department, National Museum, National botanical garden,
- TANBIF (Tanzania National Biodiversity Information Facilities) are going to launch an updated the checklists of Floras

**b. National Red Lists**

Available and some of species have been identified using IUCN standards and it was regional programme funded by CEPF (IUCN red lists). But need to be update

**c. Information on threatened In situ and Ex situ**

In situ conservation-There is National Tree planting campaign of the indigenous trees, other campaigns includes Existu and Instu conservation in Tanzania Tree Seed Agency, Tanzania Forest Research Institute, National Herbarium. Others program include collaboration with National Plant Genetic Resource Centre

**d. Protected Area**

Some of the Protected Areas are used to conserve Plant species while others are left to regenerate naturally

**e. Alternative use**

To a limited extent of some programme are available like promoting an alternative use of materials for building, use Biogas. Monitoring is done in program like forest health monitoring, Biodiversity monitoring in Eastern Arc Mountain.

**f. Linkage in Agriculture Sector**

Yes there are some linkages in some activities and programmes like west Usambara soil control and Agroforest project, National Plant Genetic Resource under Ministry of Agriculture, several indigenous plant species are reproduced.

**g. Protection of Indigenous knowledge**

Yes some indigenous knowledge on plants is being protected. Some have been documented and others not yet, Documentation are Universities, Research Institutes. Examples in HASHI Traditional means of restoring and conservation land through tree planting and traditional Conservation of Soil. NGITIRI. Traditional means where degraded area is left to regenerate, during the dry season Livestock keepers collect fodder for their Livestock.

## **CONSTRAINT**

- i. Priorities keep changing every year of the budget and sometimes you find that issues of Plant Conservation are not a Priority.
- ii. Lack of resources to the Government both in Financial, Human and Technical (taxonomist).
- iii. We don't have Focal Point Global Strategy for Plant Conservation.
- iv. Weak enforcement of the Legislations and Coordination among the key stakeholders.

## 5. Uganda

### Submission by Paul Ssegawa (Uganda)

#### **(A) Stakeholders:**

Some of the key stakeholders include:

1. The Ministry of Water and Environment. Under this ministry we have the National Forestry Authority (NFA), the National Environment Management Authority, and the Wetland Management Department
2. We have NGOs involved in biodiversity conservation work including Nature Uganda, Wildlife Conservation Society (WCS), World Wide Fund for Nature (WWF)
3. We also have the Entebbe Botanic Garden, Makerere University Botanic Garden, Tooro Botanic Garden and the Nature Palace Botanic garden
4. Other institutions include the Uganda National Council for Science and Technology (UNCST), National Chemotherapeutics Research Institute (NCRI), and the Uganda Wildlife Authority

#### **(B) Do we have the right information and tools to the information on**

**(i) National Floras**

**(ii) National redlists**

**(iii) Information on threatened plants *in situ* and *ex situ*?**

We have databases including the Least of East Africa Plants (LEAP), we also have the online flora with JSTOR Plant Science database, the Visual Plants database (BIOTA East Africa Project) hosted by The University of Hohenheim.

We have had conservation assessments done at the East African region level. We have also a publication in press of about 800 woody species whose assessment have been done in collaboration with the RBG, Kew.

We have carried out *ex situ* conservation on some of the country's threatened plants and economically useful plants including the endemic *Encephalartos whitelockii* whose natural habitat has been destroyed by the construction of a hydropower plant. All the botanic gardens in Uganda are carrying out *ex situ* conservation with varying interests.

*In situ* conservation is done in the Protected Areas and Central Forest Reserves albeit with less emphasis/no deliberate effort on threatened plant species.

We have national floras in the form of the Flora of Tropical East Africa (FTEAs) and several other publications including the handbook on the Wild food plants and mushrooms of Uganda, Trees and Shrubs of Uganda, Some common flowering plants of Uganda, A catalogue of medicinal plants of Uganda etc

#### **(C) Are Protected Areas working for the conservation of threatened plant species?**

Yes but there are no specific programs for conservation of threatened plants. It is being done as part of the overall mandate of the institution i.e. Uganda Wildlife Authority. Their main focus is

on the large mammals for purposes of tourism. However we have carried out a preliminary/provisional assessment of Important Plant Areas (IPAs) in Uganda using a set of criteria and have over 30 IPAs. Some of the IPAs are Protected Areas and others are Important Bird Areas whereas several don't have any form of protection at all.

**(D) Are plant resources being used sustainably? How do we monitor this?**

There is some effort to sustainably utilise plants resources especially in Protected Areas and Central Forest Reserves. However, there are some users especially traditional healers and some companies in the cosmetics industry who are involved in the commercial trade of plants and hence do not harvest sustainably

**(E) Are linkages with the agricultural sector in place?**

There is hardly any link with the agricultural sector. We have had very limited experiences with the agricultural sector. For example, we occasionally get people from Agricultural Research Institutions or the ministry of Agriculture for identification of weeds and provision of additional information on management.

**(F) Is indigenous knowledge on plants being protected? And conserved?**

There is a good effort to document some indigenous knowledge in the forms of databases (focusing on medicinal plants), there are also theses, dissertations and journal articles published which are largely ethnobotanical. The challenge is going beyond documentation and using this knowledge for conservation of threatened plants that are important to communities.

**(G) Education and awareness**

This is done albeit on a very low scale and spearheaded by NGOs.

**(H) Challenges**

1. Lack of coordination, linkages and partnerships among stakeholders to aim at one goal.....plant conservation. Generally there is lack of focus and sometimes duplication of activities leading to waste of resources
2. Lack of resources

## 6. Zambia

### HOW TO LINK NBSAPS WITH GSPC - ZAMBIA

#### 1. National Floras:

- The only National Flora is the **Flora of Northern Rhodesia** by Frank White published in 1962 and covering 1342 plant species. An on line National Flora is being developed with assistance from KEW.
- Zambia's floristic accounts are well covered in the **Flora Zambesiaca** Publications and are an important source of information for the online Flora.
- Other Floras with information on flora of Zambia include **Flora of East Africa** and **Flora of Congo and Urundi**
- Checklists:
  - A checklist of Zambian Vascular Plants including all endemics
  - Vegetation descriptions and checklists of all districts in Zambia
- Vegetation maps of Zambia exist

2. **National Red Lists:** Zambia. In: Southern Africa Plant Red Data Lists. *Southern African Botanical Diversity Network Report* No. 14: 135-156. (Needs revising)

#### 3. Information on threatened plants in-situ and ex-situ

- Lists of threatened plants exist and their locations are known. *In-situ* conservation of threatened plants is restricted to Protected Areas, such as Forest Reserves. Mining in some cases has led to local disappearance of *Milicia excelsa* (IUCN Red List – Critically endangered), and *Ipomoea richardsiae* (IUCN Red List – Vulnerable) in parts of North western province.
- *Ex-situ* conservation of threatened plants is in form of research stands of timber species. Zambia is not a beneficiary of the Millennium Seed Bank Project.

4. Are protected areas working for the conservation of threatened plant species – **Not really:** There is need to develop monitoring tools to periodically determine the conservation status of threatened plant species. Only one **conservation plan** has been developed for the management of Zambezi Teak, *Baikiaea plurijuga* of South western Zambia. Two tonnes of germplasm of *Baikiaea plurijuga* has been collected and conserved.

5. Are plant species being used sustainably? How to monitor this?

The harvesting of plant species for fuel-wood, herbal medicines, wild foods, and timber is not sustainable (Fourth National Biodiversity Report).

- Ethno botanical surveys
- Market surveys

A recent market survey found that **15 million tubers and pseudo-bulbs** of edible orchids were traded in 2010. An ex-situ conservation programme is being implemented.

6. Are linkages with Agriculture in place:
  - Forest Research participated in the compilation of the National Report on the Genetic Resources of Agriculture and Food.
  - The Ministry of Agriculture hosts the Regional Gene Bank and the Forestry Department sits on its board of directors.
  - The Ministry of Agriculture is represented on the Biodiversity Steering Committee of the Ministry of Mines and Natural Resources.
7. Is indigenous knowledge on plants protected and conserved – part of it has been collected in form of checklists of plant names in vernacular languages, cultural practices used in traditional ceremonies and lists of medicinal plants and their uses. Access and benefit sharing is not well developed in Zambia.

8. Stakeholders in the NBSAP

Forestry Department (Forest Herbarium)  
 Zambia Farmers Union  
 Ministry of Lands  
 Land Alliance  
 Zambia Wildlife Authority  
 Zambia Environmental Management Authority  
 NGO (Local and International)  
 Research Institutions and Universities  
 Ministry of Mines and Natural Resources  
 Community Based Organizations  
 Munda Wanga Botanical Garden  
 Law enforcement agencies  
 Private land owners  
 Ministry of commerce  
 Ministry of energy and water Affairs  
 Traditional Healers Association of Zambia

9. National inventories

Second phase of ILUA (Integrated land use assessment) is being implemented. Emphasis is on developing a land use map of Zambia, with biomass production and biodiversity conservation being important considerations. The results of ILUA 2 will feed into the REDD+ (Reduced emissions from deforestation and forest degradation) project which is also being implemented by the Ministry of Mines and Natural Resources. Assessment of Forest Reserves threatened with depletion is going on and a report is expected by the end of 2012.

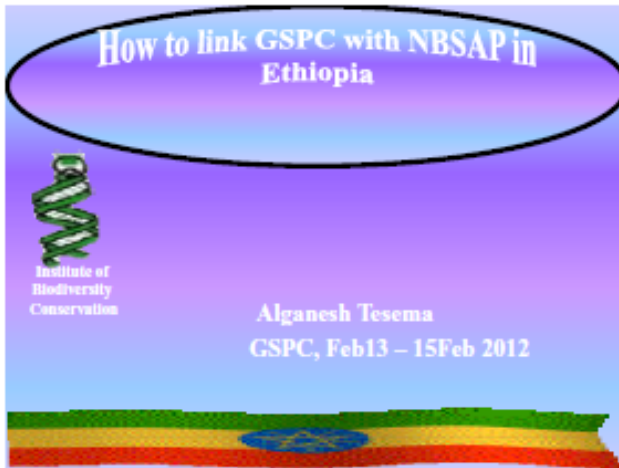
Zambia has 44 documented important plant areas, 59 botanical reserves and 4 wetlands designated as RAMSAR sites. Clearing of 501.6 ha of *Mimosa pigra* at Lochinvar National

Park and 11.8 ha of *Lantana camara* at the Victoria Falls pilot sites was carried out by 2010. Development of the National Invasive Species Strategic Action Plan is planned for 2012/13.

#### 10. Capacity to implement GSPC

Zambia has very few botanists and there is need to develop capacity in this area. A Forest Research Master Plan is being developed and will be used as a resource mobilization tool.

## 7. Ethiopia



### ✓Homework I

#### • Stake holder for Ethiopian plant conservation

1. National herbarium
2. Research Institutions
3. Biodiversity Conservation
4. Agricultural Universities
5. Environmental Protection Authority
6. Ministry of Agriculture
7. Elder farmers , particularly poor farmers
8. Community gene banks
9. Pastoralists and semi pastoralists
10. Ministry of Finance and Economic Development
11. National herbarium
12. Traditional healers

### Homework II.

✓Do we have the right information & tools to gather information? Yes.

1. Ethiopian flora publication
2. Live library (elder farmers)
3. Traditional healers

6000/720

### ✓Do we have information on threatened plants in-situ and ex-situ?

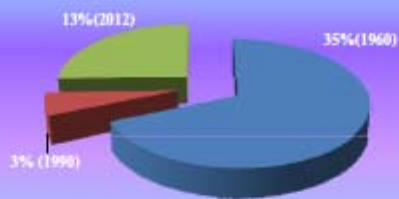
Yes, ....we can get information from local communities community gene banks, EIBCs gene bank and field gene banks

✓Are protected areas working for the conservation of threatened plant species?

Yes, .....we have 6 protected areas conserved the threatened forest tree spp.  
we have 12 community gene banks in different agro ecological zones 5 of which are conserved the threatened unique variants.

### What we have done ?

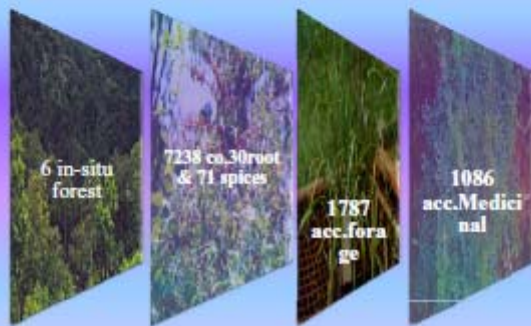
#### ✓Inclination of Ethiopian vegetation cover



#### •The statuses of Ex- Situ Conservation



#### In-situ & ex-situ conservation



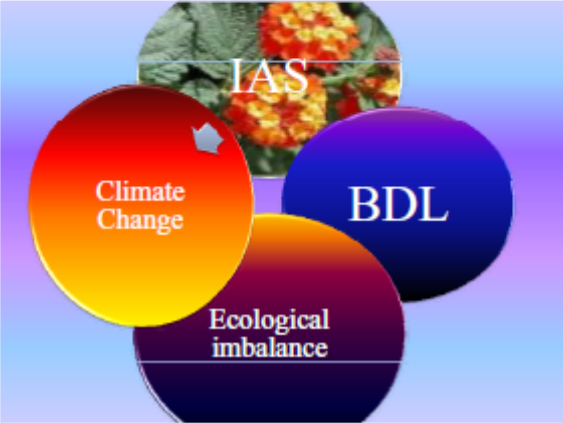
✓Are plant resources being used sustainably?  
Yes,.....if it will continue the current situation we may not get the valuable land races managed and conserved for 3000 years in the hand of farmers

✓How to monitor this?  
1. need to assess the genetic & IK erosion  
2. need to assess the genetic diversity

✓ Are linkages with the agriculture sector in place? Yes,.... But, it is weak.

✓ Is indigenous knowledge on plants being protected and conserved?  
No ????????????????????

Which targets are familiarized to Ethiopia?  
T1,T3,T4,T5,T7,T8,T10



- The way forward
- Enforcement of land use policy
  - Regulating population growth
  - Ensuring constant vegetation cover & solution for energy
  - Synergy/Networking among all stakeholders
  - Strengthening Biodiversity Curricula at all academic levels

## 8. Swaziland

### NATIONAL GSPC AUDIT – SWAZILAND

PREPARED BY ZACHARIAH DLAMINI

#### Brief about Swaziland

Swaziland has a total area of about 17 365 Km<sup>2</sup> and a human population of about 1.2 million. The vegetation of Swaziland ranges from open grassland to forest and from semi-arid savanna to wetlands. The country has steep gradients of climate, topography (altitude range is 90 – 1 862m), and edaphic characteristics, the country's flora is extraordinary rich. Swaziland is divided into four distinct physiographic zones, running from north to south. These are the Highveld, the Middleveld, Lowveld and the Lebombo Plateau. Rainfall is highest in the Highveld and lowest in the Lowveld; and most of the rain (about 85%) fall in summer.

The country's knowledge about its indigenous flora is still at a developmental stage. Current records indicate that there are over 3 400 species of higher plants, representing 771 genera in 135 families. The Plant Red Data List has a record of 3 taxa being extinct, 1 taxon extinct in the wild, 15 taxa critically endangered, and 29 taxa endangered and 16 taxa vulnerable. All these makes up 66% of total taxa recorded for Swaziland. It also has a record of 12 taxa confirmed to be endemic, 7 suspected endemic, 35 confirmed near-endemic and 5 suspected near-endemic.

#### A. Important Stakeholders

1. Ministry of Tourism and Environmental Affairs
  - a) Department of Forestry
  - b) National Herbarium
  - c) National Tree Seed Centre
  - d) Director of Conservation
  - e) Swaziland National Environment Authority (SEA)
  - f) Swaziland National Trust Commission (SNTC)
  
2. Ministry of Agriculture
  - a) Agricultural Research Division
  - b) National Gene Bank
  - c) Land Use Planning Section
  - d) Plant Protection Unit
  - e) Seed Quality Control Section
  
3. Ministry of Natural Resources and Energy
  - a) The Mining Commission
  - b) The Energy Department
  - c) Swaziland Water Services Corporation

4. Ministry of Education
  - a) University of Swaziland (Biology Department)
  - b) Schools
5. Ministry of Finance
  - a) Customs officials
6. Ministry of Public Service
7. Non-Governmental Entities
  - a) Private Forestry Companies
  - b) Private botanists
  - c) Environmental organizations
  - d) National Wildlife Parks
  - e) Community Conservation Areas
  - f) Private Conservation Reserves
  - g) Traditional healers
  - h) Plant Medicinal traders
  - i) Local people
  - j) Indigenous community leaders

## **B. Do we have the right information and the tools together the information?**

The information is available. But some of this information is outdated.

### **National Flora**

- The Flora of Swaziland. It is as old as 1975. It needs to be revised and updated.
- The Plant Red Data List is recent (hard copy).
- Swaziland Flora Checklist is recent (hard copy).
- Swaziland Tree Atlas – including selected shrubs and climbers (hard copy).

Online flora is not yet developed. There is lack of funding and expert personnel.

Swaziland is quite lacking in databases, websites and quite recent publications.

## **C. Information on threatened plants**

### ***In situ***

There is enough information in this part. The Protected Areas together with the Conservation parks provide information periodically.

The country has:

- Three (3) national biodiversity conservation reserves.

- One (1) private biodiversity conservation reserve.
- Three (3) community conservation areas.
- Six (6) wildlife parks
- A Plant Red Data List

In addition, there is a Forest Assessment Programme which is on-going and the Transfrontier Conservation Programme which is also an on-going programme.

### ***Ex situ***

Swaziland is generally weak in this area.

- The National Plant Genetic Resources Centre (National Gene Bank) is only focusing on crop plants. There is still a need to expand its scope so that wild plants are also included in its programme.
- The National Tree Seed Centre is collecting seed from wild plant species and stores the seed for a very short time. The seed is planted in government nurseries. There is no seed exchange programme regionally or internationally.
- The country has no botanic garden to conserve live plants yet more and more plants are lost in the wild.

### **D. Are Protected Areas working for the conservation of threatened plants?**

About 60% of the declared reserves were set up to focus on the conservation of fauna. But plants do enjoy a high level of protection in these reserves.

The remaining 40% are conservation areas of which their primary goal is to protect and conserve plant species with more emphasis on threatened plant species.

### **E. Are plant resources used sustainably? How to monitor this?**

Yes, to a limited extent. There are emerging challenges which are a serious threat to plant resources (e.g. deforestation in all the four ecological zones, over-harvesting of plants, etc). Some plant species being over-harvested include *Bechmannia woodii*, *Cyathea capensis*, *Combretum imberbe*, *Encephalartos spp*, *Prunus africana*, *Hypoxis spp*, and *Warburgia salutaris*.

Monitoring is through collecting permits issued by the Forestry Department, awareness programmes over the radio and some pamphlets, Non-governmental organizations involved in plant conservation.

There is also legislation which aims at regulating the use of plant species especially protected plant species. These are the National Flora Protection Act, No.1 of 2001 and the Plant Control Act, of 1982.

### **F. Are linkages with the agriculture sector in place?**

Yes, the linkages are there, but they are not strong. There are still a lot of gaps between the GSPC stakeholders, the sugarcane plantations and the commercial crops farmers.

Efforts are still being made to make these groups appreciate conservation of indigenous plant species.

### **G. Is indigenous knowledge on plants being protected and conserved?**

It is well protected and conserved on crop plants. That is through the National Gene Bank and the National Museum.

Swaziland is still behind in wild plant species. However, there is limited documentation on ethno-botanical plants knowledge. There is still a need to improve on this field.

### **Challenges to plant conservation in Swaziland**

- Issues of plant conservation come last in government priorities.
- Lack of resources (financial and human), technical (Taxonomists).
- Deforestation which is more prevalent in the Middleveld.
- Clearing land and forests for housing projects and agricultural development especially monocropping (sugarcane and cotton).
- Over-harvesting of plants for sale as logs, firewood and for medicinal purposes both inside and outside the country.
- Charcoal production.
- Rapid spread of invasive alien plant species (*Chromolaena odorata*, *Lantana camara*, *Solanum mauritianum*, *Caesalpinia decapetala* and *Parthenium hysteriophorus*).
- Construction of dams.
- Weak enforcement of the existing legislation.

### **Does Swaziland have a National Biodiversity Strategy and Action Plan?**

Yes, they were formulated between 2000 and 2005. Both are housed by the Swaziland Environment Authority.

### **Needs assistance for Swaziland**

1. Swaziland needs financial assistance to continue with the establishment of a botanic garden. Land was secured, a dam for irrigation was constructed and some material and equipment were bought (pipes, tractor, and mowers). A plan for the garden and buildings was drawn. What is left is construction of the building and the tracks.
2. Funding to control the invasive alien plant species.
3. Training assistance for people to study botany or plant taxonomy.
4. Funding to strengthen the existing legislation.

## 9. Botswana

### **NATIONAL AUDIT FOR THE AFRICAN REGIONAL GSPC WORKSHOP** **BY TSHEPO M. BAKANE: BOTSWANA**

#### **A. Important stakeholders**

In Botswana, responsibilities for implementation of NBSAP are divided across sectors and ministries. These include:

1. Ministry of Environment, Wildlife and Tourism
  - Department of forestry and range resources
  - Department of Environmental affairs
  - Department of Wildlife
2. Ministry of Agriculture
3. Non-governmental Organisations such as IUCN, UNCCD

#### **B. Do we have the right information and tools available to gather information?**

##### **National flora:**

Botswana consist of around 3,000 species even though a comprehensive distribution list is still missing. The information can be obtained from the herbarium. This information needs to be updated though.

##### **Red lists**

- According to the Southern African Plant Red Data Lists, there are officially 43 Red Data listed plant species in Botswana.
- The IUCN's Global Red list of threatened species is not a comprehensive list of all species in Botswana and may not reflect the national status of species in Botswana.

##### **Information on threatened plants in-situ and ex-situ**

Botswana has set aside 45% of its land as protected areas. These includes national parks, game reserves, private wildlife and nature reserves, forest reserves and national monuments.

The forest Act has designated 5 areas as forest reserves which enable some species to be protected in their natural environment.

*Ex-situ* conservation: Over 500 collections of plant seeds, herbarium vouchers and live specimens have been obtained so far for ex-situ conservation through the Millennium Seed Bank Project.

##### **Are protected areas working for the conservation of threatened plant species?**

While the vegetation in national parks and game reserves is protected and forest reserves offer protection of certain species, the protected area network offer less protection for Botswana's rare and endangered plants as most of them occur outside the protected area network. The adopted Botswana Threatened Species Policy compensates for this limitation by establishing a complete scheme for the protection

and recovery of threatened species and for the inventorying of endemic species for the purpose of protecting them when they are threatened or data deficient. Comprehensive legal support for the policy is however still lacking.

**Are plant resources being used sustainably?**

The Department of forestry and range resources issue permits for collection of fuel wood, thatching grass as an attempt to monitor utilization of plant resources. Patrols are usually done to ensure that people abide by the laws but they will always be challenges to monitor the situation. Through the same department, local people are encouraged to do reforestation programmes to replace those that have been cut for fuel wood.

**Are linkages with the agric sector in place?**

Would say yes to some extent. Efforts have to be made to improve the relationship. The Agricultural Research Centre is working with National Tree Seed Centre and other stakeholders in the MSBP although no collections have been done for some time now.

**Is indigenous knowledge on plants being protected and conserved?**

Yes, to some extent, as some plants have been protected based on that. Much has to be done in this regard.

**Threats to plant diversity in Botswana**

- High frequency of uncontrolled bushfires in some area
- High population of elephants in some parts are threatening certain tree species
- Mining and other infrastructure

*Annex 4 Workshop evaluation*

**African Regional Workshop on the GSPC  
Walter Sisulu National Botanic Garden  
February 13-15, 2012**

**A. Self-assessment**

<b>1. What did you find most useful about the workshop?</b>						
Background to the GSPC and CBD Strategic Plan (x5) How the GSPC links to NBSAPs (x2) Networking with colleagues (x3) Making the link between the work of my institution and the GSPC Insight into the situation in other countries (x4) Balance between environment/forest/crops at the workshop The GSPC toolkit (x2) Country self-assessments (x2) Clear understanding of the link between the work of FAO and CBD Seeing the importance of the work to SANBI The participatory approach used during the workshop The presentation of South Africa's response to the GSPC						
<b>2. What did you find least useful about the workshop?</b>						
Everything was useful (x7) Effectiveness in being able to capture on-going activities in the region Not all African countries represented Some of the presentations were a bit long						
<b>3. How would you rate the workshop overall?</b>						
<i>Circle the score nearest to your views</i>						
Very useful	5 (11)	4 (2)	3	2	1	Little use

<b>4. Please rank the following parts of the workshop</b>			
<b>Topic</b>	<b>Very useful</b>	<b>Useful</b>	<b>Little use</b>
Introduction to the GSPC and linkages to the Strategic Plan for Biodiversity	13		
Identifying GSPC stakeholders	10	2	1
Incorporating GSPC targets into NBSAPs	9	4	
GSPC toolkit	9	4	
Capacity building needs	10	3	
<b>5. Are there any actions you will take on your return home as a result of this workshop? Please describe these below</b>			
<p>Take forward actions from this workshop in the NBSAP review process (x2)</p> <p>Document how my work relates to the GSPC and effective conservation and share this information with other stakeholders</p> <p>Follow-up with participants to leverage activities in their countries</p> <p>I will try to liaise with the GSPC and CBD focal points to share the information with them and ask them to propose a national workshop to share the ideas from this workshop (x2)</p> <p>Share the presentations (especially the toolkit) with colleagues (x2)</p> <p>Contact the relevant stakeholders to take forward the GSPC</p> <p>I will think about adjusting, planning and redesigning my activities as a Biodiversity Conservation Director</p> <p>I will brief my Director of Environment</p> <p>I will write a report with the GSPC and Aichi Targets and send it to the stakeholders before reviewing NBSAP</p> <p>I will update list of people who should participate in NBSAP</p> <p>I will remind our CBD focal point to appoint / nominate a GSPC focal point</p> <p>I will draft a comprehensive back-to-office report</p> <p>Try to ensure senior officials are aware of the workshop agenda</p> <p>Try to find out who is the GSPC focal point, and if there is not one, establish it (x2).</p> <p>I will report back and request that we evaluate progress in my country against each of the GSPC targets</p> <p>Check out the GSPC toolkit and submit relevant information</p>			

## 6. Do you have any general comments on the technical aspects of the workshop?

Time was too short  
Participants should be advised in advance of information from their countries they should gather to bring to the workshop (x2)  
Have more time to study a case study from a country which has effectively implemented the GSPC as a real example to learn from.  
Excellent and well-balanced  
The toolkit was very useful, but may be too technical for some audiences  
The workshop was well coordinated with issues explained in a simplified way  
I found the workshop critically important  
There is need for more workshops like this – they should be held every year to review progress  
Increase the number of participants from each country (research and policy)  
Technical aspects were sometimes difficult to understand as I do not come from the environmental sector  
The facilitators were very good in managing the workshop  
Keep technical terms and abbreviations to a minimum

## B. Assessment of facilitators and facilities

### 1. Please rate the facilitators (*make a X in the relevant column*)

	Very effective	Good	Not effective
Knowledge of subject	13		
Preparation	10	3	
Style and delivery	7	6	
Responsiveness to group	9	4	
Workshop materials	11	2	

### Do you have any comments on how facilitation could be improved?

Advise participants to consult within their countries to gather relevant information before the workshop  
I think it was excellent (x2)  
Include field exercises using examples from host country  
Another day would have been good as a lot was crammed into each day  
Allow more group work  
Keep language as simple as possible in presentations

## 2. Workshop location, accommodation, refreshments

*Circle the score nearest to your views*

### Workshop administration

Good 

5 (13)	4	3	2	1
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 Poor

### Workshop venue

Good 

5 (12)	4 (1)	3	2	1
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 Poor

### Accommodation (Guest House)

Good 

5 (7)	4 (4)	3	2	1
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 Poor

### Refreshments

Good 

5 (7)	4 (4)	3 (2)	2	1
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 Poor

## c. General

**Please add any further comments on how the workshop was run and make suggestions for future improvement – please try to be as honest and constructive as possible in your answer**

Workshop was well run

Information provided was useful

Not clear how countries / participants were chosen. Some countries were not represented

Would like to have accommodation closer to the workshop venue (x 2)

Very useful workshop (x 2)

Participants gained a good understanding of the GSPC targets and relation to the CBD Strategic Plan

It would be good to have participants from environmental and agricultural sectors from each country and if necessary, reducing the number of countries (x2)

Ask participants to be prepared to come to the workshop with relevant information from their countries

The workshop preparation was excellent as was the knowledge transfer process

A per diem should be paid and participants given half-board (x3)

Materials for the workshop were good

Need additional funding to assist GSPC focal points so they can do their work

Increase the number of countries participating and the number of participants per country

The time was too short – 5 days would be better

This is the first time I have really understood what the GSPC is all about.

Thank you for a wonderful, very informative and well-organised workshop

**Thank you for your assistance!**

***Annex 5: List of background documents provided for the workshop***

**African Regional Workshop on the Global Strategy for Plant Conservation  
Walter Sisulu National Botanic Garden South Africa  
February 13-15, 2012**

<b>File name</b>	<b>Document title</b>	<b>Notes</b>
GSPC-NBSAP module	How to include GSPC targets in National Biodiversity Strategies and Action Plans (Draft)	This document is a draft training module for use by GSPC focal points and others involved in national GSPC implementation. To be updated based on the outcomes of the workshop
Aichi-Targets	Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets	A flyer produced by the CBD Secretariat to introduce the Strategic Plan for Biodiversity
cop-10-dec-17-en	Decision adopted by the Conference of the Parties to the Convention on Biological Diversity at its tenth meeting	The text of the Decision from COP 10 adopting the GSPC 2011-2020. Provides the text of the GSPC and the 16 targets
gspclg-04-02-en	Report of the Fourth Meeting of the Liaison Group on the Global Strategy for Plant Conservation	This report provides information on identified capacity building needs for the GSPC and a comparison of the targets from the GSPC 2002-2010 with updated GSPC targets for 2011-2020
SBSTTA16-GSPC-peer-review	Global Strategy for Plant Conservation- Progress in implementing decision X/17	This is the draft document prepared for the upcoming SBSTTA 16 meeting. It includes the revised technical rationales for each of the GSPC targets and an analysis of the potential for application of the indicative list of indicators agreed in SBSTTA recommendation XV/1 to the GSPC.
Toolkit presentation	An introduction to the toolkit for the Global Strategy for Plant Conservation	This is a presentation describing the structure and content of the GSPC toolkit
Intro to NBSAPs	An Introduction to National Biodiversity Strategies and Action Plans – Module 1	This is a training module prepared by the CBD Secretariat to support the updating of National Biodiversity Strategies and Action Plans in line with the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets
Milestones for GSPC targets	Suggested milestones for GSPC targets	This provides a list of proposed milestones that could be used to monitor progress towards the GSPC targets at the national level.