AFSTA CONGRESS 2018

Plant Breeders’ Rights and the Impact for Farmers in Africa: Challenges and Prospects

Peter Button
Vice Secretary-General, UPOV

Cairo,
February 28, 2018
1. What do farmers need?
2. How to access new varieties
3. A right to choice?
MAXIMIZING BENEFITS FOR FARMERS THROUGH THE 1991 ACT OF THE UPOV CONVENTION

What do Farmers need?
Theo de Jager, President, WFO
WFO welcomes the 1991 UPOV Convention as:

It is an inter-governmental platform that provides and promotes an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society.

New varieties of plants are necessary to:
- Enhance farmers’ resilience to adapt to climate change;
- Secure food for an increasing global population;
- Expand farmers’ access to market;
- Improve a fair access to the food chain for the farmers.
MISSION STATEMENT

“To provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society”
UPOV MISSION STATEMENT

“To provide and promote an effective system of plant variety protection (PVP), […]”

Plant Breeder’s Right (PBR)
There are no restrictions on who can be considered to be a breeder under the UPOV system: a breeder might be an individual, a farmer, a researcher, a public institute, a private company etc.
Farmers

Farmer cooperatives

INDIVIDUAL

LARGE

COMMUNITY

SMALL
What do Farmers need? (the 1991 UPOV Convention)

As agro-preneurs, farmers need protection of their breeding rights;

Incentives to look for new varieties of plants to expand their businesses;

[...]

Small-scale farmers should receive support to request the breeding rights, especially in the payment of fees;

[...]
Online PBR Application Tool
What do Farmers need? (the 1991 UPOV Convention)

As agro-preneurs, farmers need protection of their breeding rights;

Incentives to look for new varieties of plants to expand their businesses;

Recognition of differences in terms of access capacity, between large and small-scale farmers;

Small-scale farmers should receive support to request the breeding rights, especially in the payment of fees;

[...]
How can PVP be used to achieve maximum “public good”? 

PUBLIC (GOVT.) → PRIVATE
Michael D. Carriere, Ph.D.
Business Development and Intellectual Property Manager

UC Davis InnovationAccess

mdcarriere@ucdavis.edu
Plant variety licensing at UC Davis

» Fair value for public asset
» California advantage
  – 1st access to new varieties
  – Preferential royalty rates
  – Preferential (broader) sales territories
» Transfer of know-how
» Licensing - reactive to breeding outcomes
The role of the Agricultural Research Council in delivering high performance varieties to subsistence or smallholder farmers

Vuyisile Phehane

• Local licensing agreement with a South African company
  – for the commercialization of some of the ARC’s citrus varieties.
  – A condition of the license: ensure the participation of smallholder citrus producers in the commercialization value-chain.

• Facilitated partnership with the Citrus Growers’ Association to access ARC...
Plant Breeding as a share of total (US) agricultural R&D expenditures

Kitisri Sukhapinda, Office of Policy and External Affairs, United States Patent And Trademark Office
Bangkok, Thailand: May 28-30, 2012
HOW TO BECOME A MEMBER OF UPOV

State/Intergovernmental Organization must:

- Have a **law which conforms to the UPOV Convention**
- Ask **advice of the Council** of UPOV
- If **advice positive**: deposit instrument of accession
Latin America Countries acceding to UPOV between 1994 & 2000

Years after joining UPOV

Applications (non-resident)

Applications (residents)
1. What do farmers need?
   - Improved new varieties
   - Incentives to innovate
   - Recognition of differences between large and small-scale farmers;

2. How to access new varieties
Reconciling Farmers’ and Plant Breeders’ Rights

Symposium on possible interrelations between the ITPGRFA and the UPOV Convention
Geneva, Switzerland - 26 October 2016

Bram de Jonge
Oxfam Novib; Wageningen University
The Netherlands
<table>
<thead>
<tr>
<th></th>
<th>Benefits</th>
<th>Drawbacks</th>
<th>Prefer.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Certified seed</strong></td>
<td>- Disease-free</td>
<td>- Not available (40 km)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>- High-yielding</td>
<td>- Expensive ($29 / 50kg + transport cost)</td>
<td></td>
</tr>
<tr>
<td><strong>Quality Declared Seed</strong></td>
<td>- Disease-free</td>
<td>- Leads to indebtedness if crop fails</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>- High yielding</td>
<td>- Expensive (Cost of seed + 12% interest)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Credit facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Farm-saved seed</strong></td>
<td>- Low cost</td>
<td>- Could be diseased</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>- Known quality</td>
<td>- Yield decreases over time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Availability</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Adaptability to land</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Neighbours’ seed</strong></td>
<td>- Availability</td>
<td>- Diseases</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>- Known quality</td>
<td>- Mixed varieties</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Low cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Small quantity available</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Local market seed</strong></td>
<td>- Cheap ($12 for 50kg)</td>
<td>- Unknown source</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>- Readily available</td>
<td>- Mixed varieties</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Diseased</td>
<td></td>
</tr>
</tbody>
</table>
Domestic

BREEDERS

NEW VARIETIES

FARMERS, GROWERS

CONSUMERS

$ $
SEED PRODUCERS / PLANT PROPAGATORS

DISTRIBUTORS

INTERNATIONAL BREEDING INSTITUTE

NATIONAL BREEDING INSTITUTE

LARGE ENTERPRISES (E.G. COMPANIES, COOPERATIVES)

SME’S

INDIVIDUALS (E.G. FARMERS)

PRODUCTION & DISTRIBUTION

SEED PRODUCERS / PLANT PROPAGATORS

DISTRIBUTORS

SEED INFORMATION

PUBLIC SECTOR

PRIVATE SECTOR

BREEDERS

PRODUCTION & DISTRIBUTION

FARMERS

PBR LICENCES
Seed distribution system of new varieties

**BEFORE PVP**

- Breeders
- Farmer

No Professional distribution system

Not professional
Seed quality control difficult

**AFTER PVP**

- Breeders
- Company
- Farmer

License → Royalty

Good professional distribution system

Good service for the farmer;
Better seed quality due to professional distribution

*Change the mode on the agriculture production (Viet Nam (Minh 2017))*
NEW VARIETIES

 IMPROVED VARIETIES

 INCOME

 BREEDERS

 FARMERS, GROWERS

 CONSUMERS
NEW VARIETIES

IMPROVED VARIETIES

BREEDERS

INCOME

FARMERS, GROWERS

CONSUMERS
NEW VARIETIES

BREEDERS

IMPROVED VARIETIES

FARMERS, GROWERS

CONSUMERS

INCOME
As agro-preneurs, farmers need protection of their breeding rights;

Incentives to look for new varieties of plants to expand their businesses;

Recognition of differences in terms of access capacity, between large and small-scale farmers;

Small-scale farmers should receive support to request the breeding rights, especially in the payment of fees;

[...]
EXCEPTIONS TO THE BREEDER’S RIGHT (1991 Act)

• Compulsory
  
  (i) Acts done privately and for non-commercial purposes

• propagation of a variety by a farmer exclusively for the production of a food crop to be consumed entirely by that farmer and the dependents of the farmer living on that holding therefore “subsistence farming” where these constitute acts done privately and for non-commercial purposes, may be considered by a UPOV member to be excluded from the scope of the breeder’s right

Acts Possibly falling within the scope of the exception
EXCEPTIONS TO THE BREEDER’S RIGHT (1991 Act)

Compulsory

Acts done:
• privately and for non-commercial purposes
• for experimental purposes
• breeding other varieties (breeder’s exemption”)

Optional

Farm-saved seed
OPTIONAL EXCEPTION TO THE BREEDER’S RIGHT

A Contracting Party may restrict the breeder’s rights in order to permit farmers to use:

• for propagating purposes on their own holdings the product of the harvest
• obtained on their own holdings from the protected variety
• within reasonable limits
• subject to safeguarding legitimate interests of the breeder
Rice – Example 1

- % Farmers
- % Production

![Bar chart showing distribution of rice production by farm size categories: <1 Ha, 1-4, 4-5, >10 hectares. The chart compares the percentage of farms/farmers to the percentage of production across these categories.]
NEW VARIETIES
BREEDERS
IMPROVED VARIETIES
INCOME
FARMERS, GROWERS
CONSUMERS
1. What do farmers need?
   • Improved new varieties
   • Incentives to innovate
   • Recognition of differences between large and small-scale farmers;

2. How to access new varieties
   • Effective seed network
   • Investment in breeding
   • Exceptions for subsistence/smallholder farmers

3. A right to choice?
<table>
<thead>
<tr>
<th></th>
<th>Certified seed</th>
<th>Freely available varieties</th>
<th>New, protected varieties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm-saved seed</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Neighbor’s seed</td>
<td>✔</td>
<td>✔</td>
<td>Breeder decides</td>
</tr>
<tr>
<td>Local market seed</td>
<td>✔</td>
<td>✔</td>
<td>Breeder decides</td>
</tr>
</tbody>
</table>

PBR – a farmer’s right to choice...
<table>
<thead>
<tr>
<th></th>
<th>Landraces / Farmer selections</th>
<th>Freely available varieties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified seed</td>
<td>n/a</td>
<td>?</td>
</tr>
<tr>
<td>Farm-saved seed</td>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
</tr>
<tr>
<td>Neighbor’s seed</td>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
</tr>
<tr>
<td>Local market seed</td>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
</tr>
</tbody>
</table>