

# **Is Small Farm Led Development Still a Relevant Strategy for Africa and Asia?**

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## **Abstract**

The case for smallholder development as a win-win strategy for achieving agricultural growth, poverty reduction, and food security is less clear than it was during the Green Revolution era. The gathering forces of rapid urbanization, a reverse farm size transition towards ever smaller and more diversified farms, and an emerging corporate-driven business agenda in response to higher agricultural and energy prices are all creating a situation where policymakers need to differentiate more sharply between the needs of different types of small farms, and between growth, poverty, and food security goals.

**Key words:** Small farms, Smallholder development, Food security

## **Introduction**

Small farm led development has been the dominant agricultural development paradigm among agricultural economists since its remarkable success in driving Asia's Green Revolution during the 1960s and 1970s. The paradigm is based on several claimed advantages of small farms:

- Small farms are more efficient than large farms, as evidenced by an impressive body of empirical studies showing an inverse relationship between farm size and land productivity across Asia and Africa (Larson et al. 2014; Eastwood et al. 2010; Binswanger-Mkhize and McCalla 2010). Moreover, small farms typically achieve their higher land productivity using labor-intensive methods rather than capital-intensive machines. These are important efficiency advantages in poor countries where land and capital are scarce relative to labor.
- In poor, labor-abundant economies, not only are small farms more efficient, but because they also account for large shares of the rural poor, small farm development can be a "win-win" proposition for growth and poverty reduction. Asia's green revolution demonstrated how agricultural growth that reaches large numbers of small farms can transform rural economies and raise enormous numbers of people out of poverty (Rosegrant and Hazell 2000). Recent studies also show that a more egalitarian distribution of land not only leads to higher economic growth but also helps ensure that the growth that is achieved is more beneficial to the poor (World Bank 2007).
- Small farms also contribute to greater food security, both through feeding their own families and by supplying local markets with foods that may be less costly and less risky than alternative supplies, particularly in regions facing high transport costs. Because they produce more output per hectare than large farms, they also contribute to greater national food self-sufficiency in land scarce countries.

- Small farm households with cash incomes also have more favorable expenditure patterns than large farms for promoting growth of the local nonfarm economy, including rural towns. They spend higher shares of their incremental income on locally produced goods and services, many of which are labor intensive (Mellor 1976; Hazell and Roell 1983). These demand patterns generate additional income and jobs in the local nonfarm economy, which can be beneficial to the poor.

Advocates of small farm development have long recognized that the efficiency advantages of small farms slowly disappear as countries develop. As per capita incomes rise, economies diversify and workers leave agriculture, rural wages go up, and land becomes cheaper relative to labor. It then becomes more efficient to have progressively larger and more mechanized farms. The result is a natural economic transition towards larger farms over the development process, but one that depends critically on the rate of rural–urban migration, and hence on the growth of the non-agricultural sector (Eastwood et al. 2010; Huang 1973).

Despite its proven success, the small farm development paradigm is widely challenged today, and there is considerable debate about its continuing relevance for Asia and Africa. Critics argue that because of rural population growth on a fixed land base, the onslaught of globalization and market liberalization policies, and the emergence of new types of farm technologies, the economic context for small-scale farming has substantially changed, and small may no longer be as beautiful as before. This chapter considers these arguments and their implications for agricultural development and small farm assistance strategies.

### **Patterns of Farm Size Transition and Their Consequences**

Despite a growing chorus of small farm skeptics, small farms are proving surprisingly resilient and continue to increase in number. There are nearly 450 million farmers today who farm less than 2 hectares (ha) of land, and many more family farms larger than 2 ha who struggle to make an adequate living from farming. Small farms are predominantly concentrated in Asia and Africa and are home to some 2 billion people, including half the world's undernourished people and the majority of people living in absolute poverty (IFPRI 2005).

Average farm sizes continue to shrink across much of Asia and Africa. In India, for example, the average farm size about halved between 1971 and 2005–06, and the number of farms less than 2 ha doubled (Table 1). In China, the average farm size fell 30 percent between 1985 and 2000, but then bottomed out in 2000 and has shown a slight increase since then (Table 2). In Bangladesh, the average farm size shrunk from 1.4 ha in 1976–77 to 0.3 ha in 2005, and the percentage of farms smaller than 1 ha increased from half to about 90 percent (Otsuka 2013). In the Philippines, the average farm size fell from 3.6 ha in 1971 to 2.0 ha in 2002, and the share of small farms less than 1 ha increased from 13.6 to 40.1 percent. Indonesia and Thailand saw more modest declines of 15–20 percent in average farm sizes over similar periods and little change in the share of small farms less than 1 ha in size (Otsuka 2013).

African countries vary widely in their population densities, and an analysis of available census data shows that farm sizes are smaller in highly populated countries than in less populated countries—1.2 ha for highly populated African countries in the 2000s as compared to 2.9 ha in low density Africa (Jayne et al. 2013). Farm sizes have also shrunk the most in the highly populated countries; from around 2.3 ha in the 1970s to 1.2 ha in the 2000s, compared to a decline from 3.0 to 2.9 ha in less densely populated countries (Jayne et al. 2013). In Kenya, the average farm size fell from 2.3 ha in 1997 to 1.9 ha in 2010, and in

Rwanda, the size fell from 1.2 ha in 1984 to 0.7 ha in 2000 (Masters et al. 2013). The average farm size in Ethiopia declined from an estimated 1.4 ha per holding in 1977 to around 1.0 ha in the 2001–02, though it appears to have stabilized since then (Headey et al. 2013). Based on repeat household surveys in eight African countries, Jirström et al. (2011) found that even over the six-year period, 2002 to 2008, the average farm size declined by 15 percent in Ghana, 35 percent in Mozambique, 13 percent in Tanzania, and 10 percent in Zambia, but remained unchanged in Kenya and Malawi, and increased by 9 percent in Ethiopia and by 37 percent in Nigeria. The average change across the eight countries was a decline of 11 percent (from 2.4 to 2.2 ha per holding).

<INSERT Table 1 approximately HERE>

<INSERT Table 2 approximately HERE>

Small farms are also becoming more diversified into off-farm sources of income, often because they are now too small to provide an adequate living from farming. In China, nonfarm income shares for farm households increased from 33.7 percent in 1985, to 63 percent in 2000, to 70.9 percent in 2010 (Huang et al. 2012). This is an extreme example, but nonfarm income shares have reached 40 percent or more in many other Asian and sub-Saharan African countries and are often much higher for the smallest farms (Haggblade et al. 2007a). On average, this diversification is higher across Asia than Africa, but there is considerable variation within each continent.

Although there is a lot of country and regional variation, the overwhelming story in densely populated countries is one of more small farms, shrinking farm sizes, and increased income diversification. Despite growth—sometimes quite rapid growth—in national per

capita incomes, there is little sign yet of any significant shift to the patterns of farm consolidation that occurred during the economic transformation of most of today's industrialized countries. Rather, the continuing shift towards ever smaller and more diversified farms might best be described as a "reverse transition." In some countries (e.g., Bangladesh, India, and the Philippines), even the total agricultural land area is becoming more concentrated among small farms, and it is the large farms that are being squeezed out.

There are many factors driving this reverse farm size transition. An important driver is rural population growth, especially growth in working age adults. Growth in rural working age adults, however, may reflect insufficient growth in urban jobs to enable faster rural-urban migration. Even relatively fast growing countries like India have not generated sufficient growth in productive non-agricultural jobs to reduce the rural work force. Bangladesh and China are two recent exceptions.

There are also a number of drivers that are more context-specific. These include negative factors, which work to trap people in rural areas:

- Constraints on rural-urban migration, such as language, racial, and cultural barriers; legal restrictions on resettlement (e.g., China).
- Inheritance systems that lead to subdivision of farms among multiple heirs.
- Restrictions on land market transactions, such as caps on farm size (India), or indigenous land rights systems that limit opportunities for land consolidation (Africa).
- An aging and immobile population of farmers. Farm exits tend to be an intergenerational phenomena; land is consolidated when farmers retire or die.
- Constraints on women's employment opportunities that keep them on the farm.
- Inadequate social security systems, so that farms are kept as a retirement hedge.
- Subsidies and other agricultural support policies that make small-scale farming more attractive than its real economic worth.

On the positive side, some drivers make it more attractive for workers to stay in rural areas:

- Dense rural settlement patterns that provide enough income earning opportunities in the local nonfarm economy, so that farm-based workers do not need to migrate to urban areas.
- Growing high value opportunities in farming that create significant new employment opportunities in agriculture.

Many of these drivers are very powerful and seem unlikely to diminish in the near future. Rural populations are projected to nearly double by 2050 in Africa, so the pressure on land will keep growing. In contrast, rural population growth is slowing in much of Asia and is approaching a tipping point at which the rural workforce, and hence the pressure on the land base, begins to reverse. This has already happened in Bangladesh and China and may be happening more widely in dynamic regions with good market access within countries (Masters et al. 2013).

How fast these changes could happen will depend to a large extent on rates of national economic growth and the non-agricultural employment intensity of that growth. But rapid farm consolidation does not necessarily follow from economic growth because of some of the more context-specific constraints listed above. The earlier experiences of Japan, Taiwan, and South Korea suggest that the reverse farm size transition could continue until well into middle-income status (Otsuka 2013). In Japan, for example, the average farm size only bottomed out around 1960 at 1 ha and has since increased quite marginally to 1.2 ha in 1980 and 1.8 ha in 2005, while the percentage of farms less than 3 ha in size fell from 97.6 percent to 90.5 percent over the same period. China may finally have reached a tipping point in that the average farm size, which had fallen from 0.7 ha in 1985 to 0.55 ha in 2000, increased to

0.6 ha in 2010 (Table 2), but this is a very modest rate of farm consolidation considering the high rates of economic growth achieved in recent years.

### **Does the Reverse Farm Size Transition Matter?**

*From the perspective of economic efficiency or growth*, it does not really matter that farms are getting smaller unless there are economies of scale in farming. On the production side, the available evidence still supports an inverse relationship between land productivity and farm size (see, for example, the recent paper by Larson et al. (2014)), but small farms are facing growing challenges in accessing modern inputs, credit, and high value markets. Large farms seem able to capture economies of scale and scope in linking to value chains, so unless small farms are organized into marketing groups or contract farming arrangements, it is possible that they are becoming less efficient than large farms. If so, then the reverse transition does matter from an efficiency perspective. There are also concerns that some small farms, particularly in less favored areas, are degrading their resources through unsustainable farming practices, in which case it is hard to see how they could remain efficient farmers in the longer term.

Another concern, particularly in Africa and Latin America, is growing competition from corporate-sized farms that can exploit entirely new types of farming technologies—such as GPS-controlled precision farming, minimum tillage, genetically modified (GM) seed, and agrochemical packages—and back this with investments and political connections that give them privileged access to markets, modern inputs, insurance, and credit, all of which results in yields and cost structures that small farms simply may not be able to beat (Byerlee et al. 2012; Deininger and Byerlee 2011). A good example is the development model of Brazil's Cerrado region, which is being transplanted by private investors to parts of Africa (FAO and World Bank 2009). In some land surplus countries this development



may be welcome and unstoppable, but unless carefully managed, it is a growing threat to small farmers in more populous countries

Another efficiency concern is that as small farms get smaller, they may not have the kinds of cash income and expenditure patterns that help drive growth in the rural nonfarm economy. During Asia's green revolution, for example, small farms generated significant marketed surpluses and cash incomes, much of which was spent locally on a range of agricultural inputs, consumer goods and services, and investment goods for their farm and household. These expenditure and investment patterns generated significant secondary rounds of intensive growth in employment in the rural nonfarm economy—or large growth multipliers (see Haggblade et al. (2007b) for a review of the literature). Small farms today are less than half the size of the small farms of the green revolution era, and many are subsistence farms rather than market-oriented ones. Much may depend on how off-farm sources of income are spent, but the possibility arises that it is now the commercially oriented and medium-sized farms (what used to be called *small* farms) that are able to generate significant growth multipliers.

*From a food security perspective,*<sup>1</sup> the reverse transition poses a difficult dilemma. Small farms provide for the food security of huge numbers of rural poor. Many small farms, however, are net buyers of food, and they generate relatively little of the food required to feed large urban populations. Urban population shares are projected to grow strongly across the developing world (UN 2011),<sup>1</sup> and feeding these populations will require rapid growth in marketed food supplies. For most foods, these supplies will need to come from larger farms and commercially oriented small farms that can generate net surpluses. It follows that a food security agenda needs two pillars. One pillar is to provide support to the many smallholders

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<sup>1</sup> The United Nations (UN) projects that by 2050 urbanization will increase to 58 percent of the population in Africa and 64 percent in Asia (UN 2011).

who farm largely to meet their own subsistence needs. The other pillar is to invest in large and medium-sized farms and commercially oriented smallholdings that can produce marketed surpluses for the cities.

\_\_\_\_\_ *From poverty and income equality perspectives*, the reverse transition also poses difficult challenges. Although diversification into nonfarm activities is a useful way of supplementing farm income, it may not be enough to maintain an adequate income, to escape poverty, or prevent widening rural-urban income gaps. Local diversification opportunities into high value farming and nonfarm activity are higher in fast growing countries, and in dynamic and more densely populated rural areas. Small farms in such areas may be achieving adequate livelihoods despite having little land. In India and some other Asian countries, there appears to have been sufficient growth in remittances and rural nonfarm income in recent years to enable farm households to successfully avoid any widening gap between rural and urban per capita incomes. Rural poverty rates have also declined in tandem with urban poverty rates (Otsuka 2013; Binswanger-Mkhize 2012).

Elsewhere, opportunities for diversifying into high value farming or local nonfarm opportunities are more limited, leaving many small farms trapped in subsistence-oriented farming and poverty. This is especially common in lagging regions, where most of Asia's rural poor now live (Ghani 2010). It is also common in many slowly growing African countries, where rural-urban income gaps are widening and rural poverty rates remain stubbornly high. The relatively slow growth of the agricultural sector and the generally sparser rural population densities in Africa also constrain growth in rural nonfarm opportunities.

Evidence from Japan, South Korea, and Taiwan suggests that income diversification by small farms is not a long-term solution to the rural-urban income gap problem. In these countries, governments eventually had to introduce income support measures to narrow the

income gap, and China and some other Asian countries are now beginning to follow suit (Otsuka 2013).

*From an environmental perspective,* more small and marginal farms can lead to mixed outcomes. Many small farms retain complex farming systems that are ecologically well balanced and serve to conserve in situ many underutilized and neglected foods and indigenous crop varieties and animal species. On the other hand, many highly intensified small farms are an important source of environmental pollution and zoonotic diseases. Many other small farms struggle to make a basic living and can become trapped in downward spirals of resource degradation and poverty (Cleaver and Schrieber 1994). Yet other small farms encroach into forests and are an important cause of deforestation. A larger number of small farms in a landscape also increases the difficulties of introducing knowledge intensive Natural Resource Management (NRM) practices, and can make it more difficult to undertake the kinds of collective action needed to sustainably manage and improve watersheds and common properties. On the other hand, it needs to be noted that many large farms also cause significant environmental damage.

In sum, the reverse transition is not a uniformly good thing, creating new tensions and potential trade-offs between important economic, social, and environmental goals. Earlier assumptions that small farm growth is a winning proposition for growth, poverty alleviation, and food security can no longer be taken for granted, and the future outlook is for less complementary outcomes between these goals, which will pose more difficult choices for policymakers (Masters et al. 2013; Hazell and Rahman 2014).

The growing divergence between goals is most evident in the recent emergence of two very different agricultural agendas. On the one hand, recent increases in world food and energy prices have made agricultural growth an imperative for food security. Since most of the food insecure households live in rural areas and mostly on farms, improving the

productivity of subsistence-oriented farms has become a high priority for many governments and donors. On the other hand, higher agricultural and energy prices have turned agricultural growth into a “business” opportunity for producing food, raw materials, and biofuels, with significant growth in private agricultural investment by sovereign wealth funds and foreign and national corporate sector investors.

The business-oriented strategy does not have to be inconsistent with a pro-poor, food security approach, as long as it engages with large numbers of smallholders who are, or can become, commercially viable. Already, private sector investments along value chains are opening up new market opportunities for some smallholder farms, particularly for high value products. However, it is also becoming apparent that many more smallholders are not only missing out on new high value chains, but in some countries have also lost access to modern inputs, credit, and market outlets, even for their traditional food staples (Djurfeldt et al. 2011). There has also been growth in land grabbing and the development of corporate-sized farms, which threaten to displace smallholders from their land as well as their markets (Deininger and Byerlee 2011).

These challenges have led some to suggest that small farms have a limited future as farm businesses, and that it is better to encourage private investments in large-scale farm operations and to direct public assistance towards helping small farmers diversify out of agriculture, including helping more workers migrate and settle in urban areas (Maxwell et al. 2001; Collier 2009). The contrary view is that small farms can remain competitive in the market as full- or part-time businesses, as long as the public sector supports them by investing in the kinds of R&D and infrastructure that can make them more competitive, and by promoting farmer organizations to increase their bargaining power in the market (Hazell et al. 2007).

Given all the above, it is hard to disagree with Collier and Dercon (2013) that we need

to move beyond the small vs. big farm debate, and think more about appropriate portfolios of small, medium, and large farms that are relevant to the resource endowments and stage of development of a country. We also need to recognize that large numbers of small farms are not going to make it as commercial businesses, especially asset-poor farmers in backward regions. Many of these kinds of farms are already diversifying their livelihoods out of farming, but there are many instances where this is not yet possible on the scale required, or where the returns to nonfarm activities remain too low, for them to escape poverty. Many are sinking into deeper poverty and subsistence modes of production because of higher food prices and reduced access to land, markets, and modern inputs.

### **What Is the Right Strategy for Small Farms?**

Small farms are a very diverse group, and they face varying prospects that depend on their own assets and aspirations, as well as on their country and regional context. Policies and investments to assist small farms need to take this diversity and context into account.

A number of farm typologies have been offered in the literature to help manage this diversity. Vorley (2002) distinguishes between farmers operating in three rural worlds. In rural world 1, commercial farmers are globally competitive, linked to export markets, and use modern technologies; in rural world 2, farmers sell primarily in local, regional, and national markets and use intermediate technologies; in rural world 3, farmers are subsistence-oriented and use traditional technologies. The World Bank (2007) identifies five smallholder groups: market-oriented, subsistence-oriented, off-farm labor-oriented, migration-oriented, and diversified households that combine multiple income sources. Berdegué and Escobar (2002) identify three groups of family farms based on regional context and household assets. The first category comprises family farms with good assets (land, labor, and/or access to capital) and locations in places with good agricultural potential and access to markets. These farmers

are usually fully integrated in a market economy and make a substantial contribution to the production of food for domestic and international markets. The second category comprises family farms that have reasonable assets and agricultural potential but are constrained by being located in slow moving regional economies with limited market access. The third category comprises resource-poor farmers located in places where conditions are adverse not only for agriculture, but often for nonfarm activities. The majority of smallholders in this group are poor, subsistence-oriented, and may be diversified into low productivity nonfarm sources of income. Fan et al. (2013) differentiate small farms according to their profitability within the agricultural sector (subsistence farmers without profit potential, subsistence farmers with profit potential, and commercial smallholder farmers), and the different stages of economic transformation (agriculture-based, transforming, and transformed economies).

Key elements in these typologies are the characteristics of the region in which farmers live (especially its agricultural potential and access to markets) and the characteristics of the farm household themselves (assets, business orientation and acumen, and degree of diversification into off-farm sources of income). Drawing on this work, Hazell and Rahman (2014) classified smallholders into three groups for the purposes of targeting small farm assistance:

- *Commercial small farmers* who are already successfully linked to value chains, or who could link if given a little help. Commercially oriented small farms may be full- or part-time farmers.
- *Small farmers in transition*, who have or will soon have favorable off-farm opportunities and would do better if they were to either exit farming completely or obtain most of their income from off-farm sources. Most transition farmers are likely to leave farming, and it is just a question of when and how. Those that remain will farm part-time and may not be very market driven.

- *Subsistence-oriented small farmers* are marginalized for a variety of reasons that are hard to change, such as ethnic discrimination, affliction with HIV/AIDS, or living in remote areas with limited agricultural potential. Many of the same factors also prevent them from becoming transition farmers. Subsistence-oriented farmers frequently sell small amounts of produce at harvest to obtain cash income, but they are invariably net buyers of food over the entire year.

The relative importance of these three small farm groups varies widely from region to region. In a less favored region of a slow growing country—the worst of all possible worlds, and a situation all too prevalent in Africa—there are relatively few market-oriented farms, but many subsistence-oriented small farmers, including those who are trying to transition out of farming but cannot because of a shortage of off-farm opportunities. At the other extreme, in a dynamic region of a dynamic country—such as some of the coastal areas in China—many small farmers are producing lots of high value products for the market, or are transitioning into better paid opportunities in the industrial areas and in their local nonfarm business economy. Relatively few subsistence-oriented farmers remain, and these are often the elderly or the infirm. Many other regions, of course, fall somewhere between these two extremes.

With economic growth and urbanization, significant numbers of commercially oriented small farms are likely to prosper through diversification into high value agriculture. The most successful small farmers will tend to be located in areas with good agricultural potential and market access. Over time, some commercially oriented small farmers will become large farms, while others will eventually become transition farmers or successfully exit farming to the nonfarm economy. Transition farmers will either have, or will be able to develop, suitable skills and assets for undertaking nonfarm activity, and they are likely to live in well-connected areas with access to off-farm opportunities. Their farming activities are

likely to be oriented towards their own consumption rather than the market. Subsistence-oriented farmers are more likely to persist in less-favored and tribal areas and to grow traditional food staples (both crop and livestock) for their own consumption.

### **Some Guiding Principles for Assisting Small Farms**

Hazell and Rahman (2014) discuss the kinds of interventions that may be relevant for each of the three groups of small farms. Commercially oriented small farms need support as farm businesses. They need access to improved technologies and NRM practices, modern inputs, financial services, and markets, and secure access to land and water. Much of this assistance will need to be geared towards high value production and provided on a business basis. Many smallholders will also require help acquiring the necessary knowledge and skills to become successful business entrepreneurs in today's value chains, especially women and other disempowered groups. Managing market and climate risk is a challenge for many small farms; and, in addition to insurance and access to safety nets, these farms need to develop resilient farming systems.

Transition farmers need help developing appropriate skills and assets to succeed in the nonfarm economy, including, in many cases, assistance in developing small businesses. This can be especially important for women and other disempowered groups who have little experience working off-farm. The transition to the nonfarm economy may also be facilitated by securing land rights and developing efficient land markets, so that transition farmers can more easily dispose of their farms. Since many transition farmers seem likely to continue to remain as part-time farmers, they can also benefit from improved technologies and NRM practices that improve their farm productivity.

Subsistence farmers are predominantly poor and will mostly need some form of social protection, often in the form of safety nets, food subsidies, or cash transfers. Interventions



that help improve the productivity of their farms (e.g., better technologies and NRM practices) can make important contributions to their own food security, perhaps provide some cash income, and in many cases, may prove more cost effective than some forms of social protection. Subsistence farmers have limited ability to pay for modern inputs or credit, however, so intermediate technologies that require few purchased inputs may be needed, or inputs will need to be heavily subsidized. Subsistence farmers are typically the most exposed and vulnerable to climate risks, and in addition to safety nets, they need help developing resilient farming systems.

Although the choice of assistance policies will need to be different for the three groups of small farms, not all interventions need to be as carefully targeted as others. If an intervention targeted at one group can benefit other groups at little or no additional cost beyond the cost of reaching the primary target group (e.g., some types of agricultural R&D), then the benefits captured by other groups can be viewed favorably as “spillover” benefits and careful targeting may not be required. However, if the benefits captured by other groups represent a diversion of benefits from the primary target group, then this must be viewed as a “leakage” that needs to be minimized through careful targeting. Cash transfers, food subsidies, and fertilizer vouchers intended for the poor typically fall into this category.

Further research is needed to develop and test the relevance of smallholder typologies and to assess the most effective interventions for each type of smallholder. This should also include analysis of the best ways to integrate agricultural interventions with complementary policies and investments, such as safety nets and assistance with migration and off-farm diversification. Another challenge is developing practical ways of identifying the different groups of farms on the ground. There has been a lot of recent work using Geographic Information Systems (GIS) and spatial analysis methods to identify target areas for rural development purposes. Most of this work focuses on mapping different regions in terms of

their agroecology, market access, and rural population density (see, for example Omamo et al. 2006), but, so far, there has been limited work on disaggregating further according to differences in farmer endowments, market orientation, and gender.

## **Conclusions**

The case for smallholder development as a win-win strategy for achieving agricultural growth, poverty reduction, and food insecurity is less clear than it was during the green revolution era. The gathering forces of rapid urbanization, a reverse farm size transition towards ever smaller and more diversified farms, and an emerging corporate-driven business agenda in response to higher agricultural and energy prices are all creating a situation where policymakers need to differentiate more sharply between the needs of different types of small farms, and between growth, poverty, and food security goals.

Many smallholdings today are too small to provide adequate livelihoods, and their farm families have either begun a transition out of farming into the nonfarm economy, or they are trapped in subsistence modes of farming, often in lagging regions. Both kinds of smallholders, transitional farmers and subsistence farmers, may need assistance developing new off-farm opportunities, and in overcoming poverty and food insecurity. These smallholders account for large shares of the total rural poor and food insecure people in the developing world, and they are an important target group for international efforts to reduce poverty and food insecurity. However, transition and subsistence-oriented farms play a relatively minor role in producing marketed surpluses to drive economic growth and feed growing urban populations, and many are unlikely to successfully link to modern value chains. Interventions to improve on-farm productivity can be helpful to the food security of both groups, but will need to be complemented by other interventions that more directly alleviate poverty and facilitate off-farm transitions.

In contrast, there are also many small farmers who, because of their resource endowments, good location, or sheer entrepreneurial skill, are succeeding as commercial farm businesses, even if only on a part-time basis. These kinds of small farms are much more aligned with the new corporate-driven business agenda. As with small farms in the era of the Green Revolution, they can play important roles in driving economic growth and feeding urban populations. The greatest challenge facing these types of smallholders is accessing modern value chains. Private sector investments along value chains are opening up new market opportunities for some smallholder farms, particularly for high value products, but it is also becoming apparent that many more commercially oriented smallholders are being left behind while larger farms are gaining market shares.

If more smallholder farms are to become commercially successful, policymakers will need to do more to support them. Key areas for support include improving the workings of markets for outputs, inputs, land and financial services to overcome market failures that discriminate against small farms, investing in the kinds of R&D and rural infrastructure that small farmers need, helping to organize small farmers for the market, and incentivizing the private sector to link with more small farmers. The best way to achieve these is for government to work through private sector and civil society partners, creating an enabling policy and business environment, and scaling up proven successes.

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**Table 1: Farm Size Distribution, India**

<b>Census Year</b>	<b>Average Farm Size (ha)</b>	<b>Number Small Farms less than 2 ha (millions)</b>
1971	2.3	49.11
1991	1.6	84.48
1995–96	1.4	92.82
2001	1.3	98.10
2005–06	1.2	107.64

*Source:* Data from Otsuka (2013).



**Table 2: Farm Size Distribution, China**

	<b>Cultivated Land Ha/Household</b>	<b>% Net Income from Farming</b>	<b>% Net Income from Wage Earnings</b>	<b>% Net Income from Other</b>
1985	0.70	66.3	18.2	15.5
1990	0.67	50.2	20.2	29.6
1995	0.65	50.7	22.4	26.9
2000	0.55	37.0	31.2	31.8
2005	0.57	33.7	36.1	30.2
2010	0.60	29.1	41.1	29.8

*Source:* Data from Huang et al. (2012).