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

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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 the United States of America on 30 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**

Germplasm Resources Information Network

Basic information

- Title of measure/practice Germplasm Resources Information Network
- Date of submission July 30, 2019
- Name(s) of country/countries in which the measure/practice is taking place United States
- Responsible institution/organization (name, address, website (if applicable), e-mail address, telephone number(s) and contact person) U.S. Department of Agriculture Agricultural Research Service
- Type of institution/organization (categories) Government
- Collaborating/supporting institutions/organizations/actors, if applicable (name, address, website (if applicable), e-mail address, telephone number(s))

Description of the examples
Mandatory information:[1]

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

    o Implementing entity and partners
    o Start year
    o Objective(s)
    o Summary of core components
    o Key outcomes
    o Lessons learned (if applicable)

The Germplasm Resources Information Network (GRIN)-Global system is a suite of software programs for managing plant germplasm-associated information, facilitating plant genebank workflows, and providing a public interface for users to access plant germplasm and information. Users can search for accession information via its public website, fill a shopping cart with their desired plant germplasm, and have it delivered freely and without restrictions for use in plant production, research and breeding. In fact, in 2018 alone, USDA distributed over 280,000 samples to fill more than 700 individual orders.

- Brief history (including starting year), as appropriate
The original GRIN information system first was developed in 1986 by USDA Agricultural Research Service (ARS) for its US National Plant Germplasm System (NPGS). In 2011, ARS, the Global Crop Diversity Trust, and Bioversity International released an updated and expanded version, named GRIN-Global, to the international agricultural community. GRIN-Global can be implemented on individual personal computers or extensive computer networks through numerous public domain, free-of-charge software engines. Currently it has been implemented by the US NPGS and by nine national genebank systems and international agricultural research centers.

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

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[1] This mandatory information is required in order for the measure/practice to be included in the Inventory.

GRIN-Global comprises: 1) a public website where researchers, breeders, and farmers can access descriptive information for more than 596,000 NPGS accessions, and request those accessions for research, breeding, educational, and production purposes; and 2) a powerful information management tool for curators and genetic resource managers to manage massive inventories of seeds, orchard collections, etc. and key quality control data, such as availability, # of seeds or plants, viability/germinability, etc.

- 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)

A germplasm information management system is a key element for any genebank to adequately conserve PGRFA and effectively provide it to users—researchers, breeders, educators, or farmers.

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

Art. 9.2a

Art. 9.2b

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[2]	Also relevant[3]
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	X	
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[4], seed networks and other measures improving farmers' choices of a wider diversity of PGRFA.		X
7	Participatory approaches to research on PGRFA, including characterization and evaluation, participatory plant breeding and variety selection		

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[2] Please select only one category that is most relevant, under which the measure will be listed.

[3] Please select one or several categories that may also be relevant (if applicable).

[4] Including seed houses.

8	Farmers' participation in decision-making at local, national and sub-regional, regional and international levels		
9	Training, capacity development and public awareness creation		X
10	Legal measures for the implementation of Farmers' Rights, such as legislative measures related to PGRFA.		
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)
- Target group(s) and numbers of involved and affected farmers[5]
- Location(s) and geographical outreach

- Resources used for implementation of the measure/practice
- How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture?
- Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)
- 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).

It is important to engage users of a plant genetic resource information management system in the design, testing, and implementation of the system. Do not rely solely on software developers and engineers to design the system, otherwise it will not adequately serve genebank personnel, researchers, breeders, and farmers.

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

Initial estimates for the duration and cost of complicated software development projects likely underestimate the time and expense required to complete the project.

- 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)

A diverse team of software users (genebank personnel, researchers, breeders, farmers) and software developers is vital for success. A vibrant advisory committee is important for effectively setting priorities and providing project guidance.

Further information

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

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[5] Any classification, e.g. of the types of farmer addressed, may be country-specific.

www.ars-grin.gov