



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 Indonesia on 31 July 2019.

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

MEASURE/PRACTICE 16

BASIC INFORMATION

- **Title of measure/practice** : **Participatory Plant Breeding to Develop Improved Variety of Rice**
- **Date of submission** : 31 July 2019
- **Name of country in which the measure/practice is taking place** : Indonesia
- **Responsible institution/organization**
 - Name** : Indonesian Center for Rice Research (ICRR), IAARD, Ministry of Agriculture
 - Address** : Jalan Raya 9 Sukamandi, Ciasem, Subang, West Java 41256
 - Website** : <https://bbpadi.pertanian.go.id>
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 - Telephone number** : 62 812 9240 5211
 - Contact Person** : Dr. Priatna Sasmita and Dr. Indria W. Mulsanti
- **Type of Institution/organization** : Government
- **Collaborating/supporting instituitons/organizations/actors** :
 - Indonesian Farmer Community of Integrated Pest Management (IPPHTI)
 - FIELD Foundation

DESCRIPTION OF THE EXAMPLE MANDATORY INFORMATION

- **Short summary of the measure/practice** :
 - Concept**: Training on The Application of Plant Breeding Technique on Rice to farmer groups, by applying Participatory Plant Breeding concept
 - Purpose** : Giving techniques and skills to farmers on how to crossing the rice plant and identifying superior lines
 - Experts from Indonesian Center for Rice Research** : Dr. Aan A. Daradjat and Dr. Buang Abdullah
 - Breeding activities** :
 - 1) **2001**
 - ✓ Training on the selection of parental line based on local variety, crossing and selection technique based on plant breeding rules.
 - ✓ Output : genetic material of F1- F2 from crossing activities by the farmer
 - 2) **2001- 2009**

The farmer continued to do selection activity independently by using positive mass selection method. The best plant was selected and then planted in bulk in the following season until F12 generation. Those activity toke place independently by the farmer without being guided by ICRR
 - 3) **2010**

IPPHTI facilitated by FIELD Foundation NGO cooperated with ICRR to re-develop the skills of breeder from farmers community.
 - 4) **2011**, twenty lines have been purified from breeders. This activity involved ICRR researchers. In this activity, a joint selection was held between

breeders from farmer community and ICRR researchers. Eight lines have selected from this activity based on phenotypic traits and response to bacterial leaf blight disease, there are:

No.	Line	Breeder	Parental line
1	Darma ayu 2	Abdul Muid (breeder) Shohib (selector)	Ciherang x Sriputih
2	Darma ayu 3	Abdul Muid (breeder) Shohib (selector)	Ciherang x Sriputih
3	Senopati 2	Abdul Muid (breeder) Shohib (selector)	Ciherang x Sriputih
4	Putih	Raspan (breeder) Yusuf (selector)	Apuburu x Sriputih
5	Bredmir	Kapidin	Dombret x Mirah
6	Gadis Indramayu	Darmin	Pandanwangi x Ciherang
7	Rangbo	Darmin	Kebo x Ciherang
8	Pemuda Idaman	Darmin	Kebo x Ciherang

5) **Rainy season of 2011**

Yield observation for lines above and 2 varieties as control was done at three villages (Wanguk, Bango Dua and Cijengkok). This activity was guided by the researchers of ICRR.

6) **2012**, IPPHTI which is facilitated by FIELD has officially proposed participation in the rice consortium program of ICRR on multi-environmental trials for high yield potential lines and resistant to major pests and diseases. The lines used in the trial are *Gadis Indramayu* and *Pemuda Idaman*. This trial was fully funded by ICRR and one of the trial locations is the rice fields of IPPHTI members.

7) **2014**

Selected lines from multi-environmental trial were proposed in released variety registration and one of the lines that was successfully released was *Pemuda Idaman*. Upon a mutual agreement, the line was named by **Inpari 44**.

- Brief history : The FAO resolution No 5/1989 states the importance of international efforts in the conservation of plant genetic resources and the need for respect the farmers who have succeeded in creating and saving biodiversity. Farmers also playing an important role in the exchange and transfer of genetic resources for the development of plant breeding. In addition, it is necessary to provide assistance to farmers and farming communities in their respective regions in order to increase their ability to benefit from the use of genetic resources.
- Core components of the measure/practice : Selection of parental lines, crossing technique, selection, purification, yield observation, and multi-environmental trial.
- Description of the context and the history of the measure/practice is taking place : Increase basic knowledge of farmers regarding the rules of seed and variety releasement.

- To which provision(s) of Article 9 of the International Treaty does this measure relate : 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	Also relevant
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, 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	√	
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.		
11.	Other measures/practices		

- Objective(s) : Increase the knowledge and skills of farmers regarding on crossing rice plant and identifying superior lines
- Target group(s) and numbers of involved and affected farmers : 7 – 10 farmers
- Location(s) and geographical outreach : Lowland – medium land of rice fields

- Resources used for implementation of the measure/practice : Human resources: Rice breeders from ICRR, Field Foundations NGO, Breeders farmer group (IPPHTI), National Consortium of Rice
Genetic material : New superior variety and local variety
- How has the measure/practice affected the conservation and sustainable use of PGRFA? : Increase the knowledge of farmers regarding the method of breeding, seed regulation and varieties releasement
Availability of variety according to the preference of farmer to facilitate the adoption process
- Please describe the achievements of the measure/practice so far (including quantification)

Rainy season of 2011
Yield observation for lines above and 2 varieties as control was done at three villages (Wanguk, Bango Dua and Cijengkok). This activity was guided by the researchers of ICRR.

2012, IPPHTI which is facilitated by FIELD has officially proposed participation in the rice consortium program of ICRR on multi-environmental trials for high yield potential lines and resistant to major pests and diseases. The lines used in the trial are *Gadis Indramayu* and *Pemuda Idaman*. This trial was fully funded by ICRR and one of the trial locations is the rice fields of IPPHTI members.

2014
Selected lines from multi-environmental trial were proposed in released variety registration and one of the lines that was successfully released was Pemuda Idaman. Upon a mutual agreement, the line was named by **Inpari 44**
- Other national level instruments that are linked to measure/practice : National Consortium of Rice
- Are you aware of any other international agreements or programs that are relevant for this measure/practice? : No
- Other issues you wish to address that have not yet been covered to describe the measure/practice : -

LESSONS LEARNED

- Describe lesson learned which may be relevant for others who wish to do the same or similar measures/practices : Knowledge and direct practice by farmers regarding the steps of breeding variety of rice, starting from parental line selection based on local varieties, selection, purification, yield observation, and adaptation test
- What challenges encountered along the way (if applicable) : The process of development and mentoring farmers is only up to the variety releasement. Breeder seed production process has been facilitated by ICRR, but communication / facilitator is needed related to the understanding of farmer to farmer regarding the next seed production process.
- Link to further information about the measure/practice : -

