



Food and Agriculture  
Organization of the  
United Nations



**The International Treaty**  
ON PLANT GENETIC RESOURCES  
FOR FOOD AND AGRICULTURE

**Views, Experiences and Best Practices as an example of possible options for  
the national implementation of Article 9 of the International Treaty**

*Note by the Secretary*

*At its [second meeting](#) of the Ad hoc Technical Expert Group on Farmers' Rights (AHTEG), the Expert Group agreed on a revised version of the [template](#) for collecting information on examples of national measures, best practices and lessons learned from the realization of Farmers' Rights*

*This document presents the updated information on best practices and measures of implementing Article 9 of the International Treaty submitted by Italy on 31 July 2019.*

*The submission is presented in the form and language in which it was received.*



## Measures, Best Practices and Lessons Learned from the Realization of Farmers' Rights as set out in Article 9 of the International Treaty

### Innovative decentralised seed-systems for bread wheat evolutionary populations

#### Basic information

- Title of measure/practice: **Innovative decentralised seed-systems for bread wheat evolutionary populations**
- Date of submission: **July 2019**
- Name(s) of country/countries in which the measure/practice is taking place: **Italy**
- Responsible institution/organization (name, address, website (if applicable), e-mail address, telephone number(s) and contact person): **Rete Semi Rurali (RSR), via di Casignano 25, 50018, Scandicci (FI); [www.semirurali.net](http://www.semirurali.net); [riccardo.bocci@semirurali.net](mailto:riccardo.bocci@semirurali.net)**
- Type of institution/organization (categories): **NGO - conservation, promotion and education activities on agro-biodiversity**
- Collaborating/supporting institutions/organizations/actors, if applicable (name, address, website (if applicable), e-mail address, telephone number(s)): **CREA-DC (<http://abp.entecra.it/>); Ministry of Agriculture ([www.politicheagricole.it](http://www.politicheagricole.it)); European Commission ([https://ec.europa.eu/commission/index\\_en](https://ec.europa.eu/commission/index_en))**

#### Description of the examples

##### Mandatory information:<sup>1</sup>

- Short summary to be put in the inventory (max. 200 words) including:

This measure refers to the development of Evolutionary Populations (Eps or Composite Cross Populations - CCPs) through decentralised and participatory plant breeding programme. The project started in 2010 as part of the EU funded research project SOLIBAM (solibam.eu). The CCP was constituted at ICARDA, Syria by Salvatore Ceccarelli with the declared aim of providing farmers with a highly diverse population, which would be able to adapt to a wide range of environments and farming practices. The population was constituted by at 2000 crosses stemming from 200 parental lines (cultivars, local varieties, CWR). RSR set up field trials in four different locations in Italy to evaluate this EP, alongside local varieties and variety mixtures, as part of the research activities of EU project DIVERSIFOOD (diversifood.eu). These trials also included participatory evaluation of the crops by farmers and dissemination events, such as farm days and on-farm workshops. More than 350 farmers took part to the participatory evaluation activities over the four years of trials (2015-2018). In 2017, the first batch of certified population seed became available on the seed market and the number of farmers who were able to access the EP (named SOLIBAM tenero) doubled. Furthermore, the EP started to enter both short and long value chain, for the production of flour and baking products (bread, pizza). In 2017 and 2018 21 and 30 tons of certified EP seed were produced and marketed.

- Brief history (including starting year), as appropriate

In 2010 as part of the EU funded research project SOLIBAM (solibam.eu), RSR distributed to three farmers seed of an EP of bread wheat. The CCP was constituted at ICARDA, Syria by Salvatore Ceccarelli with the declared aim of providing farmers with a highly diverse population, which would be able to adapt to a wide

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<sup>1</sup> This mandatory information is required in order for the measure/practice to be included in the Inventory.



range of environments and farming practices. The population was constituted by at 2000 crosses stemming from 200 parental lines (cultivars, local varieties, CWR). Two of the farmers, one in the region of Tuscany and one in Sicily grew the population continuously, gradually increasing the cultivated area. This highly diverse population attracted the interest of many farmers, and seed of this EP gradually spread through the informal seed system, reaching over 40 farmers all over Italy in 2017. In parallel, RSR set up field trials in four different locations in Italy to evaluate this EP, alongside local varieties and variety mixtures, as part of the research activities of EU project DIVERSIFOOD (diversifood.eu). These trials also included participatory evaluation of the crops by farmers and dissemination events, such as farm days and on-farm workshops. More than 350 farmers took part to the participatory evaluation activities over the four years of trials (2015-2018). RSR also assisted the two pioneering farmers (Floriddia in Tuscany and Li Rosi in Sicily) in registering this population as part of EU temporary experiment on population seed marketing (2014/150 EU) and become certified seed producers. In 2017, the first batch of certified population seed became available on the seed market and the number of farmers who were able to access the EP (named SOLIBAM tenero) doubled. Furthermore, the EP started to enter both short and long value chain, for the production of flour and baking products (bread, pizza). In 2018, a new research project funded by the regional government of Tuscany within the EU EIP-Agri framework started (Cereali Resilienti). Through this project, involving 19 Tuscan farms, the specific adaptation of micro-climatic areas will be evaluated, as well as innovative models for decentralised seed systems.

- Core components of the measure/practice (max 200 words)

The measure is sets on six pillars:

- 1) Increasing genetic diversity within cultivated crops through the deployment of highly diverse Evolutionary Populations;
- 2) Mitigated the impact of Climate Change thanks to the ability of EPs to compensate inter-annual climatic variability as well as climatic trends (increasing temperatures, decreasing rainfall);
- 3) Empower farmers, providing technical support and training in on-farm selection and seed production;
- 4) Foster the development of decentralised seed-systems and enterprises;
- 5) Foster the development of short or closed value-chains based on bread wheat EP products;
- 6) At policy level, cooperate with regulatory authorities at regional, national and European level to inform decision makers on best practices for EP seed registration and certification, whilst ensuring farmers' rights on EP seeds.

- Description of the context and the history of the measure/practice is taking place (political, legal and economic framework conditions for the measure/practice) (max 200 words)

Crop varieties specifically bred for organic agriculture are lacking, imposing limits on the uptake and efficiency of organic production systems. The ability of Evolutionary Populations (EP) of crops to evolve and adapt to different agro-ecological environments makes them ideally suited to obtaining specifically adapted plants, allowing farmers to better harness the full potential of organically managed and marginal lands. Furthermore, EPs can adapt to climate change and different agro-ecological environments, increasing farmers' resilience and enhancing on-farm biodiversity. A precondition for the successful deployment of EPs is that the seeds is produced in the same region in which it will be utilized, with farmers playing central roles as both seed users and producers. Thanks to the EU COMMISSION IMPLEMENTING DECISION (2014/150/EU), providing for certain derogations for the marketing of populations of wheat, barley, oats and maize, this genetically heterogeneous population is now for the first time been marketed as certified



seed. From 2021, thanks to the new EU organic regulation, EPs will become a new category of organic seeds. Interest of both farmers and consumers in sustainably produced foods, combined with the window of opportunity in the European institutional framework offers new opportunities to foster farmers' control on their own seeds, enhance their role in EPs seed production and use and develop new seed-systems models and value-chains.

- To which provision(s) of Article 9 of the International Treaty does this measure relate

- Art. 9.1
- Art. 9.2a
- Art. 9.2b
- Art. 9.2c
- Art. 9.3

**Other information, if applicable**

- Please indicate which category of the Inventory is most relevant for the proposed measure, and which other categories are also relevant (if any):

No.	Category	Most relevant <sup>2</sup>	Also relevant <sup>3</sup>
1	Recognition of local and indigenous communities' farmers' contributions to conservation and sustainable use of PGRFA, such as awards and recognition of custodian/guardian farmers		
2	Financial contributions to support farmers conservation and sustainable use of PGRFA such as contributions to benefit-sharing funds		
3	Approaches to encourage income-generating activities to support farmers' conservation and sustainable use of PGRFA		
4	Catalogues, registries and other forms of documentation of PGRFA and protection of traditional knowledge		
5	In-situ/on-farm conservation and management of PGRFA, such as social and cultural measures, community biodiversity management and conservation sites		
6	Facilitation of farmers' access to a diversity of PGRFA through community seed banks <sup>4</sup> , seed networks and other measures improving farmers' choices of a wider diversity of PGRFA.		

<sup>2</sup> Please select only one category that is most relevant, under which the measure will be listed.

<sup>3</sup> Please select one or several categories that may also be relevant (if applicable).

<sup>4</sup> Including seed houses.



7	Participatory approaches to research on PGRFA, including characterization and evaluation, participatory plant breeding and variety selection	X	
8	Farmers' participation in decision-making at local, national and sub-regional, regional and international levels		
9	Training, capacity development and public awareness creation		
10	Legal measures for the implementation of Farmers' Rights, such as legislative measures related to PGRFA.		X
11	Other measures / practices		

- In case you selected 'other measures', would you like to suggest a description of this measure, e.g. as a possible new category? \_\_\_\_\_
- Objective(s)

To promote the development of innovative seed-systems and value-chains based on Evolutionary Populations, which are both economically and environmentally sustainable. To ensure that control over EPs rests with the farmers who cultivate them on their lands.

- Target group(s) and numbers of involved and affected farmers<sup>5</sup>

Farmers (350); Seed producers (2); Public Seed Certifying Body (1)

- Location(s) and geographical outreach

Italy. Two main locations of bread wheat EP seed adaptation (Peccioli, Tuscany and Raddusa, Sicily); four locations for field trials (the aforementioned two with the addition of San Giuliano di Puglia, Molise and Caraglio, Piedmont); the whole of Italy (farmers growing the bread wheat EP)

- Resources used for implementation of the measure/practice

Not applicable. This measure has been founded by EU H2020 projects (SOLIBAM, DIVERSIFOOD, LIVESEED) and EIP-Agri project "Cereali Resilienti".

- How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture?

This measure has stimulated a great deal of interest by farmers, many of which were already active in growing and conserving local varieties of cereals on their farms and in their communities. The re-skilling and empowering of farmers in Italy (and Europe) are key to their ability to preserve genetic resources on their farms, as well as generate new cultivated diversity through Evolutionary Populations.

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<sup>5</sup> Any classification, e.g. of the types of farmer addressed, may be country-specific.



- Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)

Since 2kg of SOLIBAM bread wheat EP seed was distributed to two Italian farmers in 2010, the production cultivation now (2018) interests >80 farmers. In 2017 and 2018 21 and 30 tons of certified EP seed were produced and marketed.

- Other national level instruments that are linked to the measure/practice
- Are you aware of any other international agreements or programs that are relevant for this measure/practice?
- Other issues you wish to address, that have not yet been covered, to describe the measure/practice

### Lessons learned

- Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices (max 250 words).

The main lesson learned through the implementation of this measure, is that farmer's participation in the process is key to its success. Innovation brokers, such as RSR can achieve this type of results only if farmers and other value-chain stakeholders are involved and take ownership of the process. Furthermore, a crucial aspect to the success of this measure, with concern to the registration and certification of seed, was the constructive relationship established with the regulatory authorities (CREA-DC, MIPAAFT).

- What challenges encountered along the way (if applicable) (max 200 words)

Seed legislation is allowing only the marketing of uniform varieties. Thanks to a specific derogation in the EU seed legal framework, farmers in Italy have been able to market the seeds of populations that are not uniform by definition. RSR with the support of CREA-DC succeeded in helping farmers to produce and certify their seeds, creating a new registration and certification framework for populations.

- What would you consider conditions for success, if others should seek to carry out such a measure or organize such an activity? (max 100 words)

The main condition of success is the change of legal seed framework allowing the marketing of non-uniform populations. It should create a specific space for that, with adapted registration and certification procedures. The registration, certification and marketing of the SOLIBAM bread wheat EP is an indicator of the successful cooperation of all actors involved in this measure.

### Further information

- Link(s) to further information about the measure/practice

[www.semirurali.net](http://www.semirurali.net)