

PROMOTING AN ENABLING ENVIRONMENT FOR AGROBIODIVERSITY IN EUROPE



Booklet #4

This booklet presents the main policy recommendations for the sustainable use of plant genetic resources for food and agriculture



DIVERSIFOOD aims to embed diversity in the food supply chain and to foster multi-actor networks to promote local high quality food systems.

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INTRODUCTION

Since the 1970s Europe has approached plant genetic resources for food and agriculture (PGRFA) as a specific domain defining its boundaries with the word “conservation”. At the beginning the focus was on ex situ conservation, i.e. genebanks conserving seeds in their storage systems, and then little by little the focus moved also to in situ/on farm conservation, i.e. conserving PGRFA where they have evolved and therefore also in farmers’ fields. But the pivotal word was always “conservation”, with procedure, rules, wording and policies mainly defined by the scientific community. Thus, the conservation of PGRFA was separated from agriculture as such, resulting in two distinct policy fields with few, if any, interrelations. This may be a reason why it took 10 years of negotiations of the directive on conservation varieties to have finally a legal text considering that seed laws should be amended in order to include more diversity. Policy makers negotiating seed laws never considered diversity conservation as “their affair”. The idea of considering PGRFA conservation something different from their use, it is also evident looking at the role of the European Union in the negotiations of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). The main interest of EU’s member states is always the access to PGRFA under the Multilateral System (MLS), whereas little attention is paid to their sustainable use as provided in article 6 or Farmers’ rights as addressed in article 9. Agricultural policies are still embedded in the mainstream seed systems paradigm, where a seed system is considered developed if the seed chain is perfectly organised in a linear process (the so-called formal seed system). Plant genetic resources are the beginning of this process, where breeders (public and private) develop new varieties, which are marketed by seed companies. In this system the only role of farmers is as final client. Such seed systems allow no room for innovation by

farmers in terms of the development of PGRFA. Against this backdrop conservation activities are irrelevant for agriculture, or remain residual activities played by “custodians”, without any role in innovation. In this paradigm conservation becomes a sort of open-air museum.

DIVERSIFOOD promoted another paradigm to PGRFA and then agriculture, considering diversity embedded in farming system and contributing to revising the linear approach to seed systems -from breeders to farmers through seed companies and the market. During its 4 years DIVERSIFOOD developed activities and analysed experiences aiming at defining a new concept for the European context: Community Agrobiodiversity Management (CAM). Even if this framework is not new in the scientific literature (De Boef et al., 2013) it has been considered relevant only for the Global South until now. Community Agrobiodiversity Management includes the usual on-farm conservation of landraces but consider also participatory and decentralised innovation as part of the framework.

Using this paradigm, DIVERSIFOOD highlighted that seed systems are complex and not linear processes, where the degree of overall progress of the systems is measured by their capacity to produce innovation and quality seed, not by the fact that they are fully formalised or still informal.

This booklet presents the recommendations for promoting an enabling environment for Community Agrobiodiversity Management in Europe, considering again diversity at all the levels (e.g. varieties, species, ecosystems, landscapes and men) as a key component of farming systems. This diversity - called agrobiodiversity and including also socio and cultural diversities - plays a central role for achieving the sustainable use of PGRFA and for adapting our food systems facing climate change and new societal expectations.

RECOMMENDATION 1 :

NEW PARADIGM, FROM ON-FARM CONSERVATION TO COMMUNITY AGROBIODIVERSITY MANAGEMENT



DIVERSIFOOD focussed on the word “community” as a key element of on-farm management strategies. Communities, and in general social aspects and norms, play an important role in establishing and shaping seed systems at the local level, one that should also be recognised by policy makers and scientists. For this reason, we suggested to include S (social aspects) in the classical formula Genotype*Environment interaction: diversity is not only the result of one variety (several genotypes within a heterogeneous population) in one environment but also of their interactions with social aspects, considered in a broad sense (e.g., social organisation of the community and social preferences regarding food). In this regard, we adopted the concept of Community Agrobiodiversity Management (CAM), putting farming communities at the centre of the sustainable

use of agrobiodiversity. The main aim of this approach is to show how supporting community organisations and strengthening their capabilities is paramount for achieving the sustainable use of PGRFA. The DIVERSIFOOD project looked at the application of the CAM approach in Europe, learning from existing experiences of multi-actor networks working at the local level, and understanding how the policy and legal environment can impact local systems. As shown by the following figure, this approach can include different activities and ways of managing diversity: community seed banks, participatory plant breeding projects, artisanal and local seed companies and cooperatives, landrace conservation and management, and seed exchanges and fairs.



RECOMMENDATION 2 :

PROMOTING DIVERSE AND SUSTAINABLE SEED SYSTEMS

As shown by many scholars (Louwaars, 2007) seed policies have been conceived to modernize seed systems (and agriculture) according to the Douglas's linear approach (Douglas, 1980): from developing to developed ones, from informal to formal ones. In the first cases farmers are at the centre of the system producing, multiplying and exchanging/marketing seeds and varieties (the so-called "*informal seed systems*"), in the latter farmers are only clients of the system: varieties and seeds are in the hands of breeders and seed companies (the so-called "*formal seed systems*"). DIVERSIFOOD looked at seed breeding and production with a wide perspective that includes the whole seed system and integrates different activities: from the search for new varieties to seed

marketing, from participatory research to the possible relationships that can be developed with the private sector and the market to promote production derived from agrobiodiversity. Modelling the different actors who cover different roles allows for the description of seed systems, as shown by the graphic outline in [Figure 2](#). The activities described in the figure point out that seed systems are complex and made up of different actors with contrasting behaviours and acting at the same time in the formal or in the informal system. For example, a single farmer can be merely consumer of seeds and of innovation (e.g., new varieties) produced by other actors (e.g., seed companies, private or public breeders) in the case of maize, but he can be a key player in produ-

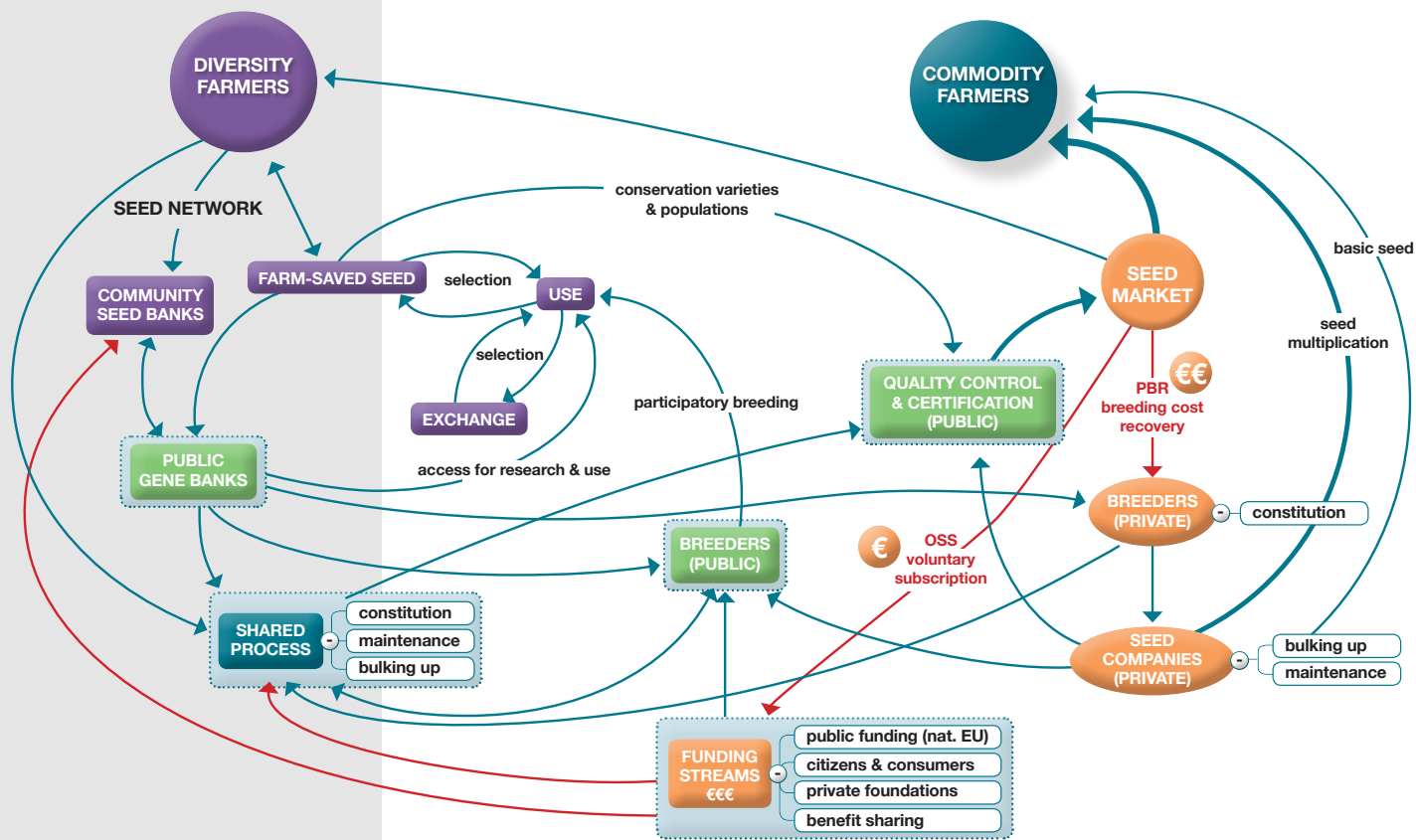




cing his own seeds and new varieties through participatory plant breeding in the case of wheat (i.e. same farmer different crops different seed systems). The same is true for public gene banks or public breeders: they can collaborate with so-called formal systems (the right part of the figure) but at the same time they can promote and sustain local and collective seed systems (the so-called informal ones). The mere division between formal and informal should be overcome in order to better understand the reality of current seed systems and to design their future development.

DIVERSIFOOD advocates that policies, rules and funds should promote, sustain and maintain diverse and sustainable seed systems, based on the diversity of their actors and a facilitated flows of germplasm and knowledge amongst them. It would allow for the creation of diverse farming systems where evolutionary forces will continue to play a role in the selection of the best adapted varieties over time.

Figure 2: Sustainable Seed Systems



RECOMMENDATION 3:

SUPPORTING COMMUNITY SEED BANKS



DIVERSIFOOD worked on the issue of Community Seed Banks with a global approach through different events. Firstly, a survey on CSB experiences in Europe was conducted, followed by a workshop with survey participants for discussion and validation of the survey results on 21 September 2017 in Rome, Italy. On the following day, 22 September 2017, a workshop was held at FAO HQ in Rome, Italy, to discuss the issue of Community Seed Banks with international institutions. In October 2017, a side event on CSB experiences in the North and South was held in Kigali, Rwanda, during the meeting of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) Governing Body. Finally, on 24 July 2018, representatives of the DIVERSIFOOD project participated in the informal dialogue 'Building Linkages to Strengthen On-Farm management of Farmers' Varieties/Landraces: Community Seed Banks', organised by the Commission on Genetic Resources for Food and Agriculture (CGRFA) at the FAO. Reports of the entire process can be found online on the DIVERSIFOOD website (www.diversifood.eu) and on the website www.communityseedbanks.org.

The survey mapped almost 80 CSBs in Europe, bringing to light their importance for local seed systems. From the analysis CSBs emerged as diverse and dynamic experiences that share some common features. They are collective seed management experiences embedded in local/collective seed systems to counteract the loss of locally adapted varieties. Often they are well established local and grassroots initiatives developed by networks of farmers, gardeners and citizens that have the technical, political and management capacity that is key to practice the sustainable use of agrobiodiversity. Community Seed Banks have the main aims of (I) enhancing access to seeds and plants adapted to local conditions or alternative farming systems, (II) providing training and awareness to local communities on the issue of agrobiodiversity loss, (III) managing farmer, gardener and citizen networks around the issue of seeds, and (IV) helping to build more sustainable food systems and make society more resilient. More than a specific definition, it is the combination of those features that defines Community Seed Bank experiences. They may have diverse governance structures and involve different areas of activities and stakeholders, but they are all contributing to a process of innovation based on community sovereignty over local resources. CSB initiatives work with a wide range of crops and varieties, including local and farmer



varieties, old commercial varieties and populations. This type of activities requires financial resources, manpower and technical equipment that are not always available in CSB initiatives. In addition, the legal environment often represents an obstacle for the development of such initiatives. However, voluntary work and timely funding opportunities have been used in existing experiences to carry on activities and develop innovative seed systems, thanks also to cooperation and networking between initiatives with similar goals and values.

In sustainable seed systems CSBs are situated in between genebanks and on farm actors. They can help these actors to have access to accessions conserved in genebanks, for example multiplying the small quantities received by ex situ actors.

RECOMMENDATION 4: ESTABLISHING NATIONAL PLATFORMS ON PGRFA



DIVERSIFOOD examined five national biodiversity management systems from the perspective of civil society organisations (CSOs) from Spain, France, Italy, Austria and Switzerland. The results show that while the CSOs are well connected to public institutions like agriculture research centre institutes or national gene banks, national platforms that are organised and coordinated by public authorities are mostly lacking. Some of the CSOs report that they have well-established links to national ministries, although these depend rather on personal relationships than on established national structures that support direct exchange between the different

stakeholders of the national PGR management system. One of the oldest and most developed national platforms we could find exists in Switzerland, where for over thirty years almost all stakeholders of the plant genetic management community have been collaborating on a common strategy and a national action plan for the conservation of plant genetic resources for food and agriculture (NAP-PGRFA), based on the global action plan developed in Leipzig in 1996. Beside this example, in almost all European countries coherent national strategies are lacking for the management of the diversity of PGR that are based on long-term implemen-



tation strategies and in which adequate financial resources are allocated for the realisation of a national action plan for the safeguarding of PGRFA.

Moreover DIVERSIFOOD found that a scarcity of communication streams between stakeholders, leading to a lack of reciprocal understanding of motivations, and the large influence of the seed and food industry on legislative processes were identified as the main barriers for the marketing of crop biodiversity products, and promoting local and sustainable seed systems. Communication between the main

stakeholders dealing with seed and PGRFA must be institutionalised at the national level. The main stakeholder groups are farmers and farmer associations, Community Seed Banks, other civil society organisations, gene banks, seed authorities and relevant ministries. Facilitation is needed to find a way forward. One applicable solution is to put in place institutionalised national platforms in which all stakeholders, institutional or civil society-based, can discuss and negotiate PGRFA issues such as those proposed in DIVERSIFOOD Innovation Factsheet #10.

RECOMMENDATION 5: HARMONISING SEED LAWS IN EUROPE



Due to the complex nature of the current EU seed marketing regime, which consists of 15 directives, the effects of this legislation strongly depend on their national implementation. Derogations and flexibilities that create space for biodiversity are in many cases transposed very partially or not at all in national laws. For example some member states (e.g., Denmark and Austria) have developed enabling solutions within the current European overarching framework. Lacking a coherent and cohesive EU approach, efforts must thus be taken to allow for the exchange of best practices between member states. DIVERSIFOOD proved that interregional multi-actor

workshops, which regroup member states and candidate countries, could be excellent tools for promoting biodiversity-friendly legislation and building a strong basis for the inclusive institutionalisation of civil dialogue in the field.

DIVERSIFOOD recommends a closer communication on legal issues between actors from different member states and at the EU level. At the EU level, civil society organisations should have more possibilities to participate meaningfully in decision making, also with regards to technical questions as discussed in the EU Standing Committee on Seeds and Propagating Material.

FURTHER READINGS



FROM DIVERSIFOOD PROJECT

D4.1 – Report on local seed production system

D4.2 – Report from a stakeholder workshop on Community Seed Banks

D4.3 – Assessment of the impact of social network and seed exchange

D4.4 – Results of the side event at ITPGRFA – Full report

D4.5 – Report from case studies about on farm selection and seed production

D4.6 – Policy paper based on final recommendations **Innovation Factsheet #1** - Community Seed Banks

Innovation Factsheet #2 - Varieties and Populations

Innovation Factsheet #9 - Farmers' Rights

Innovation Factsheet #10 - National Crop Diversity Management System

Innovation Factsheet #16 - A Paradigm Shift

Innovation Factsheet #19 - Data management in Community Seed Banks

Innovation Factsheet #20 - Participatory Approach to Model Community Seed Systems

Report #1 Community Seed Banks: Sharing Experiences from North and South

Report #2 Cultivating diversity and food quality. Proceedings of Diversifood EU Forum, Brussels, 11 April 2018

Report #3 Community Seed Banks in Europe

Report #4 Community Seed Banks: dialogue between CSBs experiences and international institutions

Booklet #6 Innovative approaches to embed diversity in food systems

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PSR • ProSpecieRara

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LBI • Louis Bolk Instituut

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