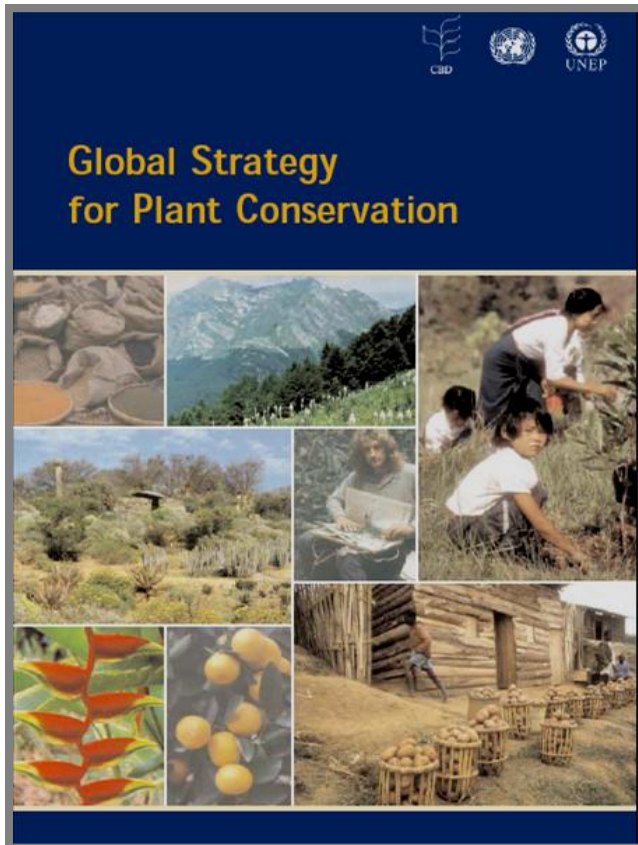


# GSPC Implementation: A View from Kew



Natasha Ali

Royal Botanic Gardens, Kew

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# Royal Botanic Gardens, Kew

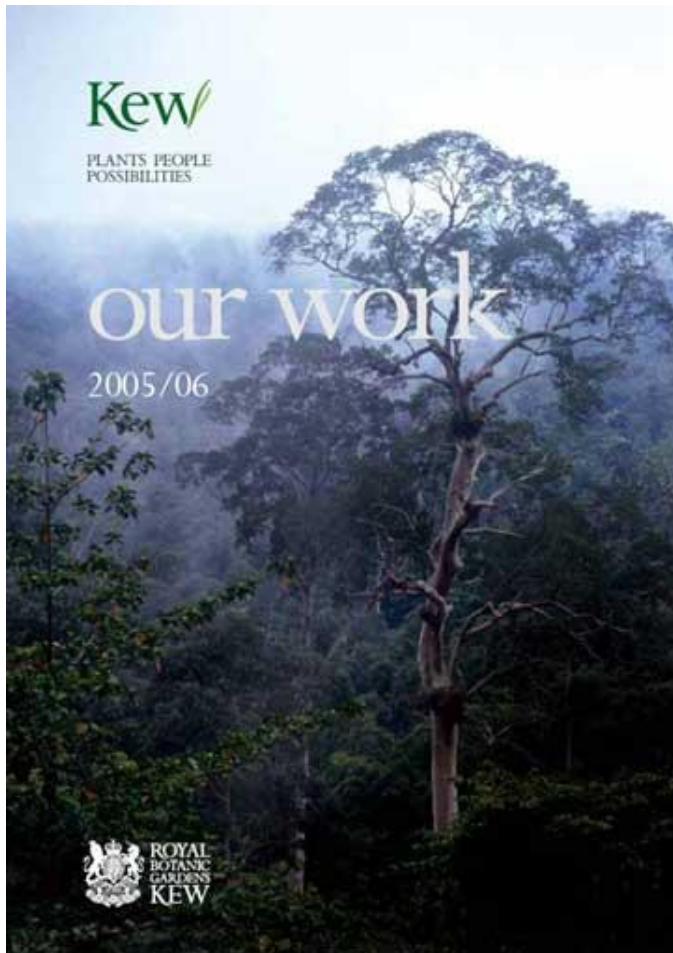


- Centre of scientific excellence and visitor attraction, UNESCO World Heritage Site
- Largest living plant collection in the world
- Holds 19 major collections:
  - Living and genetic resources
  - Preserved plant and fungal collections
  - Documentary and visual reference collections

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# Implementation of GSPC across Kew



- Mission statement: “*to inspire and deliver science based plant conservation worldwide, enhancing the quality of life*”

- GSPC allows Kew to focus it’s conservation work

- Key measures:

**2c.** Total species use reports, species conservation assessments and species conservation plans supported

**2d.** Total habitat conservation assessments supported through contributions of information or advice

4. Total staff contact days on projects with UK or overseas collaborators that contribute to the conservation and sustainable use of plant diversity through capacity building, joint research, training and advice.

# Kew and the UK Focus



## Plant Diversity Challenge

The UK's response to the Global Strategy for Plant Conservation

- Conference organized and hosted by Kew, Plantlife International and JNCC (Joint Nature Conservation Committee) in February 2003

- Resulted in the official UK response to the GSPC

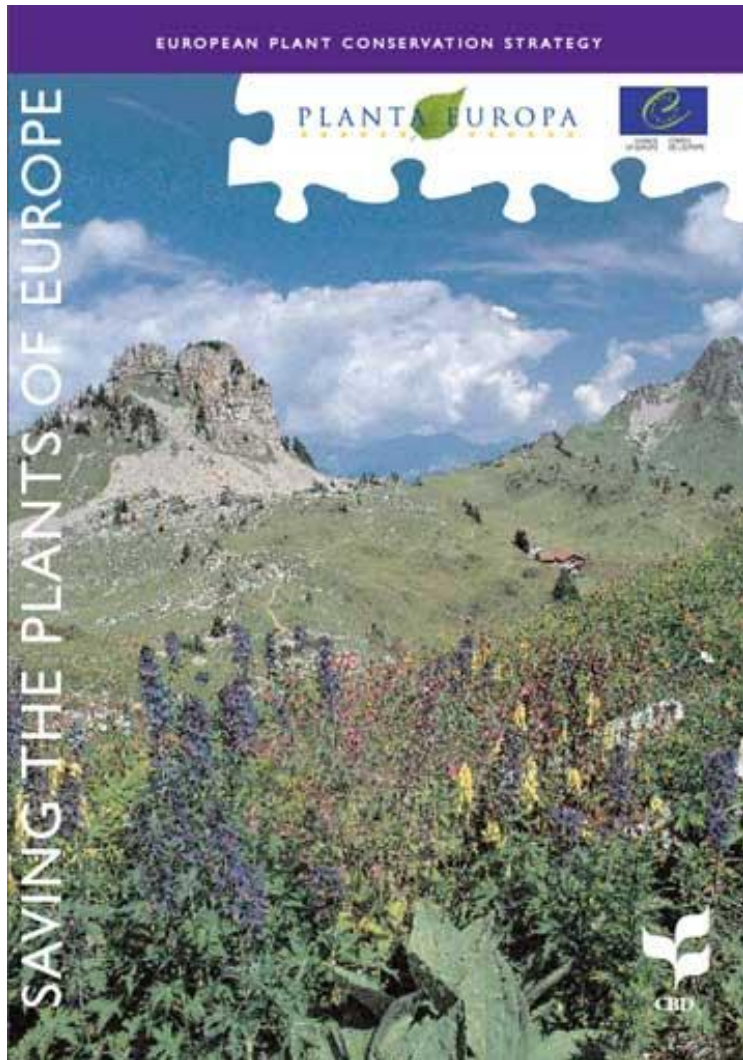
- Kew, JNCC and Plantlife International meet again at Kew to assess progress against the targets in April 2006

- Discussions underway about preparing equivalent document for the UK Overseas Territories.

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# Kew and the European Focus



- Kew staff involved in formulation of some targets & participated in review of progress at 4th Planta Europa network conference (Valencia Spain, September 2004).
- The MSBP and ENSCONET contributed to review of progress at the end of 2006
- Kew coordinates ENSCONET (received funding from the [European Community's Sixth Framework Programme](#))
- Kew is the lead organization for target 2.6 (*ex situ* conservation of bryophytes)

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# Kew's International Focus



- Facilitator of Target 1 Stakeholder consultation
- International Partnerships

- Bank seed of 10% of World's Flora by 2010
- 321 students from 100 countries have attended courses at Kew

# (a) Understanding and documenting plant diversity

## (i) A widely accessible working list of known plant species, as a step towards a complete world flora.

- Kew played key role in stakeholder consultation & continues to facilitate and promote this target
- Kew conducted gap analysis with Species 2000 in 2004.
- Kew invited by the Secretariat to facilitate and to provide a widely accessible working list of known plant species.

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**PIC** electronic plant information centre

22nd March 2006. Economic Botany Bibliography added! See the News page for more information.

ePIC Home Terms of Use News Search F.A.Q. Report an Error About ePIC Contact Us Cite Us Link to us Data Sources Partners

**Data Sources**

The following Data Sources are searchable from within ePIC.

- Plant names**
  - International Plant Names Index (IPNI)
  - World Checklist of Monocotyledons
- Bibliographies**
  - Kew Record of Taxonomic Literature
  - Library Catalogue
  - Micromorphology Bibliography
  - Economic Botany Bibliography
- Collections**
  - Herbarium Catalogue
  - Living Collection
  - Economic Botany Collections
- Species name information**
  - Seed information
  - Survey of Economic Plants for Arid and Semi-Arid Lands (SEPAL)
- Flora**
  - Flora Zambesiaca
- Miscellaneous**
  - Kew Web Site

**Plant Names**

**International Plant Names Index (IPNI)**

A list of plant names giving place of publication, storing c1.5 million scientific plant names. Comprising data from 3 hitherto separate indexes (Index Kewensis, Gray Card Index and the Australian Plant Name Index), IPNI is the result of a collaboration between Kew Gardens, the Harvard Herbaria and the Australian National Herbarium, Canberra. IPNI data is copyright the Plant Names Project. You may not download more than 2,000 records.

Web site: [www.ipni.org](http://www.ipni.org)  
Contact: [ipni@kew.org](mailto:ipni@kew.org)

**World Checklist of Monocotyledons**

A database of accepted names, synonyms, geographical distribution and life form for monocot plants. Currently the checklist includes c85,000 accepted taxa in 78 families. When complete it will include c 80,000 accepted taxa for all Monocot families. Generic concepts follow Vascular Plant Families and Genera. Citation of authors follows Authors of Plant Names and terminology for life-forms is based on the Raunkjær system (1934). Geographical distribution is comprised of a generalised statement in narrative form, and TDWG Level 3 codes.

- 1/3 of accepted plant species are available on Kew's website ([www.kew.org](http://www.kew.org)).
- Checklist compilation through collaboration. Globally, over 50% T1 is on-line
- Constraints to T1 affect implementation of other targets,

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## (a) Understanding and documenting plant diversity

### (ii) A preliminary assessment of the conservation status of all known plant species, at national, regional and international levels



- Kew collaborated with IUCN in stakeholder consultation and is finding ways towards preliminary conservation

- Kew's monographs, Floras and other scientific papers include preliminary conservation assessments

- Kew staff are involved in IUCN specialist groups Up to 5000 preliminary conservation assessments over the last 3 years.

- Kew is co-ordinating the plant IUCN Sampled Red List Index.

- Constraints to the work of RBG Kew seems to be leading from

- lack of taxonomic knowledge

- lack of agreed methodology to assign categories (also see T8)

- No central place to find information for a range of location

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# (a) Understanding and documenting plant diversity

(iii) Development of models with protocols for plant conservation and sustainable use, based on research and practical experience



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## **b) Conserving plant diversity**

### **iv At least 10% of each of the world's ecological regions effectively conserved**

- MSBP has a dry lands focus

### **v Protection of 50% of the most important areas for plant diversity assured**

- Baseline Plant Diversity work provides information to identify and monitor T4 and 5.
- Examples include Madagascar & Cameroon project “Implementing the GSPC: identification of threatened plants and protection of IPAs in 6 priority countries”
- The Francis Rose Reserve at Wakehurst Place

### **vii 60% of the world's threatened species conserved *in situ***

- Site management advice, propagation, material supply for reintroduction, genetic studies
- Examples of work towards T7 in Tropical America and UKOTs

## b) Conserving plant diversity

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

- MSBP builds capacity of *ex situ* conservation in 16 countries
- By 2010, 24,000 plant species will be conserved. Includes, seeds, herbarium vouchers, and data in accessible collections in the UK. So far 13,300 species are conserved
- ~ 500 collections used in restoration programmes
- Challenges: difficult to assess threatened species – national lists
- Burkina Faso: (no formal threatened species list). MSBP listed 37 threatened species. 21 species are conserved, at Silo National des Graines Forestières



Collections are all available for use - > 300 collections have been used to restore degraded lands.

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## **b) Conserving plant diversity**

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

- MSB conserves many CWRs
- Joint training with Birmingham University

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

- Contributed to the UK government review of non-native invasive species, helped develop the Horticultural Code of Practice
- MSA warn of potential risk of non-native species
- Produced posters to warn staff of the legal responsibility when dealing with invasive weeds

## c) Using plant diversity sustainably

### **xi no species of wild flora endangered by international trade**

- Kew is UK scientific authority for CITES, advised the UK government on > 25,000 CITES licences in last 5 years & supported 45,000 plant inspections and > 62,000 tonnes timber for HM Customs
- Produced 4 CITES Checklists and 3 user guides, in 3 languages, freely distributed

### **xii 30% of plant based products derived from sources that are sustainably managed**

- Chinese Medicinal Plants Authentication Centre - chemical fingerprinting of economically important species.

### **xiii the decline of plant resources, and associated indigenous and local knowledge, innovations and practices that support sustainable livelihoods, local food security and health case, halted**

- SEPASEL project
- African Wild Harvest project

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## d) Promoting education and awareness about plant diversity



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# Implementation of the GSPC at Kew: Summary

## Challenges for Kew

- Majority of targets based on results from T1 & 2
- Targets are interdependent, need for synergy between work towards different targets
- The above affects T8, threatened is not clearly defined
- Priorities for ex situ conservation could be widened to include endemic and economically important species
- Difficult to assess % of conserved species across a range of countries

## Opportunities for Kew

- Enabled collaboration with Kew within UK and internationally
- Helps to identify priorities in-country
- Allows better dissemination of achievements
- Identifies opportunities for capacity building