

# The Small-Scale Farmer and Agricultural Biodiversity Dialogue to Action Series (DtA Series)

## I. Goals of the DtA series

1. Invite commitment and investment on behalf of national and international policy makers towards small scale farmers, premised on the shared understanding that they and the agricultural biodiversity they actively maintain and develop are the foundations of resilient, sustainable food systems both locally and globally.
2. Create tools and other inputs to support intergovernmental institutions and national policy makers in developing and advancing policies in support of small scale farmers and agricultural biodiversity

The first global consultation in the DtA series (DtA One) will be held on November 7-8, 2016 in Bossey, Switzerland.

Topic: Small-scale farmers, agricultural biodiversity and the role of the public sector.

## II. Background for DtA One

- i. **Small scale farmers and agricultural biodiversity are a necessary foundation for sustainable, resilient food systems, and food and nutrition security for all.**

Agricultural biodiversity underpins the productivity, resilience and ultimately the security of all food systems. Farmers' varieties and uncultivated and wild species, including those related to domesticated crops, are the dynamic pool of genetic diversity that farmers and the global community will continue to rely on for resistances, tolerances and immunity to stresses. The genetic diversity of so-called 'neglected and under-utilized species' (NUS) (e.g. millets, sorghums, groundnuts, cassava) is particularly underrepresented in gene banks, making on-farm biodiversity even more important.

It is not just agricultural biodiversity that is so important — it is the small-scale farmers who have been conserving and developing this diversity from the beginnings of agriculture almost 12,000 years ago, who continually innovate on the farm and adapt to changing environmental and socio-economic changes (Smith, Elliott and Bragdon, 2015). Small-scale farmers are not static holders of unchanging knowledge, materials or management practices and more than agricultural biodiversity is a static collection of resources. Farmers have dynamic systems of experimentation, technology development and knowledge and skill sharing with other farmers and with public and private entities. It is this dynamism that make our global food system resilient.

Today, half the world's food is produced by 1.5 billion small-scale farmers. In developing countries, between 75%-90% of staple food is locally produced by small-scale farmers (UNCTAD 2010). Worldwide 72% of all farms are of less than 1 hectare, but control only around 8% of available agricultural land. The paradox is that while small-scale farmers contribute so much to global food security, they are often poor or very poor, and food insecure themselves (FAO 2014). Of the hundreds of millions that go hungry daily (almost 1 billion), millions are rural, poor small-scale farmers. In many parts of the world this population is considered the most food insecure and suffers chronic undernourishment (FAO 2013; FAO 2010). According to the FAO, low agricultural productivity, inability to participate in global markets and tenure insecurity are significant problems facing small-scale farmers (FAO 2014a).

**ii. Modern food systems are contributing to the erosion of agricultural biodiversity, dietary simplification, malnutrition and food insecurity.**

The modern, industrial, multinational food system does not work for the majority of the world's people. There are currently a billion people around the world suffering from hunger, and even more from 'hidden hunger' — sufficient caloric intake but insufficient micronutrient intake for leading healthy, happy, active adult lives. One in four children under five is deemed stunted—a condition that results from poor nutrition and an inability to absorb nutrients. Two billion people are deficient in at least one nutrient essential for health, with iron deficiency alone implicated in one in five maternal deaths.<sup>1</sup> An even greater number of people today are obese than those struggling with hunger. Something is clearly wrong when poor nutrition and over-consumption co-occur.

Underpinning both overconsumption and undernutrition is dietary simplification. While modern high-input high-yield agriculture and long-distance transport has increased the availability and affordability of refined carbohydrates (wheat, rice, sugar) and edible oils (World Health Organization, 2002), this system has contributed to the erosion of dietary diversity, nutrient deficiencies and increasing rates of associated chronic disease.

Dietary simplification is related to the erosion of agricultural biodiversity. This erosion is occurring as traditional production systems and the cultivation of diverse landrace varieties are replaced with more modern, industrialized production systems and the cultivation of uniform, high-yielding varieties.<sup>2</sup> It is estimated that 75 percent of plant genetic diversity has been lost due to the uptake of modern, genetically uniform varieties -- a trend which has been referred to the 'homogenization' of the global food

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<sup>1</sup> FAO, The State of Food Insecurity in the World 2015: Meeting the 2015 International Hunger Targets: Taking Stock of Uneven Progress (Rome: FAO, 2015), 8, 44, <http://fao.org/3/a-i4646e.pdf>; World Health Organization, Childhood Stunting: Context, Causes, Consequences (Geneva: WHO, 2013).

<sup>2</sup> FAO (2010). Second report on the state of the world's plant genetic resources for food and agriculture. Rome.

supply.<sup>3</sup> Farmers have financial incentives to replace on-farm crop diversity with wheat, rice, maize and potato varieties with high demand in international markets.<sup>4</sup> This will have negative repercussions in terms of nutrition, resilience against environmental stress and loss of traditional knowledge and cultural diversity -- all of which will lead to food insecurity.

**iii. Current policy and donor approaches favour market-based approaches to agriculture, marginalizing the role of the public sector<sup>5</sup> and the role it must play to support small scale farmers and agricultural biodiversity**

Food policy at all levels — international and national public and donor-led — has increasingly looked to market-based solutions to food insecurity. The market and the private sector (industry) may provide some tools to achieve the objectives of food security, but they cannot by themselves fully satisfy the objectives related to food security and poverty alleviation. Private sector firms operate within the drivers and constraints of markets, the most fundamental one being profit-generation. In the market, demand correlates with an ability to pay rather than meeting societal need. Private sector research aims to develop products for the most profitable markets, not to address complex, common-need problems.

In the context of food security, trade and intellectual property rights (IPR) are examples of market-based rules increasingly relied upon by those who argue they are necessary to ensure that populations have reliable access to sufficient quantities of affordable and nutritious foods. In practice, trade liberalization and globally established minimum standards for IPR are not working, evidenced by the sheer numbers of people who are food insecure, by the lack of support to small scale farmers and by the erosion of agricultural biodiversity.

In the past, the focus of much of the work by those concerned with the growing power of commercial interests and the decline in public capacity and their effect on food security has been to try to ensure flexibility within policy, including within trade and IPR rules. Flexibility, however, is insufficient; the public sector must have the capacity to act and be legally able to play its essential role in protecting the public interest. Food security, together with health, may be the most important public interest dimension.

The private sector has an ever-increasing reach into what were traditionally domestic spheres of regulation, as illustrated by expanding trade and IPR regimes. These regimes affect the governance of agriculture, health and other areas of human activity rather than simply guiding the implementation of trade and IP. They affect what the world eats and are therefore not just about trade or IPR, they are about our food systems.

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<sup>3</sup> José Esquinas-Alcázar (2005). "Protecting crop genetic diversity for food security: political, ethical and technical challenges", *Nature*, 6: 946-953.

<sup>4</sup> D. Nierenberg and B. Halweil (2005). *Cultivating Food Security*, New York, W. W. Norton & Co.

<sup>5</sup> The term "public sector" is used interchangeably with "the state" and "government".

Given the distressing state of global food security, it is time to recognize the limits of market-based approaches to agriculture and to construct an approach that works. There is an urgent need for clarification and enunciation of the respective roles of the public and private sectors in fostering and supporting sustainable, resilient food systems.

**iv. The focus of much of international and national policy and of donor programmes ignores or undermines the role of small scale farmers and agricultural biodiversity.**

How a problem is framed affects how it is solved. The framing done by many international and national policy makers and of donor programmes in agriculture is on production and productivity gains. Solutions then tend to focus entirely on efficiency and increased production.<sup>6</sup> Yet scarcity is not the core challenge in providing for food security and creating sustainable, resilient food systems.

Others frame the challenge as primarily one of economic development. This has led to international rules, negotiations and even donor programmes focusing on promoting certain types of farming systems – commodity based, intensive, high-input and high-yield. Investment is concentrated in the development of technologies and improved seed varieties that fit with this model. Inadequate resources are then directed towards farmer-led research and the development of technologies that fit the needs and priorities of small-scale farmers. Following international policy imperatives and donor constraints, national policies also tend to favour this type of agriculture.

The role of women in food and nutrition security is also often ignored by international and national policy. In developing countries, rural women and men play different roles in guaranteeing food security for their households and communities. Women are usually responsible for growing and preparing most of the food consumed in the home and raising small livestock, which provides protein. Women are more likely to spend their incomes on food and children's needs - research has shown that a child's chances of survival increase by 20% when the mother controls the household budget. Women play a decisive role in food security, dietary diversity and children's health<sup>7</sup>. Women's autonomy as food producers is often limited by the significant obstacles they face in accessing land, financial services, extension services, and markets, and in benefiting from agricultural research and development. Indeed, The impact of social protection programs on women is largely ignored. Looking at potential government action with a gender lens will help to remove these obstacles and result in significant productivity

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<sup>6</sup> An example of this is the most common diagnosis of the problems of African agriculture as being input constraints: too little irrigation, high-yielding seed, inorganic fertiliser, draught power, credit, and so on. With a production function model in mind, the solutions seem straightforward: provide more dams and irrigation schemes; improve seed varieties (including biotechnological options, such as transgenics); subsidise fertiliser; microcredit; extension and training. There is little, if any, concern about the impact of this approach on small scale farmers and agricultural biodiversity.

<sup>7</sup> <http://www.fao.org/gender/gender-home/gender-programme/gender-food/en/>

gains benefiting not only the women concerned, but their households, communities, and society as a whole.

Inadequate attention is also given to the protection and affirmation of Farmers' Rights, relating to small-scale farmers' resource rights over seed and participation in decision making at national and international levels.

Most research and development has been directed at commercial farming. Very little research has been done on small-scale farmer centered research whether it is research by small-scale farmers or for them.

The technical, economic and market challenges associated with food production are real and deserve adequate attention. However, when developing solutions, it is important that international and national policy makers and donors understand how their actions affect small scale farmers and agricultural biodiversity.

Even more important is the need to proactively conceptualize, develop and implement policies that support small scale farmers and agricultural biodiversity. Governments must have the space to act in the public interest, uninhibited by international policy imperatives and donor constraints.

### **III. Plan for DtA One**

QUNO is hosting a consultation at Château de Bossey, near Geneva, Switzerland, November 7th-8th, 2016. This consultation is envisioned as the first in an ongoing DtA series that brings together experts to conceptualize and plan interventions that contribute to the development of policies to support small-scale farmers and contribute to global food security and agricultural biodiversity conservation and development.<sup>8</sup>

The focus of DtA One is to discuss the means by which policy makers can best determine the appropriate role of the public sector both nationally and internationally, in supporting SSF innovation generally and in particular as maintainers and generators of agricultural biological diversity.

QUNO work style is to provide space for discussion and finding innovative solutions to difficult problems in a collaborative way. It is therefore inappropriate to define very specific outputs ahead of time. However, in preliminary discussions with an informal advisory group, a series of possible outputs have been identified. These may be amended to reflect the creative and emergent discussions.

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<sup>8</sup> The need for a DtA Series arose during the first consultation on small-scale farmer innovation organized by QUNO in May, 2015. The consultation brought together representatives from small-scale farmer organizations, NGOs and academia to discuss differences between 'formal' and 'informal' innovation systems, the value of on-farm innovation, and challenges facing small-scale farmers in their efforts to innovate and adapt. The full report on the consultation can be found at: <http://quno.org/resource/2015/11/small-scalefarmer-innovation-systems-review-literature>

Proposed outputs of the meetings:

1. Background document on major issues and challenges in supporting small scale farmers and agricultural biodiversity
2. **A written statement.** The group may issue a statement about the importance of the public sector and the urgent need to determine the appropriate role of the public sector in supporting small-scale farmers and agricultural biodiversity, how this is a critical and necessary for global food security including achieving the Sustainable Development Goals<sup>9</sup> and the Aichi Biodiversity Goals.<sup>10</sup>
3. In the first consultation, participants will discuss and generate concrete ideas about what is needed *from* governments and what is needed *to support* governments in their roles as:
  - Policy-makers and regulators
  - Providers of goods and services; and
  - Partners with the private sector;<sup>11</sup>

This will feed into subsequent work to develop **a tool or tools** by which policy makers can assess what is needed from government — in their particular context — to support small-scale farmers, the conservation and development of agricultural biodiversity and ensure resilient, sustainable food systems.<sup>12</sup>
3. **An assessment** how international laws and institutions support or hinder any reinvigoration of the public sector.
4. **An Advisory Group** to guide the work between consultation sessions of this DtA Series.

Although the development of resilient, sustainable food systems and food security are the focus of this DtA Series, it is hoped that the process itself as well as the tools developed will have spillover effects to reinvigorate the public sector in other areas of public interest such as health and education. The exercise is not prescriptive, but rather is intended to help governments analyze and determine their appropriate roles in areas of critical public interest.

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<sup>9</sup> <http://www.undp.org/content/undp/en/home/sdgooverview/post-2015-development-agenda.html> See in particular, SDG 2 Zero Hunger and SDG 15 Life on Land, though all the SDGs are interlinked.

<sup>10</sup> <https://www.cbd.int/sp/targets/>

<sup>11</sup> Participants will discuss the circumstances/conditions in which it may be useful for the public sector to seek partnerships with the private sector, and when it is not (e.g. due to conflicts of interests).

<sup>12</sup> It is envisioned that this DtA will follow a similar methodology to the development of the interactive food security policy measure/trade rules

#### **IV. Assumptions underpinning the consultation**

1. SSF and agrobiodiversity are a foundation of food security;
2. In addition, there are social and environmental costs associated with the loss of SSF and agrobiodiversity;
3. It is in the public interest to support SSF and agricultural biological diversity;
4. SSF living and working in agrobiodiverse systems needs to be an attractive choice;
5. SSF and agricultural biological diversity are being displaced and lost;
6. There is a decline in public sector support and an increase in private sector interest for agriculture generally;
7. Insofar as landraces and innovative practices are available, SSF are providing a public good for which there needs to be support.
8. Support is not for a particular variety or system but for the dynamic process of on farm development of PGRFA and of innovative management practices.

**Agricultural biodiversity:** The variety and variability of animals, plants and microorganisms that are used directly or indirectly for food and agriculture, including crops, livestock, forestry and fisheries. It comprises the diversity of genetic resources (varieties, breeds) and species used for food, fodder, fibers, fuel and pharmaceuticals. It also includes the diversity of non-harvested species that support production (soil microorganisms, predators, pollinators), and those in the wider environment that support agro-ecosystems (agricultural, pastoral, forest and aquatic) as well as the diversity of the agro-ecosystems (FAO 2010b).

**Note:** Agricultural biodiversity also comprises cultural dimensions in agroecosystems, as well as the traditional practices and techniques used by small farmers in particular, to conserve, nurture, enhance and develop agroecosystems.

**Food security:** "Exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life"(World Food Summit 1996).

**Innovations by small farmers:** Traditional and/or ancestral knowledge, as well as innovations and practices developed and generated by small farmers by virtue of complex interactions of environmental, social, cultural, institutional and economic factors. Often expressed and embedded in the form of seeds, cultivation techniques, conservation methods, agro-ecological practices, cultural ceremonies, communal working practices, etc. (WIPO 2015).

**Small scale farmers:** Rather than defined, small scale farmers can be characterized by:

- Owning or working on lands between 0.5/1 – 5 hectares in extension although in some countries they may be larger and still be considered “small”
- Producing for subsistence, exchange and trade (mostly at local and national levels – though some may be linked to export markets as part of value adding chains)
- Often living in communities with strong cultural, and in many cases spiritual and religious, ties to the land
- Working on the basis of traditional practices, techniques, knowledge but also open to new knowledge
- Often involving the family as a whole (spouses, children, relatives) in different farming activities
- Being of low economic income, vulnerable to external pressures such as climate change, development projects, migration to cities, etc.
- Maintaining, conserving and cultivating high diversity of crops
- Making up large portions of national populations (regularly over 50%)

**Source:** Developed by QUNO.