Participatory approaches in the implementation of the Treaty: experiences so far

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Secretariat of the International Treaty on Plant Genetic Resources
International Treaty on Plant Genetic Resources for Food and Agriculture

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Community Seed Bank and the ITPGRFA:

- The Programme of Work on Sustainable Use of PGRFA 2016-2019
- The Farmers’ Rights
- The Global Information System
- The Projects finalized in the Benefit Sharing Fund
The Toolbox on Sustainable Use of PGRFA

- Sustaining Local Crop Diversity
  - Strengthening seed systems
  - Enhancing crop diversity for local needs
  - Promoting local crop diversity

- Policy for sustainable use of PGRFA
Context

Diversity in plant genetic resources for food and agriculture (PGRFA) is essential to sustain food, nutrition and economic security. The recurrent development of new and diversified crops which can thrive in the more extreme, changeable and uncertain environmental conditions brought about by climate change depends on the continuous availability of a wide pool of plant genetic diversity.

To sustain this diversity, farmers and other crop maintainers that wish to diversify their own crops require an appropriate enabling environment, and adequate conservation management measures need to be implemented in situ (in protected areas and other natural or semi-natural sites) and in ex situ facilities. Further, appropriate procedures to enable access to in situ and ex situ managed plant materials for crop development within an equitable benefit-sharing framework need to be in place. Efficient seed delivery systems that are sensitive to the needs of farmers and farming communities are required, and markets that are adaptable to supporting greater diversity of crop produce are called for.
Sustainable Use

The TOOLBOX for Sustainable Use of PGRFA: prototype schema showing the main elements and structure
Farmers’ Rights

1. Protection of Traditional Knowledge
2. Equitable participation in the sharing of benefits
3. Participation in decision-making
4. Save, use, exchange and sell farm-saved seed
Farmers’ Rights

The fifth educational module in a series of training materials for the implementation of the International Treaty on Plant Genetic Resources for Food and Agriculture
## Results of the online consultation: views and needs for the implementation of Farmers’ Rights

### Means to implement Farmers’ Rights

<table>
<thead>
<tr>
<th>Means to Implement</th>
<th>Protection of TK</th>
<th>Right to participate in decision making</th>
<th>Right to participate in benefit sharing</th>
<th>Right to save, use, exchange and sell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoption of conducive law</td>
<td>44%</td>
<td>32%</td>
<td>36%</td>
<td>43%</td>
</tr>
<tr>
<td>Adoption of conducive policy</td>
<td>34%</td>
<td>46%</td>
<td>33%</td>
<td>31%</td>
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<tr>
<td>Government programmes, projects or initiatives</td>
<td>28%</td>
<td>48%</td>
<td>41%</td>
<td>41%</td>
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<tr>
<td>Implementation of conducive law or policy</td>
<td>46%</td>
<td>30%</td>
<td>33%</td>
<td>37%</td>
</tr>
<tr>
<td>NGO/CSO implemented initiatives</td>
<td>60%</td>
<td>52%</td>
<td>54%</td>
<td>55%</td>
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<tr>
<td>Increased awareness</td>
<td>60%</td>
<td>54%</td>
<td>54%</td>
<td>67%</td>
</tr>
</tbody>
</table>
The Global Information System (GLIS)

- It is a global entry point to information on scientific, technical and environmental matters related to all types of PGRFA material (including ex-situ, in-situ and on-farm).

- It promotes interoperability among existing systems of small and big collections (Developing and identifying tools, formats and protocols and promoting their adoption).

- It links to systems from FAO and third parties.

- It provides a set of tools and standards to facilitate exchange of data.

- It collaborates with existing initiatives to improve data quality (AARINENA, EURISCO, CGIAR centres and platforms, Genesys, GRIN-Global, and breeders networks).
Implications for GLIS...

Global Information System

- Accessions (Ex situ)
- DNA samples
- Facilitating exchange of information
- Farmer’s varieties CWRs (In situ/on farm)
- Breeders’ varieties, research material

How can GLIS link data from all communities, when each has its own specialised system for identifying PGRFA?

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What types of material can be documented through GLIS?

- GLIS can incorporate all types of PGRFA, such as genebank accessions, material held by farmers, in community seed banks or informal working or research collections, breeding lines, released varieties, amongst others.

- Each PGRFA material is vital!
What main advantages can we expect from the use of DOIs?

- Easier discovery and access to information related to PGRFA material across the world;
- More accurate identification of the material and better protected against misappropriation;
- More reliable association of research outcomes to the material;
- Better links to publications;
- Opens up an information portal for potential donors.
The Benefit-sharing Fund of the International Treaty

Participatory approaches to the establishment of community seed banks

Rodica Leahu
Priorities for the use of resources under the BSF

Taking the rolling Global Plan of Action as a framework, the Governing Body will use available funds in the Benefit-sharing Fund strategically, to play a catalytic role in international cooperation in the following areas:

1. Information exchange, technology transfer and capacity-building
2. Managing and conserving plant genetic resources on-farm
3. The sustainable use of plant genetic resources
The SDGs recognise the critical need to conserve, exchange and invest in plant genetic resources.

This provides an important opportunity for the international community to work together to achieve global food security and adapt to the pace of environmental change.

The Benefit-sharing Fund of ITPGRFA (BSF) will make a significant contribution to the achievement of the SDGs, particularly SDG Target 2.5.

SDG Target 2.5: By 2020 maintain genetic diversity of seeds, cultivated plants, farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at national, regional and international levels, and ensure access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge as internationally agreed.
International reach: supporting projects in over 45 countries
Benefit-sharing Fund

- The Benefit-sharing Fund finances high impact projects to accelerate the conservation and use of plant genetic resources on a global scale.
- More than 20 million USD invested in 3 project cycles to date, with a fourth planned for 2017.
- 61 projects funded targeting over 45 developing countries that have benefited more than 1 million people.
- Over 29,000 researchers and local partners have been trained through the Treaty’s Benefit-sharing Fund projects.
- 8000 accessions have been characterized and evaluated as to evince resistances and increase the relevance of germplasm held ex situ and on farm for breeding purposes.
- Over 300 accessions which either exhibit high yields, resistances to climate stresses, tolerances to crop diseases or a combination thereof have been identified.
- BSF has helped identify drought tolerant rice in India, flood resistant rice in Indonesia and drought tolerant sorghum in Tanzania.
BSF projects and community seed banks

Around 50 community seed banks established in Brazil, India, Guatemala, Nepal and Ethiopia

More than 1200 varieties of rice, wheat, maize, faba bean, potatoes stored

**Participatory and inclusive**: farmers are actively engaged in participatory varietal characterization and selection

**Responsive to local needs**: farmers jointly elaborate upon the local needs, individuate germplasm with preferable/adaptive traits of local importance and conserve them in seed banks

**Empowering**: farmers capacities are enhanced to manage community seed banks and the coping strategies for climate change adaptation and food insecurity are broadened

**Community based**: Projects work directly with target rural communities as to ensure that community seed banks are established according to community needs, collective strengths and shared resources
Benefit-sharing Fund and community seed banks

In India, 11 community seed banks have been set up conserving traditional varieties of rice, millet, maize, wheat, barley and pulses. The Community Seed Banks are owned by the community. Farmers traditional knowledge is extensively used by scientists.

In Guatemala, 5 seed banks established in Chiquimula, Zacapa, Alta Verapaz, Sololá that contain varieties of maize and beans. Gene banks are managed by ad-hoc established Committees in each community. A manual for seed handling in Communal Seed Banks and a document to acknowledge farmer’s contribution to agrobiodiversity have been elaborated. Stored varieties have been characterized, and their genetic features documented.

In Brazilian the state of Minas Gerais, 27 community seed banks have been strengthened and expanded using joint management systems developed by the communities in tandem with domestic seed storage, that will benefit around 2500 families.

In Nepal, Community Seed Banks (CSBs) and Participatory Plant Breeding (PPB) tools have been promoted and included in future strategies and action plans for the sustainable conservation and management of PGRFA in 12 countries. Linkages between gene banks and farmers have been strengthened.
Multisectoral approach in BSF projects

- Scientists and research institutions
- Farmers organizations
- NGOs
- Genebanks
Collection of agrobiodiversity

Diversity present in farmers fields documented

Conservation of locally adapted varieties

Ownership

Empowerment and knowledge sharing

Material available for breeding

Seed fairs as platforms for interaction and exchange of seeds

National collections enriched with new varieties

Participatory varietal selection

Community Seed Banks
Diversification of production systems

Improved access and availability of locally adapted varieties

Conservation of agro-biodiversity

Seed and food security

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Thank you

The Habsburg Emperor Rudolf II as Vertumnus, by Giuseppe Arcimboldo, 1591.
Skokloster Castle, Sweden