Global Strategy for Plant Conservation

世界在线植物志（World Flora Online)项目介绍

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#gppc

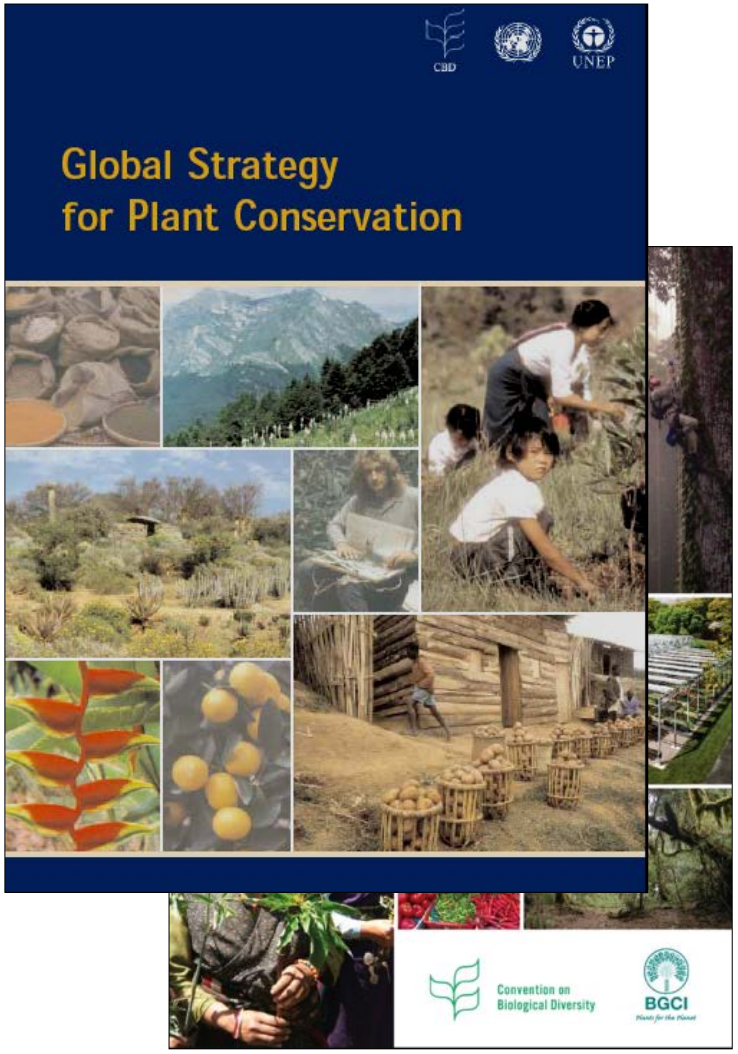
Global Strategy for Plant Conservation

Convention on Biological Diversity

A programme of the Convention on Biological Diversity

Aims:

1. **Plant diversity is well understood, documented and recognized**
2. **Plant diversity is urgently and effectively conserved**
3. **Plant diversity is used in a sustainable and equitable manner**
4. **Education and awareness about plant diversity, its role in sustainable livelihoods and importance to all life on Earth is promoted**
5. **The capacities and public engagement necessary to implement the Strategy have been developed.**



Global Strategy for Plant Conservation

Adopted in 2002

16 biodiversity Targets 2010

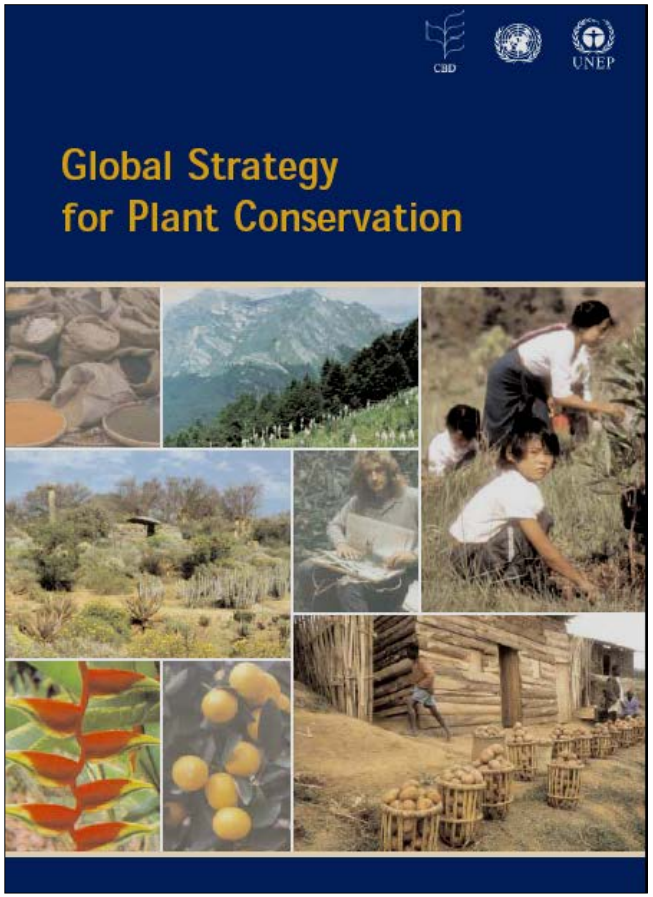
aimed to reduce biodiversity loss by 2010

<u>Objective 1</u>

Plant diversity is well understood, documented and recognized

<u>Target 1</u>

A working <u>list of known plant species</u>, as a step towards a complete world flora **... The Plant List**



Global Strategy for Plant Conservation

Updated 29 Oct. 2010, Nagoya, Japan

16 revised biodiversity Targets 2020

aiming to halt biodiversity loss by 2020

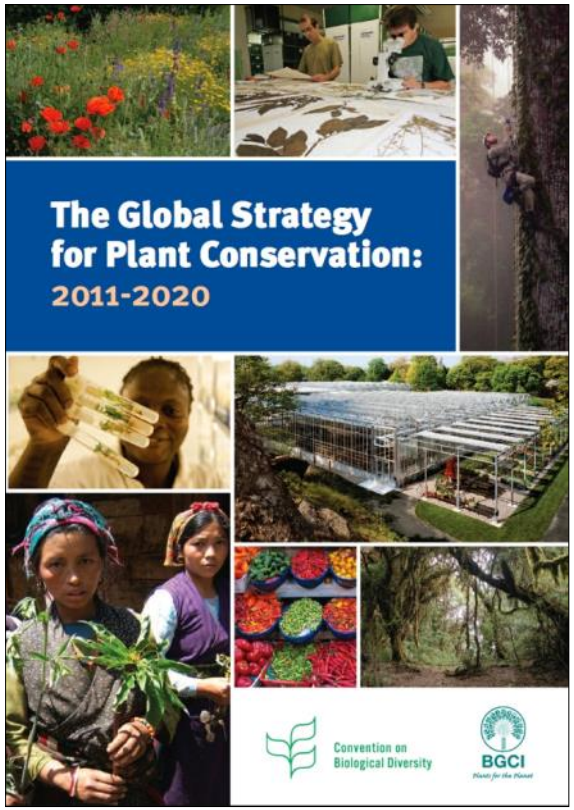
<u>Target 1</u>

An <u>online flora</u> of all known plants

...the World Flora Online

A widely accessible Flora of all known plants is a fundamental requirement for conservation and provides a baseline for the achievement and monitoring of other targets of the GSPC

United Nations Decade on Biodiversity



The GSPC 2010 – 2020

T	Old target text	New target text
1	A widely accessible working list of known plant species, as a step towards a complete world flora	An online flora of all known plants
2	A preliminary assessment of the conservation status of all known plant species, at national, regional and international levels	An assessment of the conservation status of all known plant species, as far as possible, to guide conservation action
3	Development of models with protocols for plant conservation and sustainable use, based on research and practical experience	Information, research and associated outputs, and methods necessary to implement the Strategy developed and shared
4	At least 10 per cent of each of the world's ecological regions effectively conserved	At least 15 per cent of each ecological region or vegetation type secured through effective management and/or restoration
5	Protection of 50 per cent of the most important areas for plant diversity assured	At least 75 per cent of the most important areas for plant diversity of each ecological region protected with effective management in place for conserving plants and their genetic diversity
6	At least 30 per cent of production lands managed consistent with the conservation of plant diversity	At least 75 per cent of production lands in each sector managed sustainably, consistent with the conservation of plant diversity
7	60 per cent of the world's threatened species conserved *in situ*	At least 75 per cent of known threatened species conserved *in situ*
	60 per cent of threatened plant species	

World Flora Online

Plant Conservation: the need for baseline data

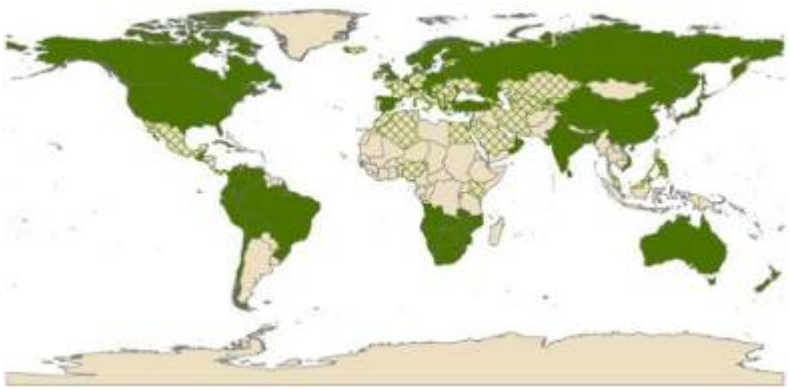
Need for fundamental data for assessing conservation priorities

- A consensus list of plant taxa for communication on national/global levels
- Identification tools for these taxa - keys/images/descriptions
- Occurrence and geographic distribution - rarity/decline




Target 2:
An assessment of the conservation status of all known plant species, as far as possible, to guide conservation action

Global assessments using IUCN criteria complete only for 3 - 4% of flowering plants



= countries with Red List <10 years old

= countries with Red List >10 years old

Target 1:
An online flora of all known plants

http://www.theplantlist.org/

Summary Statistics

The Plant List **includes 1,040,426 scientific plant names of species rank. Of these 298,900 are accepted species names.**

Status	Total	
Accepted	298,900	28.7%
Synonym	477,601	45.9%
Unresolved	263,925	25.4%

MISSOURI BOTANICAL GARDEN

Kew
ROYAL BOTANIC GARDENS

Next step – 2020: Online World Flora

Target 1:
An online flora of all known plants

Royal Botanic Gardens, Kew nominated as lead facilitating agency for Target 1 –

Over 120 institutions and individuals from over 25 countries are working towards meeting the Target

Major constraint: 2020 deadline

- Have to work with existing knowledge to achieve target by 2020
  - "No time for biology or taxonomy"
- Comparisons with existing floristic projects
  - Has taken 10 years to compile checklist of Antioquia, 35 years for Flora of North America

Major asset: Existing data

- 250+ years of published floras, treatments, monographs
  - Some published electronically, most printed
  - Biodiversity Heritage Library has efficient pipeline for digitization
- APG to define family-level framework
- The Plant List to define list of species
  - TPL needs continuous updates

The World Flora Online

Endorsed by ...

Global Partnership for Plant Conservation, St. Louis, July 2011

18th International Botanical Congress, Melbourne, July 2011

CBD SBSTTA 16, Montreal, May 2012

CBD COP 11, Hyderabad, October 2012

Announcement (St. Louis , April, 22, 2012)

Missouri Botanical Garden

Kew Royal Botanic Gardens

The New York Botanical Garden

Royal Botanic Garden Edinburgh

World Flora Online - where are we now?

- Global consortium of >30 leading plant systematics institutes
- MOU has been approved and in process of being signed
- WFO approved at CBD COP 11 Hyderabad, Oct. 2012
- Technical Working Group established: use cases and data definition
- Taxonomic Working Group established: knowledge gap analysis
- Consortium meeting in Edinburgh, November 2013

WFO 2nd Council Meeting, *26-27 June, 2014 · Komarov Botanical Institute, St. Petersburg*

Meeting of the Council of the World Flora Online
26-27 June, 2014 ·
Komarov Botanical Institute, St. Petersburg

Species Informatics of Plants in China

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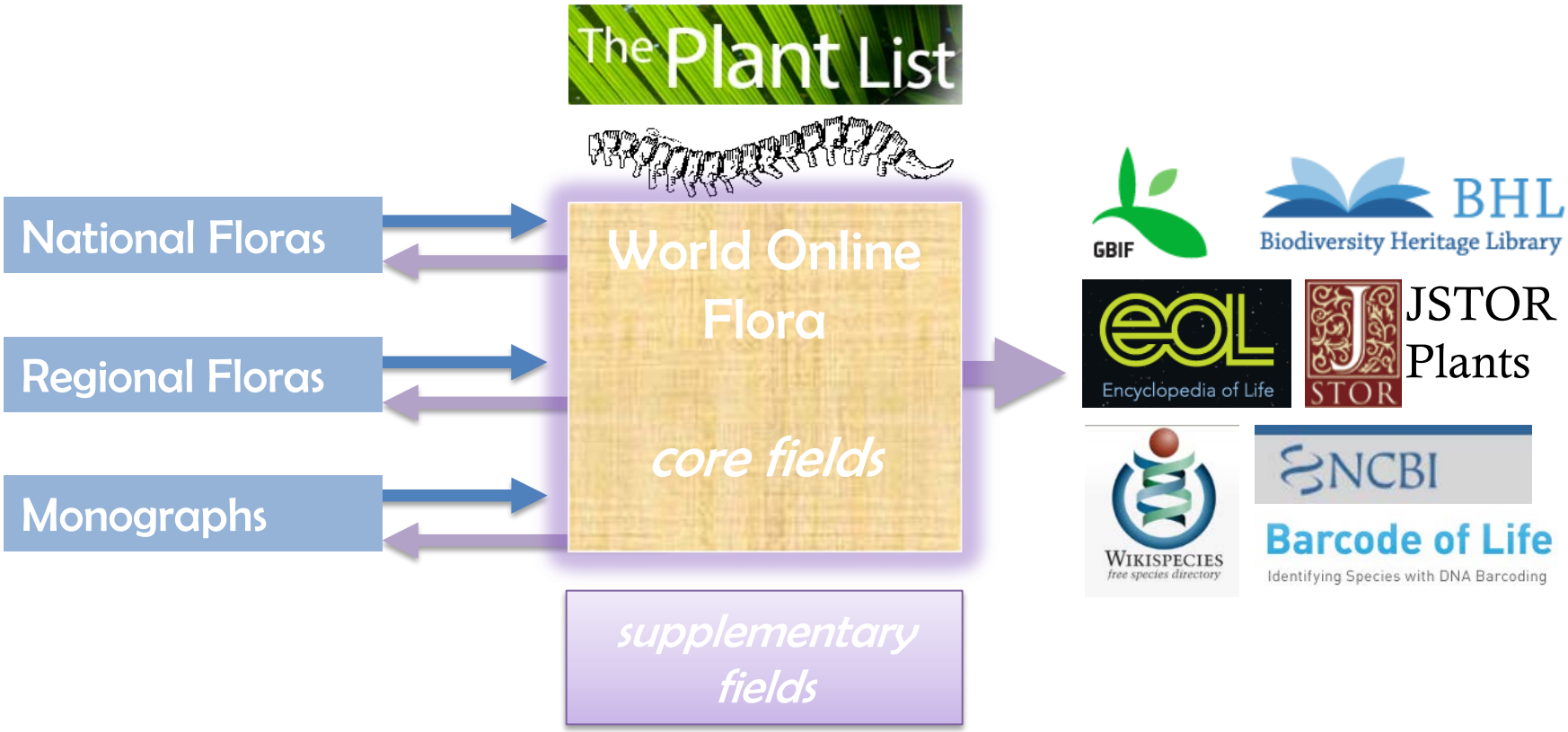
Components of WFO

- **Name & synonymy ***
- **Description ***
- **Identification tools**
- **References***
  - To other floras & supporting data
- **Distribution ***
  - Literature-based, specimen-based
- Conservation status
- Images
  - Illustrations, photos, specimen images
- Notes

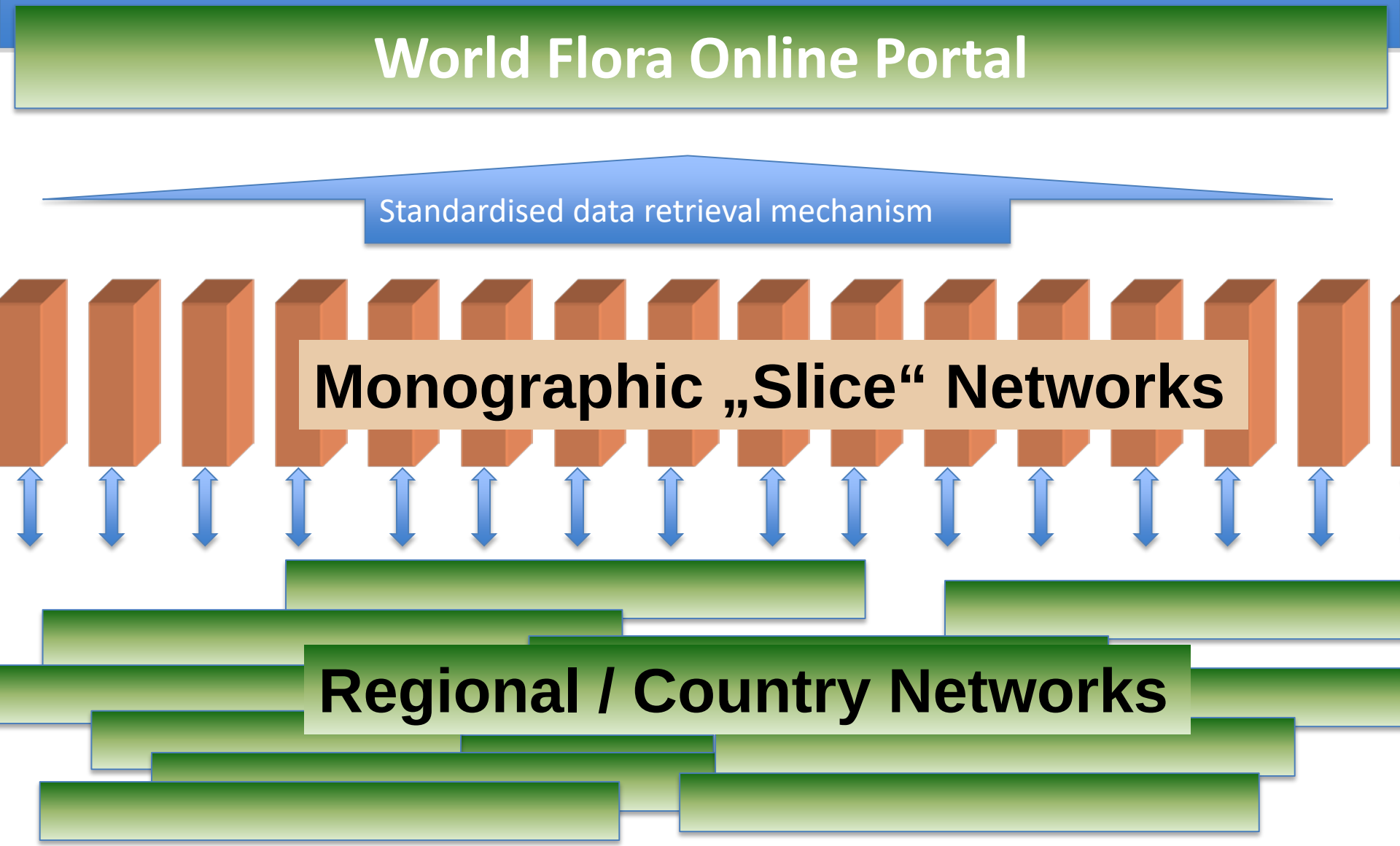
*** = required, others optional**

World Flora Online – How to?

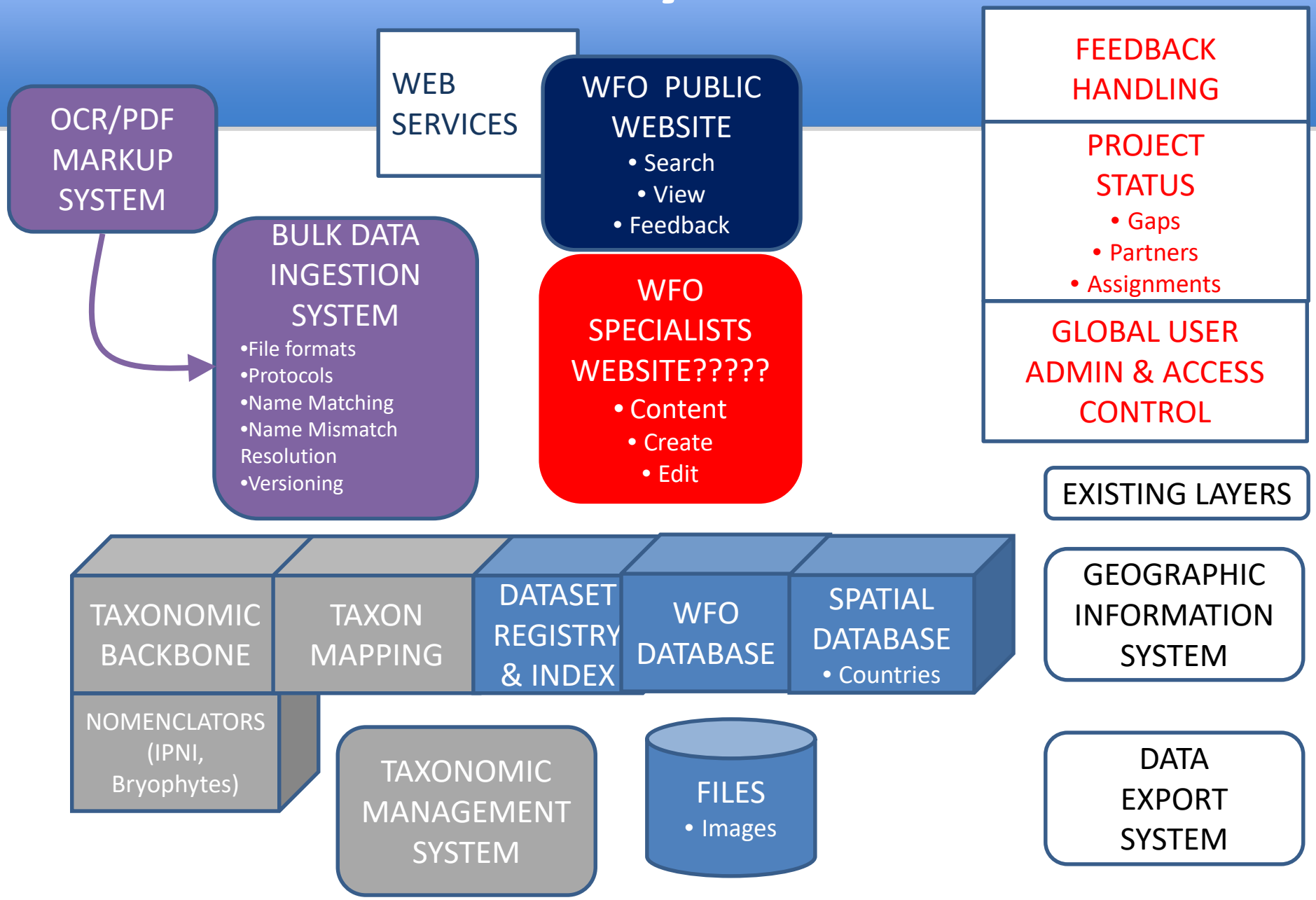
A website bringing together available basic floristic information with links to more detailed information from data providers and other biodiversity data sources – global in scope, will include mosses, liverworts and higher plants



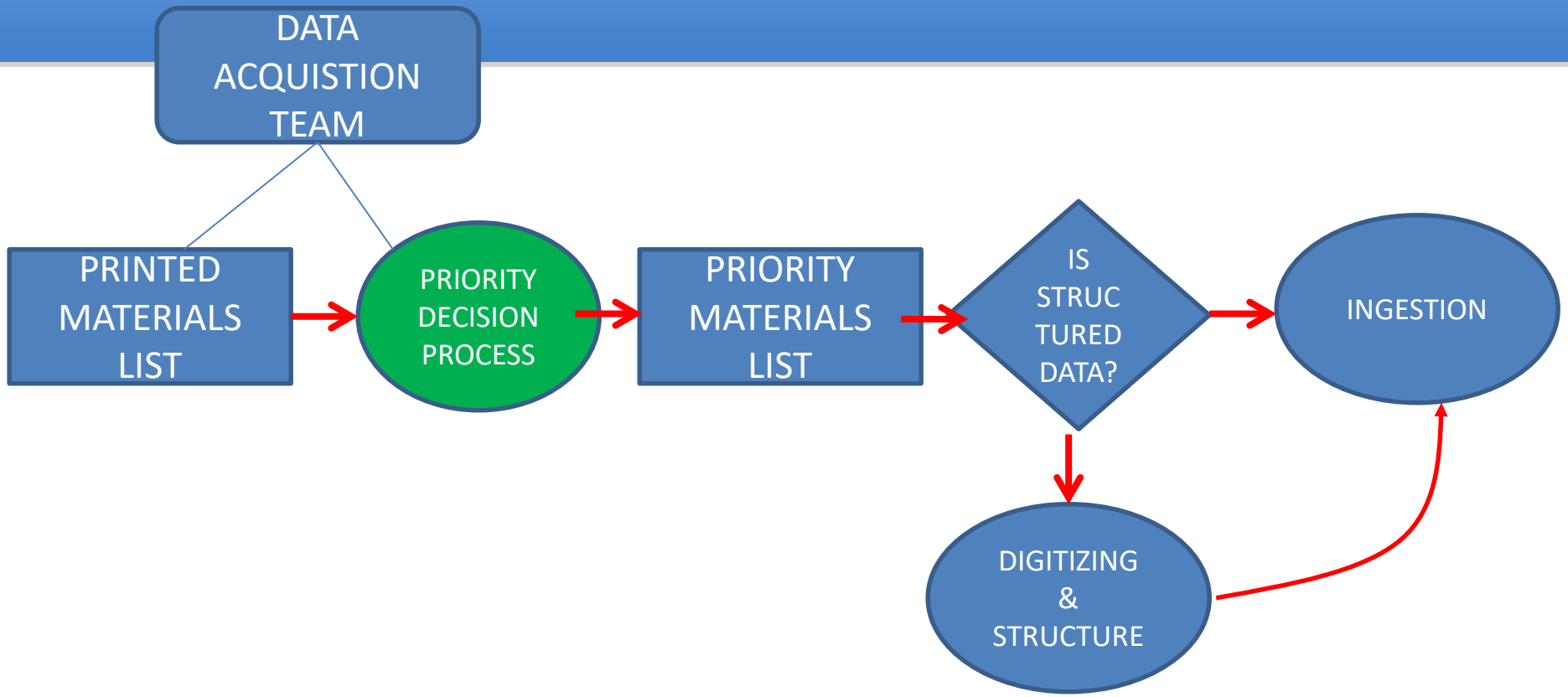
WFO: A Network of Networks



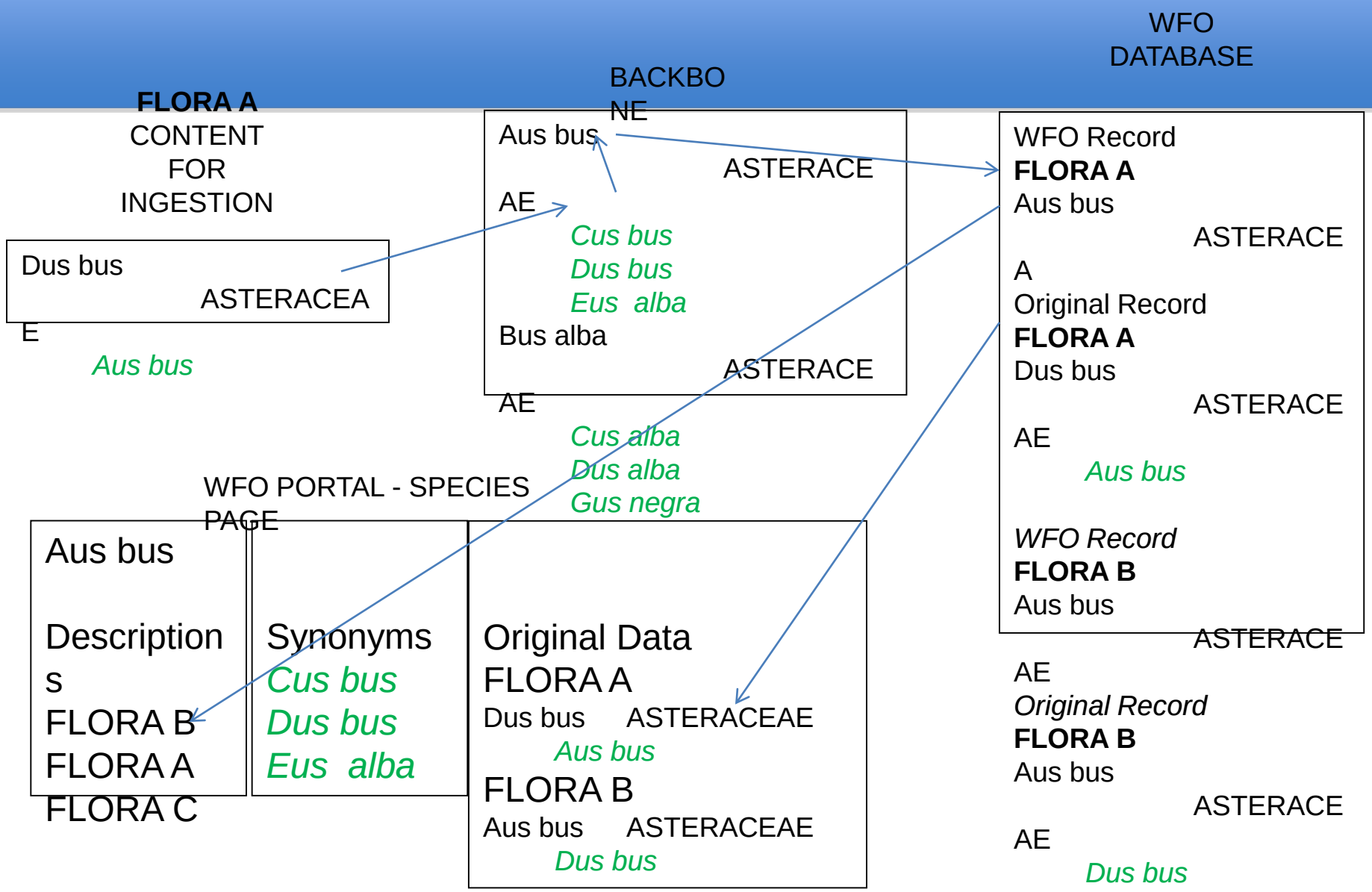
WFO Main System Parts



Flow


DATA ACQUISTION TEAM
PRINTED MATERIALS LIST
PRIORITY DECISION PROCESS
PRIORITY MATERIALS LIST
IS STRUC TURED DATA?
INGESTION
DIGITIZING & STRUCTURE

“Backbone” Approach



Who will contribute?

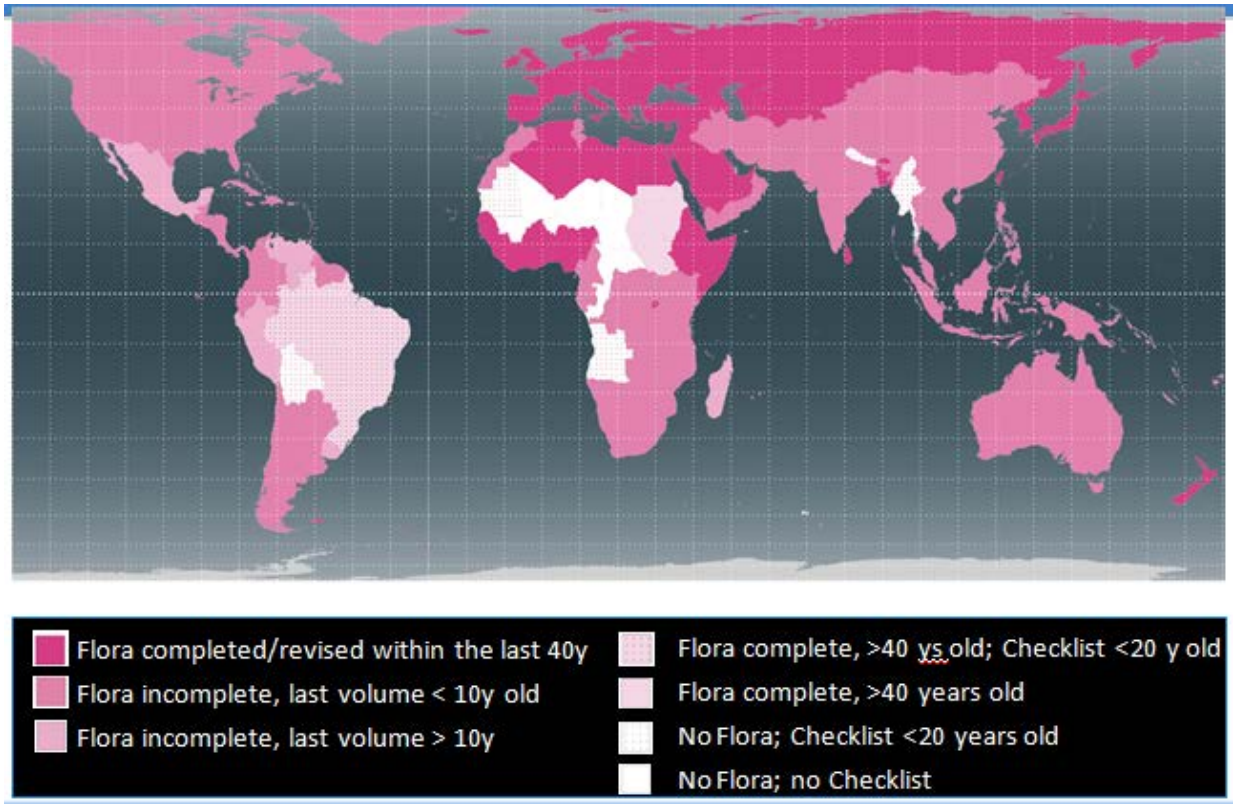
- Plant scientists
- Citizen scientists
- General public
- More?

Administration needed

- Global leadership team
- Team of regional managers
- Editorial committee?
  - Not too big
- Formatting committee?
  - Not too rigid
  - Need a schema, guidance on what is expected in treatment

World Flora Online

challenge & opportunities for phytotaxonomists



World Flora Online - opportunities

Opportunities for plant systematists to:

- Get organised
- Contribute digital data & enhance our impact
- Mobilize non-digital data (print & specimens)
- Generate de-novo data (gap filling)
- Undertake capacity building for plant taxonomy

Opportunities for users to:

- Get a global overview of the diversity of plant species
- Draw upon other works when establishing regional treatments
- Seeing the global context for conservation planning

A tool for practitioners at all levels

Our Base and Strategy

- Resources: electronic and printed;
- Positive attend via institution and individual

Literatures

Botanists

Specimens


Thank you for your attention!