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BRIEFING PAPER

ASSESSING POLICY GAPS IN INDIGENOUS SEED SYSTEMS IN ZAMBIA



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INDIGENOUS SEED SYSTEMS



Despite seed systems dynamically changing, it is broadly accepted that in developing countries, indigenous seed systems provide more than 80 per cent of the seed used in food crops¹. Indigenous seeds are produced, growing or living naturally in a particular country or climate and have been selected and managed by local people in local growing environments. They adapt to the environments where they are grown and have multiple uses which include: food, medicine, fuel, fiber, fertilizer, craft materials, feed for animals and religious artifacts.

Indigenous seed are also resistant to pests, diseases and environmental conditions such as drought. They also provide other environmental benefits, such as improved soil and water conservation, better nutrient retention, lowering of soil temperatures, and a source of ground cover, which can serve as a means to reducing soil erosion as well as earning carbon credits, some have the potential to purify water, assisting with ecosystem restoration overall. Indigenous seeds contribute to food and nutritional security by being adapted to extreme climatic and edaphic conditions, such as high soil salinity and are able to grow even in drought-stricken areas, for example Amaranth and millet².

IMPORTANCE OF INDIGENOUS SEED SYSTEMS

¹ FAO [Food and Agriculture Organization of the United Nations]. 2004a. Seed multiplication by resource-limited farmers. *[FAO] Plant Production and Protection Paper*, No. 180. FAO, Rome, Italy.

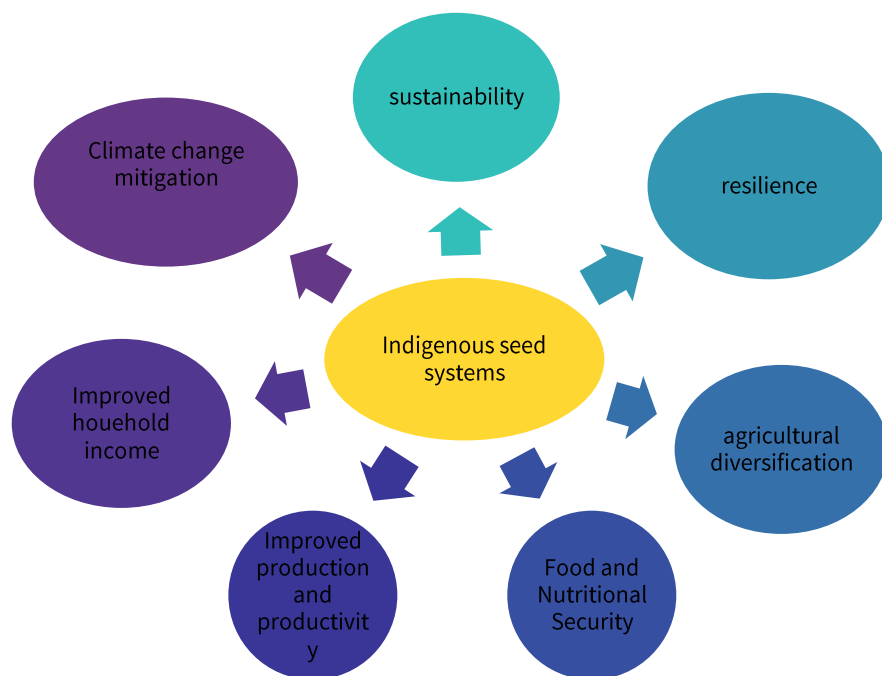
² Akinola, Racheal & Pereira, Laura & Mabhaudhi, T. & Bruin, Francia-Marié & Rusch, Loubie. (2020). A Review of Indigenous Food Crops in Africa and the Implications for more Sustainable and Healthy Food Systems. Sustainability. 12. 3493. 10.3390/su12083493.



Indigenous seed systems are the most important source of seed used by farmers in developing countries. In many developing countries, a farmer-managed seed system continues to exist that relies on indigenous knowledge and the farmers' practices of freely saving, using and exchanging seed. The seed price is usually much lower than certified seed from the formal sector.

Indigenous seed systems embrace indigenous production knowledge such as multi-cropping thereby supplying diverse nutrients. They also embrace economic and readily available natural resources such as organic fertilizers and pesticides, and because of inexpensive production costs, poor households have access to adequate food thus combating malnutrition.

Indigenous seed systems are highly adapted to local environments and offer resilience to climatic shocks, thereby ensuring food security in the face of adversity. In the case of Covid-19, indigenous seed systems have clearly shown their importance as they are the only seed system that can thrive in the face of the pandemic.



GAPS IN INDIGENOUS SEED SYSTEMS



One of the major problems constraining agricultural development in Zambia, particularly in the face of climate change and Covid-19 when access to new and genetically diverse varieties is perilous, is the lack of support for smallholder farmer seed production and distribution system. Most governments in Africa have created a favorable environment for private sector seed companies to flourish, disregarding smallholder farmers who have protected and conserved indigenous seed varieties for eternity. The private sector, principally driven by profit, has not taken up the challenge to promote self-pollinated and open-pollinated indigenous crop varieties.

Smallholder farmers are left without access to seeds of new and improved varieties of their indigenous food security crops because of lack of indigenous crop research and

development policy support. Lack of a robust seed system implies failure in terms of strengthening our food security system.

There is therefore definite need to formulate, restructure and implement policies and legislation and frameworks that promote farmers rights such as , the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA).

NATIONAL AGRICULTURAL POLICY (NAP) 2016



NAP has incompetence regarding indigenous seed systems. To increase agricultural production and productivity, the NAP promotes the use of improved crop varieties and certified seed and the efficient use of fertilizers and agro-chemicals.

To increase effectiveness and efficiency of agricultural Research and Development (R&D), the NAP does not include research on agroecology, indigenous seed systems nor on indigenous knowledge of using natural fertilizers and pesticides. Indigenous seed systems which guarantee sustainability, justice and resilience are unprotected and left vulnerable to erosion.

FOOD RESERVE AGENCY

The food reserve agency (FRA), which is a government body and largest formal market for most farmers' produce, does not buy indigenous maize varieties. This is of great concern, as it has resulted in farmers shift from planting indigenous seed. Mainstreaming of indigenous seed production for crops into national programmes is therefore critical for the country's food sovereignty. The government must assist small-scale farmers by placing mechanisms which allow seed multiplication on-farm and reduce seed shortages in resource-poor communities. Losing our indigenous seed means losing our collective memory as Zambians.

Harmonized Common Markets for Eastern and Southern Africa (COMESA) Seed Act

The COMESA Council of Ministers signed a Declaration in 2008 to rationalize and harmonize seed regulations and policies in its member States. The justification for the harmonization of the seed trade laws was to improve quality and quantity of seed available to small-scale farmers, save time and resources when seed is being traded and facilitate farmers' access to improved seed varieties. The four areas identified for harm

onization included the variety evaluation, release and registration process, seed certification process, phytosanitary measures, and import/export documentation. Harmonization of trade laws means opening borders across the continent to free trade. But this is a skewed free trade, one that favors the 'formal sector' of goods and services that have gone through approval and registration processes. Farmers and other producers of goods and services who cannot afford to enter the official approval system are marginalized and trading of their products is rendered illegal³.



Developing harmonized seed policies and legal frameworks that exclude farmer participation are a gross violation of human and customary rights of African small farmers and communities.

³ Lewis, L., Masinjila, S., Law, S., & Law, S. (2018). Where does this leave the regions' smallholder farmers?

The COMESA seed trade regulations imply that indigenous seed systems are disregarded, pushed out of circulation and replaced by varieties developed by international agricultural research centers, their national counterparts and the seed industry. This therefore allows for seed privatization and seed monopolies. Seed monopolies mean that where there are few players on the regional market, the price of seed will be high and will affect accessibility of seeds. The regulations are also silent on the price control mechanism, which is absolutely necessary to ensure access to seeds and to protect food security in the COMESA region. Currently, despite the presence of commercial seed companies and certified seed available on the COMESA market, the majority of farmers are unable to afford this seed unless they are given support through government farmer input subsidy programmes. This therefore does not guarantee the RTF'N as household do not have the ready access to seed that can help them produce food nor resources to buy food.

The harmonized COMESA Seed Policy negatively impacts on small-scale farmers and the protection of farmers' rights as outlined in the ITPGRFA. The seed act does not provide any safeguards that small farmers will be allowed to freely use, exchange, sell and barter varieties of seed. The lack of these safeguards opens the door for the criminalizing of the customary rights of small farmers to exchange, sell and other use of indigenous seed within the COMESA region. It also does not recognize the invaluable contribution of farmers in the continuous conservation, development and utilization of plant genetic resources that is responsible for the rich diversity that we have today. Additionally, the law does not adequately protect farmers from loss of indigenous seed varieties and germplasm arising from commercial variety registration. It should be the obligation of the State to protect these resources and to ensure and promote farmers' conservation, development and utilization practices.

PLANT BREEDER'S RIGHTS (PBR) ACT (NO. 18 OF 2007)

The Plant Breeders Rights Act (PBR) Act is an Act to provide for the protection of plant breeder's rights; the registration of plant varieties; and for matters connected with or incidental to the foregoing. The PBR is a form of plant variety protection (PVP) that ensures that the breeder authorizes the use of his/her variety. The PBR also enables the plant breeder to collect royalties from users of his/her variety⁴.

However, PVP laws can interfere with indigenous seed systems with regard to their possibilities of access to seed of protected varieties. Without PVP laws putting restrictions on the farmers' practices of saving, using, selling and exchanging seed, farmers could freely decide when to buy the more expensive certified seed of protected varieties. The lower seed cost, along with flexible modes of payment that facilitate access to seed even if a person does not have cash, contribute to the importance of farmer-managed seed systems for poor and disadvantaged groups of farmers.

⁴ THE PLANT BREEDER'S RIGHTS ACT No 18 of 2007 Plant Breeder s Rights. page 239–270 available at <https://www.aatf-africa.org/wp-content/uploads/2019/10/Zambia-PVP.pdf>

The ministry of Agriculture contemplates joining the International Union of Protection of New Varieties of Plants (UPOV), which is an international organization that aims to provide and promote an effective system of PVP, thereby encouraging the development of new varieties⁵.

LACK OF IMPLEMENTATION OF ARTICLE 19.1 UNDROP

Article 19.1 UNDROP provides that: Peasants and other people working in rural areas have the right to seeds, in accordance with article 28 of the present Declaration, including:

- a) The right to the protection of traditional knowledge relevant to plant genetic resources for food and agriculture.
 - b) The right to equitably participate in sharing the benefits arising from the utilization of plant genetic resources for food and agriculture.
 - c) The right to participate in the making of decisions on matters relating to the conservation and sustainable use of plant genetic resources for food and agriculture.
 - d) The right to save, use, exchange and sell their farm-saved seed or propagating material.
2. Peasants and other people working in rural areas have the right to maintain, control, protect and develop their own seeds and traditional knowledge.

ARTICLE 19.1 STATE OBLIGATION

1. States shall take measures to respect, protect and fulfil the right to seeds of peasants and other people working in rural areas.
2. States shall ensure that seeds of sufficient quality and quantity are available to peasants at the most suitable time for planting and at an affordable price.
3. States shall recognize the rights of peasants to rely either on their own seeds or on other locally available seeds of their choice and to decide on the crops and species that they wish to grow.
4. States shall take appropriate measures to support peasant seed systems and promote the use of peasant seeds and agro biodiversity.
5. States shall take appropriate measures to ensure that agricultural research and development integrates the needs of peasants and other people working in rural areas and to ensure their active participation in the definition of priorities and the undertaking of research and development, taking into account their experience, and increase investment in research and the development of orphan crops and seeds that respond to the needs of peasants and other people working in rural areas.

⁵ International Union for the Protection of New Varieties of Plants (Potato). 1–35.

http://www.upov.int/en/publications/tgrom/tg106/tg_106_4.pdf%5Cnhttp://www.upov.int/edocs/mdocs/upov/en/caj_ag_10_5/tg_1_3.pdf

CONCLUSION AND RECOMMENDATIONS



FIAN therefore recommends that the following;

- FRA should reform and being purchasing crops from Indigenous seeds
- Adoption of agroecology as it has the potential to restore, regenerate and enhance the socio-ecological systems, allowing us to address these crises at their roots.
- Government should consider including indigenous seed through the Farmer Input Support Programme.
- Identification and documentation of the occurrence of indigenous seed by agro-ecological regions, their seasonality and local practices for production and use.
- Regional harmonisations Programmes and Continental Trade agreements should not undermine Farmers Rights at the expense of the interest of Business
- The National Agriculture Policy should adopt policies that promote farmers rights agro ecology and food sovereignty
- Government should Implement Article 19.1 UNDROP
- Zambia should reject any attempt of joining the International Union of Protection of New Varieties of Plants (UPOV),

