# National Consultation on PPVFR Act

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# **Biodiversity Hotspots**

- Holds especially high numbers of endemic species
- Faces extreme threats
- Already 70 per cent of its original natural vegetation is lost
- MSSRF sites Wayand and Jeypore

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### **Centres of Evolution**

- Geographical region where a given species of crop plant is believed to have evloved, identified and domesticated for cultivation and also notable for its rich genetic variability including presence of wild species
- Jeypore tract for rice

### Agro-biodiversity Hotspots in India

#### **Examples:**

- Rice in Jeypore tract of Orissa and N. E Region
- > Citrus species in N.E Region
- > Mango in UP-Bihar region
- > Pepper- in Western Ghats region
- > Red gram in Central and Western India
- > Jute in Eastern India

# Heritage Sites

Regions known for high genetic variability are chosen and managed as HS for safeguarding the variability to posterity

Citrus species in N.E Region

## Germplasm

 Implies all resources constituting the primary genetic variability, including secondary and tertiary gene pool

 Cooperative effort by public and private organizations to preserve genetic diversity of plants

 Includes seeds, embryo, pollen, genes or more precisely the DNA

 It is conserved, evaluated for specific traits, documented and shared for continuous improvement of plants and animals

 Scientist may have an access to germplasm to help bring forth new varieties that can resist pests, diseases, and environmental stresses

Revitalize and revival strategy

## **Traditional Variety or Cultivar**

- A plant variety identified or evolved by farmer or farming communities and being used for cultivation over years- possibly with or without continuous selection.
- Any plant variety either traditional or improved under cultivation or in seed system is a cultivar.
- "Cultivar", is defined in BD Act as a variety of plant that has originated and persisted under cultivation or was specifically bred for the purpose of cultivation.

# Folk Variety

- A traditional variety, which is known to the farmers but essentially not as much agronomically evolved as the farmers' variety
- "Folk variety", according to BD Act is a cultivated variety of plant that was developed, grown and exchanged informally among farmers.

#### Landraces

- These are those varieties of a crop, which have undergone minimal selection from farmers, but are conserved for their high adaptiveness to different growing conditions and regions.
- "Landrace", according to BD Act is a primitive cultivar that was grown by ancient farmers and their successors.

# Farmers' variety

- A plant variety, which is either developed by a farmer or community of farmers or conserved by them for a long period
- All plant varieties, except modern improved varieties, have been selected improved and conserved by farmers.

In fact, depending on the level of improvement and use in cultivation, they are called either as "traditional cultivars", "folk varieties" or "landraces"



- Apart from biological entities constituting these varieties, the rich knowledge farmers have, on each of them is equally important.
- Knowledge is the decisive factor for assessing the importance of these varieties to agriculture, in the present and future.
- Knowledge has been generated and conveyed across long years by farmers based on intelligent observations, experiences from cultivating across different growing conditions, and from selection for improving these varieties.

## Continue....

- During the process of selection, cultivation, and conservation of these varieties across hundreds of years, farmers have acquired knowledge on the unique properties of each variety and how these properties could be used in agriculture.
- Uniqueness and usefulness of this knowledge is far more valuable than the innovation and utility assigned on a new variety for granting a patent or PBR.
- Knowledge of farmer goes beyond all cultivated varieties to the wild relatives of crop plants which naturally grow around

## Continue...

 PPVFR Act brings wild species under the definition of farmers' variety, if the farmer possesses useful knowledge on them

#### Farmers' Rights in PPVFR Act

Arise from the tripple role of farmer as the cultivator, conserver and breeder

Planting back right on Seeds-also to share, exchange and sell

Register farmers' varieties

Entitlement for reward and recognition

Entitlement for Benefit sharing

- □Compensation for the loss suffered from the registered variety
- Compensation for undisclosed use of traditional varieties
- ☐ Seed of registered varieties at reasonable price
- □ Right for free services
- □ Protection against innocent infringement



- Equity in establishing intellectual property rights of farmers on their varieties
- To assist commercial exploitation of farmers' varieties
- Establishing ownership on productive and well adapted farmers' varieties
- Safeguarding farmers' varieties from piracy

