

Do smallholders have a future?

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Abstract

The central challenge facing the world food system is the high degree of inequality in the distribution of farm land at the global level. Such concentration harms the majority of food producers, smallholder farmers, who are predominant in many regions of the world and constitute the back bone of agriculture and food security today and in the future. Much more proactive engagement of all stakeholders and effectiveness of government policy, support and investment decisions are essential for food security. Poverty reduction results of smallholder development will be highly dependent on the kind, intensity and opportunity of policy decisions, on the efficiency with which they are implemented, and on the nature of the processes by which they are formulated and put into practice at the local levels. Smallholder farmers contribute to the bulk of employment and generally contribute to more equitable development. Given the particular relevance and vulnerability of women smallholders, agricultural policy needs to ensure that women's needs are adequately taken into account in order to reach its potential in terms of production and productivity increases as well as in terms of poverty reduction and contribution to food security. Smallholders face numerous constraints to their productive activity, therefore an inclusive model of development is essential, based on contributions from all the stakeholders: governments, farmer's organizations, cooperatives and the private sector.

keywords: Family Farming; Productivity; Sources of income; Food security; Poverty reduction, Gender; Strategies; Inclusive model of development

The question of the future of smallholders is not new. It has sparked highly contrasting views from different development theories, ranging from inevitable disappearance, giving way to large scale commercial farms, to constituting the back bone of agriculture today and in the future. The facts show that small holding agriculture has been and continues to be today the dominant form of agriculture in terms of numbers of farmers and of farms. It is also the most productive per unit of land and has demonstrated high levels of resiliency throughout the times. Evidence shows that with an appropriate set of incentives, small farms have the ability to sustainably increase production and productivity. However, in spite of small farms being essential for the world's food security, the poor and the hungry tend to be concentrated among them. We conclude with Jayne *et al.*, "There is no single or deterministic future of the small farm in Africa" (2010, p. 1384), the future of smallholders will depend on the nature and the effectiveness of government policy, support and investment decisions, as well as on the engagement of all stakeholders.

Characteristics of small farms

The definition of a small farm poses numerous challenges. Size is necessarily a relative concept. What is considered small or large will vary according to the context (HLPE, 2013) and to a gamut of characteristics such as agro-ecological, social and economic features. While a holding of one hectare with a high value crop could yield high incomes with low levels of vulnerability and high access to credit and inputs, in some contexts a 50-hectare plot is considered small¹(HLPE 2013). Size of land is the most commonly used criterion to define smallholders, as it is the most easily comparable across regions. In this paper we will use this criterion while keeping in mind the complexity of the issue.

Recent data from the *State of Food and Agriculture* (FAO, 2014) show that small farms are by far predominant in many regions of the world. Out of a total of some 570 million farms worldwide, 72% are very small with less than one hectare, while 84% have less than two. Asia tends to have a larger concentration of these, while sizes tend to be significantly larger in the Americas. The vast majority of Chinese and Indian farms (97% and 65% respectively) have less than one hectare. In North and South America 1-2 ha holdings are a minority, while some 20% are larger than one hundred hectares.

While the appropriate threshold for a small holding must be adapted to regional and national situations (HLPE 2013), there is considerable variability in terms of viability, vulnerability and needs within the smallholder category even within regions (Jayne *et. al*, 2010).

More numerous but control less land

There is a very high degree of inequality in the distribution of farm land at the global level. While small farms are by far more numerous than large ones, they control a small share of overall farmland. Indeed, farms with less than one hectare, 72% of the world's farms, have only 9% of the farmland. Conversely, farms with more than 50 hectares occupy around two thirds of this land.

Evidence shows that farm size among smallholders has been declining (Jayne *et. al*, 2003) and that these farms are increasingly managed by women (IFAD, 2011).

Higher productivity by unit of land but lower labour productivity

A robust body of evidence from a variety of sources collected through different periods of time shows that small farms have higher productivity by unit of land than larger ones (IFPRI, 2005; Jayne *et al.* 2010; FAO 2014). Many high-value crops, for example, rubber, fruit and vegetables that require labour-intensive

¹ An Argentinean farmer recently described to me his childhood as extremely poor due the small size of the family's farm, 100 hectares.

farming, perform better in well-developed smallholder agriculture than in other types of farming (HLPE, 2011) because of the favourable incentive structure in self-employed farming and the significant transaction and monitoring costs of hired labour (HLPE 2013). In Bangladesh, for example, an IFPRI study showed that farmers holding less than one acre irrigate more of their land, use more fertilizer and have higher yields by unit of land than the larger size farmers (IFPRI 2013). Conversely, the study found that smallholders have much lower access to credit and to extension services than large farmers. This finding is amply corroborated in the literature.

The body of empirical literature showing an inverse relationship between farm size and production by unit of land and per year shows that these results are strongest in Asia, where land is scarce compared to labour (Hazell *et al.* 2007). Asia's land productivity has been the highest of all regions since the mid-1980s, even higher than in OECD countries (HLPE, 2013). China, with 97% of its farms having less than one hectare, has demonstrated that high levels of productivity can be achieved by collectively organizing smallholder production. Data from the World Census of Agriculture show that these holdings, which cover 10% of globally available agricultural land, produce 20% of the world's food (HLPE 2013). There are many examples (Viet Nam, Costa Rica, Guatemala, Brazil) (HLPE 2013).

However, smaller farms tend to have significantly lower labour productivity than larger farms. An analysis of nationally representative data shows that the smaller the farm size, the lower the value of agricultural production per worker (FAO 2014). According to the study, this implies lower per capita incomes from farming and lower household incomes, probably due to the predominant use of family labour, mostly unpaid. Data for Bolivia show that while the average value of agricultural production per worker per day was less than \$2 (constant 2009 ppp) for the smallest quartile of farms, it was almost \$9 for the largest quartile.

The study hypothesizes that the reason for the low labour productivity may reflect the scarcity of alternative employment opportunities, and calls for the need of increasing labour productivity in small farms as a poverty reduction measure.

Sources of income

The smallholder farm derives its livelihood from a number of activities, combining on- and off-farm in different ways. The *State of Food and Agriculture* (FAO, 2014) data show that the smaller the farm, the higher the proportion of income that is obtained from off-farm activities, partly because their small plots usually yield insufficient incomes. In Bangladesh, for example, the quartile of smallest farms obtains 20% of its income from crop and livestock production, 20% from agricultural wages, 50% from non-farm income and 10% from remittances and transfers. In contrast, the largest quartile of farms derive 64% of

their income from crop and livestock production, 4% from agricultural wages, 25% from non-farm income and 7% from remittances and transfers.

In all countries studied by SOFA, the share of income from farming is smallest in the smaller farms. The study concludes that for the smallest farms to get out of poverty, non-farm employment creation, more efficient labour markets, and capacity development are necessary in addition to increasing farm productivity.

Smallholders and food security

As the dominant form of agriculture in most of the developing world, smallholder agriculture is essential for food security. It is a source of food for self consumption, as well as of the incomes necessary to buy food products. In Brazil, small scale agriculture produces 58% of milk, 50% of chicken and 59% of pork, 38% of coffee, 46% of maize, 70% of beans and 87% of cassava (HLPE 2013). In many African countries, palm oil is mainly produced by small scale family farms (80% of Benin's production, and similar figures for Nigeria and other West and Central African countries). This industry has shown a remarkable capacity to adapt to changes in the demands of the value chain (HLPE 2013).

However, paradoxically, poverty and hunger continue to be concentrated among the smallholder farmers (FAO 2012). No less than half of the world's chronically undernourished people, three quarters of Africa's malnourished children and the vast majority of the extremely poor live on small farms (HLPE 2013).

In spite of deriving most of their livelihoods from agriculture, poor smallholders frequently do not grow enough food for their own needs. An analysis of 11 countries using nationally representative survey data showed that an average of 88% of the poor rural households are net food buyers (FAO, RIGA). The poor are net purchasers of staples such as maize, wheat and rice (Jayne, 2010). These households are particularly vulnerable to shocks and they were among the most hardly hit during the 2007-08 food price crisis (FAO 2008) and will be directly hurt by policies that raise prices of staple commodities (Jayne *et al.*, 2010).

Smallholders and poverty reduction

While some authors see smallholder development as one of the main ways to reduce poverty (HLPE 2013), others see the need to differentiate among smallholders in order to either support them or to help them exit farming towards urban or other employment (Fan *et al.*, 2013; GDPRD, 2008), either all together or partially (IFAD, 2011).

Table 1. Percentage of net-food- buyer* households

	All Households			Poor Households		
	Urban	Rural	All	Urban	Rural	All
Bangladesh, 2000	95,9	72,0	76,8	95,5	83,4	84,2
Pakistan, 2001	97,9	78,5	84,1	96,4	83,1	85,4
Viet Nam, 1998	91,1	32,1	46,3	100,0	40,6	41,2
Guatemala, 2000	97,5	86,4	91,2	98,3	82,2	83,1
Ghana, 1998	92,0	72,0	79,3	*	69,1	*
Malawi, 2004	96,6	92,8	93,3	99,0	94,8	95,0
Nicaragua, 2001	97,9	78,5	90,4	93,8	73,0	79,0
Tajikistan, 2003	99,4	87,0	91,2	97,1	76,6	81,4
Albania, 2005	99,1	67,6	82,9	*	*	*
Average	96,4	74,1	81,7	97,2	87,9	78,5

*A household is a net food buyer when the value of staples it produces is less than the value of the food it consumes.

Source: FAO RIGA Rural Income Generating Activities Database

Poverty reduction results of smallholder development will be highly dependent on the kind, intensity and opportunity of policy decisions, on the efficiency with which they are implemented, and on the nature of the processes by which they are formulated and put into practice at the local levels. Small farmers have made in the past, and can continue to make, substantial contributions to poverty reduction in an appropriate policy environment which takes into account their views and their needs. Good governance, including participatory processes, accountability, transparency and voice of all stakeholders is as important as the content of the policies and the size and continuity of the investments.

In addition to poverty reduction, smallholder development also generally contributes to more equitable development (Hazell *et al.*, HLPE 2013) and to generate greater local multipliers (Global Donor Platform for Rural Development, 2008). In this way, investment in smallholders is an important contribution to economic growth as well as to poverty reduction. After decades of disinvestment in agriculture, shifting emphasis towards industrialization as an engine of growth, the World Bank and the development community recognized that agriculture growth is almost always a necessary step towards overall development (World Bank 2008). Using historical data, Lipton (2005) argues that sharp increases in smallholder agriculture investment are necessary for agricultural development to lead to poverty reduction. Smallholder development remains one of the main ways of reducing poverty (HLPE 2013).

Gender and smallholder agriculture

Women's farms tend to be smaller and to have less quality soils than those of men. Men's plots far outnumber women's in all regions of the world. In addition, women have systematically less access to all that they need to be productive in

agriculture than men do, be it inputs, credit and financial services, information, knowledge, technology, or extension services. This is in spite of constituting 43% of the agricultural labour force in developing countries. The *State of Food and Agriculture 2010-11* argues that if women had the same access to productive resources as men have, agricultural production could be increased by up to 4%, which would translate into more than one hundred million less hungry people world-wide (FAO 2010-11).

In addition, women smallholders tend to be more vulnerable to the effects of shocks and crises than men smallholders (Villarreal, 2010).

In order for smallholder agriculture to reach its potential in terms of production and productivity increases as well as in terms of poverty reduction and contribution to food security, agricultural policy needs to ensure that both men's and women's needs are adequately taken into account. Women need to be able to voice their needs and their concerns throughout relevant policy processes. Community based organizations, including women's groups and cooperatives can help women increase their income, generate employment and have their voice heard in decision making at all levels. Special and explicit measures need to be taken for them to be empowered, access productive resources, for their rights to be respected and for them to have equal entitlements and opportunities. Labour saving technologies to reduce the drudgery of household work as well as agricultural work are essential (FAO, 2010-11; Villarreal 2011; Villarreal 2013).

Smallholder agriculture or family farming?

The 2014 International Year of Family Farming (IYFF) has made an important contribution to shed light on the importance of family farming for world agriculture (producing 80% of the world's food), for food security, for employment (the world's largest employer), for the conservation of natural resources and biodiversity, for rural landscapes and for a way of life that respects culture and traditions. It has made an important contribution to put family farming high in government's agendas and has enticed political commitment at the highest levels.

While smallholders are principally family farmers (HLPE 2013), the category of family farms includes large and very large farms, with very different characteristics and needs. Today, out of some 570 million farms worldwide, some 513 million are owned and run by families, and rely mostly on family labour. Together they produce the majority of the world's food. This paper concentrates on smallholder farms, most of them family farms. While recognizing the importance of setting policy agendas that cater to the needs of all family farms, small or large, it focuses on the needs of the small ones.

Main constraints

Smallholders face numerous constraints to their productive activity. Six Regional Dialogues on Family Farming held by FAO and partners throughout the IYFF in Asia, Europe, Latin America and the Caribbean, Near East and North Africa, North America, and Sub-Saharan Africa helped pinpoint the challenges facing family farmers in each region. These dialogues brought together governments, farmers and their organizations, civil society organizations, researchers, academia and the private sector. Despite the diversity among family farmers, the dialogues concluded that they have a great deal in common in terms of the challenges they face. These include the globalization of the food sector, climate change, lack of access to resources including suitable financial services, poor market access, insecure land tenure, lack of an enabling policy environment and policies that do not respond to the needs of family farmers. Women and youth are particularly affected by these challenges.

Challenges to smallholders vary by context, including agro-ecological conditions, state of infrastructure development, proximity to cities, isolation, existing system of incentives and dis-incentives, adequacy of institutions, policy frameworks, regulations and numerous other aspects. Recognising the significant variation, some of the main challenges can be grouped as follows:

- a) Lack of access to the resources and markets necessary for a productive agriculture. These include financial services (which constitute a major bottleneck for the small producers), inputs (seeds, fertilizers), knowledge (extension services, market information),
- b) Lack of secure rights (tenure of land, rights to own, sell and inherit land, rights to water and to other natural resources, rights of association),
- c) Low ability to participate in the decision-making processes that will affect the smallholders: voice in policy processes and in the determination of research agendas,
- d) Need to rapidly adapt to changing conditions, including globalization and climate change.

The environment in which smallholders operate is subject to major social, economic and environmental changes. They need to adapt to them in order to remain viable. The context of globalization and the surge of supermarkets pose additional problems. Value chains and supermarkets have demands of quality, uniformity, timely delivery and, above all, certification and traceability that effectively exclude the small producers (GDTF, 2008).

Smallholders are also more vulnerable to situations of crisis. In the developing countries, in the absence of a system of agricultural insurance, they have to cope with the full array of risks of agricultural production, compounded by the increased risks brought by climate change. In addition, they face risks related to the health of the family members, as sick persons are unable to work, either permanently or temporarily, subtracting from the pool of family labour. Using

data for five African countries, Jayne *et al.* found that some 10% of the rural farm population makes distress sales of grain after harvest, only to buy back later in the season (Jayne *et al.*, 2010).

If smallholders had better access to resources and markets, secure rights and voice in policy and decision-making processes, they would clearly have more capacity to adapt to globalization and climate change and would be more prepared to face all risks associated to their work in agriculture.

Action needed: An inclusive model of development

The set of needs of smallholders calls for an inclusive model of development that sets them high on the agenda, recognizes them as fully fledged actors and agents of change, listens and responds to their changing needs, empowers them with particular emphasis on women and youth, formulates policies in a participatory way, brings together all stakeholders and actors of development according to their comparative advantages and with clearly defined roles (government, civil society, farmers organizations, cooperatives, private sector, academia and research organizations), identifies and promotes innovation opportunities, promotes investment – including by the smallholders themselves – and strongly promotes collective action.

This inclusive model of development should be based on a shift in thinking whereby the relations between the different actors are transformed into win-win partnerships. It is only through this transformed relationship that smallholders and their organizations will be able to become agents of development alongside other powerful actors (including economic actors and donors) and decision-makers (public sector).

The *Voluntary Guidelines for the Responsible Governance of the Tenure of Land, Fishery and Forestry in the Context of Food Security*, and the more recent *Principles for Responsible Agricultural Investment*, adopted by the Committee of Food Security provide two powerful sets of guidelines for responsible behavior in agriculture, which will transform agriculture and rural areas if fully implemented. They provide frameworks for the rights of the smallholders to be respected, including secure tenure rights, which are of the utmost importance for them. They were endorsed by governments, civil society and the private sector, and all these actors need to be fully engaged in their implementation for it to be effective.

By governments

The role of the state is of central importance for smallholder development. The sector was severely weakened with the withdrawal of the provision of

fundamental services for agriculture such as extension, research and innovation, where the private sector did not step in on time, or did it only for the needs of the larger and more commercial farms.

Governments need to ensure that a set of policies to promote smallholder farming is in place. They also need to ensure that the institutions necessary to implement these are strong and responsive. Thirdly, they need to ensure that the processes by which policies are formulated and implemented are participatory, fully include the voices of the farmers, especially the most vulnerable and marginalized, and are transparent. They need to ensure that all their policies are gender-sensitive and youth inclusive and give voice to women and youth. They need to be ready to be held accountable on these counts by the social parts.

An increasingly important role of governments is enabling public-private partnerships, especially in areas in which it cannot deliver on its own.

The state must also ensure that adequate programs of social protection are in place and that they effectively reach the smallholders and respond to their specific needs. Evidence shows that when these programs are well designed and function well, they make a sustainable contribution to poverty reduction. In the case of the smallholders, they should address the specific sources of vulnerability that they face and help them adapt, in a time bound way, to the challenges posed by a changing environment.

By Civil Society Organizations

The role of civil society organizations is central for social, economic and environmentally friendly development. Among others, they play a fundamental function in creating a system of accountability for people's rights to be respected, advocating for important development issues to be kept in the public's attention and holding actors to account. They are essential for the development of knowledge networks. Civil society organizations have a crucial role to play in the promotion and implementation of both the *Voluntary Guidelines for the Responsible Governance of Tenure* and the *Principles for Responsible Agricultural Investments*, adopted with their very active participation. All of these roles are essential for smallholder development.

By cooperatives and producer organizations

Producer's organizations, farmer's organizations, associations, cooperatives and other forms of collective action are of the highest importance for agriculture to increase its productivity in a sustainable way. They are even more important for smallholder agriculture. Isolated and dispersed small holdings in remote rural areas are barely able to reach subsistence levels. Increasing productivity and integration in markets is almost unimaginable for these units in the absence of strong and inclusive organizations which allow economies of scale, access to

inputs at negotiated prices, access to financial services, access to knowledge and information, sustainable management of natural resources, adaptation to climate change and, very importantly, voice in policy processes and improved power positions in the value chain. In short, for almost all constraints that smallholders face, there is a collective action solution that either solves or substantially improves the possibilities of finding a solution.

Organizations and cooperatives need to be supported by governments, including recognizing the right of association, strengthened and buttressed by an enabling environment. The enabling environment includes the set of policies, incentives and regulatory and legal frameworks as well as consultation platforms necessary for them to exist and to thrive. In order for producer organizations to be effective and sustainable in their contribution to food security, they need to build on endogenous processes relying on three interdependent types of relations that they need to develop: *bonding*, or intra-group relationships among small producers within organizations; *bridging* or inter-group relationships between small producer organizations to create apex organizations; and *linking* or extra-group relations between small producer organizations and market actors and policy makers (Herbel, Crowley, Ourabah-Haddad, Lee, 2012).

Organizations and cooperatives, on their side, need to ensure good performance based on internal governance (transparency, participation, accountability), efficiency, effectiveness, relevance and sustainability as well as equitable representation and leadership between genders and between generations.

As smallholders need an array of services and types of support beyond agriculture production in order to be economically viable, the cooperative sector should do much more to bridge across areas of cooperative action in order to provide more effective support to small farmers. In particular, cooperative finance should reach out to cooperative input and service providers for coordinated and coherent support.

Governments and development practitioners have an important role to play in facilitating and supporting the development of autonomous and sustainable producer organizations and cooperatives. When member-based organizations are seen as partners on an equal footing rather than aid recipients, they will help create the conditions to meet growing food demands, reduce poverty and achieve sustainable development of rural areas.

By the private sector

In recent decades, the private sector has been gaining an ever more important role in development. It is increasingly being recognized as an important actor by development practitioners. At the same time, the sector itself has been making clear efforts to engage in responsible behaviors and to demonstrate its commitment to development results that go over and above their profit-making

objectives. It has become a more salient actor in the high level discussions on Financing for Development meetings where heads of state and of multilateral and international organizations meet to discuss the future of development (they have taken place in Rome, Paris, Accra, Busan and Mexico City). In the most recent of these meetings, in Mexico City (April 2014), CEOs of world-class firms participated in all panels and committed to contribute in measurable ways to development indicators.

The role of the private sector in smallholder development is all the more important, as the state has withdrawn from the provision of many fundamental services for agriculture, including extension systems and research and development in many countries. Whereas the provision of services and infrastructure to isolated smallholders in remote rural areas is expensive for governments, the private sector could complement this role with an appropriate system of incentives and with proactive public-private-partnerships. Numerous examples of these exist, for example an FAO-supported program for access to credit by Kenyan, Ethiopian and Tanzanian smallholders provided by the Rabobank cooperative bank, the agricultural insurance scheme for farmers in Spain where the state absorbs part of the risk allowing affordable premiums for the farmers, the *Jatropha Curcas* Bioenergy project which promotes the use of renewable energy in an agreement between a green energy company, farmer's groups and the Ministry of Forestry of Indonesia.

The private sector plays central roles in the area of agricultural innovation. More public-private partnerships are necessary to ensure that smallholders can benefit from it.

Conclusion

The question of the future of smallholder agriculture together with its role in poverty reduction and in food security has been posed many times in the last years. This article argues that smallholders do have not only a future for their own existence, but also a fundamental contribution to make both to poverty reduction and to food security. However, this future can happen only if a number of conditions are met. In the first place, it depends on the willingness of governments to make strong commitments through enabling environments including policies, investment decisions and implementing good governance principles. It also depends on the ability of all the other relevant stakeholders to play their parts in an effective and decisive way. The contributions of civil society, farmer's organizations, cooperatives and the private sector are essential. They need to be considered as key actors and agents of change. If all of these happen, the size of the holding will not be an insurmountable constraint, and smallholder development will bring about better growth, more equity, less poverty and less hunger throughout the world.

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