Saving snapshots of farmers' biodiverse seed systems: re-visioning in situ & ex situ conservation strategies in the framework of food sovereignty

Svalbard Global Seed Vault @ 10
Safeguarding Seeds for the Future
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Patrick Mulvany
Food Ethics Council

t: @kamayoq e: patrick.mulvany@kamayoq.org
Who are the main custodians & developers of Agricultural Biodiversity?

Local rural and urban women and men who provide food for the 70%, mainly agroecologically, and especially through local foodwebs, including:

- Farmers
- Gardeners
- Herders
- Pastoralists
- Artisanal fishers
- Forest dwellers
- Indigenous Peoples
Conservation through use, and enhancement through dynamic management, in an agroecological environment and food sovereignty framework to achieve:

• Co-evolution with people
• Adaptation to new challenges on-farm with:
  • Guaranteed access to and control over diverse seeds
  • Secure back-up, back-up, back-up…
Nyikolaj Ivanovics (N. I.) VAVILOV
‘Father of modern gene banks’
The Vavilov Institute’s invaluable collection, built on Vavilov’s missions.
Samples provided by farmers across the world including in the Vavilov Centres of Origin & Diversity
The collections are a snapshot of the biodiversity of plants in a certain area at a particular moment. Although regenerated from time to time, the seeds have little chance to adapt to current local conditions/needs. Like stored sepia photos, their utility may fade over time, unless...
Industrial Commodity Chains use few plant species and few varieties.

- >7,000 species, important for food security and nutrition, are almost ‘invisible’.
- 105 species provide 98% of industrial food.
- 4 species (Maize, Rice, Wheat, and Potatoes) provide 60% of industrial food.
- 12 species provide 90% of industrial food.

Is there significant Under-Reporting of the Agricultural Biodiversity in Local Food Webs?
Drivers of Loss of Agricultural Biodiversity

- Industrial monocultures
- Land/Water grabs
- Industrial food/farm research
- Restrictive laws, PVP, IPRs, Patents &c
- Monopoly control
- Technologies that contaminate, erode, destroy and disrupt agricultural biodiversity
- Climate change
Industrial farming fades your genes.

INTENSIVE/FARMING FADES YOUR GENES....

DIVERSITY DOESN'T
Peasants Give Life to Biodiversity

Agricultural Biodiversity is sustained in the framework of Food Sovereignty
Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through [biodiverse and] ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.

“Food sovereignty is control over food system”

1996
Food Sovereignty Framework

What it stands for | What it opposes

6 Pillars

1. Focuses on Food for People and the Right to Food, rather than industrial commodities
2. Values Food Providers and respects Farmers’ Rights, rather than squeezing them off the land and destroying their seeds
3. Localises Food Systems, rather than unfair global trade
4. Puts Control Locally, rather than monopoly control by distant TNCs
5. Builds Knowledge and Skills - of real farmers, rather than remote science, GMOs, NBTs etc.
6. Works with Nature in ecological production, rather than chemically-intensive monocultures

Nyélénéni 2007
1. Focuses on Food for People

- Food producers regenerate nutritious, biodiverse and culturally-appropriate food crops as a priority.

- Seed stores and gene banks could also prioritise back up and availability to farmers of biodiverse varieties/populations of manifold food crops.
2. Values Food Providers

- Values the biodiverse locally-adapted seed systems of those who cultivate, grow, harvest and process most of our food
- Ensures seed banks’ policies, actions and programmes help strengthen farmers’ informal seed systems
3. Localises Food Systems

- Gives priority to seeds for biodiverse localised food systems that directly link food providers and food eaters
- Seed banks could reduce effort to service needs of industrial commodity production in favour of backing up local diversity
4. Puts Control Locally

- Develops ‘Community’ seed banks, controlled locally, which in effect operationalise Farmers’ Rights to save, use, exchange or sell seeds
- Seed banks recognise Farmers’ Rights and principle of International Seed Treaty Art. 12.3.d to reject IPRs on stored materials or derivatives
5. Builds Knowledge and Skills

- Enhances seed systems through local innovations, e.g. EPB, which increase food system and ecosystem resilience, that benefit future generations.

- Seed banks could ‘listen to biodiversity-enhancing farmers’ and provide materials for strengthening their informal seed systems, not for (often industrial) NBTs.
6. Works with Nature

- Uses biodiverse, low external input agroecological production and harvesting methods that maximise the contribution of ecosystems and improve resilience and adaptation, especially in the face of climate change.

- Seed banks could prioritise backup to these biodiverse localised systems including CWR & wider agricultural biodiversity.
Peasants’ commitment to Enhance Biodiversity in the Framework of Food Sovereignty

• **Strengthen and promote our dynamic management of biodiversity**
• **Transform research so that it is reframed by peasants**
• **Realise actions that guarantee collective rights to use, exchange, breed, select and sell their seeds**
• **Reinforce our interconnecting rural-urban food webs in ways that sustain biodiversity**
What Seed Banks could do more of with biodiversity-enhancing farmers??

- Prioritise farmer-led governance
- Ensure resources and derivatives are safe and cannot be privatised
- Increase exchanges with biodiversity-enhancing growers
- Increase renewal of collections with current materials
- Share funding - $/$ for on-farm/seed banks initiatives
- Resist temptation to dematerialise digital genetic sequence information
Fewer fading ‘snapshots’ – more continuously updated live ‘footage’ of farmers' and other growers’ biodiverse seed systems??

Thank you

@kamayoq
e: patrick.mulvany@kamayoq.org