

# Biodiversity...agrobiodiversity...

**plant genetic resources and  
nature conservation –**

***recent view, new dynamics and a  
hopeful outlook.....***

## Terms first....

crop wild relatives...

old cultivars,

landraces,

extraordinary varieties,

neglected, underutilized crops...

ancient used plants.....

highly endangered...

what is the object?

socio-economic and ecological background...

use as genetic tool for breeding,

part of rural development,

sustainable source of independent agri-/horticulture behaviour?

important part of biosphere and nature function

who are the actors?

nature conservation specialists,

agronomists, breeders,

seed and food industry....

farmers, consumers...

politicians....

- ***it seems a wide field of corresponding and partly separated interests.....***

# wild species, often crop wild relatives...

report and monitoring system for *in situ*-conservation of plant genetic resources

*Allium ursinum*:

- wild species
- cultivation s
- economic us



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*Arnica montana*:

- collected, cultivated
- econ



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CWR-examples:

*Apium graveolens*, *A. repens*:

- high economic importance,
- cultivars, breeding



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from tree to medicine...

*Salix sp.*:

- processing and use



# output of a german research project on CWR...

inventories, mapping, hot spot locations...

further informations about:

<http://www.hnee.de/cwr>

report and monitoring system for *in situ*-conservation of plant genetic resources

realization of CWR-species inventory

1. step:  
compiling  
genera; existing  
...existing

2. step:  
compiling  
215 species

- cereal, maize  
without any
- beets, cabbage  
fruits, grapes  
are native

report and monitoring system for *in situ*-conservation of plant genetic resources

map-presentation XML-based (g.ex.: KML\*)  
linked to [www.floraweb.de](http://www.floraweb.de) \* Keyhole Markup Language

report and monitoring system for *in situ*-conservation of plant genetic resources

Visualisation by georeferenced PDF-document  
(GIS-based; f. ex. webservices)

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Croatia

## .... economic values and crop wild relatives?

**research, development and use of CWR needs...  
inventories,  
ex-situ-collections,  
botanical, genetic molecular research,  
databases and IT-systems,**

**additional needed:**

**in-situ conservation,  
management, habitat  
protection!**

**special function of nature  
conservation:**

- **conservation measures**
- **protected areas and rules,  
management plans**
- **new task: gene pool  
management!**

# financials, common sources for funding

## recently listed as...”Funding opportunities for European PGRFA”

### COST

COST (European Cooperation in Science and Technology) is an intergovernmental framework for European Cooperation in Science and Technology, allowing the coordination of nationally-funded research on a European level. See [Domains and Actions](#)

### •LIFE (2014-2010)

•The LIFE (the Financial Instrument for the Environment) Regulation, which was published on 20 December 2013, sets a budget for the next funding period, 2014–2020, of €3.4 billion in current prices. [View the LIFE Regulation](#)

**The first call of action grants for the LIFE programme for the Environment and Climate Action (2014-2020) is now open. See the [call page](#).**

### •INTERREG EUROPE

Interregional Cooperation 2014-2020.

**A first call for proposal should be issued mid-February 2015**

### •HORIZON 2020

Horizon 2020 is the new EU funding programme for research and innovation running from 2014 to 2020 with a €80 billion budget.

**SFS-07b-2015: "Management and sustainable use of genetic resources"**

Deadline: 2015-02-24 17.00 (Brussels local time)

## From EC:

**Genetic resources in agriculture - preserving the diversity**  
The conservation and sustainable use of genetic resources in agriculture are essential to the sustainable development of agricultural production and of rural areas. The Community programme on the conservation, characterisation, collection and utilisation of genetic resources in agriculture promotes genetic diversity and the exchange of information including close co-ordination between Member States and between the Member States and the European Commission. It also facilitates co-ordination in the field of international undertakings on genetic resources. ( source:

<http://ec.europa.eu/agriculture/genetic-resources/>

## From FAO:

### Conservation of Plant Genetic Resources for Food and Agriculture

***In situ* conservation** means the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticates or cultivated species, in the surroundings where they have developed their distinctive properties.

Common approaches for *in situ* conservation are **Genetic reserve conservation** and **On-farm conservation**.

## Benefit-Sharing Fund of the International Treaty



The Benefit-sharing Fund invests directly in high impact projects supporting farmers in developing countries conserve crop diversity in their fields and assisting farmers and breeders globally adapt crops to our changing needs and demands. To ensure sustainability of the efforts the Fund focuses on building the capacities of developing countries, enhancing the exchange of information and making the appropriate technology available for the conservation and sustainable use of this diversity.

## ECPGR-group, working program expected in 2015

?

# resuming biodiv/agrobiodiv and special *in-situ* / *on-farm* strategy has become part of EC-funding, grants and policy now!

- habitat analysing, inventory research, adapted management for special species/subspecies => establishment of genetic reserves...

Berichts- und Monitoringsystem für die *in-situ*-Erhaltung pflanzengenetischer Ressourcen

## 6. Synergy of nature protection – conservation of PGR ?

### nature protection targets

conserving and protecting species of specific

- responsibility
- threats
- legal responsibility
- ...

f.e. flora protection program: „target species“, "priority species"

protection and conservation of species, protection of genetic resources, conservation of biodiversity

### PGR-conservation targets

conserving of a broad genetic variety as a background for sustainable food and agriculture

project: dokumentation of CWR-sites for *In-situ*-conservation



# Management of plant genetic resources in protected areas – searching for examples..

**preconditions  
and needs...**

- Cooperation between local land owners and users and the administration staff of protected areas
- Taking care of local knowledge, regional use and cultural traditions connected with husbandry and cropping
- Facing the importance of domestic crops for ecology and nature protection management

low, isolated experiences,  
but a wide range for copying and  
transferring of best practise...

# something about *on-farm*-management and conservation.....

- double strategy for plant genetic resources
- field of seed politics,
- civil resistance, farmers rights
- part of culture, tradition
- new playground of urban busy keeping.....

# On-farm-conservation of crops



- examples from living rural communities in non favoured european regions...(Lazio-Italy, Eastern/Southeastern Europe, mountain regions,..)

- first experiences from farmer groups in dynamic use, breeding experiments



# International and european politics about... contradictions and encouraging.....



- legal seed supply...
- food security...
- broad and diverse genetic use
- offering funding, cooperation and strategy opportunities



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# „sources“ for actions and collaboration....

NGO-work is mostly low scientific, more holistic.....

so funding opportunities from adapted sources might be more successful...

- [http://ec.europa.eu/programmes/erasmus-plus/index\\_en.htm](http://ec.europa.eu/programmes/erasmus-plus/index_en.htm)
- [http://ec.europa.eu/education/opportunities/vocational/institutions\\_en.htm](http://ec.europa.eu/education/opportunities/vocational/institutions_en.htm)



infos available by  
[www.climateneedfarmers.webs.com](http://www.climateneedfarmers.webs.com)

# hopeful outlook....

## guideline for nature parks, nature reserves...

- reduce misunderstanding  
(between formal/nonformal sector),
- launching cooperation activities on pgr
- demanding better management
- use the advantage of protected areas
- demanding staff and resources for documentation and measures



thank you very much for listening...

feeding up,  
but not  
extincting  
.....

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