PREPARATORY ACTION

EU plant and animal genetic resources in agriculture

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Compendium of projects

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Objectives of the Compendium of projects

What is the Compendium of project?

OBJECTIVES

A comprehensive compendium with information obtained from various projects which have the objective of valorising neglected agricultural (animal and plants) genetic resources.

- To **raise awareness** of the projects of valorisation of neglected genetic resources in an economic viable way.
- To **develop strategies** for the promotion of neglected genetic resources and local breeds.
- To **increase the knowledge** for all actors involved and to promote scientific knowledge in the area of genetic resources in agriculture.
- To **enhance the network** among key EU stakeholders and to promote information exchange on these topics.

Information gathered from these projects were also used to complement the findings and practical knowledge gathered from the four projects implemented in the preparatory action.

Targets

Who are the readers?

All stakeholders who are already involved in or are about to develop projects for the recovery and valorisation of neglected genetic resources in the EU, including scientific communities, farmers, food processors and public institutions.

E-compendium is available on-line



http://www.geneticresources.eu/ecompendium/valorisation-projects/

- Readers can have **inspirational examples** for the development of new projects of valorisation of neglected agricultural plant and animal genetic resources by providing examples of success stories
- Facilitation of **the transfer of practices** that seem to work successfully somewhere else.

Criteria of selection of the projects

The **widest possible variety** of projects in terms of geographical coverage, type of genetic resources involved, but also objectives, structure of the supply chains, actors, roles and final results.



To provide replicable examples of good practices as well as representative limitations and lessons learned applicable to similar projects in different countries and under different conditions.

Key features of projects

- Primary production \rightarrow both breeds and plant genetic resources.
- In situ conservation → Genetic resources are not just recovered and conserved but are also included in a project of economic valorisation.

Success of the projects

Initial investigation mainly aimed at identifying projects which can be **considered success stories** in terms of:

- Increase in the production of the genetic resource concerned.
- Marketing of the related product(s), with special reference to marketed volumes, prices, geographical extent of the relevant market (local, regional, national, international), key customers.
- Awareness of the genetic resource concerned and of the related products among the wider public (i.e. not only among the concerned operators or specialists).
- Organisation of individual producers in cooperatives and in other forms of collaboration.

In conclusions projects were selected for their diversity \rightarrow not the best initiatives but rather the most diverse ones

Distribution of projects

	No. of projects	No. of projects	Total No. of projects 2 3 2 2 1 2 6 5
iviember State	on PGR	on AnGR	No. of projects
Austria	1	1	2
Belgium	2	1	3
Bulgaria	2	0	2
Croatia	1	1	2
Czech Republic	1	1	2
Denmark	0	1	1
Estonia	0	1	1
Finland	1	1	2
France	2	4	6
Germany	2	3	5
Greece	0	2	2
Hungary	0	1	1
Ireland	1	2	3
Italy	5	1	6
Luxembourg	<u>0</u>	<u>1</u>	1
Netherlands	<u>1</u>	<u>1</u>	2
Poland	0	1	1
Portugal	1	1	2
Romania	1	1	2
Slovenia	1	1	2
Spain	4	1	5
Sweden	1	1	2
United Kingdom	1	0	1
Total	28	28	56

• 56 projects from almost all the EU countries.

- 28 projects on livestock and 28 on plant species and varieties.
- Whenever possible, one "animal" and one "plant" project have been selected for each Member State.
 The number of projects included in the compendium for some MS (specifically DE, ES, FR and IT) was higher than the average → mature tradition in implementing valorisation projects, so that a higher number of relevant examples could be found in comparison to other countries.

Type of projects



One fiche for each project

For each project a fiche is provided with:

- Description of the genetic resource
- Objectives of the project
- Actors involved and their related roles
- Steps and activities undertaken
- Results to date
- Next planned steps
- Lessons learned and good practices
- Participation to other projects and networks as well as funding sources



The fiche includes contact details of the project coordinator, in order to allow the contacts with them \rightarrow networking

Identification of projects

Analysis of candidates' projects identified and inventoried during Task 1.Desk researchReview of the list of initiatives compiled under the first preparatory action.Review of the available literature on neglected genetic resources.

All members of the European Regional Focal Point for Animal Genetic Resources (ERFP) and to all members of European Cooperative Programme for Plant Genetic Resources (ECPGR).

Survey of relevant actors

Consultation of a number of associations involved in activities related to the safeguard of biodiversity (e.g. Slow Food Foundation for Biodiversity, Rete Semi Rurali, Save, others).

Additional efforts for the identification of suitable projects on Member States for which no projects or an insufficient number of projects had been identified.

Challenges I

- The collection of fiches largely relied on the availability and cooperation of the contacted people and organisations.
- Several attempts were necessary in order to collect key information on some GRs in specific Member States.
- In some Member States, it was not possible to identify any eligible project → In a number of Member States the attention to neglected genetic resources and to their protection/recovery seems to be still quite limited.

Challenges II

Many proposed projects were mainly conservation projects with no valorisation component.

Most identified projects, aiming at preserving a specific genetic resource, haven't among their objectives the development of economic supply chains from production to consumers, neither the creation of an "economic value" behind the project and/or the genetic resource.

Additional requests were needed to actually understand if candidate projects had to be considered out of the scope of the Compendium or needed to be integrated with additional information.

In most cases, projects finally demonstrated to fall out of the scope of the Compendium and were not included in the Compendium.

y findings from the projects of the Compendium



Valorisation and economic sustainability

- Neglected GR have worse performances in terms of yields and productivity in comparison to improved breeds and varieties, widely used in the industrial food production.
- Peculiar and high-quality characteristics, a **high level of adaptability to marginal areas**, as well as good characters to be differentiated on the market in terms of originality, links to the territory and quality itself.



Economic sustainability can be achieved in the medium-long term also with the progressive involvement of a **sufficient number of producers** and other stakeholders along the chain.

In most cases the economic profitability of the product seems not to be the very final aim of the project, but is anyway considered as one of the essential conditions to activate a virtuous circle and guarantee the overall sustainability of the project itself.

Motivation factors behind valorisation projects: Social dynamics of the local areas

What could be the incentives to develop a project focusing on underutilised genetic resources (genetic resources had often been abandoned by producers as they were not productive enough)?

Social dynamics of the local areas

Projects as tools to re-connect farmers with the local population, enhancing local networks as well as **re-building communities** through a common project to be carried out with mutual help.

Initiators of valorisation projects aim at building local supply chains and at being part of these local social networks instead of being isolated within a complex global supply chain.

Usually the initial development stages of this type of projects are based **on volunteer work** and on the goodwill of an embryonic group of actors \rightarrow the work of such group of farmers/breeders is recognised and appreciated by the local community.

Motivation factors behind valorisation projects: Critique to conventional farming

Producers involved in valorisation projects highlight the limits of the intensive model of agriculture.

- Conventional farming can be **too competitive** for small farmers and for neglected breeds and crops (e.g. lower level of productivity).
- Integration of the different stages of the supply chain determines a situation where producers do not see their work recognised and where a certain degree of separation can occur between the territory and the types of cultivated crops and reared animals

Projects try to differentiate from the conventional farming model.

Farmers regain their autonomy with regard to the input suppliers and the big retailers \rightarrow Using landraces, neglected crop or species and rare breeds is a strategy for coping with market price uncertainty.

In certain cases farmers/breeders can devote only a minor part of their cultivated area or rearing facilities to the genetic resource of the project, while the majority of their activities concern conventional farming (low number of cases).

Involvement of stakeholders I

The involvement of different types of stakeholders plays a crucial role in order to build a successful project

Key stakedholders → farmers/breeders, processors, traders, researchers and scientific institutions, experts, students, NGOs and local, regional and national governments.

Stakedholders generally **based in the area of origin** of the products or at least nearby.

Importance of networks \rightarrow A fruitful cooperation with producers of similar products in different contexts can also allow a wider knowledge of problems and the chance to tackle common threats together.

Initiatiators of projects Most of the projects have been initiated by farmers. Efficiency and effectiveness of governance structure \rightarrow in almost all the success stories, the existence of groups of producers and processors represented a success factor.

Involvement of stakeholders II

Other initiators of projects

- Local or regional organisation or an NGO that has a particular interest in conservation and valorisation of genetic resources
- Institutions (local, regional and national) can be promoters of the initiative or they can be involved in a later stage → in all cases, the synergies that have been created between communities and public authorities were found to be of critical importance for the achievement of the key objectives of the project.

Collaboration with researchers in universities

- Linking the initiative to public research and the use of expertise in genetics to inform breeding and farming decisions necessary during the **conservation** phase of the initiatives.
- Once the genetic resources have been defined and production has been started, the involvement of **other types of expertise from research institutions** can be considered as a successful strategy (e.g. marketing and business plan).

Definition of the product

The products under study of analysed initiative have distinctive characteristics which clearly differentiate them from similar products from conventional farming.

Products obtained from a genetic resource should have a set of characteristics which make them **attractive and suitable** for at least a **small niche of consumers**.

Geography as a key attribute of agricultural products \rightarrow Enhancement of rural heritage is a key condition for producing food in a different manner.

- Products from neglected genetic resources should be not reproduced elsewhere and the ties among the agricultural products, the stakeholders and the places should be enhanced.
- The local origin of products should be used as a marketing tool when needed.
- Support of tourism boards and local associations → genetic resources as key driver of local economy

Niche markets and awareness of consumers

Some successful strategies

- Elaboration of a **marketing strategy** based on the identification of a market niche and on the growing demand for high quality food products.
- Products from neglected genetic resources need to be sold at higher (premium) prices to be profitable (lower yelds, higher costs, etc.) → it is necessary to inform consumers about the reasons behind the differences in product prices.
- Analyse the consumer tastes and adapt the processing techniques and recipes to better meet consumer preferences.
- **Promotional actions** should target restaurants, delicatessen shops and informed consumers who value the distinctive qualities of the products.
- Participation to fairs and creation of local initiatives to enhance awareness among consumers.

Use of (scarce) resources

The lack of funding and of appropriate coordination and animation among stakeholders were found to slow down the development of the projects.

Generally scarce financial resources to hire/involve technicians and full-time consultants with adhoc expertise.

Potential solutions

- Willingness of participants to be involved in and dedicate their time to the initiative and also to study and develop "internally" those skills which cannot be purchased externally due to the small dimension of the initiative.
- Ability to improve team building and to effectively share needs and responsibilities among a group of motivated actors.
- Project funding can be focused on the initiation phase, creating a self-sustainable valorisation initiative that generates sufficient income for all major actors in the supply chain → fundings should be dedicated to **developing a business plan** during the initial phases of the project of valorisation.

Links with other initiatives and schemes

Key element for the success of these initiatives is the capacity to create synergies with other schemes and programmes.

The inclusion of initiatives in RDPs or in other national and local development funds and schemes emerged as another key element for success.

From a commercial standpoint, the most successful initiatives often achieve a formal quality scheme certification, e.g. PDO/PGI.

Education and new tecnology

Permanent education mechanism for farmers and breeders involved in the initiative is essential both during the initial stages of the initiatives and throughout all their implementation.

- The use of modern technologies (e.g. the creation of online training platforms) can be useful in order to overcome problems in less accessible areas (e.g. mountain ones), where geographical distance between individual farmers/breeders is usually high.
- **Improving production methods** through the use of modern technologies (e.g. to ensure the traceability of meat and meat products).
- Use of **new media** to implement awareness activities and promotional activities, through websites and social media.
- Sharing information and experiences with people who are involved in similar initiatives across the world.

A special relationship with time

The full development of initiatives of valorisation of neglected genetic resources requires longer time than the development of initiatives focusing on conventional agriculture. Most of the analysed initiatives developed slowly, and hence reached maturity over a long time span.

Two main reasons

- Individuals are involved in other activities (voluntary work) → The implementation of the initiative can be a secondary activity (residual time).
- Most of the initiatives included in the compendium have been initiated by one or by a limited number of actors → Enlarging the network and the number of actors involved in the initiative generally takes several years.

