Cultivating Knowledge for Farmer Managed Seed Systems

EDITORS BRIEF

Introducing The SEED GIST

The Seed Cist is a quarterly publication that enthusiastically centers around Farmer-Managed Seed Systems (FMSS). We are delighted to introduce the second issue of The Seed Cist.

Farmers, who are both stewards of biodiversity and protectors of agricultural legacy, considerably help to preserve and innovate on seed varieties that support our world food system. In each issue of The Seed Gist, we strive to explore the wide range of FMSS, showcasing the remarkable wisdom, resilience, and creative ability of farmers while delving into the seed regulatory frameworks. The Seed Gist honors the great variety of seed traditions kept by farmers all around and explores creative ideas to make sure these customs survive in a society fast changing.

The Seed Gist is a vibrant hub for seed actors, fostering collaboration and knowledge exchange through locally crafted stories, articles, and a wide range of

perspectives to showcase this exciting intersection. We are thrilled to highlight the vital connection between tradition and innovation in the context of seed saving and exchanging practices.

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The Seed Gist also serves as a platform for discussion among researchers, politicians, activists, and farmers, encouraging collaboration and knowledge exchange in the pursuit of sustainable agricultural practices and food security. We strongly believe that the FMSS not only protects agricultural heritage, but also holds the key to solving prevalent issues like climate change, food security, and the loss of biodiversity.

As we embark on this enriching journey, we welcome you to interact with The Seed Gist, share your perspectives, as we foster a worldwide dialogue on the future of sustainable agriculture and Seed sovereignty. Let's join forces to plant the seeds of a stronger and fairer agricultural future.

ATTAINING SEED SECURITY CALLS FOR COLLABORATIVE EFFORTS

Achieving seed security necessitates collective efforts from a wide range of actors, including farmers, consumers, private sector participants, researchers, and policymakers.

Seeds are fundamental to food security and community resilience, serving as the cornerstone of food production and agricultural productivity. For different contexts around the world, seed is used mainly for reproduction, food for consumption, raw materials, medicine, cultural functions, income through sale etc. High-quality seeds lead to availability of abundant and nutritious crops, supporting a diverse and balanced diet. While improved seed varieties can increase crop yields by up to 20-30% helping farmers meet the growing food demands of a rising population, they also enhance agricultural productivity by providing high-yielding, disease-resistant, and climate-adapted varieties, complementing the farmers' seed varieties thus maintaining stable food supplies despite environmental challenges. In return, this generates higher income for farmers, supporting household food security and economic development. Agricultural growth, supported by improved seed systems, is up to four times more effective in reducing poverty than growth in other sectors.

Alternatively, small scale farmers have contributed to the production, storage and conservation of local seeds which are resistant to pests and disease, climate change with support from civil society organizations, researchers and other actors around the seed production chain. This has rendered easy access to seeds and conservation of the local varieties by small scale farmers. In Uganda, for instance, women constitute about 76% of the agricultural labor force according to UBOS National Labor Force Survey report 2021.

This highlights the importance of seed security in supporting gender-inclusive development. According to FAO's report on Scaling up Climate Ambition on Land Use and Agriculture (SCALA) through Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAP), 81% of Ugandan farmers rely on rain-fed agriculture, making climate-adapted seeds vital for resilience against climate change impacts. Small scale farmers especially women face a number of challenges that include; unfavourable cultural beliefs that hinder women from owning productive resources like land, climate change that is manifested through, floods, mudslides, increasing pests and diseases and prolonged dry spells yet majority of the



farmers depend on rain-fed agriculture. The lack of adequate post-harvest handling facilities, unfavourable policies that do not recognize farmers' efforts all pause hindrances to seed production.

This therefore calls for collaborative efforts to create awareness to challenge cultural beliefs to allow unequal access of resources for increased production, advocate for creation of an enabling environment that recognizes farmers efforts and registration of their varieties, create linkages between farmers and financial institutions, private sector and researchers, support farmers to add value to their produce for favorable competition on market resulting into a strong farmer managed seed system.

Beyond their agricultural benefits, seeds play a crucial role in community resilience and preservation of cultural heritage. Access to diverse and locally adapted seeds empowers communities with food sovereignty, reducing dependence on external inputs and mitigating risks of crop failure.

Multistakeholder collaboration is crucial for the success of community seed banks; the repositories for farmer saved seeds which are vital for preserving agricultural biodiversity, ensuring seed security, and enhancing resilience against climate change. Farmers, as primary seed custodians, contribute their traditional knowledge and practices to conserve and manage seed varieties. Researchers develop high-yielding, disease-resistant seeds and transfer knowledge to farmers. Civil society organizations provide capacity building and advocate for supportive policies, while government bodies create enabling environments through policy support and extension services. The private sector contributes by facilitating market access and seed technology innovations. Such collaborations yield significant benefits, including increased seed diversity and security, sustainable agricultural practices, and economic growth. In Uganda, community seed banks supported by various stakeholders have led to a 20-30% increase in crop yields and improved resilience to climate change. Successful global examples like the Svalbard Global Seed Vault demonstrate the effectiveness of multistakeholder efforts in preserving seed diversity and ensuring food security. By pooling resources and expertise, these collaborations help build robust seed systems that support

food security, economic development, and environmental sustainability.

Programs that support seed saving and exchange foster social networks and cooperation, strengthening community bonds. By investing in seed research, development, and distribution, communities can build resilient agricultural systems capable of ensuring stable and nutritious food supplies, ultimately contributing to sustainable development goals. Increased production and access of quality seed enables farmers to meet consumers' needs and improve their own incomes hence resulting into food and nutrition security. This in the long run contributes to attainment of sustainable development goals 1, 2 and 3 of no poverty, zero hunger, good health and well-being respectively.

Efforts should also focus on advocating for an enabling environment that recognizes farmers' efforts and the registration of their varieties, creating linkages between farmers and financial institutions, the private sector, and researchers, and supporting farmers in adding value to their produce for favorable market competition. Such initiatives can result in a strong farmer-managed seed system.

By addressing these issues through collaborative efforts, Uganda can build a resilient and sustainable seed system that supports food security and economic development.



By Anna Ruyondo Seed Rights Coordinator Oxfam in Uganda

THE SEED REGULATORY FRAMEWORKS AND SEED SECTOR PERFORMANCE



The success of every sector is largely dependent on the frameworks that govern and regulate its performance. The seed regulation frameworks across East Africa, including countries like Kenya, Uganda, Tanzania, Rwanda, and Burundi, are crucial for ensuring seed quality, supporting agricultural productivity, and enhancing food security. Each country has established robust national seed laws and regulatory bodies like Kenya Plant Health Inspectorate Service (KEPHIS) in Kenya, National Seed Certification Services (NSCS) in Uganda, and Tanzania, Law n°005/2016 of 05/04/2016 governing Seeds and Plant Varieties in Rwanda overseeing seed certification, variety release, and quality control.

Uganda's seed sector is regulated by the National Seed Policy (NSP) 2018 that aims to ensure compliance, fairness and protect farmers. The NSP 2018 attempts to strengthen the seed sector through formal and informal seed access routes for farmers with the vision of "A competitive, profitable and sustainable seed sub-sector where farmers and all seed users have access to affordable quality seed". From acknowledging the crucial role of informal seed systems, which contributes 85% of the seeds planted by majority of farmers according to the policy, to the new Quality Declared Seed (QDS) class which allows farmers and farmer organizations to produce and sell quality seed, the National Seed Policy 2018 is among the major policy shifts in Uganda. In order to promote agriculture productivity, the policy was uniquely designed to support the development of a firm seed sector that ensures the availability of high-quality seeds by farmers

Despite these efforts, Uganda's seed sector faces significant challenges including widespread counterfeit seeds, weak regulatory frameworks, limited access to high-quality seeds, inefficient distribution networks and inconsistent supply, inadequate research and development, and financial constraints. According to Uganda Bureau of Standards, up to 30% of seeds sold are estimated to be fake, severely impacting farmers' yields. Additionally, smallholder farmers, who make up about 80% of Uganda's agricultural producers, often cannot afford better seeds due to high costs and lack of financing options. Poor training and insufficient extension services further hinder productivity while inconsistent policies and weak institutions undermine efforts to improve the sector.

It is high time for the various governments to recognize the contribution of the Farmer Managed Seed System in agriculture development. In this regard, we highlight a case from Kenya that showcases the need for the recognition and protection of the Farmer Managed Seed Systems.



Kenya's seed sector regulatory framework is robust and aimed at ensuring high-quality seed availability to boost agricultural productivity. Central to this framework is the Seed and Plant Varieties Act (Cap 326), which mandates strict seed certification, testing, and labeling standards enforced by the (KEPHIS). KEPHIS oversees seed quality control and plant variety protection, adhering to national and international standards. The National Seed Policy promotes seed research, development, and distribution, while Plant Breeder's Rights encourage innovation by protecting breeders' intellectual property. This framework, involving multiple stakeholders, aligns with international benchmarks to ensure quality and facilitate trade, benefiting the country's 7 million smallholder farmers, who constitute 75% of the farming population.

Not so long ago in 2022, small-scale farmers in Kenya petitioned the government to reconsider the law that bans seed sharing and exchange. This case has gained traction with major support from the Law Society of Kenya with evidence to challenge the law which hinders seed diversity. This law, rooted in the Seed and Plant Varieties Act (Cap 326), aims to regulate seed quality and ensure that only certified seeds are distributed, ostensibly to protect farmers from counterfeit seeds. However, small-scale farmers, who make up about 75% of the farming population argue that this law adversely impacts their traditional practices and seed diversity. They emphasize that seed sharing and exchange are crucial for preserving indigenous seed varieties and enhancing genetic diversity. Many of these seed varieties are resilient to climate change impacts, have high potential for commercialization and ensure food security. As farming becomes more commercial, the development focus is shifting towards the formal seed sector and phasing out the informal seed sector. This could potentially give multinational corporations and profit-driven entities unlimited freedom to exploit the already depleting local resources as well as the poor farmers who cannot afford to buy new seeds for every planting season.

The petition highlights the need for a balanced approach that safeguards seed quality while also supporting farmers' rights to share and exchange seeds freely. According to Kenya's National Seed Policy 2010, the country is majorly self-sufficient on maize seed production, creating a deficit in the production of other seed materials that are greatly treasured by small-scale farmers because of their nutritional values and tolerance to pests and diseases. Banning seed exchange limits farmer's opportunity to improve their livelihood by reducing plant genetic diversity. This could as well affect community resilience to the impacts of climate change. This limits the seed diversity and threatens the food security of the country as many of these seed varieties can only be accessed through the informal networks that are given less priority by the laws.

While many of the seed regulatory frameworks aim to ensure seed quality, access, and availability. The poor implementation of these frameworks remains a key bottleneck hindering the development of the sector in many developing countries. Strengthening these regulations and improving coordination among stakeholders are crucial for enhancing the effectiveness of the seed sector thus enhancing agricultural productivity and food security. There is a need to improve the enabling environment for seed business, especially for the FMSS as this will benefit all seed sector stakeholders leading to improved access to quality seed for increased agricultural productivity. Additionally, developing alternative procedures for the registration of farmer varieties in order to ensure diversity for agricultural development is crucial as diversity is a key contributor to seed sector development.



By Kalinaki Naume Enterprise and Livelihood Development Officer ESAFF Uganda

BAMBARA NUTS: THE SEED FOR THE FUTURE



Bambara nut seeds, scientifically known as Vigna subterranea, are a resilient and highly nutritious legume native to West Africa and widely cultivated across Sub-Saharan Africa with significant cultural, nutritional, and economic value. Thriving in poor soils and harsh climatic conditions, the crop produces underground pods with one to two seeds, rich in protein (18-24 grams per 100 grams), carbohydrates (60-65 grams), and essential minerals like calcium, iron, and magnesium. (Alegbejo, 2001). They are also gluten-free and have a low glycemic index, making them a valuable food source for people with dietary restrictions. Bambara nuts are considered a complete food and ranked as the 3rd most important legume in most African countries where it is grown. With global production ranging from 300,000 to 400,000 metric tons annually, Nigeria, Ghana, Burkina Faso, Niger, and Mali are the top producers. These nuts are crucial for food security and income generation for smallholder farmers especially women.

Market trends indicate growing interest in Bambara nuts as a health food, and efforts to improve yields through better farming practices and high-yielding varieties are underway. These key attributes give it greater importance in many of the African countries. In the past few years, Bambara nuts have gained attention as the crop for the future because of their potential in sustainable agriculture, seed, food, and nutrition security especially in regions vulnerable to climate change. With its significant cultural value, the seeds are often used in traditional ceremonies and symbolizes fertility and prosperity in many African cultures. Bambara nuts present a high potential for seed sovereignty and commercialization for improved livelihoods.

Despite its potential contribution to the seed system and agriculture sector, Bambara nuts have not gained enough attention from the various stakeholder's including; food processors, and researchers limiting its maximum utilization. In Uganda, little research has been made on Bambara nuts hence there is limited data that can be banked on to increase the production of Bambara nuts. Because of this gap, the young generation have limited opportunities to learn and explore the potential of this precious crop. It is high time the country embraced Bambara nuts and interest the young generation in this crop because it is indeed the crop for the future with the ability to address food and nutrition insecurities and ensure community empowerment. In this regard, we explore the story of Bambara nuts in the deep ends of Teso Sub region particularly Soroti district, Katine subcounty.

In the deep communities of Teso sub-region in Uganda, Bambara nuts are commonly called *"Isuuk"*. They are greatly treasured by the elders and women who attribute the crop to cultural and social significance. With a sweet taste, Isuuk presents diverse mechanisms of utilization within the Teso communities, a symbol of food security endowed with beautiful colors of reddish, cream or white, black, Brownish and spotted in various shapes and sizes, with a tender but strong skin that shields the seeds from easily being destroyed and infested by pests but also prolong its shelf life. Isuuk is well suited to the semi-arid climate of the Teso sub-region.

At the onset of the rainy season, farmers are seen tapping into their granaries, stores and reaching out to the neighbourhood for Isuuk seeds as they prepare for the new planting season. With a lot of care, farmers plant two seeds per hole in the well-drained sandy loam soils with anticipation of great performance to ensure seed and food security. The seeds are planted at a spacing of about 50cm * 20cm between rows and plants respectively. Isuuk is a short annual legume crop and can be inter-cropped with crops like maize, millet, sorghum, cassava, and yams among others allowing the fixation of nitrogen which helps replenish soil nutrients and maintain soil fertility.

Given the critical values attributed to the Isuuk, small-scale farmers under Agora FFS in Katine Subcounty, Soroti district implemented the Sowing Diversity equals Harvesting Security program through the Farmer Field School methodology promoting the use of local food plants for improving nutrition security in the communities. These aimed to restore some of the varieties of Isuuk that were on the verge of disappearing in the communities. These farmers testify that Isuuk is adaptive to the local environment and they recognize that it is their mandate to conserve these precious crops. To further reduce external dependency, seeds were solicited from the farmer-managed seed system that provided a wide range of Isuuk varieties which are now strengthening community resilience. Community Seed Banks have also been key for conservation and easier access to good quality seed varieties of Isuuk by a wider community.

There is a growing need for improved crop management, post-harvest handling technologies and market access. Bambara nut seeds are a resilient and nutritious crop with significant potential to improve food security and economic stability in Sub-Saharan Africa. Continued research and investment in better farming practices can enhance their yield and market value, benefiting both producers and consumers.

To explore the full potential of Bambara nuts there is a need for different stakeholders to devote time and resources to understanding the potential of the crop, especially in areas of nutrition, cultural values, preparation, and product development through value addition as well as seed preservation, multiplication, and distribution.



By Anna Sofia Asingo Monitoring and Evaluation/ Advocacy officer CIDI Soroti

EXPLORING THE IMPACT OF PARTICIPATORY PLANT BREEDING IN UGANDA'S SEED SECTOR



Participatory plant breeding (PPB) is a collaborative approach involving farmers, researchers, and other stakeholders to address local farming communities' specific needs by incorporating their traditional knowledge and preferences. This method develops crop varieties that are better suited to local conditions and more resilient to pests, diseases, and environmental stresses. It enhances small-scale farmers' access to high-quality seeds, allowing them to select traits relevant to their needs. Consequently, locally adapted seed varieties improve crop yields and resilience, contributing to food security and sustainable livelihoods.

From 2019 to 2023, ESAFF Uganda, with partners Oxfam and PELUM Uganda, adopted the farmer field schools (FFS) methodology for PPB in Uganda. This approach saw farmers actively participate in selecting and improving crop varieties based on local conditions. FFS provided a structured environment for education, experimentation, and knowledge sharing, integrating breeding activities into the curriculum. This helped farmers develop a deeper understanding of crop improvement techniques and contribute to better-suited varieties for their farming systems.

Beneficiaries like Hellen Akello and Masudio Margaret from Amuria and Adjumani districts reported increased biodiversity, improved food and nutrition security, better access to quality seeds, enhanced agronomic knowledge, and strengthened collaborations with breeders and stakeholders. These efforts also reduced gender barriers and improved livelihoods by exploring the market potential of farmer varieties. Despite these achievements, PPB faces challenges such as limited policy support, lack of institutional buy-in, limited market access for farmers' varieties, social-cultural barriers, low literacy levels, limited documentation, and climate change effects. Addressing these gaps is crucial for realizing PPB's full potential in supporting small-scale farmers and enhancing agricultural sustainability.

To promote PPB using the FFS approach, stakeholders should share experiences, integrate the approach into all livelihood programs, and advocate for supportive policies that protect small-scale farmers' rights to produce, save, sell, and benefit from their seeds, especially farmer varieties.



By Julius Engwedu Field Assistant Extension ESAFF Uganda

BEYOND FOOD: ARE FARMER-MANAGED SEED SYSTEMS VITAL FOR AFRICA'S BIODIVERSITY?



This is a question that addresses the very essential aspect of our environment. Think of biodiversity as the foundation of a strong house, supporting everything above. Without it, our environment would fall apart, leading to ecosystem collapse, the extinction of species, and the disruption of our natural world. In Africa, the richness of this foundation is closely tied to the cultivation and preservation of indigenous seeds. These seeds are not just about producing food, they are the essential building blocks that hold our entire ecological and cultural home.

A recent analysis across six African nations examining 40 different crops revealed that an impressive 90% of seeds used by farmers come from informal sources (McGuire, S. & Sperling, L., 2016). Depending on the type of crop and region, farmers produce and exchange between 60-100% of the seeds they plant. In cases where there are no formal breeding programs or seed supply, particularly for native vegetables and root crops like yams and sweet potatoes, farmer-saved seeds are often the only planting material available. This is especially true for local and minor crop varieties. Consequently, these farmer-managed systems contribute up to 70% of the continent's food supply. This adaptability and resilience highlight the crucial role of farmer-managed seed systems in sustaining agricultural diversity and supporting the continent's food security.

Indigenous seeds thrive in various environmental conditions, contributing to a strong and resilient agricultural environment. These seeds have evolved to withstand the specific climatic and soil conditions of their regions, making

them more resilient to local pests, diseases, and extreme weather events. Unlike commercial seeds, which demand significant synthetic chemical inputs and irrigation, indigenous seeds require minimal external intervention. This allows them to maintain the natural ecosystem and diminish their reliance on harmful chemicals.

Secondly, the genetic diversity found in indigenous seeds is essential for biodiversity. Each seed variety possesses distinct traits that enhance the health and resilience of the ecosystem. This diversity ensures that if one crop is affected by disease or climate change, others can continue to prosper, thus safeguarding against food insecurity. The spread of uniform commercial seeds, however, jeopardizes this resilience by reducing crop diversity.

Thirdly, Indigenous seeds encourage the growth of various plant species that support a diverse range of pollinators, soil organisms, and other wildlife. This interconnected web of life improves soil fertility and productivity, promoting sustainable agricultural practices. By promoting diverse cropping systems, indigenous seeds help maintain ecological balance and prevent the environmental harm often associated with monoculture farming. Additionally, Indigenous seeds are critical for enhancing climate resilience. They are naturally adapted to withstand local climate challenges such as droughts, floods, and extreme weather conditions. By using indigenous seeds, farmers can better adapt to the impacts of climate change, ensuring food security and sustainable livelihoods.

In stark contrast, industrial agriculture contributes approximately 30% of the world's food supply. It achieves this through highly inefficient and environmentally destructive practices, such as extensive land clearing for monocropping, which accounts for over 80% of global fossil fuel emissions (ETC, 2014), consuming up to 70% of the planet's freshwater resources (OECD, 2017). Furthermore, the transition from traditional farming methods to industrial agriculture has also led to significant genetic erosion. The relentless focus on a handful of commercially viable crops and the breeding of genetically uniform varieties has caused a staggering loss of 75% of global agrobiodiversity in just a century (UN General Assembly A/64/170). This reduction in biodiversity not only endangers our food security but also weakens our environment's ability to adapt to the climate crisis. How can we stand by and watch this destruction?

The constitutions of several African nations, including Kenya, Uganda, and Ghana, protect farmers' rights to indigenous seeds. For example, Kenya's Constitution explicitly recognizes the importance of traditional knowledge and the role of communities in conserving biodiversity. Article 69 of the Kenyan Constitution mandates the state to support the sustainable management and utilization of genetic resources, ensuring that communities benefit equitably from the exploitation of these resources.

Similarly, the UN Declaration on the Rights of Peasants and Other People Working in Rural Areas (UNDROP) affirms the rights of rural workers to biodiversity and seeds, including the ability to save, use, exchange, and sell farm-saved seeds, and to protect and develop their own seeds and traditional knowledge. Building on the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and the Convention on Biological Diversity (CBD), these treaties mandate the conservation and sustainable use of biodiversity as a human right. The ITPGRFA recognizes farmers' vital role in conserving plant genetic resources as "Farmers' Rights," while the CBD emphasizes the importance

of indigenous communities and equitable benefit-sharing, highlighting the need to protect traditional knowledge, promote in situ conservation, and mitigate the risks of genetically modified organisms.

Despite this, punitive seed laws across African countries restrict farmers' rights to share, exchange, and sell their indigenous seeds. Influenced by multinational agrochemical companies, these harsh regulations undermine farmers' autonomy of farmers and stifle the traditional practices essential for sustaining agricultural diversity. However, small-scale farmers and community leaders across Africa are fighting back against this new wave of neocolonial exploitation, striving to protect their lands, cultures, and biodiversity.

They are fighting not only for food sovereignty but also for their biodiversity. Farmers, particularly women like my mother, a small-scale farmer from Western Kenya, are forming seed banks and cooperatives, using participatory methods to save, select, and enhance their seeds. Through seed banks, cooperative groups, and community participatory processes, they carefully select the best seeds, ensuring the continued vitality and diversity of their crops. These methods are not only sustainable but also deeply rooted in the cultural practices and knowledge of local communities. These grassroots efforts are a testament to the resilience and wisdom of our farmers, who understand that safeguarding biodiversity is essential for our survival.

To maintain control over our food systems and safeguard our environment, we must support Farmer-Managed Seed Systems (FMSS). Enhancing the productivity and guality of FMSS requires strategic interventions in capacity building, research, policy, and resource access. Our efforts should be directed towards offering training programs and extension services to small-scale farmers to educate them on advanced breeding techniques and best practices. Collaborative research between farmers, researchers, and institutions can develop locally adapted seed varieties. Advocacy for favorable policies, financial support, and market access can further empower farmers. Incorporating agroecological practices such as integrated pest management and agroforestry can significantly improve yields and resilience.

By investing in these areas, we can ensure that FSSs play a vital role in achieving food security and sustainability in Africa, rather than dismissing these systems as inadequate. We must empower farmers to utilize their extensive knowledge and resources, for a more resilient and productive agricultural future.



By Elizabeth Ateino Greenpeace.org

OXFAM

CONTRIBUTE TO THE SEED GIST

CALL FOR CONTRIBUTIONS: Share Your Seed Stories with the SEED GIST!

Do you have insights or experiences related to Farmer-Managed Seed Systems in Uganda and beyond? The SEED GIST wants to hear from you!

We're inviting contributions from farmers, researchers, and advocates to enrich the SEED GIST. Share your success stories, challenges, innovations, or advocacy efforts. Together, let's amplify the voices of small-scale farmers and promote sustainable seed systems.

Submit your contributions or inquire at nkalinaki@esaffuganda.org

Sow the seeds of change with the SEED GIST!

Eastern and Southern Africa Small Scale Farmers' Forum ESAFF - UGANDA



ESAFF Uganda solicits and compiles stories for the Seed Gist from a variety of sources worldwide, including NGOs, academia, small-scale farmers, researchers and the media among others. These stories are designed to broaden knowledge and drive sustainable change in the Farmer Managed Seed System (FMSS).

The views, opinions, and conclusions expressed in The Seed Cist are those of the individual writers and do not necessarily reflect the official policies or positions of the donor organizations. The donor organizations are not responsible for the accuracy, completeness, or validity of any information provided herein.

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