



**Global Strategy for Plant Conservation  
Regional workshop for Africa  
Durban Botanic Garden, South Africa  
November 3-4, 2009**

**Workshop report**



Supported by the Boeing Company





## **Introduction**

This regional workshop for Africa was one of a series of meetings organized by Botanic Gardens Conservation International (BGCI), with the support of the Boeing Company, to provide input into the process of developing a revised Global Strategy for Plant Conservation (GSPC) for the period 2011-2020. The recommendations of the workshops will be synthesized and provided to the Secretariat of the Convention on Biological Diversity (CBD) for consideration during the development of a final draft revised GSPC. The revised GSPC document will be presented to the CBD's Subsidiary Body for Scientific, Technical and Technological Advice (SBSTTA) at its next meeting in May 2010.

## **Background**

The GSPC, which includes 16 outcome-oriented targets to be achieved by 2010, was adopted by the Conference of the Parties (COP) to the CBD in 2002. In the years since then considerable progress has been made in achieving at least some of the targets. Moreover, the GSPC has provided a model for target setting at the global level within the CBD and has achieved notable success in stimulating the engagement of the botanical and plant conservation communities in the work of the CBD.

At their 9<sup>th</sup> meeting in 2008, the Parties to the CBD decided to consider the further development and implementation of the Strategy beyond 2010, including an update of the current targets. In response to this request, an on-line consultation on the future of the GSPC was held in early 2009 and the inputs received were discussed during a Liaison Group meeting, which was organized by the CBD Secretariat and the Global Partnership for Plant Conservation in May 2009. This meeting resulted in the development of a draft GSPC for the period 2011-2020. This document was made available on-line for peer review and further discussions are being held at a series of regional meetings organized by BGCI (Europe, Americas and Africa). This report records the discussions held during the African regional workshop.

## **Participants**

The meeting included 8 invited participants representing 6 countries: Ghana, Kenya, Madagascar, Seychelles, South Africa and Tanzania. The support of IUCN for the participation of the representative from Madagascar is gratefully acknowledged.

A full participants list is provided in Annex 1.



## Workshop Day 1

The first day of the workshop included participant introductions and a general discussion about GSPC implementation in Africa. Presentations were provided on the national GSPC responses developed by the Seychelles and South Africa.

### Participant introductions

- Ghana – Alex Asase, University of Ghana. Although there are no national GSPC projects in Ghana, Dr Asase is involved in a number of projects that address GSPC targets. Of particular relevance are: Target 1 - through a biodiversity informatics project which aims to develop a working list of plants in Ghana; Targets 12 and 13 – through medicinal plant conservation projects and Target 15 – University-level teaching in plant science.
- Kenya – Patrick Muthoka, National Museums of Kenya. Dr Muthoka is the Kenyan Coordinator for the Millennium Seedbank Project of the Royal Botanic Gardens, Kew. The focus of his work is mainly on Target 8, seed storage and the development of propagation protocols, but institutionally, the National Museums are also involved in implementing Targets 1, 2, 10, 13 and 14.
- Madagascar – Sylvie Andriambololona, Coordinator of Research Unit, Missouri Botanic Garden (MBG) Madagascar Programme. There is no national plant conservation strategy in Madagascar yet, but the MBG programme aims to raise awareness of the GSPC amongst relevant national policy and decision makers. MBG and other partners are supporting work that contributes to several targets in Madagascar, including Target 1 – developing a catalogue of vascular plants; Target 2 – developing a Red List of endemic plants; Target 5 – identifying important areas for plant diversity; Target 9 – conservation of crop wild relatives; Targets 12 and 13 – a checklist of medicinal and nutritional plants of Madagascar.
- Seychelles – Walter Mangroo, Division of Nature Conservation, Ministry of Environment, Natural Resources & Transport. The Seychelles has developed a national strategy for plant conservation – for further details see below. The National Botanic Gardens particularly focuses on the implementation of Target 8 – conserving endemic species and Target 14 – education and public awareness.
- South Africa – Karin van der Walt and Erich van Wyk, South African National Biodiversity Institute (SANBI). Dr van Wyk is the South African Coordinator the Millennium Seedbank Project of the Royal Botanic Gardens, Kew and Ms van der Walt is responsible for SANBI's threatened plants project. Both have a particular involvement in the implementation of Target 8 in South Africa. Further



details of the South African response to the GSPC are provided below.

- South Africa – Dian Spear, University of Stellenbosch, Centre for Invasion Biology. Dr Spear is particularly interested in the implementation of Target 10 and is involved in the development of indicators for the invasive species programme of the CBD.
- Tanzania – Wilson Marandu, Bioversity International. The work of Bioversity International focuses on the conservation and sustainable use of plant genetic resources for food and agriculture. In this respect, they contribute to all targets of the GSPC, but have a particular interest in Targets 6, 9, 12 and 13.

### **Status of implementation of the GSPC in the Seychelles**

#### **Walter Mangroo**

The Seychelles has a very long geological history, with the islands being part of the original Gondwanaland. The archipelago has been declared a biological hotspot and the Government has set aside 45% as protected areas. In response to the GSPC, a Seychelles National Strategy for Plant Conservation was developed in 2004. This includes 16 targets with 44 sub-targets with specific outcomes to be achieved by 2010. Since then a number of activities have been undertaken, including:

- New research activities on native species as part of a new research strategy;
- Various workshops and training events;
- New publications;
- Species reintroductions (*Impatiens gordonii*);
- Habitat restoration and the encouragement of the commercial sector to use native species in landscaping;
- Education and awareness raising – school engagement;
- New policies put in place;
- New NGOs established.

A copy of the full presentation is provided in Annex 2.

### **South Africa's response to the GSPC**

#### **Christopher K. Willis & Erich Van Wyk, SANBI.**

South Africa has 19,581 indigenous plant species of which 11,700 are endemic. It has the richest temperate flora in the world, with the Cape Floristic Region, Succulent Karoo and Maputaland-Pondoland-Albany areas all classified as international biodiversity 'hotspots'. In response to the GSPC, South Africa has reviewed each of the GSPC targets and provided an



overview of current national progress towards each target and identified priority actions for the future.

This presentation provided an overview, target by target, of the status of implementation of the GSPC in South Africa. It also provided an overview of the key legislation and political frameworks covering plant conservation in South Africa and details of priority actions identified within the National Biodiversity Framework for the period 2008-2013.

In summarizing South Africa's experience in responding to the GSPC in South Africa, the following points were highlighted:

- SANBI is the lead institution. It is a member of the Global Partnership for Plant Conservation and is involved in international GSPC meetings/workshops;
- GSPC targets should be integrated into existing national biodiversity programmes/frameworks;
- A GSPC national focal point is required for coordination/reporting /monitoring & evaluation;
- Lead institutions/agencies are needed for specific targets
- Challenging but realistic targets for the national situation should be identified;
- Clarification and sourcing of funding is required for implementation;
- Regional cooperation (e.g. transfrontier conservation areas) is needed in order to develop integrated management and tourism plans.

A copy of the full presentation is provided in Annex 3.

## **Workshop Day 2**

### **Introduction to the GSPC – including review process and updating targets**

**Stella Simiyu, BGCI/SCBD GSPC Programme Officer.**

This presentation provided an overview of the process for the development of a revised GSPC including:

- Outcomes of the in-depth review of the GSPC carried out in 2007-8;
- The results of the initial on-line consultation on the revision of the GSPC, carried out in April 2009 and the key messages resulting from this consultation;
- The development of a revised draft GSPC during the GSPC Liaison Group meeting in May 2009



- Process for finalizing the revised GSPC, including the in-puts from the regional workshops
- Linkages between the GSPC and the development of a new strategic plan for the CBD

A copy of the full presentation is provided in Annex 4.

### **Group discussion**

Following the presentations outlined above, a general discussion was held and the following points were noted:

- Uncertainty regarding of the impacts of climate change mean that there is an added urgency to ensure the conservation of plant diversity *ex situ*. This should be highlighted in the revised GSPC text – especially in paragraph 41.
- It is important to ensure that there is harmony between the GSPC targets and other targets and indicators being developed within the framework of the CBD.
- Global targets can be adapted at the national level in accordance with the local situation and priorities.
- The revised GSPC should address the drivers of biodiversity loss.

The workshop participants proceeded to discuss in detail the individual targets and provided comments on the proposed revisions to these targets for the 2011-2020 period. Discussions were focused around the following criteria for each target:

- Clarity
- Scope
- SMART (specific, measurable, achievable, realistic and time-bound)
- Milestones and indicators
- Linked initiatives and resources
- Gaps

The results of the discussions are presented in Table 1 below.

**Table 1: Comments on the 16 proposed new GSPC targets**

Target	Clarity and Scope	Milestones and indicators	Rationale	Comments / gaps
1. A widely accessible list of known plant species	Target is clear. The scope focuses on a global list, but attention should also be given to producing national lists, including information on species distribution.	The following milestones are suggested: <ul style="list-style-type: none"> <li>•Xx% of global list available by xx</li> <li>•No. of countries with accessible national lists xx% complete</li> </ul>	Suggest to include only local names and not vernacular names. Suggest to link to Target 15 and GTI with regard to capacity needs.	Various African initiatives are in place that contribute to this target – e.g. the African checklist produced by SABONET/SANBI; African Plant Database in collaboration with Geneva Botanic Garden; the flora of Zimbabwe; Association for the Taxonomic Study of the Flora of Tropical Africa (AETFAT). Should lower plants be addressed?
2. An assessment of the conservation status of all known plant species to guide conservation action at national, regional, and international levels	The Target is clear. Regarding scope – is there a need to go beyond species level? In some important crops, it might be important to include sub-species.	Milestone (a) Greater explanation is required of the term 'evidence-based' Milestone (c) what does 'representative sample' mean?		Should both wild and cultivated species be included? All assessments made at national level from various mechanisms should be reported for the milestone.
3. Development and effective sharing of advice and guidance for plant conservation and sustainable use, based on research and practical experience	The new version of this Target is an improvement. However is 'advice and guidance' sufficient? Should 'practical technical experience' also be included'. Add 'to support national implementation' in the Target.	Suggested milestone could be: Availability of xx resources per target at national level by xx Milestones (a) and (b) should be reversed	At the national level, there should be a focus on developing a central database with protocols etc – as in the CBD Clearing House mechanism.	International cooperation is important and an element of 'lessons learnt' should be included in the toolkit. E.g. as 'best practice examples'.



**Table 1 – contd...**

<b>Target</b>	<b>Clarity and scope</b>	<b>Milestones and indicators</b>	<b>Rationale</b>	<b>Comments/gaps</b>
4. Ecosystem services secured through effective management of at least 10% of major ecological regions	The term 'vegetation type' is more easily understood than 'ecosystem type'. The word 'each' should be inserted before 'major'.	Milestone (b) change the word 'identify' to 'establish' Milestone (c) is inconsistent in wording as 'vegetation type' is used. A suggested timeframe is: milestones (a) and (b) by 2012; (c) by 2013 and (d) by 2017. Change the text of (d) to 'Trials will have taken place	Link to the programme of work on marine and coastal areas..	
5. Protection of at least 50 % of the most important areas for plant diversity assured with effective management for conserving plant diversity in place		Time frame: milestone (b) 2013; (c) initiated by 2013. Suggest to introduce a new milestone on a review of the impacts of climate change on IPAs and ecosystems (also link to T4).		
6. At least 30 % of production lands in each sector managed sustainably for plants and consistent with the conservation of plant diversity	The term 'sector' is not clear. Suggest change to: 'At least 30 % of lands in each production sector..'	Milestone (a) – at national level by 2011. Milestone (b) - sub-targets developed by 2013 Milestones (c) and (d) - 'development' by 2014; 'testing' by 2016 and 'promotion' by 2018		There is a need to consult with FAP regarding this target and the proposed milestones. Linkages should be made with the Crop Diversity Trust
7. At least 60% of threatened species conserved <i>in situ</i>	Milestone (d) – is it possible / necessary to conserve 1005 of endemic species. Perhaps the focus should be on all threatened endemic species.	Timeframe: Milestone (a) This is a mapping exercise and should be completed by 2012; (b) not clear what is meant by 'monitoring system' suggest 2013; (c) management plans – 2015; (d) <i>threatened</i> endemic plants – 2018.	Ensure explicit linkages are made with habitat management agencies.	This target should mention the need to conserve pollinators and other co-dependant species in order to ensure species survival in the wild.



Target	Clarity and scope	Milestones and indicators	Rationale	Comments/gaps
8. At least 60% of threatened plant species in <i>ex situ</i> collections, and at least 10% in recovery and restoration programmes	Suggest the term 'reintroduction' or 're-established in the wild' instead of 'recovery and restoration' as the target is focused at species level. Insert 'of these' after '10%'.	Milestone (b) should come first - timeframe 2011. Change 'living plant' to ' <i>ex situ</i> '; Milestone (a) 2016 and (c) 2012.	Para 41, line 11 should be revised	Should sub-species be included?  Make linkages with databases such as SINGER, GRIN and MSB. Recovery=reintroduction=reinforcement of populations in the wild
9. 70% of the genetic diversity of crops and other socio-economically valuable plant species conserved, and associated indigenous and local knowledge maintained		Milestone (a) – suggest change to: 'Collate existing knowledge and information on socio-economically important plant species from institutions and local and indigenous communities by 2012. Add milestones on: establishing an information collecting system for indigenous and local knowledge and collecting important materials for <i>ex situ</i> conservation by 2015.	Check p.11, line 19 – is 'one thousand accessions' correct?	Need to look at how ABS issues are addressed by this target Make links to Crops for the Future.
10. Effective management plans in place to address biological invasions for 50% of important areas for plants that are invaded		Milestone (d) should come first. Could change text to 'identify areas that are 'sensitive to invasion' Suggested revised milestones: (a) identify areas for controlling invasion – 2012; (b) identify invasive species – 2013; (c) establish databases of invasive species per ecosystem/locality – 2015; (d) develop guidance – 2016.	Make clear link to target 5 Use the terminology 'invasion pathways'. Islands and areas of high endemism are particularly important.	The focus of this target should be on areas that can be managed and on the prevention of invasion – i.e. put emphasis on areas that are least invaded? Guidelines are needed to help prioritise areas that should be managed – these can be provided by invasive species experts. As the concept of biological invasion is complex, agreement on its definition must be sought at national level for the indicators to be comparable.

<b>Target</b>	<b>Clarity and scope</b>	<b>Milestones and indicators</b>	<b>Rationale</b>	<b>Comments/gaps</b>
11. No species of wild flora endangered by international trade	Is there a need to include national trade?	CITES plants committee should provide milestones		
12. A continuous increase in the percentage of plant-based products derived from naturally occurring sources that are sustainably managed, based on progressive inventory and assessment			Make greater linkages with target 6.	
13. The decline of plant resources, and associated indigenous and local knowledge innovations and practices, that support sustainable livelihoods, local food security and health care, halted	It is not possible to 'halt' the loss of indigenous knowledge.			Make a link with CBD Article 8j. It is important to document what information is already available with a focus on plant resources.
14 The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes		Key messages should be developed by 2012 – for conserving plants, not for the strategy itself Change milestone (b) to 'encourage Parties to mainstream the GSPC'.		Difficult to measure Linkages to CBD CEPA programme and UNESCO.

Target	Clarity and scope	Milestones and indicators	Rationale	Comments/gaps
15. The number of trained people working with appropriate facilities in plant conservation increased, according to national needs, to achieve the targets of this Strategy	The number of trained people working with appropriate facilities in plant conservation increased in at least 70% of countries with resources requiring urgent action, based on national needs, to achieve the targets of this Strategy	Suggested milestones: (a) A data base of institutions with significant contribution to capacity building and public awareness with regard to plant conservation at national, regional and global levels compiled by 2012; (b) Needs assessments conducted at national and regional levels in at least 70% of countries covering the major groups of resources requiring urgent action by 2013; (c) At least xx regional programmes strengthened with appropriate resources to improve their focus on the GSPC targets and support to national programmes by 2016; (d) At least xx regional programmes offer additional hands-on training appropriate to implementation of GSPC targets by 2016; (e) At least 70% of countries covering the major groups of resources requiring urgent action have public awareness programmes publicizing the outcomes of GSPC targets by 2015.	Need to compile a list of institutions with significant contribution to capacity building and public awareness at national, regional and global levels with regard to plant conservation. Such a compilation should yield information on the current numbers of people trained per year, the level of training, the GSPC targets addressed, the potential for further expansion and linkage with specific national, regional and global programmes. The global institutions already contributing to this target could be tasked to collect the appropriate information (IUCN, Bioversity, FAO, UNESCO etc).	(a) Regional conservation networks (taxonomy, genetic resources, protected areas etc); (b) Thematic networks (GTI??) (c) Selected universities (d) Global institutions (IUCN, Bioversity, FAO, UNESCO etc)
16. Networks for plant conservation activities established or strengthened at national, regional and international levels				

## Annex 1 Participants List

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## Annex 2

### IMPLEMENTATION STATUS OF THE GSPC SEYCHELLES

**Mr. Walter Mangroo**  
Project Officer  
Division of Nature Conservation  
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### Content

- Background
- National Strategy for Plant Conservation (NSPC)
- Implementation
- Challenges
- Conclusion

### Background

- Seychelles has a long geological history
- Granitic islands are oldest in the world, being fragments of Gondwanaland
- Flora and fauna had time to evolve in isolation creating more than 1000 endemic species
- Distributes in 5 ecosystem
- Archipelago declared a biological hotspot and Government has set aside 45% as protected areas



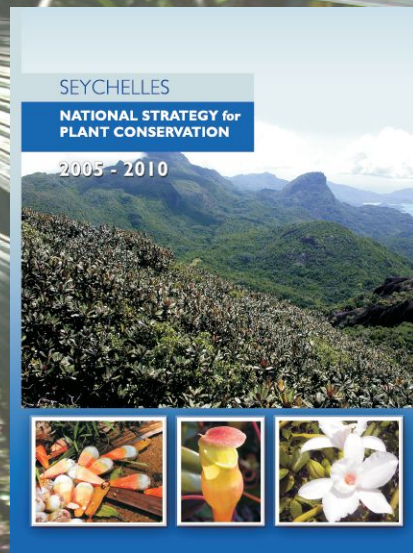




## Strategy in development



- Party to CBD (1992)
- In response to GSPC, National Strategy for plant conservation
- Initiated in 2004
  - 16 targets with 44 sub-targets with specific outcomes to be achievable by 2010



## What next?

- Habitat restoration workshop-
- Red Data List Project
- Species Reintroduction (*Impatiens*)
- Use of native species for habitat restoration work
- Creation of new NGOs
- Engagement
- Inventory

## Small island state responds to GSPC

Island flora are more vulnerable and threatened than continental flora. Seychelles is part of the Western Indian Ocean biodiversity 'hotspot' and a Centre of Plant Diversity. As such, our island state aims to play a significant role in global plant conservation by protecting our unique flora, whether in the granite islands which harbour unusual and ancient plant forms such as *Coco de Mer* (*Lodicea maldivica*) or whether in far-flung atolls such as Aldabra, a World Heritage Site. Seychelles was therefore enthusiastic to take up the challenge outlined by the Global Strategy for Plant Conservation (GSPC).

By sharing our experience of developing a National Strategy for Plant Conservation, we hope to encourage other small island developing states, in particular, to develop their own strategies. For most such countries, an important constraint is limited human resources – the population of Seychelles is only 81,000, equivalent to a medium-sized town in most other countries. However, with a small population, bringing people together can be relatively easy and interaction between government and NGOs is also feasible. We were therefore fortunate that a government agency, the Botanical Gardens section of the Ministry of Environment and Natural Resources, could collaborate with a young NGO, the Plant Conservation Action Group (PCA), in developing the national strategy. This allowed a certain freedom from 'red tape' and enabled a small group of plant conservation enthusiasts to organize a two-day national workshop with relative ease. A broad cross-section of society was invited, including government officials, environmental NGOs, private sector and others from civil society concerned with the conservation and/or utilization of plants and plant materials.

Because of the variety of participants, it was important to ensure that they were all brought to the same level of understanding at the start of the workshop, through a number of short presentations on the current status of plant conservation.



**A:** The Seychelles endemic pitcher plant (*Sepisthema pendula*) is a flagship species for plant conservation in Seychelles. It grows on limestone and granite rocky outcrops that are natural habitats for many endemic species, and one of the habitats with the lowest number of invasive species.

One of the most successful aspects of the workshop was working in small groups, allowing people to focus on a specific GSPC objective (see *A to Z* on page 4) of particular relevance to them. Each of the groups drafted a SWOT analysis of the current plant conservation situation as it related to their objective, identifying the Strengths, Weaknesses, Opportunities and Threats. Priority measures provided ample time for sharing and discussing the findings. The second task of the workshop group was to set SMART targets (Specific, Measurable, Achievable, Realistic, Time-bound) for the national strategy, based on what had been identified in the SWOT analysis. It was then especially useful to have two independent advisors with a broader view, to point out gaps, advise on wording and indicate targets that were less than SMART. In this we were lucky to have Peter Wyse, Jackson and David Strauss who are already involved in the implementation of the GSPC. By the end of the workshop a draft strategy document

had been formulated. This was reviewed and sent round to all relevant stakeholders for comment. Further changes were made and the strategy is now in the process of being compiled for publication and endorsement by government.

Although Seychelles has a good reputation on the environment and an excellent system of protected areas, the challenge for plant conservation will hinge for a small country. Government spends a considerable amount on conservation but can address only the main issues and there are still many gaps, especially in plant conservation. Our knowledge base is very limited, particularly for so-called lower plants, but there are fragments: some species are on the edge of extinction, invasive species (plants, animals, pests, diseases) are a particular threat and may well become more so with global climate change. Although some rare plants and agricultural varieties are being conserved, and rehabilitation of some natural areas has begun, there requires considerable effort to deal with these practices. Sustainable use of plant resources, particularly of medicinal plants and those used for handicrafts, continues to be an issue. A lot of capacity building in terms of botanical training and finance remains a huge challenge.

Developing a national strategy has allowed us to promote the actions which are necessary for plant conservation and has written down actions into verifiable targets. This is a great step forward. We both of us have been able to make progress in their own steps to implement the GSPC.

**PLANT CONSERVATION ACTION GROUP IN SEYCHELLES**  
PCA is a voluntary group of plant enthusiasts. Our primary objective is to promote the conservation of the plant resources of Seychelles. We are currently working on a National Strategy for Plant Conservation. We are also involved in the implementation of the GSPC. By the end of the workshop a draft strategy document

## Island flora protected Seychelles becomes first small island nation with integrated strategy for plant conservation



**B:** A natural habitat in Seychelles, showing diverse plant life and a clear sky.

With the key part of the Seychelles action plan now written and adopted by parliament, the government has taken the first step towards the implementation of the GSPC. The first and most important step was to set up the PCA. The PCA is a voluntary group of plant enthusiasts. Our primary objective is to promote the conservation of the plant resources of Seychelles. We are currently working on a National Strategy for Plant Conservation. We are also involved in the implementation of the GSPC. By the end of the workshop a draft strategy document



workshop will be important not only for the Seychelles, but will also serve as a model for other countries throughout the world," said Peter Wyse (Secretary General of IBCG). "It is very important that the Seychelles should take the steps to set up a National Strategy for Plant Conservation. This will ensure that the country is able to meet the challenges of the 21st century."



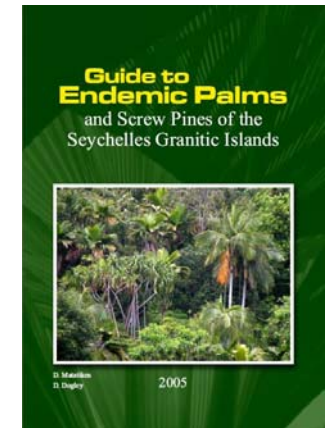
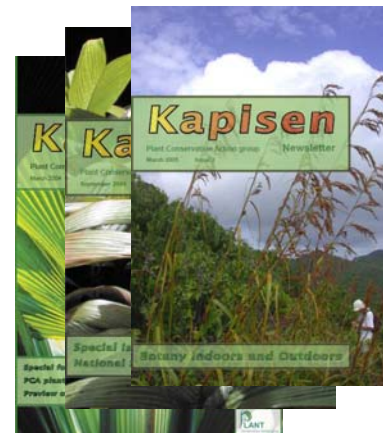
**C:** A meeting of the Plant Conservation Action Group in Seychelles, discussing the national strategy.

# NSPC achievements

- Various projects (Red Data list produced for woody plants by ETH students)
- Various workshops
  - Island Restoration workshops (engagement of private islands)
  - Research Agenda (2008-2015)
  - Several plant research conducted (PhD and MSc level) on native plants and also on invasive plants
  - Creation of new NGOs

- New publications (scientific)
- Reprint of existing documentation
- Engagement of schools (creation of endemics and traditional home garden)
- Various projects funded by GEF (Document all plants found in Seychelles, AIS, Review legislation)
- Created a new Genetic Resources Bill, - Access, Utilization and also fair and equitable benefit sharing

# New publications





- Plant reintroduction (e.g. *Impatiens gordonii*)
- Island restoration works (engagement of private sector in helping with conservation)
- EIA- Encourage use of native species in landscaping
- Declaration of new national Park (e.g. Silhouette and Moyenne)
- Protocol for vegetation restoration
- Awareness (Wildlife clubs)

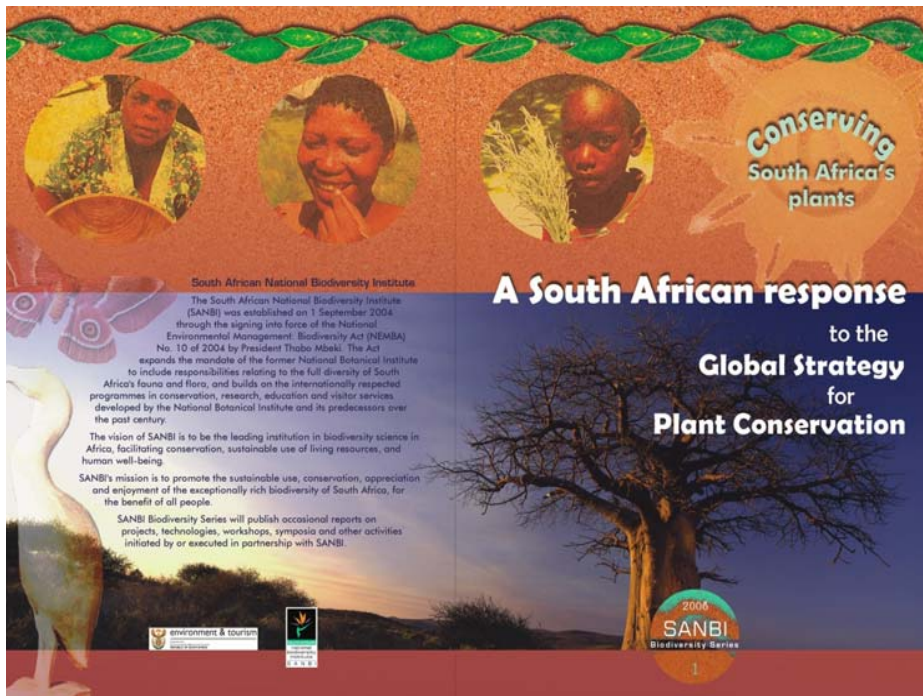
- More monitoring work (historical distribution)- recent discovery of *Schefflera procumbens* after more than a century (1901) considered extinct (2009).
- Better understanding of the population structure & dynamics of the critically end. *M. oppositifolia* 2005/2006
- Every home a garden (promoting and conserving agricultural food crop diversity).
- Using innovative methods to combat desertification on hillside (UNCCD) – on going project of native/common spp.



## Annex 3

# South Africa's response to the GSPC

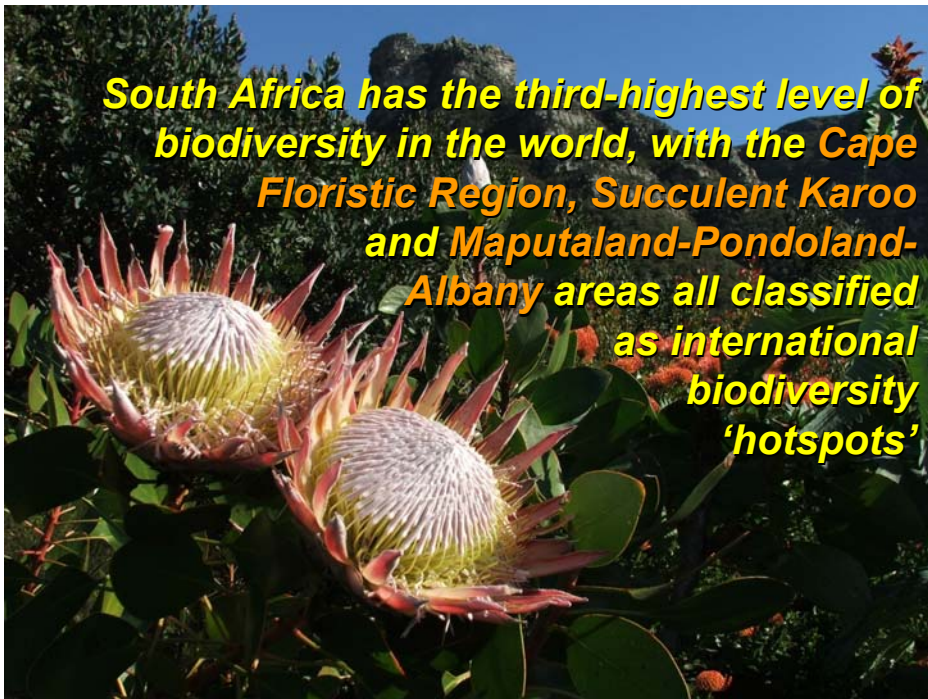
by  
**Christopher K. Willis & Erich Van Wyk**  
*South African National Biodiversity Institute,  
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## National plant overview

- 19,581 indigenous plant species
- 2,267 genera and 349 families of vascular plants
- 11,700 endemic species
- Richest temperate flora in the world
- 14 Centres of Plant Endemism
- Nine biomes & 435 vegetation types
- Arid and semi-arid areas contain roughly half of the world's succulent plants
- Contains the whole of one of the world's 6 floristic kingdoms – the Cape Floristic Region ( $\approx$  Fynbos Biome)





**South Africa has the third-highest level of biodiversity in the world, with the Cape Floristic Region, Succulent Karoo and Maputaland-Pondoland-Albany areas all classified as international biodiversity 'hotspots'**

## **Elements of GSPC**

- **Understanding and documenting plant diversity (Targets 1-3)**
- **Conserving plant diversity (4-10)**
- **Using plant diversity sustainably (11-13)**
- **Promoting education and awareness about plant diversity (14)**
- **Building capacity for the conservation of plant diversity (15-16)**



## **Target 1**

- **A widely accessible working list of known plant species, as a step towards a complete world flora**



## **Achievements**

- **Plants of southern Africa (1993, 2003)**
- **POSA (web-based checklist)**
- **A Checklist of South African Plants (2006)**

## **Looking forward**

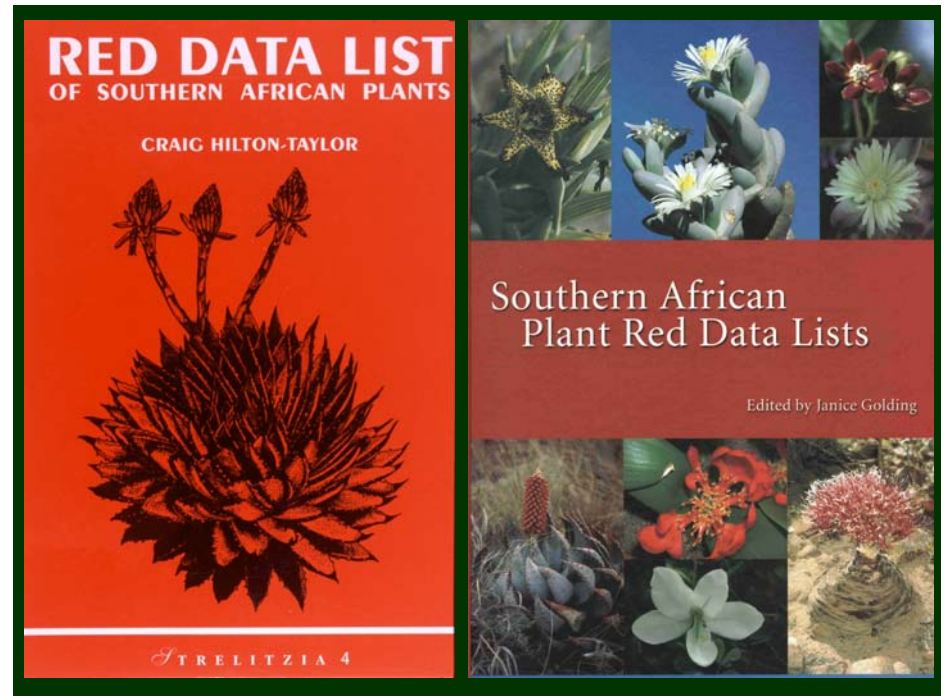
- **Taxonomic capacity improved**
- **Continue to update checklists**





## Target 2

- **A preliminary assessment of the conservation status of all known plant species, at national, regional and international levels**



## Achievements

- Long history of Plant RD Lists in South Africa
- All South Africa's plant taxa have been assessed using IUCN RDL criteria
- Conservation assessments conducted in collaboration with over 160 botanists and cost of over US\$570,000 (Norwegian-funded)

## Looking forward

- RDL anticipated in 2010
- Monitoring of threatened plants
- Update RDL on regular basis
- Support to southern African countries



## Target 3

- **Development of models with protocols for plant conservation and sustainable use, based on research and practical experience**





## Achievements

- *MSB – Threatened Species Dossiers & germination protocols*
- *SABONET-sponsored 'Manual on cultivation and propagation of southern Africa's threatened plants'*
- *www.plantzafrica.com*

## Looking forward

- *Coordinate lessons learnt*
- *Closer cooperation between in situ and ex situ conservation organisations*
- *Require national database/clearing house mechanism*
- *Capture remote and inaccessible data*



## Target 4

- *At least 10 per cent of each of the world's ecological regions effectively conserved*



## Achievements

- *6% under protection*

## Looking forward

- *Gaps in protected area network (Nama Karoo & Grassland)*
- *Ecological regions to receive priority*
- *Ambitious Protected Areas Expansion Strategy*



## Target 5

- **Protection of 50 per cent of the most important areas for plant diversity assured**



## Achievements

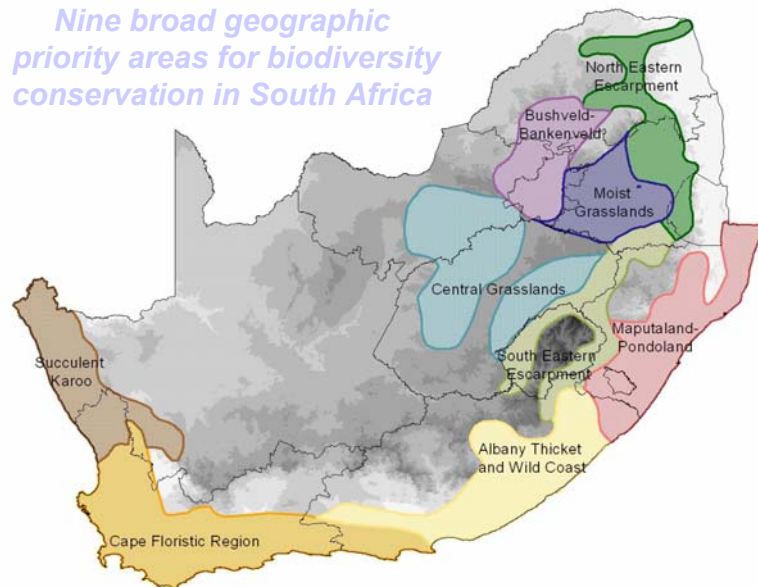
- **NSBA (2005)**
  - Identified nine priority biodiversity areas
- **CREW**
- **Provincial biodiversity plans**
- **Regions and centres of plant endemism identified**

## Looking forward

- **Link biodiversity with socio-economic development**
- **Focus on threatened ecosystems**
- **Expand formal protected area network**



*Nine broad geographic priority areas for biodiversity conservation in South Africa*



## Target 6

- **At least 30 per cent of production lands managed consistent with the conservation of plant diversity**



## **Achievements**

- *Conservation Farming Project (1999 – 2003)*
- *Bioregional programmes (CAPE, SKEP, STEP, Grasslands, Marine)*
- *Biodiversity & Wine Initiative (BWI)*

## **Looking forward**

- *Establish new Freshwater Ecosystem/Bioregional Programme*
- *Collaboration with production sector*
- *Research into biodiversity – compatible land uses*



## **Target 7**

- *60 per cent of the world's threatened species conserved in situ*



## **Achievements**

- **NSBA/NEMBA**
  - *Priority areas for plants and animals*

## **Looking forward**

- *What plants are in protected areas?*
- *Require integrated conservation efforts*
- *Stringent law enforcement required*



## **Target 8**

- *60% of threatened plant species in accessible ex situ collections, preferably in the country of origin, and 10% of them included in recovery or restoration programmes*



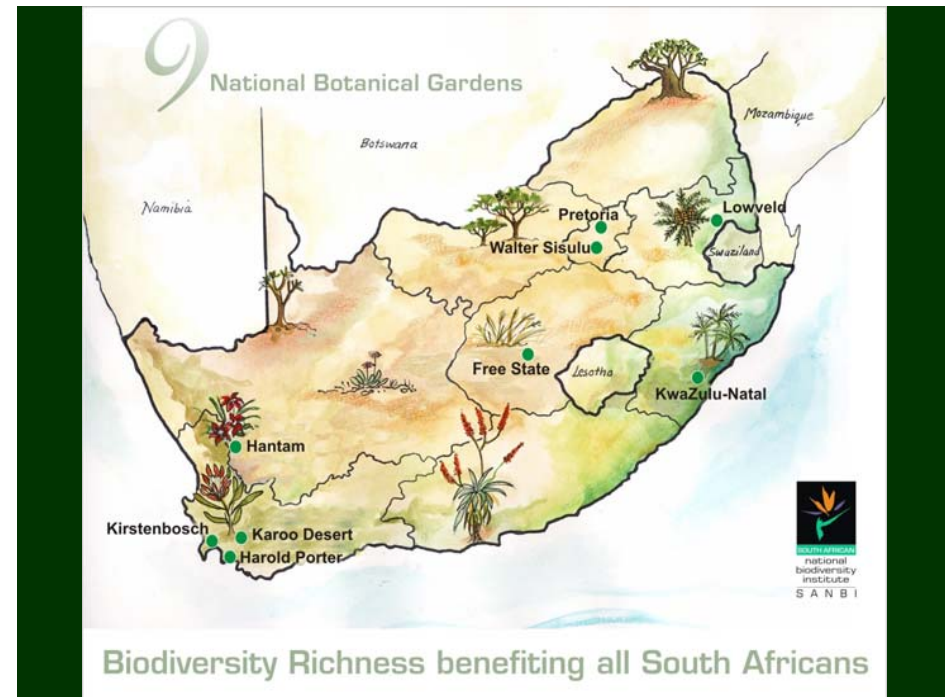


## Achievements

- Nine NBGs focussed on indigenous plants
- Collaboration with MSBP
- Gardens Conservation Programme
- Reintroductions/Restoration projects

## Looking forward

- All threatened plants in NBGs or the MSB
- Survey of threatened plants in NBGs
- Plant Conservation Strategy for NBGs
- Participate in MSB-2



## Target 9

- 70% of the genetic diversity of crops and other major socio-economically valuable plant species conserved, and associated local and indigenous knowledge maintained



## Achievements

- NPGRC
- ARC-LBD

## Looking forward

- Revision of priority crops



## **Target 10**

- **Management plans in place for at least 100 major invasive alien species that threaten plants, plant communities and associated habitats and ecosystems**



## **Achievements**

- **Working for Water Programme**
- **SAPIA Database**
- **Biological control programmes**
- **Nurseries Partnership Programme**
- **Centre for Invasion Biology (Univ. Stell.)**

## **Looking forward**

- **Publish & implement AIS regulations**
- **Restoration of areas cleared of invasive plants**
- **Management strategies to be flexible and address climate change challenges**



## **Target 11**

- **No species of wild flora endangered by international trade**



## **Achievements**

- **Piloting DNA Fingerprinting for cycads**
- **TRAFFIC**
- **Efforts to promote fair and sustainable trade**

## **Looking forward**

- **Establish Scientific Authority**
- **Adaptive management plans**
- **Population and habitat viability analyses (PHVA) for critically endangered cycads**
- **Limit impact of illegal trade e.g. cycads/timber**



## **Target 12**

- **30 per cent of plant-based products derived from sources that are sustainably managed**



## **Achievements**

- **AFRISCO – a South African organic certification scheme**
- **Fair Trade South Africa**
- **80% of commercial timber plantations certified**

## **Looking forward**

- **CPWild (Commercial Products from the Wild)**
- **Natural Futures Programme (towards sustainable natural products)**
- **Biodiversity & Wine Initiative**
- **Fynbos Crops initiative (sustainable cut-flower market)**



## **Target 13**

- **The decline of plant resources, and associated local and indigenous knowledge, innovations and practices that support sustainable livelihoods, local food security and health care, halted**



## **Achievements**

- **Range of ethnobotanical reviews**
- **MedBase (SANBI); TRAMED (MRC)**
- **Medicinal plant nurseries complemented by tissue culture protocols**

## **Looking forward**

- **Indigenous knowledge legislation**
- **MSB focus on useful plants**
- **Novel Drug Development Platform (develop new medicines effective against malaria, TB, diabetes mellitus)**





## Target 14

- *The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes*

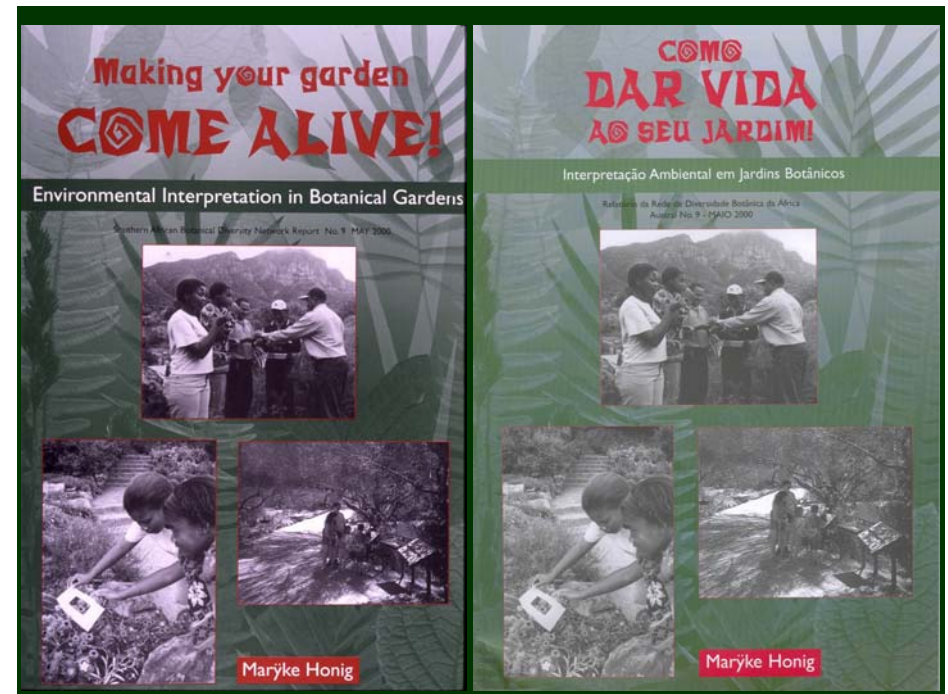


## Achievements

- *Range of environmental education programmes implemented*
- *Outreach Greening (SANBI)*
- *Greening the Nation*
- *Interpretation*
- *Environmental Calendar Days*
- *BotSoc/WESSA/Urban Conservation*
- *National Arbor Week*

## Looking forward

- *Intensification of efforts*
- *Need measurement and evaluation of real change on the ground*



## **Target 15**

- *The number of trained people working with appropriate facilities in plant conservation increased, according to national needs, to achieve the targets of this Strategy*



## **Achievements**

- *SABONET Programme*
- *Grootbos Green Future Programme*
- *Horticultural training programmes in NBGs*

## **Looking forward**

- *National audit of state of systematics*



## **SABONET's capacity building activities**

- *29 in-service regional and national training courses (including courses for garden Curators and horticulturists)*
- *410 trainees from 51 institutions in 12 countries*
- *Supported 26 students to obtain 36 postgraduate degrees*
- *13 male : 13 female*
- *55 botanists and 26 horticulturists have undertaken internships between herbaria and botanical gardens in the region*



## **Target 16**

- *Networks for plant conservation activities established or strengthened at national, regional and international levels*



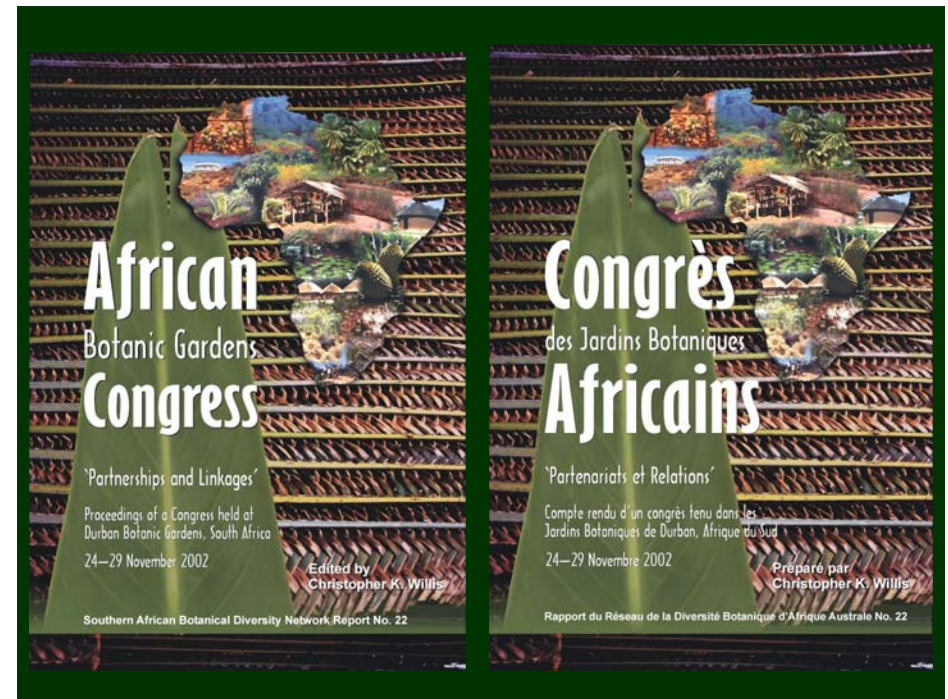


## Achievements

- SABONET ('Learning by doing')
- African Botanic Gardens Network (ABGN)
- Fynbos Forum
- CAPE/SKEP/STEP/Grasslands/Marine

## Looking forward

- Elaborate more specific objectives that relate to this target
- Analysis and understanding of network governance
- Establish effective systems for integrating knowledge, monitoring and evaluation

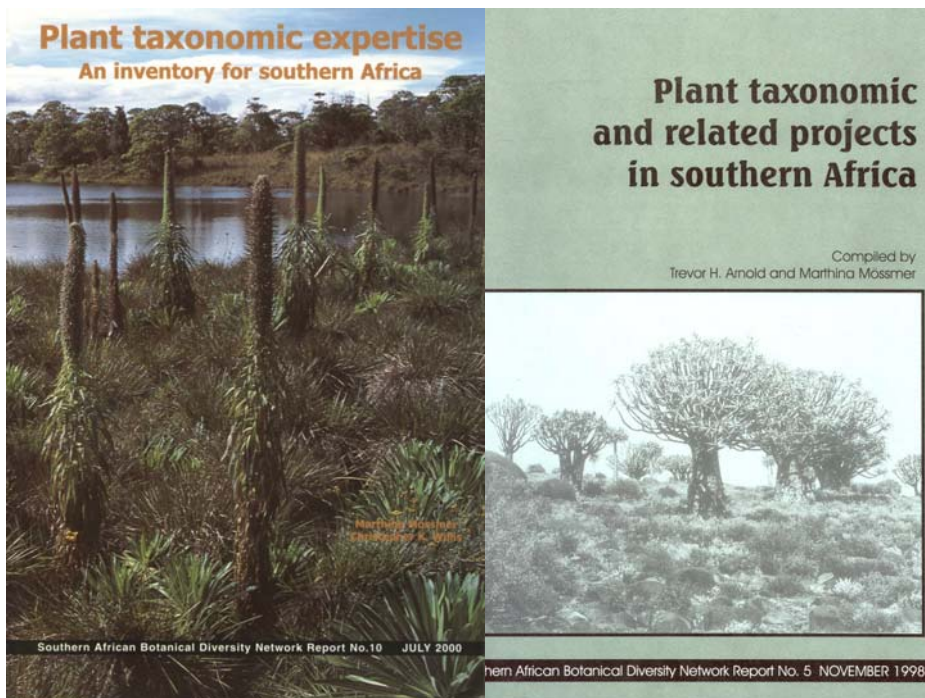
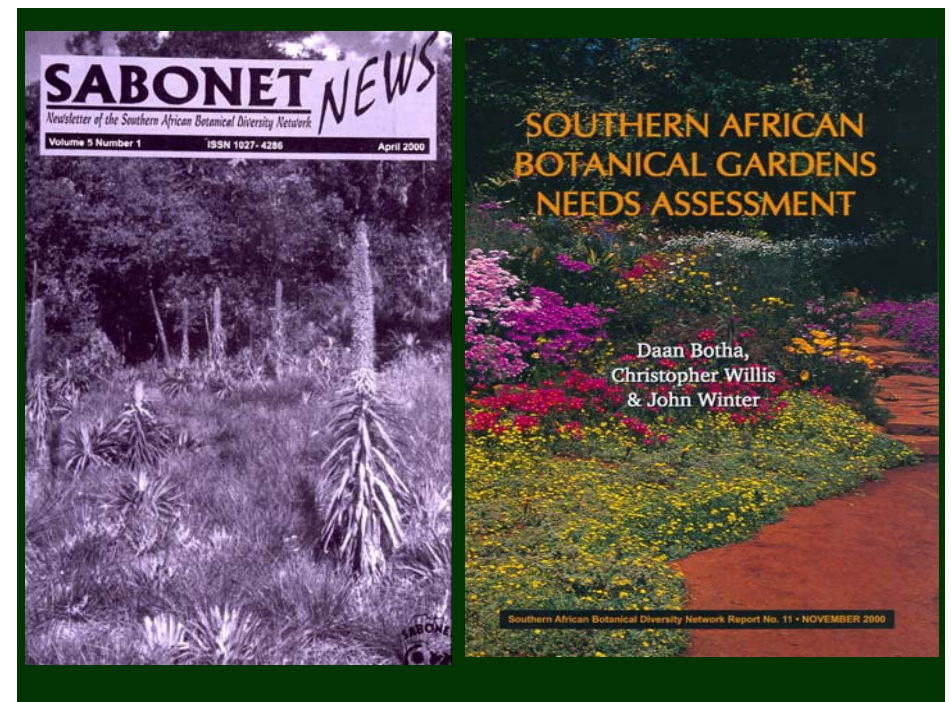
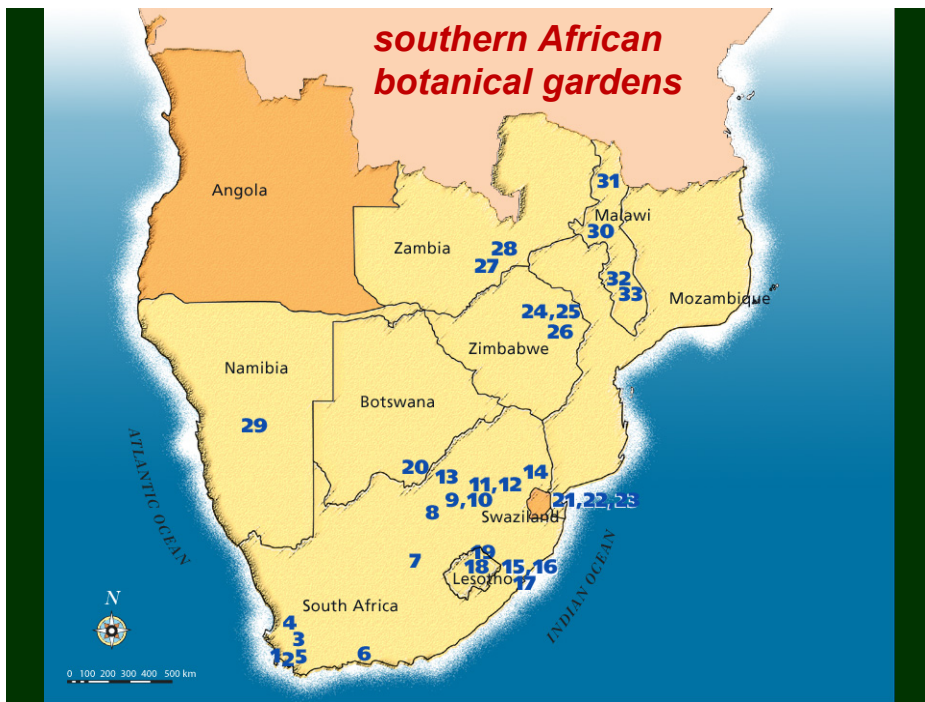


## The SABONET network

- Networked 17 regional herbaria and 22 botanical gardens in 10 countries
- Initiated threatened plant programmes in 22 gardens
- Inventory of 95 southern African herbaria
- Needs assessments for region – 55 herbaria and 20 botanical gardens
- Inventory of regional taxonomic expertise
- SABONET News – 22 editions published (1,464 pp.)
- SABONET Reports – 23 published, 11 in prep.
- Participation in AETFAT, African Botanic Gardens Congress (also published proceedings)
- Steering Committee, active participation of 250 professionals in the region, web site







- ## Key legislation/frameworks
- **National Environmental Management: Biodiversity Act (NEMBA)(2004)** – established SANBI and its responsibilities
  - **NBSAP (2005)** – a 20-year strategy
  - **National Spatial Biodiversity Assessment (NSBA)(2005)** – identifies threatened and under-protected ecosystems and priority areas for biodiversity conservation – to be updated every five years
  - **National Biodiversity Framework (2009)** – identifies key priorities for next 5 years (up to 2013) – to be reviewed every 5 years
- 



### **Priority actions for 2008 to 2013 (from NBF)**

- Challenge is not to conserve OR to develop but rather how to conserve **AND** develop – **where** and **how** development takes place
- Challenge is to **implement existing policy and legislation effectively**
- **Mainstreaming biodiversity**
- **Make the case for the value of biodiversity as a cornerstone of sustainable development**
- **Fiscal instruments** for improved biodiversity management
- **Ecosystem guidelines** for environmental assessment



### **Priority actions for 2013 (2)**

- **Alien and Invasive Species (AIS) regulations finalised and implemented**
- **Establish regulations for species listed in terms of CITES**
- **Scientific Authority established**
- **Electronic permit system**
- **Establish human capital development strategy**
- **Fill key biodiversity information gaps**
- **Establish a national biodiversity research strategy**
- **Establish national monitoring and reporting framework for biodiversity**



### **Priority actions for 2013 (3)**

- **Wetland ecosystem map completed**
- **Improved online access to biodiversity information**
- **Establish SANBI's one-stop-shop for biodiversity information**
- **Establish Freshwater bioregional /ecosystem programme**
- **List threatened and protected ecosystems**
- **Develop an integrated programme for ecosystem adaptation to climate change, with emphasis of ecosystems vulnerable to climate change impacts**



### **Priority actions for 2013 (4)**

- **Finalise the 20-year National Protected Area Expansion Strategy**
- **Establish and strengthen provincial stewardship programmes**
- **Develop the natural products sector**
- **Improve knowledge of sustainable extractive use of terrestrial resources, especially medicinal plants**
- **Develop and implement a national botanical gardens expansion strategy**
- **At least one new National Botanical Garden established**



## **Implementation of the GSPC in South Africa**

- *SANBI a member of the GPPC – involvement in international GSPC meetings/workshops*
- *Integration of GSPC targets into existing national biodiversity programmes/frameworks*
- *GSPC national focal point required for coordination/reporting/monitoring & evaluation*
- *Lead institutions/agencies for specific targets*
- *Identify challenging but realistic targets for South Africa*
- *Clarification and sourcing of funding required for implementation*
- *Regional cooperation (e.g. transfrontier conservation areas) – develop integrated management and tourism plans*



**Thank you**

- [www.sanbi.org](http://www.sanbi.org)
- [www.plantzafrica.com](http://www.plantzafrica.com)



## Annex 4

### The Global Strategy for Plant Conservation:

**Stella Simiyu**  
BGCI/SCBD GSPC Programme Officer



## Background - CBD Decision IX/3,

### *The Conference of the Parties decided to:*

- consider the further development and implementation of the Strategy beyond 2010,
- taking into account current and emerging environmental challenges on plant diversity,
- including an update of the current targets within the broader context of and consistent with the new Strategic Plan beyond 2010,
- taking into account national priorities and circumstances, capacities and
- differences in plant diversity between countries.



## Process for a consolidated update of the Strategy beyond 2010

- ❑ In depth Review of the GSPC - *UNEP/CBD/COP/9/2, annex*
- ❑ On line Consultation - 1<sup>st</sup> - 30<sup>th</sup> April 2009
- ❑ Liaison Group - Dublin 26<sup>th</sup> -28<sup>th</sup> May 2009
- ❑ Online Review of the Liaison Group Meeting Report - 10<sup>th</sup> August - 1<sup>st</sup> October 2009
- ❑ Regional Meetings: e.g. Europe (June) Americas (Sept), Africa (Nov), Asia (Dec).
- ❑ SBSTTA 14 - May 2010



## In Depth Review – 9<sup>th</sup> Conference of the Parties 2008

### **Key Messages: The Strategy 2002 – 2010**

- Was a useful framework to harmonize and bring together various initiatives and programmes in plant conservation at both the national and regional levels.
- *Was notably successful in stimulating the engagement of the botanical and plant conservation communities in the work of the Convention, e.g. in particular the Global Partnership for Plant Conservation.*
- Through national implementation provided opportunities for addressing the Millennium Development Goals especially poverty reduction (goal 1), the health crisis (goal 6) and environmental sustainability (goal 7).



## In Depth Review- Constraints:

### *Planning Stage:*

- Limited institutional integration,
- Lack of mainstreaming, and
- Inadequate policies and legal frameworks.

### *Operational level:*

- Lack of taxonomic capacity and of data (taxonomy, biology and conservation),
- Lack of tools and technologies,
- Limited financial and human resources.



## In Depth Review

### Noted:

#### *Notable progress*

**Targets 1, 5, 8, 9, 11, 14, 15, 16**

#### *Limited Progress*

**Targets 2, 4, 6, 10, 12**

#### *Gaps*

**Targets 3, 7**



## Online Consultation

**30 days (1-30<sup>th</sup> April 2009)**

**Purpose: To assess (where we are coming from)**

- (a) whether strategy had served its purpose in achieving the 16 outcome oriented targets (products, services and systems) (*In depth Review*)
- (b) if these outputs had led to desired effect on reducing the continuing loss of plant diversity (changes in status of knowledge, skills, responses and actions) and
- (c) if the strategy had led to **impacts beyond** reducing the loss of plant diversity (change in status leading to sector specific contributions).



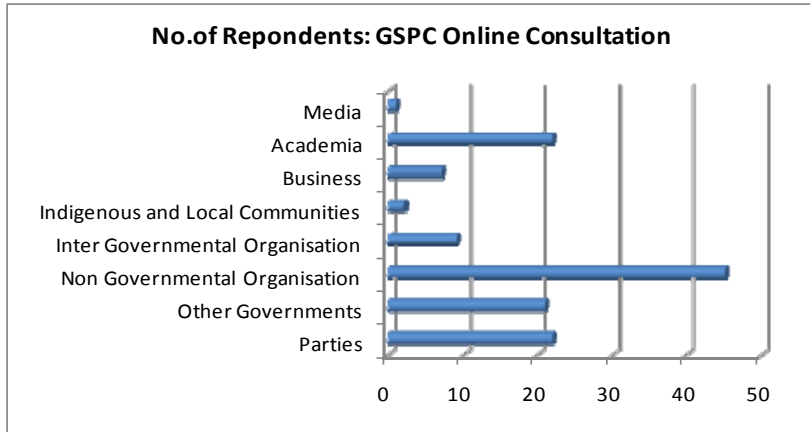
## Basis for a framework for further implementation and update of the Strategy

**Focus of the Questions in Section A**

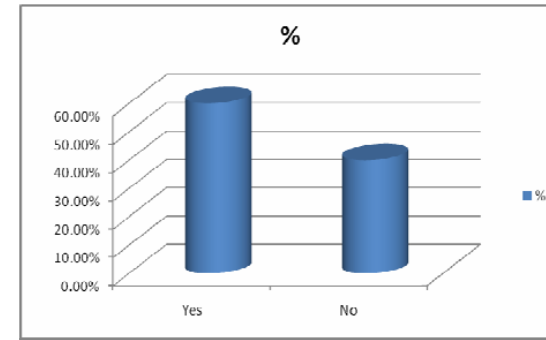
1. Effectiveness and relevance of the Strategy;
2. Effectiveness of the Strategy in responding to its objectives;
3. Effectiveness of the Strategy in responding to the 3 objectives of the CBD;
4. Relevance of the Strategy in responding to pertinent issues as well as an opportunity for respondents to provide any additional information.



# OUTCOMES: Responses n=166

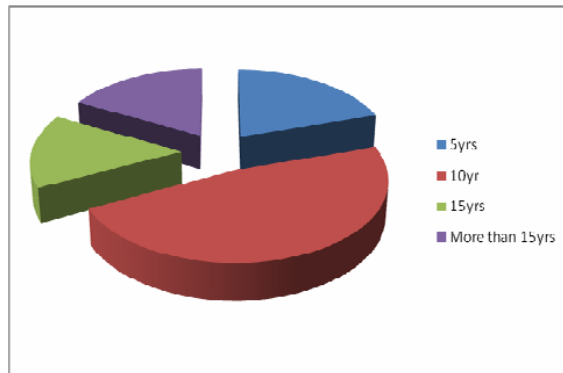


# Was the current time frame for the Strategy sufficient to achieve the Targets.



Main Constraint:  
• Resources

# Proposals for time frame for further implementation/update of the Strategy



### Key Points

1. Political mandates often 5yrs
2. 10 years sufficient
3. Longer time frame – targets may loose significance and cause potential inability to respond to emerging challenges

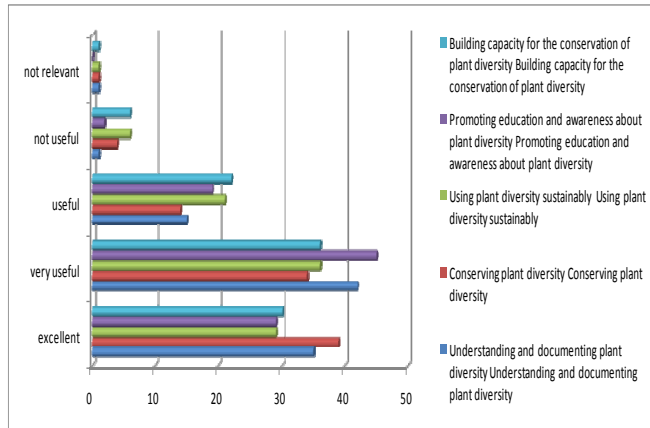
# Defining the framework

## 97% favoured use of short , medium and long term goals

- Long term vision – *Provide context at global, regional and national level*
- Medium term goals – *high level and unlikely to change with time*
- Short term objectives – *immediate priorities for implementation by different stakeholders*



## Robustness of the Objectives

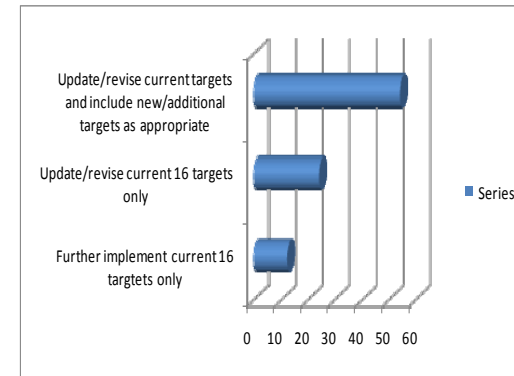


•Support for use of measurable targets - 96%

•Robustness of the global targets for developing national and regional targets - 65%



## What about the sixteen targets

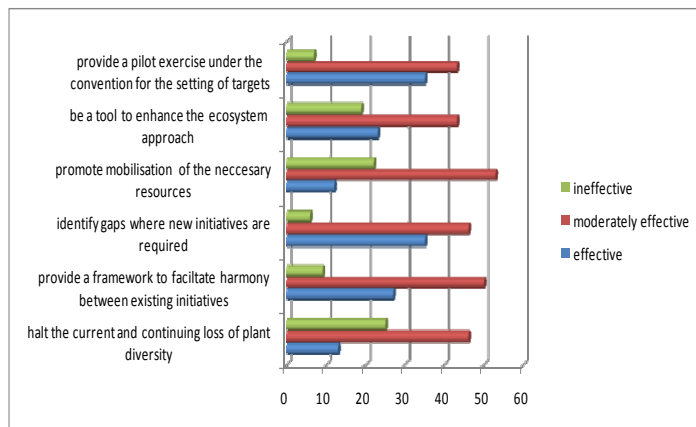


### Gaps

- (i) sustainable use to improve conservation and provide incentives at local level,
- (ii) new challenges related to climate change such as promoting old growth forest and extending forest cover,
- (iii) marine species,
- (iv) demand and marketing trade chains,
- (v) measures to promote and enable links between sustainable use and human well-being,
- (vi) links to Access and Benefit Sharing (ABS) and article 8j, and
- (vii) diversity of lower plants.



## Effectiveness of Strategy in addressing other aspirations of the Convention



## Key Messages from online consultations

### Strategy effective in :

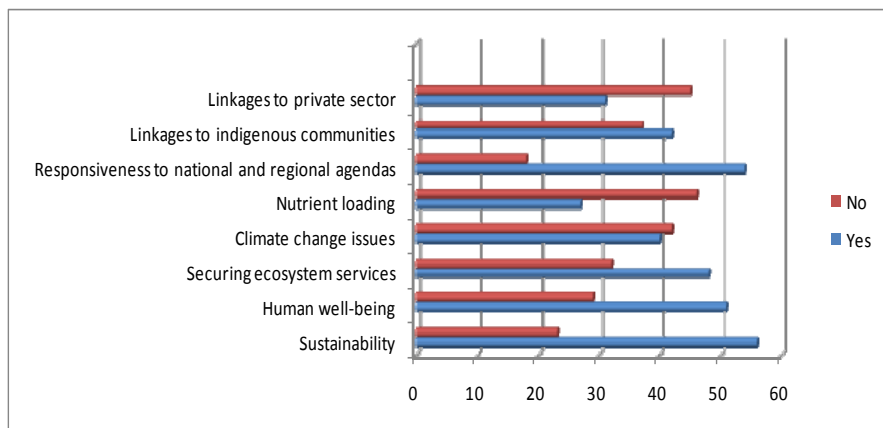
- providing a framework for implementation at the global, regional and international level;
- supporting the ecosystem approach,
- employing *in situ* conservation as the primary approach for conservation and supporting national inventories.

### However, the Strategy was less effective in:

- in applying the provisions on Access and Benefit Sharing and implementing article 8j. T
- effective mainstreaming at national level.
- engagement with local indigenous and local communities in some instances during implementation of some targets.
- provision of specific guidance to address the issues related to access and benefit sharing, article 8j and the application of the ecosystem approach.



## Effectiveness in addressing other issues relevant to the three objectives of the Convention.



## Section B: REVISION OF TARGETS Responses n=77

- Section B targeted technical experts who have been involved in the implementation of the Strategy,
- Aim: *to garner more insight on proposals for the update/review and/or further development of the existing sixteen outcome targets.*

For each target, choose one of the four options

- (a) maintain target as is,
- (b) maintain target but put in place measures to enhance implementation,
- (c) update/review target and
- (d) create new target.

## General Outcomes

Need to:

- need to define the targets better,
- improve clarity and reduce ambiguity in targets,
- ensure that all targets are SMART,
- define baselines for monitoring,
- define milestones, indicators and sub targets where needed.

## Cont.

- Targets 3, 13, 14, 15 and 16 enabling targets, open ended and difficult to measure and monitor (more aspirational than measurable).
- Potential impact of climate change creates urgency to achieve some targets (e.g. target 2, 7, 9 and 10);
- justification for investment in the some targets at national and regional level (e.g. targets 8, 9, 13)
- basis for reviewing some targets thresholds upwards (e.g. target 4, 5, 6, 12, 14 and 15).

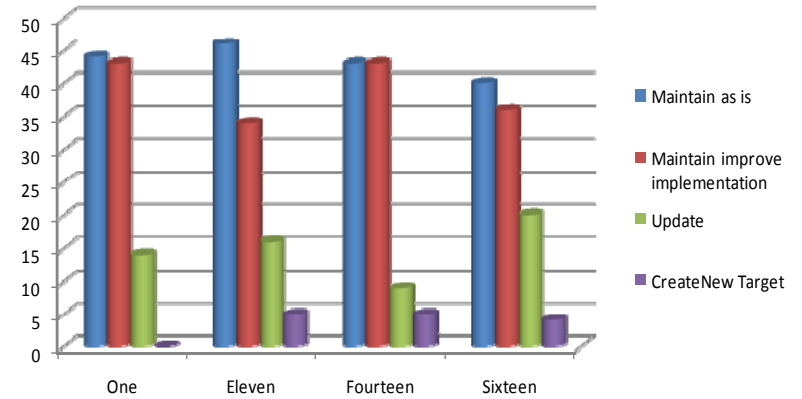


## Some considerations

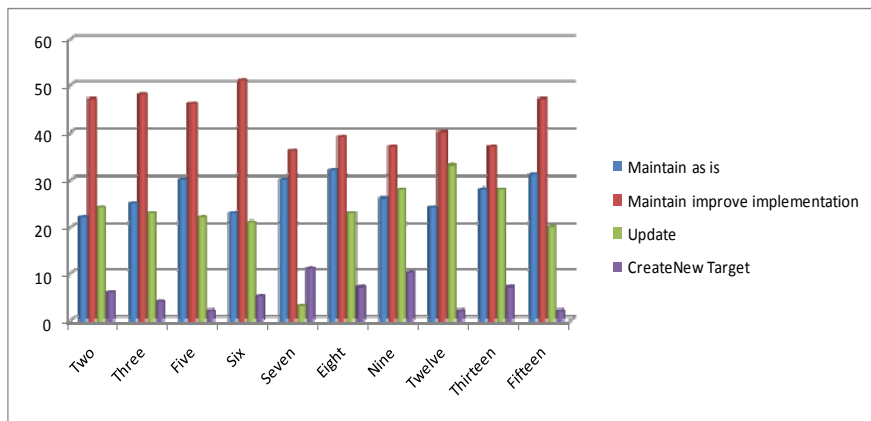
- Targets which required no institutional and policy changes hence easy to implement by all stakeholders (e.g. target )
- Targets which needed cross sectoral investments, making it harder to implement at national and regional level.
- Targets better suited for global implementation and while progress had been made at this level, it was hard to deliver similar progress at national level e.g. 4 and 10



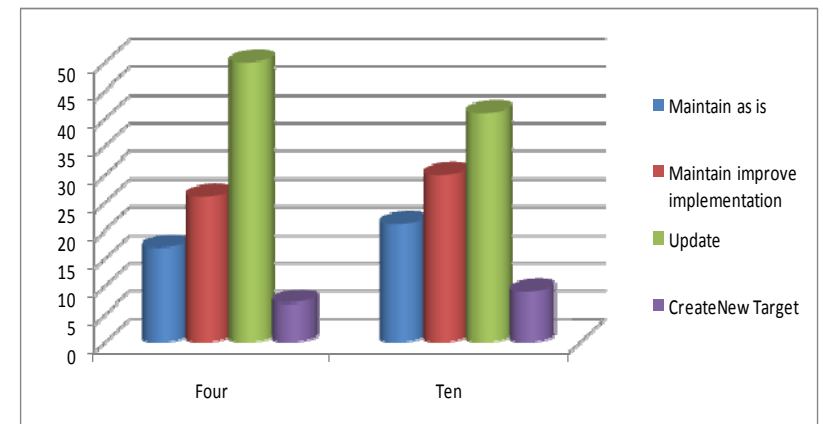
## (a) maintain as is Targets 1, 11, 14, and 16



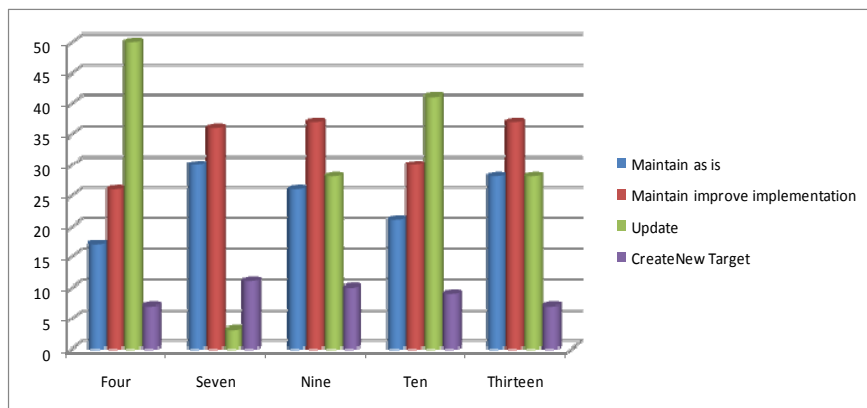
## maintain but improve measures for further implementation of Targets 2, 3, 5, 6, 7, 8, 9, 12, 13 and 15



## update targets 4 and 10.



## Limited support for deleting these targets and creating new ones from them



## Conclusions from the consultation

- Overall, the Strategy should be kept simple and focused.
- Current targets should not be changed substantially as they have already been mainstreamed and adopted at national, regional and global level.
- The implementation process should effectively engage all key stakeholders including indigenous and local communities, business and media,
- Incorporate associated indigenous and local knowledge, innovations, practices and technologies.
- Effort should be intensified to address challenges of research and knowledge gaps, limited resources, tools and capacities.
- Need to link the implementation of these targets to benefits accrued at local level by local communities, incorporate more priorities and needs these communities

## Conclusions continued

- Maintain current objectives of the Strategy with appropriate review to capture emerging issues
- Define short, medium and long term goals
- New and additional targets may be created to address gaps identified in updating the objectives of the Strategy.
- Differentiate types of targets, i.e. enabling targets vs outcome targets
- Include learning targets related to generation of new knowledge
- Concretise action targets to be SMART to enable monitoring and evaluation and assess impact of the Strategy in the medium and long term.
- While the Strategy may be developed for 10yr period, a review be made in 2015, in tandem with the review of the MDGs.

## Liaison Group Meeting 2009

- Reviewed outcomes of the online consultations,
- Reviewed the Strategy document 2002-2010 in line with the additional comments, the plant conservation report and group discussions,
- Prepared a proposal for update of the Strategy 2011-2020 and new text including vision, objectives, rationale, scope, general principles, targets, framework and further work required to implement the Strategy.

## Additional processes

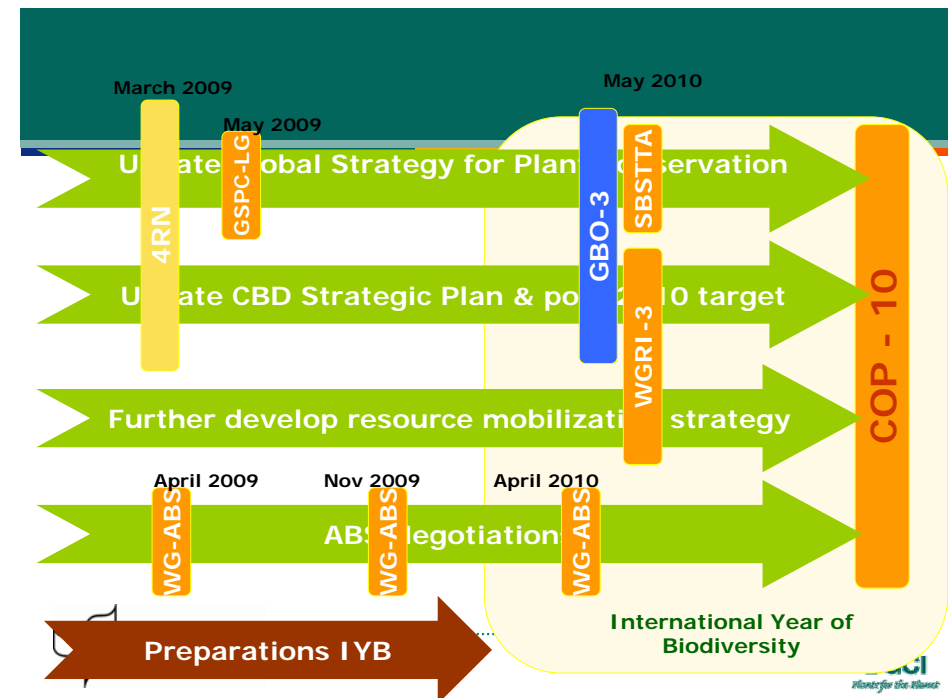
- Online Review of Report of the Liaison Group Meeting
- Further input from Regional Meetings
  - Americas, Africa, Asia and Europe
- Harmonisation with the Review of the Strategic Plan of the Convention and the Review of the 2010 Target
- Preparation of SBSTTA 14 Documents - Jan 2010
- Presentation to SBSTTA 14 - (10-21 May 2010 - Nairobi, Kenya)
- Presentation of the consolidated proposal for the Strategy beyond 2010 at COP 10 - (18-29 October 2010 -, Nagoya, Japan).



### Indications for new STRATEGIC PLAN POST 2010

- Timeframe 2010-2020 with review in 2015 (MDGs)
- Promote ecosystem approach in planning processes
- Address drivers of biodiversity loss
- Respond to global challenges
- Focus on practical implementation

## International Year of Biodiversity and COP-10 Nagoya



# Thank You



Convention on  
Biological Diversity

