

123 Put farmers' access to crop diversity first in seed policy and practice

The Solution: The diversity of plant genetic resources for food and agriculture is crucial for farmers' ability to adapt their food production to the effects of climate change and ensure access to safe and nutritious food. This proposal calls for a fundamental re-think of how seed system development is supported globally. Our proposal is to ensure and promote – through legislation, seed policies, and action – farmers' access to a diversity of well-adapted varieties of crops that meet agroecological and nutritional needs and preferences. Farmers' seed systems are key to providing farmers with access to both local varieties developed over millennia of farmer selection and modern varieties developed with modern plant breeding. We call for a bottom-up demand-driven approach to seed security to complement the currently dominant top-down supply-side approach, thereby supporting farmers' agency and recognising farmers' seed systems' contribution to global food security.

Source(s) of the Solution: This solution emerged from a food system forum in Norway consisting of actors from the government, NGOs, and academia. Norwegian farmers later joined the group. These actors have a history in the agrobiodiversity space – including hands-on experience with conservation and use of agrobiodiversity, research on governance and management of crop genetic resources, and active participation in international fora for governance of agrobiodiversity. This brief was authored by the Norwegian Ministry of Foreign Affairs, Norwegian Ministry of Agriculture and Food, Norad, Norwegian Farmers Union, Development Fund Norway, Caritas Norway, and staff at the research institutions Fridtjof Nansen Institute and the Norwegian University of Life Sciences.

Problem addressed within food systems: Food security starts with a seed. This is recognised in SDG2, the Zero Hunger goal, where target 2.5 is about maintaining the diversity of plants and animals used in agriculture. Yet the currently dominant approach for seed system development is unable to meet the needs of the majority of the farmers in the Global South. In most LMICs, farmers' seed systems supply the bulk of the seeds used by smallholders. This proposal addresses the problems of meeting the needs of farmers and halting the loss of agrobiodiversity by moving seed security centre stage in all seed policy and action. Seed security exists when men and women within a household have sufficient access to quantities of available, good quality seed and planting materials of preferred crop varieties at all times in both good and bad cropping seasons (FAO, 2016).

Placing farmers' access to crop diversity first in seed system policy and practice will link 'upstream' efforts to conserve agrobiodiversity with 'downstream' efforts to strengthen farmers' livelihoods and food security. Changing the rules of the game of this central part of the food sector by putting the needs of the smallholder farmer at the core will enable local breeding and development of these resources as a vital contribution to seed and food security. This approach will expand on the vast diversity of local crop varieties that are adapted and adaptable to local environmental conditions and climate change. It will also meet nutritional needs and local preferences for food and fodder.

The proposed actions will be gender-responsive, considering the differences in use, preferences, and benefits between men and women. Women and men often have access to different spaces and environments and fulfil different tasks that may give them distinctive information and practical knowledge about local agricultural biodiversity. Clarifying the differences and complementarities is essential to ensuring gender equality in community-based agrobiodiversity management and to meet the particular needs of women in this context.

How this solution will address that problem: The solution is to ensure farmers' access to a diversity of affordable quality seeds of preferred crop varieties in a systemic way, from the local, via the national, to the international level, and vice versa. This will transform the sector to truly adapt a 'demand side' focus with farmers at centre stage, scaling up and out successful models from a local to a national and international level. Actions include establishing and scaling up community seed banks, collaborative plant breeding programmes, and cooperative seed production; improving rural

livelihoods through capacity building at the community level and related micro-finance programmes; and providing assistance to countries in reviewing and adjusting their seed policies and legislation to support such a development. These actions will benefit from close collaboration between national, regional, and local authorities as well as national and international gene banks, scientists, NGOs, and farmers.

Solution's alignment to the 'game changing and systemic solution' criteria: This proposal aligns with the UNFSS definition of a game changer by being a “thorough conceptual framework that would shift operational models or underlying rules, incentives, and structures that shape food systems, acting on multiple parts of – or across – the food system, to advance global goals which can be sustained over time”. The proposal can be scaled up and benefit millions of smallholder farmers, strengthening their potential as food producers and providers of food security. The investment will be paid back in terms of increased food production, food security, and conservation of agrobiodiversity. The actionability of the proposal is guaranteed by its alignment with international agreements and the proposed actions being well-documented practices. The proposal's sustainability lies in strengthening, well beyond 2030, agrobiodiversity and the systems to manage it, and increasing farmers' possibilities to continuously adapt food production to climate change, which will reduce poverty and humanitarian needs.

Existing evidence: Research shows that farmers' seed systems provide most of the seed supply for many crops and countries and play an important role in circulating planting material among farmers globally (Coomes et al. 2015). This empirical evidence is the rationale for saying that supporting these systems must be the goal of seed policy, legislation, and action. Proofs of concepts to be used as references for a global up-scaling of approaches to support farmers' seed systems are readily available, such as the Inventory of Good Practices developed by the Expert Group on Farmers' Rights established by the International Treaty.¹ Also the external evaluation of the third project cycle of the Benefit-sharing Fund of the International Treaty on Plant Genetic Resources for Food and Agriculture documents the impact of activities such as participatory plant breeding and establishing community seed banks in strengthening farmers' seed security.

Current/likely political support: The proposal is closely linked to implementation of key provisions of the International Treaty as well as of the Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture. There are 146 Contracting Parties to the International Treaty. The proposal involves scaling up the implementation of the International Treaty to facilitate this development in collaboration with the FAO and other relevant international institutions such as the CGIAR and Global Crop Diversity Trust. The International Treaty's Benefit-sharing Fund is an efficient financial mechanism to support this development in collaboration with the Global Environmental Facility.

Contexts where this is well/not well suited: Appropriate and diverse seeds are needed wherever food is produced, in all countries in all regions. In the Global North, the approach is particularly important in support of sustainable use of seed diversity and to adopt food production to climate change, while in the Global South strengthening farmers' seed systems is fundamental to achieving food and nutrition security.

¹ [na906gen.pdf \(fao.org\)](http://na906gen.pdf(fao.org))