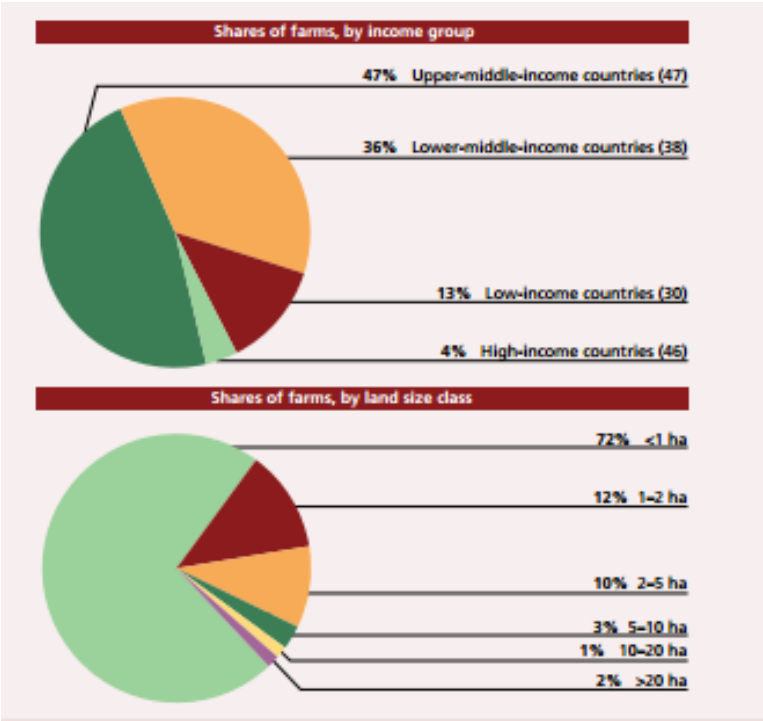
Quaker United Nations Office

Dialogue to Action Consultation: Small-scale farmers, agricultural biodiversity and the role of the public sector

Background Note on Decline of Small-Scale Farmers and Agro-Biodiversity

Who are small-scale farmers, and why should we care?

Small-scale farmers are crucial actors in attaining global food security and agro-biodiversity conservation. They are characterized by the relative size of their farms, their reliance on family labour, low use of external inputs, and the sheer diversity of farm management practices and livelihood strategies to suit their conditions. Globally, small-scale farmers **contribute between 50 and 70 percent of total food supply – more than industrialized farming**. **Over 90 percent of the world's 570 million farms are classified as "small-scale," with at least 75 percent of farms in the developing world being less than a hectare in size** (FAO, 2014). However, there exists a paradox in small-scale farming: the vast majority of small-scale farmers **live on less than $1US/day**, and many more are landless workers, together making up a large portion of the estimated **880 million people who live in poverty (Quan, 2011)**. They further experience food insecurity and have limited access to markets and services. This is, in part, due to the drive to produce non-food export commodities in order to generate revenue, which is prioritized by governments and programs that seek to "connect smallholder farmers to markets." For instance**, 90 percent of small-scale farming is in cocoa and coffee exports in Nigeria, and 60 percent of tea exports in Kenya are produced by small-scale farmers, which do not contribute to local food security (Quan, 2011)**. However, small-scale farming is a vital economic and environmental activity, especially moving into the future, as small-scale farming is **more adaptable to climate change** than industrial agriculture, given the use of diverse varieties of plants and various low-input farming methods that protect the soil and landscapes surrounding it. Small-scale farmers actively maintain, use, and develop the majority of agricultural biodiversity, providing the foundation for all future innovation in crop-breeding. In their roles as experimenters, innovators and custodians of agrobiodiversity and related management practices, small-scale farmers are integral to the pursuit of global food security, particularly in the context of climate change (Smith et al., 2015).



Threats to Small-Scale Farmer Population and Agricultural Biodiversity

While small-scale farmers are responsible for producing 50-70 percent of the food that we eat, the number of small-scale producers is declining due to declining public support for agriculture and small-scale farmers (see Background Document #2), as well as unfair market structures and environmental threats that disenfranchise them. Below, some of these threats are examined:

Economic Threats to Small-Scale Farmer Livelihoods

- Increasing trade liberalization at the WTO and through the proliferation of mega-regional trade agreements, such as the TPP, further scales back the role of the state through the prohibition of agricultural subsidies in developing country markets (despite subsidies being maintained in developed countries) and requires states to dismantle State-Owned Enterprises (SOEs) (Brennan and Kilic, 2015);
- The use, exchange and selling on local markets of farm-saved seed is a universal practice and backbone of farmer seed systems, that need to be supported in order to conserve and create crop diversity and reaching seed & food security**.** Countries participating in mega-regional free trade agreements, especially those that the United States is partner to, have been required to sign and ratify the International Union for the Protection of New Varieties of Plants (UPOV), this is also a condition to receive money through the G8 Alliance of Food Security and Nutrition. UPOV does not recognize the contribution of small-scale farmers and these seed systems and many argue it conflicts with or has the potential to conflict with their use, exchange and selling on local markets (Correa, 2015)
- The current international assistance paradigm focuses on "connecting small-holder farmers to markets," and integrating them into the international trade system. This has required farmers to specialize in the country's comparative advantage, leading to mono-cropping products for export and reducing production for domestically-oriented goods (FAO, 2015).
- Integration into the international trade system has created vulnerabilities of developing countries to external shocks, such as the role trade played in the Arab Spring Revolution in 2011, where imports were inexpensive and subsidized by the government, but in a time of crisis, exporters of wheat shut their borders, and local production was not able to compensate (Zurayk, 2011).
- There has also been a drive to harmonize African countries' seed legislation with the UPOV, in order so that they could have better access to world markets and trade agreements. This may: affect the direction of research and development to where there are markets rather than where there is greatest need; open African seed markets to major industrial seed corporations, displacing informal seed systems and diversity; potentially reduce farmer choice in inputs and their ability to save seeds. Furthermore, it may crowd small-scale farmers out of the market due to increasing costs (GIZ, 2015);
- Increasing corporate concentration in the agri-food sector, through mergers and acquisition deals such as Dow-DuPont, ChemChina and Syngenta, and Bayer and Monsanto currently under review, may reduce the availability and increase the price of inputs, driving small scale farmers out of the market (ETC Group, 2015);
- Declines in small-scale farmer livelihoods has increased rural-urban migration rates, as 54 percent of the world population now lives in urban areas, which is reducing food production and eroding food security (UNDESA, 2014);

Land and Environmental Threats:

- Large scale land acquisitions have proliferated under the assumption that large-scale investments will produce staple foods to feed 190-550 million people in developing countries, which does not take into account:
    - That food is often exported;
    - The livelihoods and biodiversity that were displaced in acquisition;
    - That government mechanisms do not always exist to regulate and manage the surge of land acquisitions since 2008 (Wise, 2014);
- In Tanzania, government programs have actually made land more available to foreign investors, leading to many acres of land being dedicated to biofuel crops, and 20,000 acre-tracts of land being acquired for unsustainable projects (Wise, 2014);
- In Mozambique, the government-supported ProSAVANA project has been considered to be the largest large-scale land acquisition in Africa, which did not engage in any consultations for free, prior and informed consent from affected individuals and saw the loss of land for many farmers (Wise, 2014/2015).
- Population growth is cited as the main driver of expansion and intensification of agricultural lands and systems, as well as overall production, due to increases in demand (Smith et al., 2015);
- Despite the narrative that increasing agricultural production will require industrialized farming systems that are input and technology-focused, it has been proven that agro-ecological farming methods can produce greater yields while demonstrating efficiency gains in water usage, carbon sequestering, and less reliance on chemical inputs – all of which will produce long term sustainability in both economic and ecological terms (Pretty et al. 2006; Cassidy et al., 2013)
- The focus of increasing production through intensifying industrial farming systems marginalizes small-scale farmers economically, contribute to climate change, and speed up the loss of agrobiodiversity;
- Worldwide biodiversity loss has reached an unprecedented rate of 0.1 percent per year, resulting in a loss of an estimated 10,000 species per year (WWF, 2016).
- The FAO estimates that 75 percent of genetic diversity in agricultural crops has been eroded over the last century (FAO, 2014);
- Pressure on limited land resources by population growth is leading to the expansion of cropland, further threatening biodiversity;
- Over recent centuries, humans have increased the rate of species extinction by as much as 1000 times the natural rate, and recent reports have predicted the loss of 2/3 of the world's biodiversity by 2020 (WWF, 2016). Humans are driving planetary biodiversity to its "tipping point," where change becomes self-perpetuating and hard to reverse (CBD, 2010).
- Only four ecosystem services examined in the Millennium Ecosystem Assessment have been enhanced (crops, livestock, aquaculture, and carbon sequestration), while 15 (including soil, cycling, pollination, and integrated pest control) have been degraded (MEA, 2005).

Smallholder farmers are clearly a vital source of sustainable food production, but are facing a number of threats to their existence and participation in agriculture. Without proper support and with a continued focus on the market-oriented production of food, environmental and economic pressures will continue to drive small-scale farmers into urban centers and threaten global food security.

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