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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 Agricultural University of Tirana, Albania on 18 June 2019.

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



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Template for submission of

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

Basic information

- Title of measure/practice: Collaborative research to assess germplasm for climate-change adaptation and food security in mountain areas of Albania
- Date of submission: **18 June, 2019**
- Name(s) of country/countries in which the measure/practice is taking place : **Albania**
- Responsible institution/organization (name, address, website (if applicable), e-mail address, telephone number(s) and contact person): **Institute of Plant Genetic Resources; Department of Agronomic Sciences; Agricultural University of Tirana Albania; www.ubt.edu.al**
- Type of institution/organization (categories): **public University**
- Collaborating/supporting institutions/organizations/actors, if applicable (name, address, website (if applicable), e-mail address, telephone number(s)) : **Ministry of Agriculture and Rural Development; <http://bujqesia.gov.al>**

Description of the examples

Mandatory information:¹

Summary to be put in the inventory (max. 200 words):

The Agricultural University of Tirana, through its Institute of Plant Genetic Resources and the Department of Crop Sciences and in collaboration with the Ministry of Agriculture and Rural Development, started an initiative to characterize and evaluate Albanian germplasm in 2015, also with a view to climate-change adaptation. The objective was that such germplasm would later be used by farmers and other interested stakeholders, so that they could participate in sharing the benefits. Core components included: (1) identification of germplasm accessions from ex situ collections; (2) characterization and evaluation of stored and newly collected accessions; (3) identification of accessions of local crops resistant to climate change, pests and diseases; and (4) multiplication of identified accessions and the distribution of planting material to be used by farmers. As a result of this measure, capacities of low-income farmers in mountain areas and staff of national institutions to adapt to climate change increased; locally adapted crop varieties were successfully conserved and used; local seed systems were strengthened through on-farm conservation of PGRFA; and food security of poor farmers was enhanced through sustainable use of PGRFA. Cooperation with scientific institutions proved to be imperative to ensure the sustainability of the results achieved.

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



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Implementing entity and partners

The implementing entity is Agricultural University of Tirana Albania. Implementation is carried out through Institute of Plant Genetic Resources and Department of Crop Sciences, which are part of the University.

Start year: 2015

Objective:

Characterization and evaluation of the Albanian germplasm, to be used by farmers and other interested stakeholders and equitable participation in sharing of benefits.

Summary of core components

In the context of the implementation of this measure, some of the basic components are: identification of germplasm accessions, which are ex-situ conserved ; characterization and evaluation of the stored accesses as well as those collected during collecting missions ; identification of some local crops that are resistant to climate change as well as resistant to disease and pests; the multiplication of identified accessions and the distribution of planting material to be used by the farmers.

Key outcomes

- Increased capacities of poor farmers in mountain areas, as well as national institutions staff, to face climate change through conservation and management of PGRFA
- Locally adapted varieties of crops, are successfully conserved and used
- Establish and strengthen local seed system, through on-farm conservation of PGRFA
- Enhance of food security of poor farmers by development on-farm conservation systems and sustainable use of PGRFA

Lessons learned (if applicable)

The most important lessons learned by the implementation of the measure are:

- Participatory approaches that directly involve beneficiaries in measure implementation enhance the success and sustainability of the activity.
- The direct participation of stakeholders is the key for success. This practical way, increases the interest of all beneficiaries to be active and to contribute to the activities.
- Cooperation with scientific institutions, such as national genebank, agricultural research centres and other institutions that deal with management of PGR, is imperative to ensure the sustainability of the results achieved in the framework of this project.

Brief history (including starting year), as appropriate

Implementation of the measure has started in 2015. Genetic erosion and lack of plant varieties resistant to drought, pests and diseases, has resulted in reduction of productivity and have direct impact on reducing the standard of living for farm families. In this context, on- farm conservation of local varieties is a good



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option for farmers to face these challenges, and for that reason, the sustainable conservation and use of plant genetic resources, with direct participation of farmers, is considered very important.

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

Implementation of the measure has started with characterization and evaluation of the stored accessions as well as those collected during collecting missions. In national gene bank of Albania, there are about 4000 seed accessions stored for a long term period. Out of this amount, about 100 accessions of wheat, maize and bean are identified, characterized and evaluated for productivity, resistance to drought, pests and diseases. The process of evaluation is done with direct participation of interested farmers, under supervision of gene bank staff and professors of Department of Crop Sciences. At the end of the evaluation process, about 25 accessions are selected to be cultivated on-farm, multiplied and distributed to the farmers for use.

The multiplication of identified accessions is carried out on the six experimental farms selected in different areas of the country. During on-farm cultivation and multiplication, many activities such as workshops, field days and field demonstrations are organized. In the activities, have taken part may farmers, local experts, extensionists and private companies interested on local seeds. At the end of multiplication process, the produced local seeds, is distributed to the farmers, for further cultivation and use.

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

Agricultural productivity on the country, continues to be very low, due among other factors, because of climate change (drought, floods) loss of biodiversity etc. But on the other hand, the isolation by a closed political and economical system, as well as small scale farming systems, have contributed to the conservation of a large diversity of local varieties which are selected and maintained by farmers.

However, in recent decades, the constant abandonment of rural farming, combined with the progressive introduction from abroad of commercial varieties and hybrids, expansion of the land use for social development, difficult situations created in the last twenty years by drought and floods, represent unpredicted threats to the local crop diversity of traditional farming systems and mayor causes for genetic erosion. In this context the measure, undertaken for conservation and use the local plant germplasm, with direct participation of farmers, will give them a great support to face with these negative factors and effects and to increase food security and incomes for farm communities.

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 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	x	
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		x
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.		
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		x
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		

Objective

Characterization and evaluation of the Albanian germplasm, to be used by farmers and other interested stakeholders and equitable participation in sharing of benefits.

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

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

⁴ Including seed houses.



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Target group(s) and numbers of involved and affected farmers⁵

Direct beneficiaries. Farmer communities especially those living in areas which are threatened by climate change and with underdeveloped agriculture. The other direct beneficiaries are specialists of agriculture who are engaged in crop production in targeted areas of the undertaken measure. Also, the other direct beneficiaries are gene bank staff, experts of the ministry of agriculture, and professors and students of the Agricultural University.

Indirect beneficiaries. Seeds traders who are interested to buy qualitative locally adapted seeds, and to sell them to the other groups of interest. The other indirect beneficiaries are NGO which are focused in sustainable rural development of mountainous areas.

Location(s) and geographical outreach

The measure was implemented in 12 villages situated in some remote areas of northeast and southeast of the country, in a total area of 10, 000 km².

Resources used for implementation of the measure/practice

The measure was undertaken in the framework of the implementation of the project *LoA/TFW2A-PR-01-ALBANIA*, (third call). Also, implementation was done through mobilisation of human capacities of national genebank, Agricultural University, Ministry of Agriculture and Rural Development as well as local capacities in the Municipalities where the measure is implemented.

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

The selected genetic material of locally adapted crops of wheat, maize, bean, alfalfa and apple, has been collected and planted *on-farm*, in order to demonstrate the technology of cultivation and the advantages of these locally adopted populations/varieties. These activities are done through field days which were organized on selected farms, distributed in many villages. In these activities have taken part many farmers, local specialists, lectures, and students.

Technology transfer of techniques related to the *on-farm* conservation and use of PGRFA, are demonstrated through organization of trainings and workshops. Many presentations have been made by consultants and experts of the project. The base material for presentation was the guidelines of *Bioversity International* and experiences of albanian institutions in *ex-situ* and *on-farm* conservation of PGRFA. All stakeholders have been actively involved in the workshops and trainings. The multiplication and distribution of the evaluated and characterized of the planting material (local crop seeds), have considerably increased the capacities of the farmers to use plant genetic resources for food and agriculture.

Please describe the achievements of the measure/ practice so far (including quantification)

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



The main achievements of the measure are:

- During implementation of the measure many collecting missions are organized. The collecting missions were organized in different villages, and about 520 accessions (samples) of local crop varieties are collected and stored in national gene bank, agricultural university and Agricultural Technology Transfer Centres (ATTC). These collected samples, together with 103 wheat accessions and 55 maize accessions stored in national gene bank, are characterized and evaluated for drought tolerance, climate adaption and resistance to pests and diseases, production capacities etc .
- About 3000 farmers, 160 local specialists, 10 professors and 100 students from Agricultural University and 20 specialists from Agricultural Technology Transfer Centre were engaged in the activities of this measure.
- The collected local crop varieties are planted and multiplied *on -farm*, in six different districts of the project area. A total of 10,500 kg wheat, 3100 kg of maize, 2200 kg of bean, 280 kg of alfalfa (medicago) seed and 2300 apple seedlings are produced and distributed to the farmers, who were involved in this measure. About 3000 farmers have benefited from these seeds and seedlings, produced by project activities.

Other national level instruments that are linked to the measure/practice

The measure was linked to the some other activities carried out some years ago, by the Ministry of Agriculture. These activities were focused in enhance of capacities for management of PGRFA, by agricultural institutions in Albania. These activities were supported by national budget.

Are you aware of any other international agreements or programs that are relevant for this measure/practice?

We are not aware of any other international agreement or program.....!

Other issues you wish to address, that have not yet been covered, to describe the measure/practice

We do not have any other issue to address, related to this measure.....!

Lessons learned

Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices .

The most important lessons, learned from the implementation of the measure are:

- Participatory approaches that directly involve beneficiaries in the implementation of the measure enhance the success and sustainability.



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One of the most important lessons learned during the implementation is that the direct participation of stakeholders is the key for success. This practical way, increases the interest of all beneficiaries to be active and to contribute to the activities, carried out in the context of the measure.

- On time implementation of the activities is a condition for achieving the planned outcomes and outputs. Many operations carried out in the framework of the measure, have a seasonal nature, which means are dependent on the biology of cultivated plants in the field. In these circumstances it is very important that the project activities, take place at the right time. In particular the field collection of local varieties, as well as the time of their planting in the field, is critical for achieving the objectives and results of the measure.
- Cooperation with scientific institutions, such as national gene bank, agricultural research centres and other institutions that deal with management of PGR, is imperative to ensure the sustainability of the results achieved in the framework of this measure. Establishment of a continuous cooperation between these institutions enables conservation and effective use of local germplasm as well as enables the use of this germoplasm in plant breeding programs for creation of new crop cultivars. This would increase farmers' possibility and access to these improved crops, contributing to increased food security for the local community.

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

The most important challenges encountered during implementation of this measure were:

- In some cases, there have been problems related with major forces (rain, floods, etc.).
- Coordination with local government. Sometimes, municipality staff, does not have the necessary information, or do not have the necessary awareness about the issues, and therefore are not very cooperative.

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 conditions for success are:

First: public awareness, about the measure, which will be undertaken. This awareness campaign should include all actors: Universities, Ministries, Local Government, NGOs, etc.

Second: Direct involvement of farmers in activities, as they are the main beneficiaries of the implemented measure.

Third: A very good coordination of work, with all stakeholders, and with all the actors involved in the implementation of the measure.



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Further information

No any other special information.....!!