

Developing a European LR conservation strategy

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Outline

1 - PGRsecure and ECPGR on farm WG aims

2 - Photographing and understanding current situation

3 - Issues to be considered in drawing a European landrace (LR) conservation strategy

4 - What is going to be done in PGRsecure



1- PGRSecure and ECPGR onfarm WG general aims



Landraces (LR) on farm: important genetic resources at risk. Genetic diversity within and among LRs is threatened by extinction and erosion

To promote at European level the :

- **landrace (LRs) in situ on-farm safeguard (i.e. conservation)**
- **their safety ex situ back-up,**
- **their sustainable use by all the stakeholders (farmers, farmer organisations, plant breeders etc.)**

So to meet the changing needs of future generations



2 – A photograph and understanding of the current situation in synthesis

‘European Landraces: On-farm Conservation, Management and Use’. Bioversity Technical Bulletin No. 15, Bioversity International publ (Vetelainen, M., Negri V. and N. Maxted eds.)



- **LR conservation: a multifaceted reality**
- **Complexity of the issues involved (human factor)**
- **The strategy should not only focus on conservation *per se*, but also on**
 - **political,**
 - **economic,**
 - **anthropological and**
 - **sociological factors****that enable maintainers to sustain landraces and continue to evolve.**
- **In the formulation of a European on-farm conservation and management strategy the following issues should be considered:**



3- Issues

In the formulation of a European on-farm conservation and management strategy the following issues should be considered (Vetelainen, Negri & Maxted, 2009, 2011):

1. Conservation issues
2. Utilisation issues
3. Socio-economic issues
4. Political and legal issues
5. Public awareness and education issues
6. Cooperation issues
7. Research issues



3 – Conservation issues

- Inventory methodology: how to collected LR historical, cultivation and use data.
- **Complete national and European inventories of LRs maintained in situ (on farm) and in home gardens.**
- Threat assessment : standardised, objective means of assessing threat in cultivated LRs which helps in identifying conservation priorities and actions.
- **Gap analysis (in order to ensure that limited resources are used efficiently and effectively): systematically**
 - **compare conservation requirements and activities, both in situ and ex situ, and**
 - **find out what else should be done .**
- Where to focus in situ (on-farm) conservation actions with priority.
- **Ex situ conservation of LR diversity: launch rescue efforts when danger of extinction exists and systematic national and regional ex situ back-up duplication.**
- Establishment of local seed depositories/community seed banks/community seed exchange systems.



3 – Conservation issues (follows)



• Farmer/grower prerequisites for continued management of LR on-farm and in home gardens:



- what motivates LR maintainers in Europe,
- how do farmers choose which LR to maintain
- how do farmers choose which seed to save,
- how dynamic in terms of genetic diversity are European on-farm systems,
- what's the role of local (farmer, farmer co-operatives, NGOs), national (governmental agencies, breeders, farmer bodies) and European (EC legislation and policy) actors?



- **Need of an informative system (to keep records of everything)**
- **LRs on-farm information dissemination for**
 - **supporting effective and sustainable conservation of other landraces, and**
 - **to encourage and facilitate the use of landrace genetic diversity for crop improvement.**



3- Other issues will also be touched

1. Conservation issues
2. Utilisation issues
3. Socio-economic issues
4. Political and legal issues
5. Public awareness and education
6. Cooperation issues
7. Research issues



In order to achieve PGRSecure and ECPGR on farm WG aims

these issues will be considered

- **through a detailed analysis of Finnish, Italian and British present situation,**
- **But also relying on all the information that can be gathered from the other European countries**



PGRSecure WP 4 - Landrace conservation

Specific Aims & Tasks



Task 4.1. To carry out a European LR inventory for all crops (but focus on *Avena*, *Beta*, *Brassica*, *Medicago*)



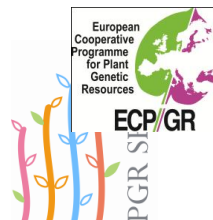
Task 4.2. To draw exemplar national (i.e. British, Finnish & Italian) LR conservation strategies for all crops



Task 4.3. To draw a European LR conservation strategy for *Avena*, *Beta*, *Brassica* and *Medicago* gene pools



Task 4.4. To draw a generic European LR conservation strategy





With this Workshop

- 1. We are inviting National Focal Points (NFPs) to build up their national LR inventories**
- 2. We are providing them with basic tools for LR inventory activities.**
- 3. We are aiming at facilitating LR data flow across the European stakeholder community**



Conclusion



Through the involvement of all the European PGR community, we hope to generate:

- Europe-wide and national LR inventories,
- exemplar national conservation strategies
- a priority (eg *Avena*, *Beta*, *Brassica* and *Medicago* spp.)
European gene pool based conservation strategy
and, in the end
- a systematic European LR conservation strategy that identifies management interventions to improve the in situ (on-farm) and ex situ (gene bank) conservation of LR diversity.





Conclusion (follows)



Partners involved



- **UNIPG - University of Perugia, I**
- **UoB – University of Birmingham, UK**
- **BIOVER – Bioversity International, I**
- **MTT- Maa- ja Elintarviketalouden Tutkimuskeskus, FI**
- **+ All European Countries**



Thank you for attention

