



ZAAB

Zambia Alliance For Agroecology & Biodiversity

**POLICY AND LEGISLATIVE OPTIONS:
TAKING CONCRETE STEPS TOWARDS THE REALISATION OF
FARMERS' RIGHTS AND PROMOTION OF ZAMBIAN
FARMER SEED SYSTEMS**

**A Policy Research and Advisory Note for the
Zambia Alliance for Agroecology and Biodiversity (ZAAB)**

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2. List of Acronyms

AHTEG	Ad Hoc Technical Expert Group on Farmers' Rights
ARIPO	African Regional Intellectual Property Organisation
CBD	Convention on Biological Diversity
CP	Contracting party
CSO	Civil society organisations
COMESA	Common Market for East and Southern Africa
EMBRAPA	Brazilian Agricultural Research organisation
FAO	Food and Agriculture Organization
INRAB	National Agricultural Research Organisation of Benin
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
MLNREP	Ministry of Land, Natural Resources and Environmental Protection
NDUS	Novelty, distinctness, uniformity and stability
NGO	Non-governmental organisation
NAP	National Agriculture Policy
NBSAP	National Biodiversity Strategy and Action Plan
NDC	National Determined Contribution
NPGRC	National Plant Genetic Resources Centre
OAU	Organisation of African Unity
PACRA	Patents and Companies Registration Agency
PBR	Plant Breeder's Rights
PTKG&EF	Protection of Traditional Knowledge, Genetic Resources and Expression of Folklore Act
PVP	Plant variety protection
QDS	Quality Declared Seed
SADC	Southern African Development Community
SCCI	Seed Certification and Control Institute
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
UNFCCC	United Nations Framework Convention on Climate Change
UPOV	International Union for the Protection of New Varieties of Plants
WTO	World Trade Organisation
ZARI	Zambia Agricultural Research Institute

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4. Executive Summary

The Convention on Biological Diversity (CBD) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) are global policy and legal frameworks that recognise the value of biodiversity in general, and agrobiodiversity specifically. As a contracting party (CP) to these instruments, Zambia is under obligation to put policy, legislative and institutional measures in place to implement their provisions, taking into account the national priorities and needs. Zambia has however struggled to fully domestic the ITPGRFA, particularly in recognising the rights of small-scale farmers, which are disregarded in favour of the privatised rights of commercial breeders. Farmer managed seed systems (FMSS) are of key national importance as rising malnutrition and ecological degradation related to unsustainable farming practices undermine development commitments.

This research identifies measures that could be employed to achieve the legal recognition of farmers' rights, and increasing national recognition of the critical importance of agrobiodiversity and FMSS as the foundation for diversified sustainable agro-ecological production and an equitable, health-promoting food system. The following measures are potential options to be employed by various parties in order to see the full operationalisation of the provisions of the ITPGRFA, in particular the realisation of farmers' rights.

- i) **Zaab should provide input on the Protection of Traditional Knowledge Genetic Resources and Expression of Folklore Act 2016 to implement some provisions of the ITPGRFA, in particular realisation of farmers' rights.** This should be accompanied by PACRA delegating authority to the Ministry of Agriculture through the Zambia Research Institute for administering the Act.
- ii) **Creating legal space for including farmers' varieties on the national variety list.** This will entail amending some provisions of the Plant Variety and Seeds Act of 1995. It is critical that **Zaab and the network of CSOs continue to lobby government to ensure that Zambia does not join UPOV 91** as this will limit the flexibility of FMSS and restrict farmers' rights
- iii) **Exempting exchanges and sales of farm-saved seed from the scope of current national seed certification and control regulations.** This will entail amending the current Plant Variety and Seeds Act of 1995 or amending its regulations.
- iv) **Wider promotion of on-farm management of crop diversity, establishment of community agrobiodiversity registries and catalogues, and recognition of custodian farmers.** This will facilitate increased access to a diverse source of seed by smallholder farmers, including on farm-saved seed. This option could entail including these as strategic interventions in the National Agriculture Policy and other national action plans and development programmes.

In conclusion, the study reveals that existing policies and legislative frameworks in Zambia, could potentially be used to promote agrobiodiversity conservation, realisation of farmers' rights and support the farmer-managed seed system. In most cases this requires making some amendments to relevant policy and legislative frameworks.

As specific actions required to implement proposed options above, the following recommendations are made:

- 1) The ZAAB network of CSOs should continue lobbying government to ensure that Zambia does not join UPOV 91.
- 2) Immediate review of draft regulations for the Protection of Traditional Knowledge, Genetic Resources and Expression of Folklore Act 2016 to ensure appropriate clauses to meet requirements to implement provisions of farmers' rights as outlined in the ITPGRFA are incorporated.
- 3) Lobby for creation of a sub-committee on agrobiodiversity under the NBSAP. This should lead to strengthening of linkages between agencies responsible for the implementation of CBD and ITPGRFA.
- 4) Establish a working group (WG) for implementation of the ITPGRFA, including realisation of farmers' rights. This WG should also undertake an assessment of priorities and needs related to PGRFA and farmers' rights.
- 5) Consider, in consultation with relevant government and farmer constituencies, the need to develop and adopt a holistic and comprehensive national seed policy for the assurance of a sustainable and equitable seed sector.
- 6) Undertake a national survey to establish baseline status on FMSS, identify and create a database of custodian farmers, develop a national inventory on different perspectives of the understanding of farmers' varieties, and establish community registries and catalogues on agrobiodiversity.
- 7) Document work already done on community registries and catalogues. This should involve conducting a short research process to establish what work has already been undertaken in Zambia relating to available agrobiodiversity, including crop diversity found on farmers' fields and associated traditional knowledge. The research should also identify institutions that have undertaken such work.
- 8) Embark on advocacy campaign to impart knowledge and increase appreciation on the importance of PGRFA in relation to supporting sustainable food systems and the important role farmers play in this regard. The use of the concept of 'champions' to achieve high impact in terms of responses arising from advocacy campaigns is also recommended.
- 9) Lobby for raising the position of NPGRC from a programme unit into a separate department or institute within the Ministry of Agriculture, with increased level of authority and budgetary support.

5. Introduction and Background

There are ongoing discussions and consultations concerning measures required to support the implementation and realisation of farmers' rights, and support farmer-managed seed system (FMSS) at the national, regional and global levels, within the broader scope of agrobiodiversity conservation, sustainable use, climate change resilience, and food and nutrition security.

Existing global policy and legislative frameworks were inspired by the increasing appreciation of the value of agrobiodiversity and the desire by the global community to cooperate and collaborate in efforts to promote and support their conservation and sustainable use. These frameworks include the Convention on Biological Diversity (CBD) and its Nagoya Protocol on access and benefit sharing, and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). Other related frameworks include United Nations Framework Convention on Climate Change (UNFCCC), and the World Trade Organization Trade-Related Intellectual Property Agreement (WTO-TRIPS). The other relevant global instruments impacting the implementation of the ITPGRFA, in particular Article 9, includes The International Union for the Protection of New Varieties of Plants or UPOV, that is a non-United Nations sui generis intergovernmental organisation based in Geneva, Switzerland.

By virtue of being a CP to the ITPGRFA, Zambia is under obligation to put policy, legislative and institutional measures in place to implement provisions of this treaty. The genetically diverse nature of farmers' seed varieties are not only important for ensuring food and nutrition security, but also play an important role in enhancing the resilience of the farming systems of smallholder farmers to biotic, abiotic as well as socio-economic factors in these times of adverse climate change effects (Carlo, 2016). Despite the acknowledgement of the importance and the critical role played by smallholder farmers and FMSS in food and agricultural production in Zambia, the relevant policies and legislative measures that have been put in place are not adequately supportive of the interests of these farmers and the systems upon which they depend (ZAAB, 2020), instead prioritising the formal commercial seed sector.

Various stakeholders, including civil society organisations (CSOs), non-governmental organisations (NGOs) and development partners, both at global, regional and national levels, are involved, to varying degrees, in efforts to try and provide the necessary support required to implement and realise farmers' rights and in the process strengthen FMSS, in particular through protecting farmers' rights to save, exchange and sell farm-saved seed.

The current research is based on an in-depth review and analysis of existing relevant national policies, development plans and programmes, legislation, relevant international frameworks, as well as experiences from other countries that have put deliberate policy, legal and institutional measures in place to domesticate these international agreements, in particular farmers' rights, as outlined in the ITPGRFA. This study also draws on ZAAB's 2018 and 2019 research on the policy environment related to FMSS and farmers' rights. Furthermore, selected individuals representing key institutions responsible for the administration of relevant pieces of legislation were interviewed to clarify the current status of implementation and anticipated

reforms. The study was commissioned by the Zambia Alliance for Agroecology and Biodiversity (Zaab). The report is intended as an advisory note on policy and legislative options that may be employed to facilitate consultations and inform the ongoing advocacy for policy and legislative reforms to promote realisation of farmers' rights as provided for in the ITPGRFA, strengthen FMSS and promote diversified agroecological farming systems.

6. Policy and Legislative Gaps, Challenges and Opportunities for ITPGRFA Implementation in Zambia

This section outlines 8 key measures for consideration of the ITPGRFA implementation in Zambia that would support Farmers' Rights and FMSS.

Contracting Parties to The Treaty need to implement a range of measures, including providing farmers with support for on-farm management and conservation of PGRFA, and developing and maintaining appropriate policy and legal measures that promote sustainable use of PGRFA (Article 6). One of the key components of the ITPGRFA is Article 9 – farmers' rights.

6.1 Global, Regional and National Level Consultations

There have been a number of consultations on farmers' rights at global, regional and national levels in the recent past aimed at addressing required policy, legal and institutional measures to promote the realisation of farmers' rights (Anderson, 2016). This includes initiatives taken by the Governing Body of the ITPGRFA to constitute an Ad hoc Technical Expert Group (AHTEG) on farmers' rights. The work of the AHTEG has resulted in an inventory of measures and best practices and experiences of countries in the realisation of farmers' rights, which include a wide range of programmes, policy and legal measures implemented by different countries.

6.2 FAO Quality Declared Seed Concept

The United Nations Food and Agriculture Organisation (FAO) introduced a new concept – '*quality declared seed (QDS)*' – in 1993, which could be adopted and used in countries where there is limited capacity to implement and enforce the full-scale centralised seed quality control regulations. This was also expected to cater for seed multipliers/distributors in the informal systems and provide an opportunity to make improvements to such seed systems (FAO, 2006). Under the QDS system, there is a possibility of including registration for farmers' local varieties, with information required for this purpose being a simple morphological description, value for cultivation and use, an indication of the agro-ecological zone for which the variety is suited, and information about the procedures to be followed for maintaining the variety. A number of countries, including Zambia have adopted some aspects of QDS as a seed class in their national seed certification systems, but have failed in the inclusion of farmers' varieties in seed production and marketing under their seed systems.

6.3 Climate Change and its Linkage to Agrobiodiversity

Zambia is obliged to act on climate change under its National Determined Contribution (NDC) aligned to the 2016 Paris Agreement, and to implement various mitigation and adaptation programmes through its National Policy on Climate Change. The adaptation measures proposed for the identified climate hazard include drought (seasonal and periodic), floods, water logging, shortened growing season, and delayed on-set of the rains, include adaptation of crops to climate change, including promotion of early maturing/drought resistance crops, and developing sustainable and appropriate programmes for both crops and livestock in the face of climate change. The role of agrobiodiversity, including a wide range of locally adapted

farmers' varieties, within the FMSS is not recognised by government, climate actors or wider CSOs, as a specific adaptation measure. This is a significant omission.

6.4 Zambia's National Agriculture Policy and Interests of Small-Scale Farmers

The National Agriculture Policy (NA) envisages repealing of the current Plant Breeder's Rights Act No.18 of 2007 and its replacement with a new legislation that is expected to adequately address the needs of various stakeholders in the agricultural sector. The range of stakeholders whose needs are expected to be addressed has not been elaborated, although one would expect these to include the needs of small-scale farmers and farming communities.

6.5 Implementation Arrangements for CBD and ITPGRFA

The second National Biodiversity Strategy and Action Plan (NBSAP2) for Zambia is a ten-year plan (2015-2025) meant to implement the provisions of the CBD. It identifies, among others, the promotion of sustainable farming practices as one of the activities that should be undertaken. The Ministry of Lands, Natural Resources and Environmental Protection (MLNREP) is responsible for coordinating both the development and implementation of the plans. A number of stakeholders, including other relevant Ministries and departments, CSOs, NGOs and development partners have a role in the implementation of the plan. The CBD is closely interlinked with the ITPGRFA, although the implementation framework of the CBD in Zambia has not been as comprehensive. Implementation of the first NBSAP (2003-2013), faced coordination challenges, leading to inadequate cooperation between government agencies responsible for implementing the CBD and ITPGRFA. It is hoped that the National Steering Committee (and its subcommittees) will improve the coordination. Although there are provisions in some of the existing legislations, Zambia does not have specific policy and legislation supporting the domestication of the ITPGRFA, including dealing with farmers' rights or directly supporting FMSS.

6.6 What the Protection of Traditional Knowledge, Genetic Resources and Expression of Folklore Act Offers for CBD-Nagoya Protocol and ITPGRFA

Although the Protection of Traditional Knowledge, Genetic Resources and Expression of Folklore Act of 2016 (PTKG&EF) has potential to provide for the legal space to facilitate the domestication of Nagoya Protocol and some aspects of the CBD and the ITPGRFA, immediate application of the provisions of this Act is not possible because the regulations have not been approved. The responsible officer for the administration of the Act at the Patents and Companies Registration Agency (PACRA), Sunduzwayo Zimba, confirmed this, and indicated that, though drafted in 2016, the regulations were still undergoing legal review at Ministry of Justice. He further observed that a number of developments have taken place since the enactment of the Act, which may necessitate amendments either to the main Act or regulations immediately after it is approved. Since the regulations are not yet approved and the Act cannot be fully operationalised, interim administrative measures have been put in place to facilitate

processing of applications seeking access to genetic resources for research and teaching purposes. PACRA has delegated to the Department of Natural Resources and Climate Change the role of providing the technical assessment of applications for access to genetic resources.

6.7 Prospects of PVP Legislation for Farmers' Varieties

Following the failure to develop a *sui generis* plant variety protection (PVP) legislation dealing with both breeders' and farmers' rights, the process of drafting a separate bill for plant breeders' rights was prioritised and expeditiously executed, leading to the enactment of Plant Breeder's Rights Act in 2007. The preparation of legislation to deal with farmers' rights, in particular protection of farmers' varieties, is therefore still pending.

Zambia's Plant Breeder's Act is based on UPOV 1968, but this may change if the country joins UPOV 91. CSOs and other stakeholders are of the view that aligning Zambia's Plant Breeder's Rights Act to UPOV 91, would make it less flexible in terms of conditions relating to variety registration, quality control and certification, and therefore make it more difficult to address issues related to FMSS.

6.8 Plant Variety and Seeds Act and its impact on FMSS.

The current seed law is the Plant Variety and Seeds Act 21 of 1995 (CAP 236) with updated regulations in 2018. The Act primarily focuses on the formal seed system, essentially excluding FMSS. This law is being impacted by seed regulations harmonisation agreements within the COMESA and SADC regions. As member of both of these regional blocks, Zambia has had to align its national seed with these regional agreements. These regulations govern variety release, certification, registration and phytosanitary standards for all member countries. Stakeholders, particularly CSOs, feel that there was inadequate consultation concerning these changes in Zambia, especially with smallholder farmers, despite the fact that they are the most significantly affected.

According to results of research conducted (Zaab, 2019), some of the specific concerns raised by stakeholders include:

- i. that seed may be inappropriate for some countries given the significant diversity of agroecological conditions and there is no redress mechanism in place if the seed fails to perform because of this;
- ii. the COMESA regulations make the transfer of non-registered seed across borders illegal while enhancing ease of trade for multinational seed companies that dominate regional and global seed industry; this in turn;
- iii. supports a system that encourages the distribution and uptake of uniform, commercial - largely hybrid - seeds throughout the region with known negative effects on agrobiodiversity levels, whilst
- iv. the sale of uncertified seed becomes illegal;

The adoption of QDS in Zambia's seed certification system has contributed to enabling the participation of small-scale farmers in community-based seed production programmes. According to Nathan Phiri and Francesco Miti (Chief Seeds Officers at SCCI), farmers' varieties or landraces could not be included because there are no procedures for their assessment for

purposes of variety identification, which is a critical requirement (personal communication, 12 August, 2020). It is considered necessary to establish a system of assessing landraces or farmers' varieties as the first step in facilitating the inclusion of farmers' varieties for commercial production and marketing in Zambia. According to SCCI, the current seed law does not necessarily stop this from being done, and no attempt has yet been made to submit or present farmers' varieties for assessment.

It is also the considered view of SCCI that not all aspects of farmers' rights can be dealt with in one legislation. There is probably a possibility to deal with the commercialisation of farmers' varieties within the seed law, but other rights, e.g., benefit sharing could perhaps fit into genetic resources access and benefit sharing legislations.

An inventory of the range of national measures compiled by the Ad Hoc Technical Expert Group on Farmers Rights (AHTEG) constituted by the Governing Body of the International Treaty at its Seventh Session in 2017 could serve as examples of measures that CP governments could use for implementing the provisions of farmers' rights in their own countries. Examples of such measures extracted from the inventory are given in Annex 1 to this report.

7. Recommendations on Options and Actions Required

Following the analysis of gaps, challenges and opportunities, related to the implementation of the ITPGRFA, realisation of farmers' rights and strengthening the FMSS, a range of options of policy and legislative measures, and strategic approaches are proposed and discussed.

7.1 Policy and Legislative Options

If implemented, these policy and legislative measures will also address some of the crosscutting concerns raised by key stakeholders, which directly relate to PGRFA and farmers' rights. The proposed measures under the different options will either entail undertaking necessary amendments to the existing legislation or require formulating entirely new legislation. Making amendments to existing legislations and their regulations is considered easier to achieve than formulating new legislation and may therefore present better chances of success.

Option 1: Application of Relevant Provisions of the Protection of Traditional Knowledge Genetic Resources and Expression of Folklore Act 2016 to implement some provisions of the ITPGRFA, in particular, realisation of farmers' rights.

Some of this Act's provisions may be used to implement some aspects of the ITPGRFA. The Act has already been adopted as a legal framework to provide for the domestication of the Nagoya Protocol in Zambia. The following are the relevant provisions of the PTKG&EF Act that may be used for this purpose:

- Section 20 (1) where the protection extended to a holder includes benefit sharing arising from the commercial or industrial use of the holder's traditional knowledge as determined by an access agreement between the holder and user. This may apply to achieve the protection of traditional knowledge and sharing of benefits of farmers and farming communities.
- Section 30 (1) which recognises the inalienable right of the traditional community to use or exchange with other traditional communities its genetic resources for sustaining its livelihood systems in accordance with customary laws and practices.
- Section 32 (4), which states, '*a traditional community shall obtain a fair and equitable share from benefits arising from the utilization of its genetic resources*'.

A review of draft regulations of the PTKG&EF to ensure the inclusion of farmers' rights is required. PACRA should delegate responsibilities to The Zambia Research Institute (ZARI) under the Ministry of Agriculture for administering some of the provisions relevant for the realisation of farmers' rights. ZARI houses the national focal point for the ITPGRFA in Zambia. It also undertakes various programmes and activities that are aligned towards the implementation of the country's obligations under the ITPGRFA, including hosting the National Genebank, which holds and maintains seed samples of a diverse range of germplasm, most of which are farmers' varieties or landraces collected from all over the country.

Option 2: Creating legal space for including farmers' varieties on the national variety list.

This will require amending the current Plant Variety and Seeds Act of 1995 or its regulations to include provisions to make farmers' varieties qualify for registration on the national variety list. This may require the introduction of clauses that provide separate criteria for registration of farmers' varieties.

Option 3: Exempting exchanges and sales of farm-saved seed from the scope of current national seed certification and control regulations.

This will entail amending the current Plant Variety and Seeds Act of 1995 or amending its regulations. This could more specifically address provisions related to QDS, related to prescribed varieties for seed production under the QDS class.

Option 4: Wider promotion of on-farm management of crop diversity

This should include provision of support to community seed banks and farmers' seed marketing and exchange practices aimed at enhanced agrobiodiversity conservation and use, and increased access to a diverse locally adapted seeds, which will result in improved food security and dietary diversity, as well as assist in the adaptation of crop production systems to the impacts of climate change. The provisions should be included in the National Agriculture Policy and other relevant national action plans and development programmes. It is recommended that government undertakes these policy measures:

- a) adoption of farmer participatory variety selection involving locally adapted traditional farmers' varieties;
- b) integration of seed varietal diversity into the crop diversification strategy aimed at recognising the important role of locally adapted farmers' varieties; and
- c) creation of a 'Gene Fund' from seed levies collected from seed companies and agro-businesses.

Increased support and focus should be given to research programmes aimed at enhancing the capacity of traditional small-scale farmers and farming communities. Research should include a focus on indigenous crops with high nutritional value and cultural significance, and participatory breeding or variety selection involving farmers. This would lead to increased generation of evidence on the value of agroecological farming systems and FMSS. It is important to also collate information on previous and ongoing research work conducted by CSOs and NGOs, some of which is being done in collaboration with ZARI, in order to demonstrate some evidence generated on farmers' varieties and the role of farmers in the conservation and sustainable use of PGRFA.

There is need to mount a consistent advocacy campaign for ZARI to play a greater leading role to expand research programmes on agrobiodiversity on-farm, which involves the participation of farmers and farming communities. There is also a need to build capacity of the agricultural extension service to provide support in on-farm conservation and use of crop diversity. This support should include strengthening the local seed systems, understanding and recognising farmers' rights and appreciating the value of local and indigenous plants to support sustainable

agricultural production systems, enhanced food and nutritional security, and dietary diversification.

7.2 Strategic Enablers

The proposed strategic enablers are aimed at positively driving the implementation of the proposed options of legal measures, envisioned to be largely undertaken by civil society actors given the limited resources and programmatic support by government. These are also aimed at optimising chances of success, taking into account availability of technical capacity, policy environment, levels of awareness and levels of understanding by different stakeholders, financial resources required and the time it takes to put the required measures in place.

I) Assessment of priorities and needs

As part of the process to enable the domestication of the ITPGRFA, there is need to undertake a full assessment of priorities and needs of Zambia. A working group or taskforce should be established for the implementation of the ITPGRFA and farmers' rights, which could be under the auspices of the national steering committee for the implementation of NBSAP. Currently there are three sub-committees under the national steering committee for the implementation of NBSAP - i) access and benefit sharing; ii) biosafety; and iii) wetlands. There is need to advocate for the inclusion of a fourth sub-committee dealing specifically with agrobiodiversity conservation and use, including farmers' rights in order to promote a balance of policy and legislative measures and promote supportiveness in the implementation of CBD and the ITPGRFA.

II) Imparting Knowledge and Creation of Awareness on the Importance of PGRFA and Farmers' Rights

It is vital to **establish a common national understanding of farmers' rights** among the different stakeholders, including farmers and policymakers. It is recommended that a survey be undertaken to collect information on the different understandings of farmers' rights, followed by discussions involving key stakeholders aimed at building consensus. Current programmes and activities to promote awareness should be scaled up and out, with learning materials developed based on carefully selected themes. The WG for the implementation of the ITPGRFA, in collaboration with relevant international, regional and national experts, should spearhead this process. Multiple pathways should be used to disseminate information and knowledge, including policy briefs, pamphlets, flyers and TV and radio documentaries. Such efforts should be sustained over a reasonable period of time in order to ensure impact.

There is also the need to **establish community agrobiodiversity registries and catalogues**. The necessary data and information needed for registries and catalogues (available crop diversity, including farmers' varieties and associated traditional knowledge) could be collected at the same time that information on different perspectives on farmers' rights is being collected. The registries and catalogues can contribute to strengthening communities' capacity to manage crop genetic diversity, including on-farm seed production and distribution and help

to identify potentially interesting materials for exchange amongst farmers within communities and with outsiders.

The implementation of biodiversity registries and catalogues requires involvement of players at different levels, including government, NGOs and community groups. ZARI, which is already responsible for coordinating the national programme for the conservation of PGRFA through the National Plant Genetic Resources Centre (NPGRC), could shoulder the main responsibility of implementing this initiative, in particular the maintenance of registries and catalogues. The Department of Agriculture, through the extension branch, should work in collaboration with ZARI, and play the role of sensitising farming communities and collecting the necessary information. NGOs involved in rural development programmes, especially those related to agriculture and livelihoods should also be involved.

Associated with the need to establish community registries and catalogues is the need to **identify and develop a database of custodian farmers**. Such farmers should be identified on the basis of being known in the communities to play significant roles in the preservation of local crop diversity and associated knowledge. The objective is to support the work of these farmers and the communities in which they are found, and to recognise their important role in the conservation and sustainable use of PGRFA, including for food and nutrition security.

There is also need to establish baseline information on FMSS. Government, through the Ministry of Agriculture, should be convinced to support a streamlining and consolidation of existing research by CSOs and NGOs in ongoing programmes such as the annual crop forecast surveys. The Ministry of Agriculture, through the Department of Agriculture, in collaboration with ZARI, should take the lead in implementing the activity.

The survey to collect data and information to enable the establishment of a common understanding of farmers' rights, establishing community registries and catalogues, establishing baseline information on FMSS and developing a database of custodian farmers should be implemented in the short term and should be initiated through the ZAAB network, starting with the development of a concept note to use as a tool in advocacy campaigns.

III) Institutional Strengthening

A sustained advocacy campaign should be undertaken to increase government support to the NPGRC. This should include calls **to elevate the NPGRC from a unit to a separate department within the MoA**, as currently it exists as a programme or unit under the Crop Improvement and Agronomy Division. The NPGRC's mandate should be broadened beyond PGRFA to include promoting expanded use of local indigenous plants and supporting farmers and farming communities in the conservation and use of PGRFA.

There should be a **formalisation of relationships between government agencies responsible for implementing biodiversity-related international agreements through entering into memoranda of understandings**, to ensure close collaboration and cooperation among those responsible for the implementation of the CBD and the ITPGRFA.

The other aspect necessary for institutional strengthening is the ***provision of increased support to biodiversity-related international agreements, such as the CBD and its Nagoya Protocol, and the ITPGRFA.*** Although such focal points for both CBD and the ITPGRFA have been identified and designated, these are often not as effective as they should be due to inadequate resource support, especially where there is no donor support.

8. Conclusions

The following conclusions are drawn:

- 1) The current policy and regulatory framework governing Zambia's seed system provides limited support to meet Zambia's obligations under international agreements and may not adequately contribute to the sustainable development of agriculture in the country.
- 2) Existing policies and legislative frameworks in Zambia could potentially be used to promote agrobiodiversity conservation, realisation of farmers' rights and support the farmer-managed seed system (FMSS). In most cases this may require making necessary amendments to the relevant policy and legislative frameworks.
- 3) Developing a national seed policy, which is holistic and encompassing interests of all stakeholders is considered fundamental for an effective and sustainable seed system. This would help in generating and galvanising increased energy levels and build consensus around the push for policy and legislative reforms.
- 4) The levels of knowledge and understanding around the ITPGRFA, in particular the provisions on farmers' rights, the value of PGRFA and the role played by FMSS are generally low among the general public, including farmers and policymakers. A number of measures have been proposed to enhance knowledge and appreciation of importance and value of PGRFA and farmers' rights associated with this. Achieving the necessary policy and legislative reforms related to agrobiodiversity conservation and use, including the seed systems and farmers' rights, will not be easy if no effort is made to improve levels of knowledge and understanding of these matters.
- 5) Engagement of small-scale farmers in the development of legislation related to seed in Zambia has been limited, despite them constituting the largest proportion of farmers involved in food production. This is evidenced in the seed legislation that is not responsive to the interests of small-scale farmers. The degree to which the process of reforms will be successful will largely depend on the extent to which small-scale farmers are engaged and consulted.
- 6) The study has proposed a range of policy and legislative options that may be considered for implementing measures required to achieve the necessary reforms in the seed sector in Zambia, and provide for the implementation of provisions of ITPGRFA, including farmers' rights.

9. Recommendations: Actions Required and Way Forward

Based on the review and analysis of the existing policies and pieces of legislation, the following recommendations regarding the way forward are made.

9.1 Short-term Actions

- 1) Review draft regulations for the Protection of Traditional Knowledge, Genetic Resources and Expression of Folklore Act 2016 to ensure incorporation of appropriate clauses to meet requirements to implement provisions of farmers' rights as outlined in the ITPGRFA.
- 2) ZAAB network of CSOs to continue lobbying government to ensure that Zambia does not join UPOV 91 which will limit the flexibility of FMSS and restrict farmers' rights.
- 3) Undertake a national survey to establish baseline status of the FMSS, identify and create database of custodian farmers, develop a national inventory on different perspectives regarding understanding of farmers' varieties, and establish community registries and catalogues on agrobiodiversity, including **documenting work done on community registries and catalogues.**
- 4) Lobby for the creation of a sub-committee on agrobiodiversity under the NBSAP. This should lead to strengthening of linkages between agencies responsible for the implementation of CBD and ITPGRFA.
- 5) Establish a working group for implementation of the ITPGRFA, including realisation of farmers' rights. This group should also undertake an assessment of priorities and needs related to PGRFA and farmers' rights.
- 6) Embark on an advocacy campaign to impart knowledge and increase appreciation of the importance of PGRFA in relation to supporting sustainable food systems and the important role farmers play in this regard. The use of the concept of 'champions' in advocacy campaigns is also recommended.
- 7) Document work already done on community registries and catalogues, including conducting a short research process to establish what institutions are undertaking research, and what work has already been undertaken in Zambia relating to available agrobiodiversity, including crop diversity found in farmers' fields and associated traditional knowledge.

9.2 Medium-term Actions

- 8) Develop and adopt a holistic and comprehensive seed policy for the promotion of a sustainable seed sector, as the National Agriculture Policy does not adequately cover these. The process should be widely consultative, involving all key stakeholders in the seed sector, including representatives of private seed companies, representatives of small-scale farmers and CSOs. The ZAAB secretariat should spearhead the development of a concept note, providing the relevant background information,

covering challenges and opportunities, emerging issues and developments that have occurred that are necessitating the need for a holistic national seed policy. This will be used to engage the Ministry of Agriculture on the need for such a policy.

- 9) There is need to strengthen linkages between government agencies responsible for implementing the ITPGRFA and CBD and its Nagoya Protocol. This should be demonstrated through formal mechanisms such as entering into memoranda of understanding (MOU).

9.3 Long-term Action

Lobby for raising the position of NPGRC from a programme unit into a separate department or institute within the Ministry of Agriculture, with an increased level of authority and budgetary support.

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11. ANNEXURE - Examples of National Measures Adopted in other Countries in Implementing ITPGRFA and Farmers' Rights

Some examples of measures, best practices and experiences from other countries that are of relevance to Zambia from the draft inventory of measures produced by the Ad Hoc Technical Expert Group on Farmers Rights (AHTEG) constituted by the Governing Body of the International Treaty at its Seventh Session in 2017 are discussed below (Report of the Seventh Session of the Governing Body: <http://www.fao.org/3/MV606/mv606.pdf>).

I. Implementing *sui generis* plant variety protection systems that recognise farmers' seed systems, farmers' varieties and advances farmers' rights

WTO members have complete freedom to develop *sui generis* plant variety protection (PVP) systems that recognise and support FMSS and implement farmers' rights. Several countries, including India and Malaysia have opted to depart significantly from the one-size fits all model of UPOV 91 and adopted effective, innovative national PVP legislation, implemented through the PVP authority of each country. These include unique features to balance the interests of commercial breeders, farmers and the public, as well as advance the key requirements of the ITPGRFA, the Convention on Biological Diversity (CBD) and the Nagoya Protocol. Below are some of the examples:

- India's Protection of Plant Varieties and Farmers' Rights Act (2001) grants PVP protection while recognising rights of farmers to save, use, sow, re-sow, exchange, share or sell their farm produce, including seeds of protected varieties.
- Malaysia's Protection of New Varieties of Plants Act (2004) includes provisions that recognise farmers' seed systems with distinct criteria ("new, distinct and identifiable") for registration of farmers' varieties.
- Thailand's PVP Act applies the novelty, distinctness, uniformity and stability (NDUS) requirements (except for local domestic plant varieties that need not comply with the novelty requirement), but with a modified distinctness criterion.

Both the Indian and Malaysian legislations include disclosure obligation, i.e., a PVP applicant to declare the source of the genetic material and present evidence of prior informed consent and benefit sharing. The above demonstrates that not joining UPOV 91 would allow countries to exercise flexibility in the development of their PVP legislation based on *sui generis* system.

II. Identity of custodian farmers

Starting in 2010 Brazil, through the Brazilian Agricultural Research Corporation (EMBRAPA), developed a set of strategies for strengthening the identity of custodian farmers in southern Brazil, in cooperation with farmers, civil society and research organisations. The objectives were to support the work of these farmers and to recognise the important role they play in the conservation and sustainable use of PGRFA, including for food and nutrition security. The high levels of participation of custodian farmers observed reflected their desire to exchange and establish contacts among each other. This measure has helped to raise awareness of the

important contributions custodian farmers can make to achieving societal goals, if they are supported by the recognition of society, especially urban people.

The approach has great potential to raise awareness and increase appreciation on the value of crop diversity and farmers' varieties and therefore attract support from government and other stakeholders to the conservation of crop diversity on farm and farmer-managed seed systems.

III. Recognition and Rewards

India has instituted a 'Recognition and Rewards' system from the 'Gene Fund', a national instrument for benefit-sharing. Its objective is to recognise the efforts of farmers and farming communities engaged in the conservation of PGRFA so that they are encouraged to continue their activities and their genetic resources can be explored for further use. This initiative also has the potential to contribute to increased demand for traditional varieties, resulting in additional opportunities for awardees to generate income or raise additional funds for conservation activities.

IV. Creation of Awards

In Indonesia, the government, has since 2017, created awards with the aim to encourage and acknowledge farmers' participation in the conservation and use of local germplasm, including breeding activities. Two categories of awards are available: one for farmer-breeders and a second one for local government units where a high number of local varieties has been registered and utilised and/or developed. The awards have resulted in farmers' active participation in collecting, conserving and using germplasm for breeding activities. The approach works to provide some incentives to farmers and farming communities in recognition of their role in the development and conservation of crop diversity.

V. Community Biodiversity registers

From 2015 to 2018, community biodiversity registers and biocultural community protocols were developed in Benin. The National Institute of Agricultural Research of Benin (INRAB) as well as several NGOs were involved in the development of this. In a first step, community biodiversity registries were established in the participating communities to identify crop, forage and agroforestry diversity in their agricultural systems. These registers can be used, for example, for the documentation of traditional knowledge associated with PGRFA, for monitoring purposes or to identify potentially interesting materials for exchange with outsiders. The approach is important in increasing knowledge about the local crop diversity and associated traditional knowledge, with the potential to generate and provide the much needed evidence on the actual and potential value of local crop diversity.

VI. Registration of farmers' local varieties

In Nepal, provisions for the registration of farmers' local varieties were included in the seed regulation, with the aim to facilitate their conservation and sustainable use. These provisions were expected to simplify the inclusion of farmers' local varieties in the national catalogue, thereby facilitating the production and commercialisation of seed of these varieties. However, a lack of clear procedures and technical officers' limited experience in dealing with farmers' traditional varieties limited the application of the provisions.

VII. *Integrating breeder's rights and farmers' rights in a single PVP legislation*

In Bangladesh, efforts of the Ministry of Agriculture, in cooperation with relevant government organisations and public research institutes, resulted in the adoption of the Plant Variety Protection Act, 2019. This Act sets rules for the establishment of a Plant Variety Protection Authority as well as for the registration of varieties, protection of breeders' and farmers' rights and other related matters. It recognises innovative farmers as 'plant breeders' who are now entitled to submit applications for registration of varieties they have developed or maintained. A certificate, a medal and some money will be paid to farmers as a recognition of their contribution to crop improvement.

VIII. *Standalone seed law for farmers' varieties*

The Brazilian Ministry of Agrarian Development (distinct from the Ministry of Agriculture), in cooperation with farmer associations, NGOs and others, developed Seed Law #10711 of 2003, recognising farmer varieties/landraces and offering opportunities for voluntary registration. Article 48 of the Law forbids restrictions on the inclusion of traditional local varieties in publicly funded programmes for family farmers. Ministerial Directive 51/2007 provides criteria for the voluntary registration of these varieties. Legal recognition has made possible government (financial) support for various projects and initiatives undertaken by NGOs and farmers and contributed to integrating farmer varieties/landraces into national food and nutrition security programmes.