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European Cooperative Programme for Plant Genetic Resources
ECP/GR

ECPGR Concept for *In Situ* Conservation of Crop Wild Relatives in Europe

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ECPGR Networking:
Networking among Working Groups for discussing and Coordinating the implementation of ECPGR objectives
17-18 October 2017, Ljubljana, Slovenia

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In situ networks of CWR populations

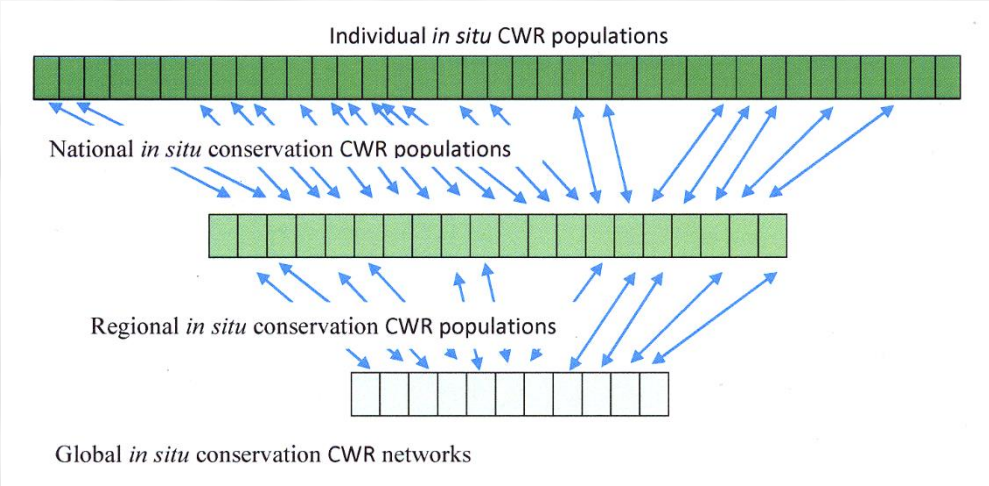
Addressing a need

- Global: 13th Regular Session of FAO C
(2011) recognised the need to pay g
attention to crop diversity essential
security … recognized that a global r
in situ conservation necessary to ad
challenges facing agricultural produ
including climate change

- European: 13th meeting of ECPGR
Committee (2012) recognised imp
situ conservation and recommend
development of a concept for *in si*
conservation of Crop Wild Relativ

- Both recommended a Network o
broad, decentralized participatio

CWR Populations

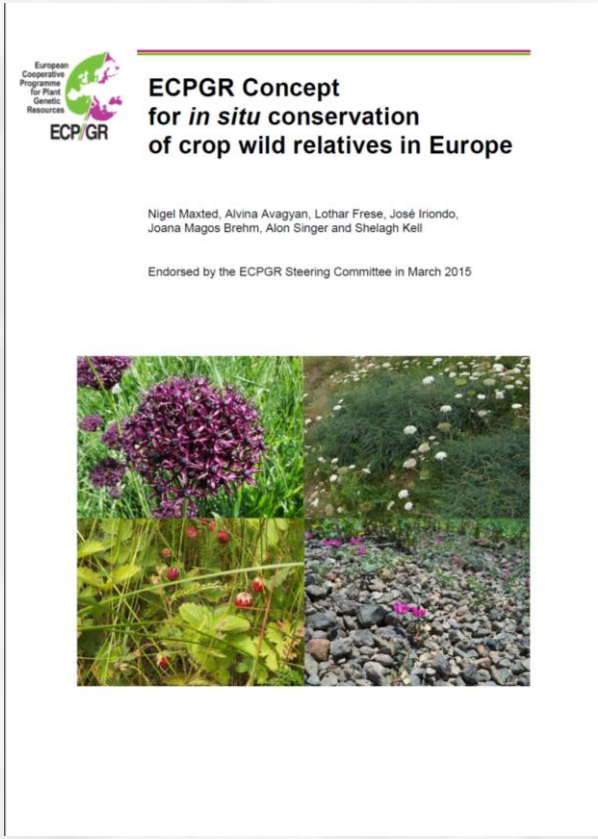


Option Nos.	Option Description	Advantages	Disadvantages
1	Physical global network(s)	• Ease of application of cross network management regimes	• Significant resource investment in designated sites by Gov. Body • Limited involvement of site host country conservation agencies
2	Virtual global network(s)	• Limited financial resource investment in designated sites by FAO • Greater involvement of site host country conservation agencies	• Less control over Network operation by Gov. Body • Slow Network establishment and possible poor global coverage

In situ networks of CWR populations

Function

- Facilitating the coordination of the many ongoing initiatives dealing with *in situ* conservation and/or on-farm management of PGRFA;
- Fostering stronger partnerships (funding) at national, regional and global levels;
- Impacting positively on activities at country-level and demonstrate benefits that directly support the ultimate custodians of PGRFA, the local communities that may be found in and around protected areas/reserves and/or farmers and farming communities who are involved in day-to-day management of crops and varieties;
- Achieving the desired fundamental outcome of both *in situ* conservation and on-farm management of PGRFA: the safeguarding in perpetuity of important genetic resources for use either directly by famers or by plant breeders and other scientists in crop improvement. Thus, another important function of the network(s) is to catalyse better linkages between conservation and sustainable use of PGRFA for the benefits of current and future generations.



In situ networks of CWR populations

- Geopolitical and administrative scales
  - International agency (FAO Globally Important Agricultural Heritage Systems, FAO IT, CG Centres, UNESCO Man and Biosphere Programme, UNESCO World Heritage Sites, CBD Programme of Work on Protected Areas, IUCN Key Biodiversity Areas)

- Physical versus virtual management
  - Novel stand alone sites or existing sites

- National sovereignty over genetic resources
  a. all sites nominated by national PGRFA coordinators,
  b. all sites remain under the jurisdiction of national agencies,
  c. access to material controlled by national authorities

- Management and coordination responsibilities
  - Maintain minimum criteria for inclusion in global network(s);
  - Coordinate and provide expertise and access to *in situ* conservation;
  - Promote access to *in situ* conserved populations linked to benefit sharing;
  - Increase awareness of value of CWR for agriculture and the environment

- One network or two?

N.I. Vavilov

= Vavilov Network

In situ networks of CWR populations

- **Location**
  - Located following rigorous scientific process
  - Located in a protected area network & informal areas
- **Spatial structure**
  - Polygon of the genetic reserve should be clearly defined
  - Sufficient extent to conserve CWR populations and natural processes.
- **Target taxa**
  - Genetic reserves are designed to capture maximum genetic diversity
  - Demographic survey of target CWR taxa
- **Populations**
  - Population sizes are large enough to sustain long-term populations
- **Management**
  - Site recognised by the appropriate national agencies
  - Management plan formulated
  - Monitoring plans are designed and implemented
  - Local community involved in site management
  - Clearly-defined procedure to regulate the use of genetic material
- ***Quality standards for the protected areas selected for the establishment of genetic reserves***
  - Site has legal foundation
  - Site governance ensures continuing commitment to *in situ* CWR conservation
  - Site management plan acknowledges genetic diversity management
  - Inventory of all CWR present

European regional CWR conservation strategy

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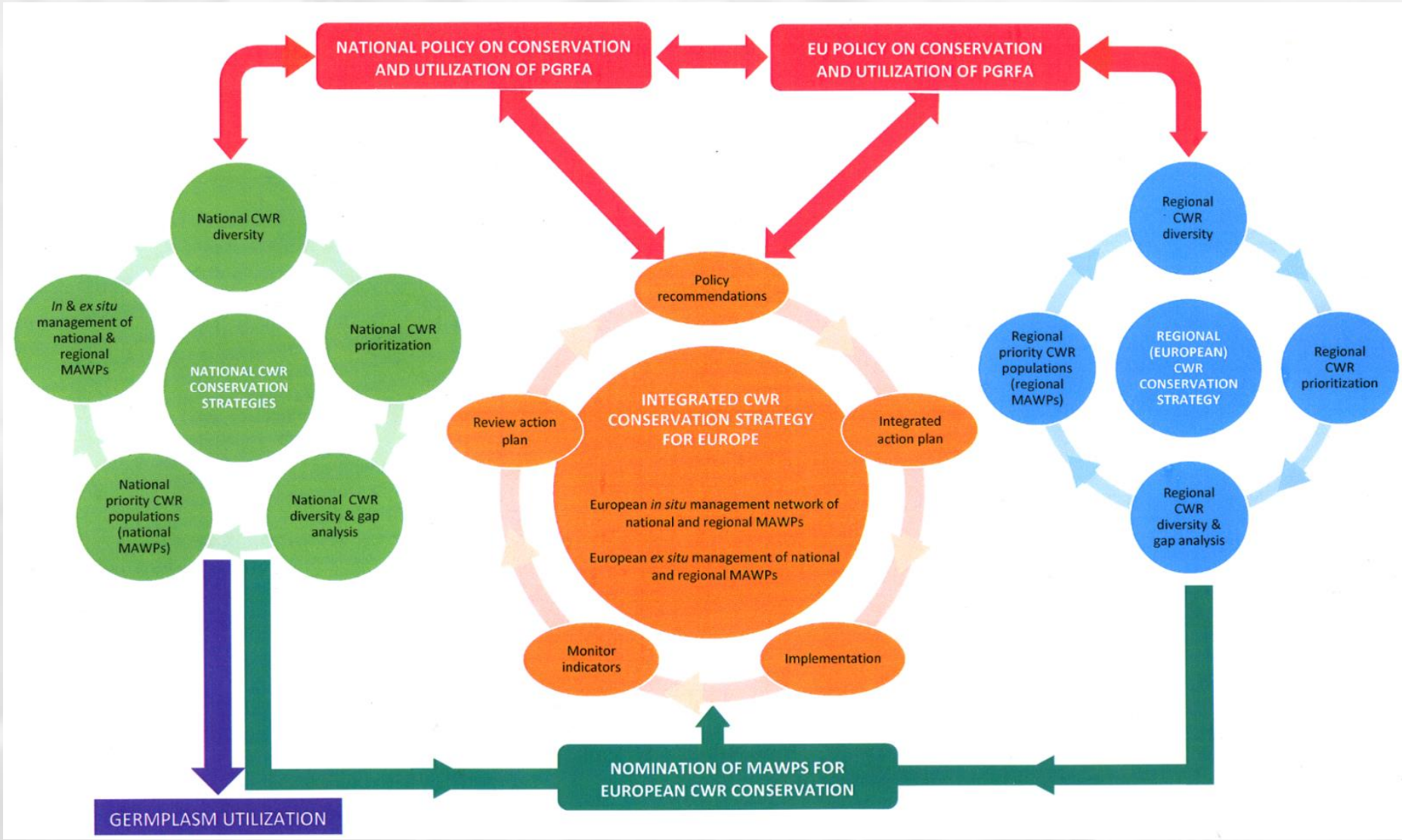

Maxted *et al*., 2013, 2015

European In situ networks of CWR populations
Finance

		€ (x000)	€ (x000)	€ (x000)
Eropean costs	Research European priority sites to establish CWR genetic reserves for IT Annex 1 CWR taxa	800		
	Initial set of 50 CWR genetic reserves for IT Annex 1 CWR taxa established within 10 years of global network(s) @ 100,000 € per CWR genetic reserve	5,000		
	Network(s) Secretariat staff and a Managerial Committee for first 10 years of global network(s) @ 250,000 € per annum	1,500		
	Total international costs		7,300	
National costs	Production of national CWR conservation strategies for 40 Eureopean countries @ 100,000 € per national CWR conservation strategy	4,000		
	Running costs of 50 national genetic reserves @ 20,000 € per CWR genetic reserve for 10 years	1,000		
	Total national costs		5,000	
	Total costs of global network(s)			€12,300

Potential sources of funding: GEF, Treaty, UNEP, Foundations, *In Situ* Trust, Farmer's Pride + UK GCRF

GCRF Interdisciplinary Research Hub - GCRF Genetic Diversity and Food Security Hub
£22M (9 CGIAR Centres, FAO, ITPRGFA, CBD, IUCN + 40 national institutes