

GLOBAL
ALLIANCE
FOR THE
**FUTURE
OF FOOD**



RESILIENT SEED SYSTEMS

SHARED ACTION FRAMEWORK



A SHARED ACTION FRAMEWORK FOR RESILIENT SEED SYSTEMS

Resilient seed systems are central to sustainable food systems that are renewable, resilient, equitable, diverse, healthy, and interconnected. In light of critical global challenges such as climate change and food and nutrition security, there is an urgent need to maintain and enhance agricultural biodiversity.

Seeds are the foundation of our food system.

In 2016, the Global Alliance for the Future of Food published *The Future of Food: Seeds of Resilience, A Compendium of Perspectives on Agricultural Biodiversity from Around the World* to amplify the critically urgent need to protect and enhance seed diversity. In 2018, a strategic convening on resilient seed systems was held in Oaxaca, Mexico. Since that time, the Global Alliance has been convening key seed system stakeholders to further explore these issues and understand how we can overcome challenges by bringing diverse perspectives together and identifying shared priorities.

From these discussions, priority issues and themes were identified and a guiding narrative and principles were developed. This led to the development of a Shared Action Framework to galvanize actions that strengthen and protect agricultural biodiversity and promote resilient seed systems.



A resilient seed system is one that is based on agricultural biodiversity and local seed diversity, and is the basis of diversified agroecological systems. Its resilience is in terms of environmental and climate resilience, social resilience, and economic resilience. A resilient seed system is connected to diverse cultural and culinary traditions, and promotes diet diversity and health. Farmers are the key actors in a resilient seed system, contributing their knowledge, experience, and skills. Their practices of seed saving, use, and exchange are critical in ensuring a diverse and resilient farmer-managed seed system.

LIM LI CHING

Third World Network

The process that led to this Shared Action Framework included:

- Publishing a compendium of perspectives on agricultural biodiversity;
- Convening an advisory committee to inform planning for a strategic convening;
- Consultations with agricultural biodiversity and seed experts;
- Conducting a survey and several meetings with diverse seed systems actors; and
- A strategic convening in Oaxaca, Mexico, on resilient seed systems.

The Shared Action Framework provides a strategic guide for diverse stakeholders interested in fostering a holistic, collaborative approach to enhancing the resilience of our seed systems and the contributions these systems can make to addressing many critical global priorities.

The Global Alliance for the Future of Food has supported the facilitation of these discussions and meetings, as well as the development and publication of this Shared Action Framework. Implementation of the Framework requires the collaboration of and distributed ownership by diverse actors and organizations committed to enhancing resilient seed systems.

A broad and diverse group of individuals, organizations, and institutions are needed to advance the actions identified in this Shared Action Framework and strengthen and protect agricultural biodiversity.



A SHARED NARRATIVE FOR RESILIENT SEED SYSTEMS

Seeds are the foundation of our food system. Resilient seed systems are central to sustainable food systems that are renewable, resilient, equitable, diverse, healthy, and interconnected. The value of resilient seed systems goes far beyond any economic measure. Resilient seed systems are connected to diverse cultural and culinary traditions, health and well-being, food sovereignty, quality nutrition, agroecological landscapes, and sustainable local economies.

As accelerating climate change and biodiversity loss threaten life on this planet, we find ourselves at an urgent crossroads. We need a transformation — from industrial food systems (defined by chemical-intensive agriculture, concentrated livestock agriculture, ultra-processed foods, and deregulated global supply chains) to sustainable and diverse food systems. We must support food and agriculture systems that promote health and well-being, are economically viable, are providing a broad range of ecosystem services, and are culturally appropriate. Our economic, social, and political systems need to change.

Cultural diversity and the role of farmers as stewards of natural resources will be encouraged and respected. Fair food economies will be good for people and the planet, leading to the halt of climate change. In 30 years, agroecology will be the model for food systems, while industrial agriculture will be remembered only in history books and museums.

DANIEL MOSS
The Agroecology Fund

A diverse group of players is needed to accelerate this transformation, including farmer associations, Indigenous Peoples groups, civil society organizations, research institutions, government, policy makers, the private sector, and donors. It is essential to increase dialogue, collaboration, and trust among these actors. Imbalances of power among different actors need to be addressed to ensure successful alliances that carry forward a common vision for resilient seed systems.

Resilient seed systems are rooted in the science, practice, and movements of agroecology. Agroecology addresses the economic, political, and social elements of transforming the industrial food system. It is not another “tool in the kit” but a direct response and counterpoint to the industrial food system. Farmers are central to this agroecological vision. They cultivate the knowledge and innovation required to steward ecological and cultural diversity and provide nutritious diets.

Inherent to resilient seed systems is the ongoing, historic, and dynamic process of domestic crop cultivation and innovation in response to changing ecological, social, and economic conditions. This immense service is only possible because of the rich systems of knowledge, culture, and ecology stewardship held by Indigenous Peoples and smallholder farming communities who have managed, protected, and defended seed diversity across this planet. Their evolutionary services provide humanity with a wealth of seed diversity adapted to local contexts and spread across diverse global ecosystems, increasing resiliency to shocks and changes such as climate disruption. Farmer-managed and community-based seed systems need to be valued for their important contributions to agricultural biodiversity, food security, and nutrition.

A transformation toward diverse food systems and resilient seed systems requires recognition of different scientific practices and diverse sources of evidence, including new ways of collecting, analyzing, and sharing evidence, as well as knowledge exchange based on transdisciplinary, cross-scalar, and participatory approaches. These approaches need to draw from Western science and Indigenous, traditional, and experiential knowledge systems in order to foster the co-creation of evidence, generate new qualitative and quantitative insights and information, and support the development of enabling policies. The results of this science and knowledge exchange need to be shared — not just in peer-reviewed articles but between different food system actors and through stories, videos, art, seeds, and popular media.

A transformation toward resilient seed systems requires a paradigm shift that moves beyond binary thinking and narrow ideas of informal/formal seed systems. Dominant narratives need to be scrutinized and disrupted, and we need to be open to multiple visions and ways of understanding seed systems. This paradigm shift requires us to recognize the inescapable connectivity of humans to each other and to ecological and spiritual spheres.

She took the large jar of seeds down from the shelf. The writing on the label stood out: Cow pea — Kwaedza variety, harvested 17th April 2018. She opened the lid with care, nursing this baby in the crook of her left arm. With her other hand she took a fistful of seed out and gave it to Amai Tendai. “That is the best cowpea seed I have. No disease has attacked it for years and, because I look after my soil, no aphids either.” Amai Tendai replied: “I don’t know what we would do without your knowledge, skill, and diligence, Gogo Maria. Thank goodness you are passing these all on to the daughters in your family.”

JOHN WILSON

Tudor Trust



RESILIENT SEED SYSTEMS ARE CONNECTED TO GLOBAL PRIORITIES

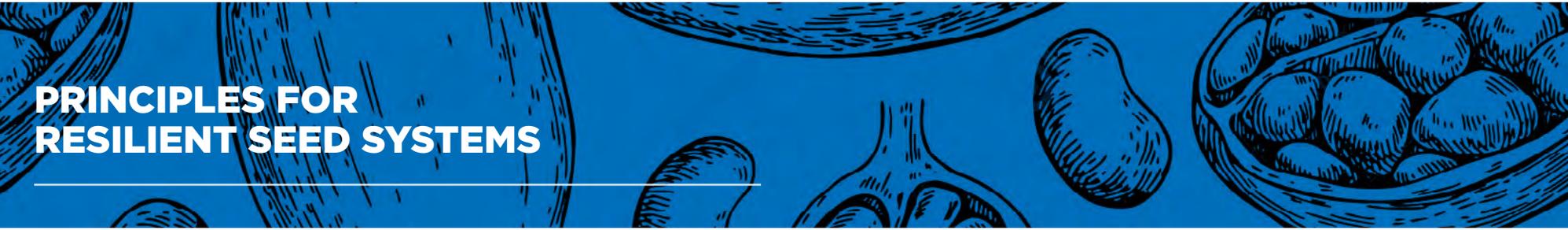
Seed systems are connected to many critical global issues and priorities. These connections are often undervalued or invisible and must be amplified to strengthen seed systems and realize their potential to contribute to our broad global sustainability goals. Seed systems are directly connected to the Sustainable Development Goals, the Convention on Biological Diversity, the Paris Climate Agreement, and the New Urban Agenda.

Resilient seed systems are central to agroecological farming systems, biodiversity, the provision of ecosystem services, and climate adaptation, mitigation, and resilience. Agricultural biodiversity in food systems is strongly linked to poverty alleviation, livelihood resilience, reduced inequality, and economic opportunity. Resilient seed systems are deeply connected to work on food security and nutrition, sustainable and diverse diets, and health and well-being. Resilient seed systems are also linked to food sovereignty and territorial development, as well as farmers' and Indigenous Peoples' rights.

We must recognize the remarkable intelligence and power of the seed — it perpetuates the species, preserves its diversity, ensures its resilience in the face of adversity. This is the basis of biological diversity — biological resilience is in the diversity of the genes — and this is particularly true of the West and Central Africa region where climate-induced variability and uncertainty must be met with a diverse basket of gene-based solutions harnessed through efficient breeding approaches.

ABDOU TENKOUANO

The West and Central Africa Council for Agricultural Research and Development



PRINCIPLES FOR RESILIENT SEED SYSTEMS

The following principles were proposed by participants of a strategic convening on resilient seed systems in 2018 in Oaxaca, Mexico. They are adapted from the Global Alliance principles for sustainable food systems.

DIVERSE

Resilient seed systems are rooted in communities that have diverse systems of knowledge, cultures, ecologies, economies, and societies. These communities use agroecological approaches to steward, manage, protect, and defend seed diversity.

COMPLEX AND DYNAMIC

Resilient seed systems prioritize the exchange of diversity within and between agroecological systems because it improves the capacity for humans and natural systems to adapt or transform when faced with shocks and stresses such as hurricanes, droughts, pest outbreaks, market volatility, and political unrest.

EQUITABLE AND RIGHTS-BASED

Resilient seed systems address issues of power and equity, and require advocating for economic and social rights, the right to nutritious, culturally appropriate food of sufficient quality and quantity, and environmental justice. The knowledge and practices of smallholder farmers, especially women and Indigenous Peoples, play an essential role in the dynamic management of agricultural biodiversity. Indigenous Peoples and smallholder farmers must be actively involved in decision-making.

RENEWABLE

Resilient seed systems have the capacity to renew, replicate, multiply, and evolve to ensure a healthy planet today and for future generations, which is particularly important as we face the challenges of a changing climate.

HEALTHY

Resilient seed systems provide cultural and biological diversity — the basis for improved dietary diversity and nutrition that is culturally appropriate and can advance the health and well-being of people, animals, the environment, and the societies that depend on all three.

INTERDEPENDENT

Resilient seeds systems depend on networks, linkages, and interdependence within communities, territories, institutions, and others. These networks offer a space to collectively construct resilient and sustainable food systems through knowledge and seed exchange, and movement building where the common good is prioritized.

INTERGENERATIONAL

Resilient seed systems depend on a flow of cultural and ecological knowledge between generations, within households, and across communities. Intergenerational exchange and youth participation are central to resilient seed systems. The role of elders and youth in seed systems should be encouraged and celebrated.



PRIORITY ISSUES AND THEMES

In consultation with agricultural biodiversity and seed experts, nine broad themes were identified for further exploration and to guide the development of a Shared Action Framework:

1. Seeds and agroecological food systems
2. Climate change and agroecology/agricultural biodiversity
3. Seed legislation and policy
4. Farmers' rights
5. Networks and linkages
6. Innovation and knowledge exchange
7. Intellectual property rights, open-source seeds systems, and other approaches
8. Landscape and evolutionary approaches
9. Science and research for resilient seed systems

There are millions of ways that small-scale farmers approach seed saving and exchanges, research through observation and experimentation, and planting seeds in living soils. Common among all of them is a sense of the sacred, of the reciprocal relationship with other living beings, and the expression of gratitude for what is given and shared. Seeds are at the root of a sense of rootedness and being in one's place. We, who live outside of those relationships, need to find our way back if we want to be resilient.

TOM SARGENT

New Field Foundation's Seeds Soil & Culture Initiative

CALL TO ACTION

The following categories and actions were identified and distilled from a robust discussion of themes, issues, barriers, challenges, and opportunities related to resilient seed systems. **To strengthen and protect agricultural biodiversity and promote resilient seed systems, a broad and diverse group of individuals, organizations, and institutions are needed to advance the actions identified.**

POLICY AND ADVOCACY



RESEARCH AND EDUCATION



PLATFORMS AND ALLIANCES



COMMUNICATIONS



FINANCING



RESILIENT SEED SYSTEMS SHARED ACTION FRAMEWORK

	POLICY AND ADVOCACY	RESEARCH AND EDUCATION	PLATFORMS AND ALLIANCES	COMMUNICATIONS	FINANCING
GLOBAL	<p>Support a transition to agroecology</p> <p>Develop enabling policies and programs</p> <p>Promote a rights-based approach</p> <p>Engage and convene key actors</p>	<p>Support participatory and transdisciplinary farmer-to-farmer research, training, and education</p> <p>Build the evidence base</p> <p>Support participatory plant breeding and community-based agricultural biodiversity management</p> <p>Support research that leads to enabling policies</p>	<p>Strengthen and build capacity of platforms and alliances</p> <p>Support policy processes and engage in policy and program development</p> <p>Facilitate access to information, exchanges, and broad participation</p>	<p>Share stories, communicate, and convene to build and amplify the evidence</p> <p>Train and build capacity for communications</p> <p>Explore and promote other ways of knowing and understanding</p>	<p>Identify and support the development of new financial models</p> <p>Mobilize existing funding to invest in and support activities</p> <p>Identify impact investment opportunities</p>
REGIONAL/NATIONAL	<p>Support a transition to agroecology</p> <p>Develop enabling policies and programs</p> <p>Promote a rights-based approach</p> <p>Engage and convene key actors</p>	<p>Support participatory and transdisciplinary farmer-to-farmer research, training, and education</p> <p>Support participatory plant breeding and community-based agricultural biodiversity management</p> <p>Support research that leads to enabling policies</p>	<p>Strengthen and build capacity of platforms and alliances</p> <p>Support policy processes and engage in policy and program development</p> <p>Facilitate access to information, exchanges, and broad participation</p>	<p>Share stories, communicate, and convene to build and amplify the evidence</p>	<p>Identify and support the development of new financial models</p>
LOCAL/COMMUNITY	<p>Support a transition to agroecology</p> <p>Develop enabling policies and programs</p> <p>Engage and convene key actors</p>	<p>Support participatory and transdisciplinary farmer-to-farmer research, training, and education</p> <p>Build the evidence base</p> <p>Support participatory plant breeding and community-based agricultural biodiversity management</p>	<p>Strengthen and build capacity of platforms and alliances</p> <p>Support policy processes and engage in policy and program development</p> <p>Facilitate access to information, exchanges, and broad participation</p>	<p>Share stories, communicate, and convene to build and amplify the evidence</p> <p>Train and build capacity for communications</p>	<p>Identify and support the development of new financial models</p> <p>Mobilize existing funding to invest in and support activities</p> <p>Identify impact investment opportunities</p>

As you review these shared actions, you may identify specific actions to take in relation to your own work. This [worksheet](#) has been created to help you brainstorm strategies and next steps.

GLOBAL

SUPPORT A TRANSITION TO AGROECOLOGY

- Advocate for a transition to agroecology.
- Track and support the FAO policies and programs related to agricultural biodiversity and agroecology, including the Scaling Up Agroecology Initiative, the Commission on Genetic Resources for Food and Agriculture, and the International Treaty on Plant Genetic Resources for Food and Agriculture.
- Reform FAO Regional Conferences to include seed dialogues and introduce seed and agroecology issues into the agendas of the Governing Body of the ITPGRFA at ministerial-level regional conferences.

DEVELOP ENABLING POLICIES AND PROGRAMS

- Create a treaty to address corporate concentration.
- Address oligopolies and concentration of power in the seed system.
- Make the case to governments that because of climate change, IPR laws need to be suspended.
- Develop principles for policy, legislation, and regulation that support resilient seed systems.
- Develop templates for regional, national, and local seed policies.
- Support farmers to participate in the policy process.
- Redesign seed policies to exclude plants and parts thereof from patenting, enhance collective rights, and support open-source commons.
- Advocate for the full use of flexibility in the WTO TRIPS agreement concerning the protection of plant varieties.
- Advocate for the elimination of plant breeders' rights in UPOV91.

- Create a protocol for accessing registered varieties.
- Support advocacy on the impact of seed laws that undermine local seed saving, or on trade, land, and investment policies that are eroding community control of the commons, natural resources, ecosystems, and biodiversity that are crucial to the long-term survival of family farming systems.
- Monitor intellectual property laws and the limits these impose — whether intentional or not — on farmers' abilities to freely produce and exchange seed.
- Create a patent and a certificate that is recognized by the ministries, agencies, and the scientific community for the local varieties, hybrids, and graftings cultivated by local farmers.
- Formal seed systems, using improved varieties and hybrids, and increased use of agronomic inputs can't be considered in opposition to informal seed systems or conserving agrobiodiversity.
- Explore the opportunity for a version of the Civil Society Mechanism for the Seed Treaty.
- Mobilize international supports and local actions against the policies that restrict farmers' seed systems.

PROMOTE A RIGHTS-BASED APPROACH

- Promote a rights-based approach that recognizes local control, equity, and social justice by implementing the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas, the United Nations Declaration on the Rights of Indigenous Peoples, and Convention on the Elimination of all Forms of Discrimination Against Women.
- Strengthen farmers' rights within local and international policy environments.

ENGAGE AND CONVENE KEY ACTORS

- Host convenings to discuss controversial policies and technologies (e.g., gene sequencing/gene drives).
- Ensure resources to raise local farmers' voices to the global level, as well as bring global discussions back to local farmers.
- Support agricultural and climate negotiators at global and regional levels to promote resilient seed systems.
- Create space for the participation of farmer organizations and social movements at policy fora at various levels and strengthen and support them on policy matters that are central to their seed, food, and livelihood systems (i.e., CBD, CGRFA, ITPGRFA, and FAO Committee on Food Security [CFS], International Union for the Protection of New Varieties of Plants [UPOV], and the UN Framework Convention on Climate Change [UNFCCC]).
- Support efforts to raise awareness of policy and decision makers about the key roles of agricultural diversity, in-situ and on-farm conservation, and community-based diversity management.

REGIONAL/NATIONAL

SUPPORT A TRANSITION TO AGROECOLOGY

- Support research and programs that facilitate the transition to agroecology.
- Dismantle agrochemical dealers and replace with agroecology advisors.

DEVELOP ENABLING POLICIES AND PROGRAMS

- Develop policies that support public education, training, and extension in agroecology and agricultural biodiversity.
- Develop policies and programs to support biodiversity management, including training, community seed banks, farmers' rights, and participatory plant breeding.
- Develop seed policies that promote resilient farmer seed systems and food/seed sovereignty.

PROMOTE A RIGHTS-BASED APPROACH

- Incorporate the rights of territories and Indigenous Peoples into seed and food systems.
- Report on the status of farmers' rights and farmers' rights to maintain and sell their own seed varieties.

ENGAGE AND CONVENE KEY ACTORS

- Engage farmers, youth, and consumers in the development of integrated food systems policies.

A seed system can be said Resilient Seed System when it is able to maintain the customary practices of seed saving, exchange, and selling by farmers, and facilitate the easy access to diverse seeds/ varieties of newly developed resilient varieties that can enhance social and economic resilience of the farming communities. A combination of formal and informal sector is essential for any seed system to be resilient. Other important aspect of resilient seed system are: strong social seed network involving formal and informal sector players for flow of information about seed; linkage of in-situ and ex-situ seed conservation for easy access to plant genetic materials; community-based actions (like community seed bank) to facilitate the seed exchange and access; participatory seed selection/variety development process according to the adaptation needs of farmers; protection of the rights of farmers as well as breeders on seed.

BIKASH PAUDEL

Local Initiatives for Biodiversity,
Research and Development (LI-BIRD)

LOCAL/COMMUNITY

SUPPORT A TRANSITION TO AGROECOLOGY

- Develop policies and programs that recognize the importance of markets for making rural-urban linkages and connecting people in public spaces.
- Support smallholder farmers to have greater connectivity to the markets — both to access new technology, credit, and insurance and to market excess production.

DEVELOP ENABLING POLICIES AND PROGRAMS

- Develop and adopt a special program for the formation and development of agro-biodiversity conservation and seed production at the community level involving specialists, experienced farmers, and scientists-agrarians.

ENGAGE AND CONVENE KEY ACTORS

- Support opportunities to build urban-rural linkages and develop policies that strengthen these linkages.
- Ensure local governments understand the role of agricultural biodiversity in their regions and territories.
- Establish mechanisms through which farmers are able to engage in and negotiate seed and agricultural/food policy.
- Identify policy spaces and priorities, working with farmers, their associations, and other CSOs at local, national, and regional levels in order to secure official support for farmer seed systems in laws, policies, programs, budgets, and projects.



GLOBAL

SUPPORT PARTICIPATORY AND TRANSDISCIPLINARY FARMER-TO-FARMER RESEARCH, TRAINING, AND EDUCATION

- Educate people about the connection between health, nutrition, and agroecology.
- Promote education and training on participatory approaches and transdisciplinary research methods that strengthen seed systems.
- Support the evaluation by farmers of agriculture-related UN agencies and CGIAR centres.
- Support co-creation through participatory approaches that bridge multiple knowledge systems.
- Create postgraduate multidisciplinary training in resilient seed systems and plant breeding, including farmer field schools and junior-/senior-level courses.
- Research the social and institutional components of resilient seeds systems.
- Build capacity of national researchers and extension agents as well as farmers and community-based organizations in a broad range of domains.
- Research the impacts of urbanization on lifestyles, livelihoods, and the role of seed in society at different scales.

BUILD THE EVIDENCE BASE

- Create an evidence base for agroecology and resilient seed systems.
- Document successful stories where agroecology is mitigating and reversing climate change.
- Research the nutritional benefits of diversified food production, diversified diets, and the enhanced nutritional value of farmers' varieties and wild and semi-cultivated foods.

SUPPORT PARTICIPATORY PLANT BREEDING AND COMMUNITY-BASED AGRICULTURAL BIODIVERSITY MANAGEMENT

- Transform plant breeding to balance commercial and public breeding, promote participatory plant breeding, and support farmer breeders.
- Support participatory plant-breeding models.
- Review existing PGS and other related systems.
- Research the characteristics of seeds and make this available to farmers.
- Support innovation and research on germplasm rights and inclusive markets that promote diversity.
- Analyze traditional varieties and commercial seeds and the funding flows available to these systems.
- Create a supportive framework for community-based diversity management initiatives.
- Plant breeders should develop a basket of varietal options from which farmers can choose those varieties specifically adapted to different contexts, and functions, changing a few “best-bet” varieties to “best-fit” varieties.
- Research novel ways to make markets work for the custodians of agricultural biodiversity.
- Research and develop seed network-building methodologies and strategies.
- Research the functional contribution of seed diversity to agro-ecosystems properties, including provision of regulating, supporting, and provisioning ecosystem services.
- Research low-cost seed conservation technologies.

RESEARCH AND EDUCATION

- Evaluate if current national and international gene banks are accessible to farmers by taking a formal survey of major gene banks to ascertain who is accessing gene banks and for what purposes.
- Research current and historic levels of funding for in-situ seed storage. This data should be contrasted with the available information on ex-situ storage funding.
- Create a database for farmers on gene bank accessions, pests, diseases, and climate conditions, and include mapping.

SUPPORT RESEARCH THAT LEADS TO ENABLING POLICIES

- Develop templates for regional, national, and local seed policies that protect farmers' rights.
- Support research on effective policy and legal mechanisms and incentives to support farmers and their organizations to make the best use of agricultural biodiversity and to have their voices and choices recognized and taken into consideration.

REGIONAL/NATIONAL

SUPPORT PARTICIPATORY AND TRANSDISCIPLINARY FARMER-TO-FARMER RESEARCH, TRAINING, AND EDUCATION

- Develop resilient seed system curriculums for different levels of education.
- Create a required course teaching the preservation of local seeds in agricultural universities.

SUPPORT PARTICIPATORY PLANT BREEDING AND COMMUNITY-BASED AGRICULTURAL BIODIVERSITY MANAGEMENT

- Research and review seed certification systems, including participatory guarantee systems.
- Assess seed quality.
- Assess the research capacity of NGOs.
- Research and strengthen diverse agricultural practices and local markets.
- Identify areas of high productivity using tools like the Yield Gap Atlas and apply the best available technology to farming, saving millions of hectares from cultivation.

SUPPORT RESEARCH THAT LEADS TO ENABLING POLICIES

- Research and review national seed legislation and policy.



LOCAL/COMMUNITY

SUPPORT PARTICIPATORY AND TRANSDISCIPLINARY FARMER-TO-FARMER RESEARCH, TRAINING, AND EDUCATION

- Develop and deploy short courses and farmer field schools focused on resilient seed systems.
- Place farmers at the centre of training instead of technology and management.
- Support horizontal exchange of information and knowledge within and between communities, as well as across ecological systems.
- Take territorial, landscape, and evolutionary approaches and work within the ecological context.
- Develop mentorship programs for a new generation of farmers and seed savers.
- Support intergenerational knowledge exchange.
- Encourage people to plant gardens.
- Organize scientists and seed-growing farmer meetings, field days, field schools, trainings, round tables, publication of recommendations, brochures, manuals, etc.
- Provide technical support to link farmers with public-sector R&D systems.
- Agronomists, ethnobotanists, and dedicated Indigenous researchers working in Indigenous communities must promote traditional Indigenous seeds in the face of deeply ingrained prejudices in favour of European food.

BUILD THE EVIDENCE BASE

- Support baseline assessments of diversity.

SUPPORT PARTICIPATORY PLANT BREEDING AND COMMUNITY-BASED AGRICULTURAL BIODIVERSITY MANAGEMENT

- Support research on collective, participatory certification.
- Document farmers' varieties for collective ownership.
- Research and support open-source seed systems.
- Extend the role of gene banks to connect to agroecological farming systems.
- Create seed banks in local schools.
- Support community-based and farmer-driven seed systems, including in-situ/on-farm seed conservation and use, seed banking, and participatory applied research (PVS and PPB) aimed at the development of a broad and diverse base of adapted plant genetic resources.
- Strengthen cultural practices and traditional knowledge that supports the use of diversity in production.
- Support adding value at the local level through processing and marketing local varieties in local/regional markets via markets, seed and food fairs, urban-rural linkages, etc.
- Research farmer seed strategies and storage by community, climate, and crops, situated within the frame of climate change resiliency.

PLATFORMS AND ALLIANCES

◀ FRAMEWORK

GLOBAL

STRENGTHEN AND BUILD CAPACITY OF PLATFORMS AND ALLIANCES

- Establish an Office for Farmer Seed Exchanges within the FAO Secretariat in Rome.
- Create a platform that engages people from different territories and cultures to exchange and facilitate connections, seek solutions, and link resilient seed systems to other issues including farmers' rights, climate, agroecology, biodiversity, and food security/sovereignty.
- Map existing platforms at local, regional, and global levels to understand their objectives and strengthen connections between existing initiatives and networks.
- Strengthen alliances, collective action, and networks for farmer-managed seed systems and farmer-led decision-making.
- Provide technical and monetary support for advocacy, communications, storytelling, and convenings.
- Establish national networks of local seed-saving organizations — autonomous peasant networks led by people whose livelihoods depend on the continued use of peasant seeds.
- Create and strengthen existing national/regional networks of the management of biodiversity for food and agriculture, farmers' seed producer networks, community seed banks, fruit grower networks, vegetable seed savers, farmer bakers, and rural women processors.

SUPPORT POLICY PROCESSES AND ENGAGE IN POLICY AND PROGRAM DEVELOPMENT

- Develop concrete policy proposals to strengthen seed systems and make them available to NGOs, farmers, and policy makers.
- Support multi-actor initiatives and platforms to scale up community seed banks, participatory plant breeding, participatory varietal selection, and evolutionary plant breeding.

- Make the FAO and other UN agencies accountable to strengthen and protect seed systems.
- Take legal action to fight the impacts of industrial agriculture and climate change.

There are elements of diversity, local control, experimentation, farmer participation, scientist participation, exchange, commerce, information exchange, and availability. The key characteristics of fruits would be optimized in collaboration with local populations. Support would exist for farmers to maintain diverse wild cultivars and local varieties much like the CIGAR system but be living botanical gardens in collaboration with local farmers and resourced in strong ways. Farmers would know their rights, and states would support them with both information and ideas. Universities and research institutes would create agendas for study based on farmer and consumer demand for healthful foods. Companies would enable farmers to reach markets and develop products that benefit all. There is more on the second part about how cities and states promote and support the purchase of fresh local foods for access to consumers and institutions like schools, hospitals, prisons, and workplaces.

JENNIFER ASTONE

Swift Foundation

PLATFORMS AND ALLIANCES

FACILITATE ACCESS TO INFORMATION, EXCHANGES, AND BROAD PARTICIPATION

- Facilitate access to information on practices that are working, tools, knowledge, and seed exchange and movement building to influence policies and frameworks.
- Support and facilitate farmer-to-farmer exchanges nationally and internationally.
- Support rural women's participation in seed dialogues as they are central to seed diversity.
- Focus on horizontal exchange of information and knowledge within and between communities in order to exchange seeds across different ecological systems.
- Support, facilitate, and participate in multi-actor dialogues to democratize innovation and enable different perspectives to inform resilient seed systems.
- Promote discussions about global farmers' seed rights and protect farmers' rights through collective action, self-organization, and participatory governance.
- Support agricultural and climate negotiators at regional and global levels to strengthen seed systems.
- Ensure platforms include and engage youth and build rural-urban linkages.
- Enhance collaboration and effectiveness among seed/agroecology networks operating regionally and globally.
- Strengthen knowledge exchange and networking at community, regional, national, and international levels, both farmer-to-farmer and among organizations and institutions via networking and relationship-building to develop a common understanding.

REGIONAL/NATIONAL

STRENGTHEN AND BUILD CAPACITY OF PLATFORMS AND ALLIANCES

- Support the launch, spread, networking, or deepening of local/regional initiatives and the piloting of new innovations.
- Support and link local peasant organizations implementing work on agroecology and dynamic management of biodiversity for food and agriculture at the field/landscape level.

SUPPORT POLICY PROCESSES AND ENGAGE IN POLICY AND PROGRAM DEVELOPMENT

- Scale up local seed fairs to the national level.
- Promote farmer-managed seed systems.
- Support farmers to engage in the development of policies, laws, and regulations.

FACILITATE ACCESS TO INFORMATION, EXCHANGES, AND BROAD PARTICIPATION

- Organize a celebration on each continent per year that facilitates seed exchange, policy discussions, etc.
- Forge links between local, national, and regional farmer organizations.

PLATFORMS AND ALLIANCES

◀ FRAMEWORK

LOCAL/COMMUNITY

STRENGTHEN AND BUILD CAPACITY OF PLATFORMS AND ALLIANCES

- Build capacity in farmer organizations through financing and support, according to local culture and respecting different modes of organization.
- Create networks of local farmers engaged in the production of seeds, such as seed keepers' networks, associations, cooperatives, women's groups, and men's groups in villages and at regional and district levels.
- Support and link local peasant organizations implementing work on agroecology and dynamic management of biodiversity for food and agriculture at the field/landscape level.

SUPPORT POLICY PROCESSES AND ENGAGE IN POLICY AND PROGRAM DEVELOPMENT

- Develop place-specific action plans to strengthen seed systems. These will be different in communities that have retained their genetic resources versus those that have lost them.
- Use seed/input shops in target villages, seed fairs, and mobile seed shops to contribute to enhancing access of farmers to seeds and information on various cultivars, even in remote villages.

FACILITATE ACCESS TO INFORMATION, EXCHANGES, AND BROAD PARTICIPATION

- Build awareness among stakeholders, address power relations between them, and move to an actor-oriented approach to strengthen resilient seed systems.
- Identify appropriate seed-growing farmers involved with local seed preparation so that they can teach that information to other farmers in their community.

Farmer-managed seed systems present an existing, viable, and coherent alternative to the corporate-industrial capture of African seed systems. Farmer seed systems are, by definition, diverse and context specific. What is required is a deepened and shared understanding of this alternative in its diverse contexts, considering, among other things, the revival and use of Indigenous/farmer varieties; the use of public-sector germplasm and farmer varieties for seed enhancement/improvement; participatory methodologies including plant breeding and quality controls; in-situ selection, enhancement, and production of seed by farmers; appropriate local storage technologies including seed banks with diverse and locally appropriate seed; local exchange/markets for seed produced by farmers; farmer-to-farmer learning and sharing; and extension methodologies and links to formal sector research and development.

MARIAM MAYET

African Centre for Biodiversity



GLOBAL

SHARE STORIES, COMMUNICATE, AND CONVENE TO BUILD AND AMPLIFY THE EVIDENCE

- Create a website or populate an existing website to share stories, evidence, training materials, and other resources related to resilient seed systems, agroecology, and climate change.
- Start a YouTube channel to archive positive stories.
- Develop, facilitate, and promote popular media campaigns to raise awareness about resilient seed systems including photo exhibits, radio programs, podcasts, and videos.
- At different levels, tell the story of why agrobiodiversity is critical using both popular social media channels as well as academic channels.
- Amplify the importance of resilient seed systems in relation to the broader sustainability, agroecology, biodiversity, and climate agendas.
- Amplify promising policies and practices that enhance seed systems.
- Compile different kinds of evidence about the importance of seed systems and share widely.
- Communicate the value of farmers' knowledge, landraces, seeds, and uses of food.
- Support a shift in approach from in situ/ex situ to trans situ.
- Use true cost accounting to tell the story about the value of resilient seed systems.
- Identify communities that are adapting to climate change and building resilient seed systems and tell their stories.
- Develop education campaigns on resilient seed systems and farmers' rights.

TRAIN AND BUILD CAPACITY FOR COMMUNICATIONS

- Train farmers, researchers, and other stakeholders to effectively communicate key messages about resilient seed systems.
- Equip people to go to meetings and show the link between climate and biodiversity.

EXPLORE AND PROMOTE OTHER WAYS OF KNOWING AND UNDERSTANDING

- Explore and include other ways of knowing, other knowledge systems and world views, and use storytelling and art to share the importance of resilient seed systems.
- Communicate the importance of the spiritual element of seeds and our relationship with seeds, the value of learning from diverse cosmologies, and looking beyond dichotomies.
- Emphasize the value of human-nature relationships.
- Share messages that value landscapes as integrative, spatial, and temporal units.



I think of resilience as the capacity of the seed system to absorb stresses and shocks; maintain function in the face of stresses and variability related to environmental change; and evolve into a system capable of withstanding a wide range of future conditions. This should be regarded as a social-ecological perspective. A very simple test would use the old view of a functional seed system as one that ensures that farmers have the right seed in the right condition at the right time. To this, for resilience, we should add the importance of ensuring that farmers have access to diversity — as crops and varieties and as diversity within varieties. This diversity at a system level should be capable of ensuring complementarity, a portfolio of choice, future options, and adaptability, thus creating necessary (but not sufficient) conditions for resilience. Thus there is a need for access to diversity at all levels and the necessary range of materials have to be available. Evidence suggest that local institutions play a key part in strengthening resilience.

TOBY HODGKIN

Platform for Agrobiodiversity Research

REGIONAL/NATIONAL

SHARE STORIES, COMMUNICATE, AND CONVENE TO BUILD AND AMPLIFY THE EVIDENCE

- Organize and communicate about the importance of biocultural territories as an organizing principle.

LOCAL/COMMUNITY

SHARE STORIES, COMMUNICATE, AND CONVENE TO BUILD AND AMPLIFY THE EVIDENCE

- Engage people broadly on the importance of resilient seed systems using social media and other channels.

TRAIN AND BUILD CAPACITY FOR COMMUNICATIONS

- Ensure resources exist to raise local farmers' voices to the global level, as well as bring global discussion back to local farmers.
- Support intergenerational connections and conversations.

GLOBAL

IDENTIFY AND SUPPORT THE DEVELOPMENT OF NEW FINANCIAL MODELS

- Identify financial mechanisms to support agroecology and resilient seed systems.
- Create alternative financial mechanisms to support agroecological initiatives.

MOBILIZE EXISTING FUNDING TO INVEST IN AND SUPPORT ACTIVITIES

- Mobilize climate financing to support agroecology and resilient seed systems.
- Fund agroecology research and lobby for public money to support scientists and communities to work on seeds.

IDENTIFY IMPACT INVESTMENT OPPORTUNITIES

- Support the needs of farmers, communities, Campesinos, Indigenous Peoples, and women.
- Invest in participatory plant breeding and farmer-managed seed systems and the implementation of participatory seed certification guaranteed systems.

REGIONAL/NATIONAL

IDENTIFY AND SUPPORT THE DEVELOPMENT OF NEW FINANCIAL MODELS

- Create national seed funds.

LOCAL/COMMUNITY

IDENTIFY AND SUPPORT THE DEVELOPMENT OF NEW FINANCIAL MODELS

- Support voluntary collective funding.

MOBILIZE EXISTING FUNDING TO INVEST IN AND SUPPORT ACTIVITIES

- Promote regenerative economics as well as social and solidarity economics.
- Invest in the administrative strength of farmer organizations to build capacity.

IDENTIFY IMPACT INVESTMENT OPPORTUNITIES

- Invest in value chains with consumer support.
- Seek out impact investments for regional seed enterprises.



TAKE ACTION!

The Shared Action Framework is a living, dynamic document that provides a strategic guide for diverse stakeholders interested in fostering a holistic, collaborative approach to enhancing the resilience of our seed systems. The implementation of the Shared Action Framework is a collaborative process with distributed ownership and identifies some of the many actions that diverse groups of individuals, organizations, and institutions can take to advance resilient seed systems.

A committee has been formed to support and encourage the implementation of this Shared Action Framework. We invite you to contribute to this important effort to maintain and enhance agricultural biodiversity globally.

For more information, contact info@futureoffood.org.

RAINDRUM

BY NIYI OSUNDARE, NIGERIAN POET

The roofs sizzle at the waking touch
talkative like kettledrums
tightened by the iron fingers of drought

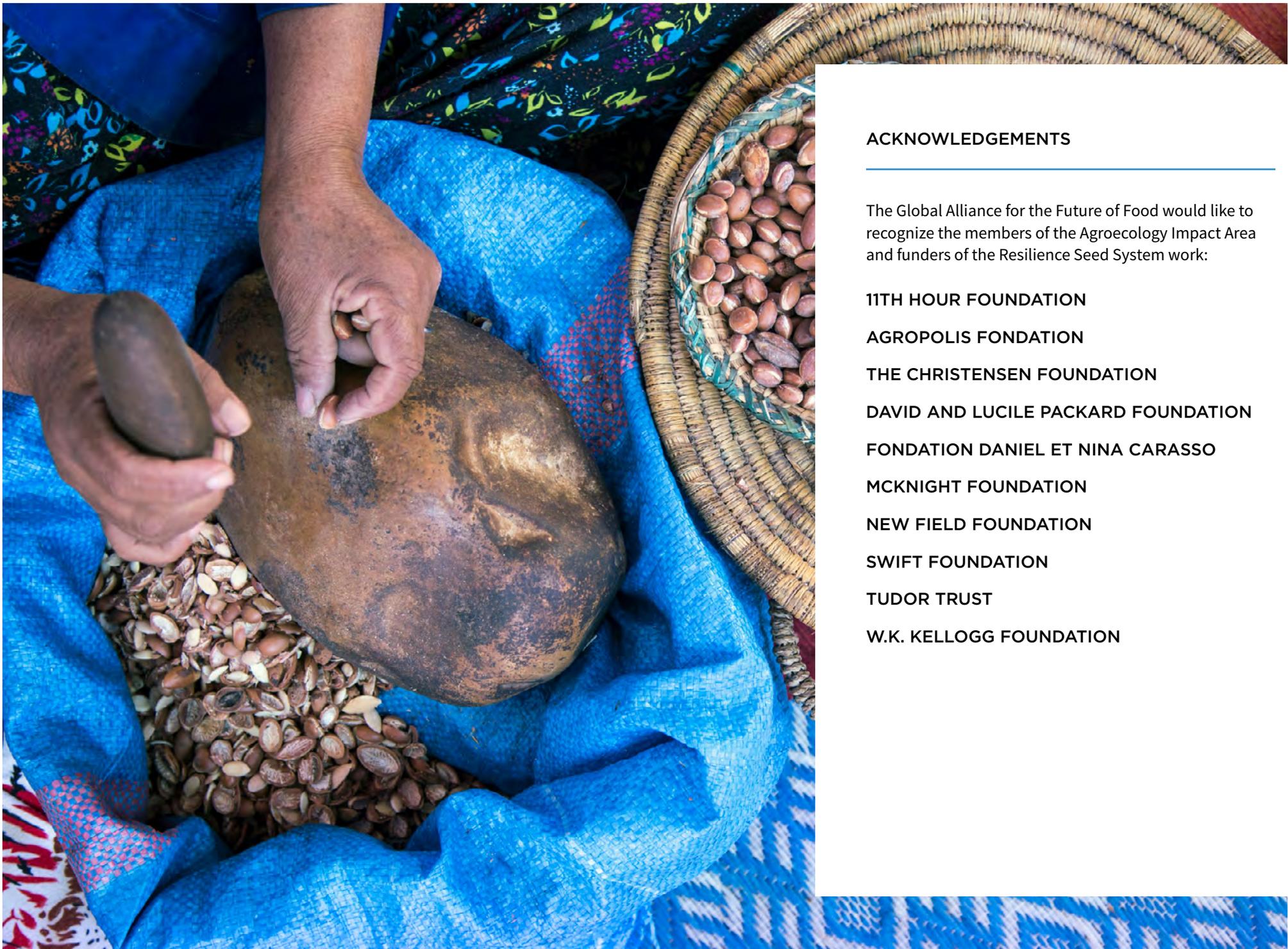
Streets break into liquid dance
gathering legs in the orchestra of the road
Streets break into liquid dance
gliding eloquently down the apron of the sky

A stray drop saunters down the thatch
of my remembrance
waking memories long dormant
under the dry leaves of time

of caked riverbeds
and browned pastures
of baking noons
and grilling nights
of earless cornfields
and tired tubers

Then
Lightning strikes its match of rain
Barefoot, we tread the throbbing earth
Renewed





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NEW FIELD FOUNDATION

SWIFT FOUNDATION

TUDOR TRUST

W.K. KELLOGG FOUNDATION

**WORKING TOGETHER TO REALIZE THE
FUTURE OF FOOD WE WANT AND NEED**

Inaction is not an option. Transformational change at the scale and speed needed will require all actors to do their part, and significant resources to adequately and effectively support this critical work. For current and future generations, this is a shared responsibility upon which we, as a global community, simply must act to find new positive pathways forward, together.

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