PART II

Chapter 8

What can Africa learn from China’s agricultural miracle?

by

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Although many sub-Saharan African countries have seen notable economic growth recently, this has not always translated into good poverty reduction rates. This chapter shows how China’s dramatic poverty reduction was largely driven by growth in smallholder farming, teasing out possible lessons for Africa. The Chinese experience underlines the importance of focusing on effective agricultural growth as a means of poverty reduction in countries where most people live in rural areas, as is the case in many African countries. The author cautions, however, against encouraging poor people to move off the land and out of agriculture before they have increased their incomes, as this can trap them in poverty. Instead, policies should promote high growth in agricultural productivity – particularly in basic food crops – coupled with diversification to enable the large farming population to generate a surplus, offer lower food prices for consumers and reduce the costs of industrial and service-sector development. The growing agricultural sector provides raw materials, capital and markets for manufacturing and other sectors that stimulate broader economic development and growth in off-farm employment; this, in turn, helps absorb surplus labour from agriculture. The challenge for Africa will be to avoid some of the negative by-products of the Chinese experience, which include environmental damage and growing inequity between rural and urban areas.
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“The importance of the pattern of growth to China’s progress against poverty carries a lesson for Africa. When so much of a country’s poverty is found in its rural areas it is not surprising that agricultural growth plays an important role in poverty reduction.” (Ravallion, 2009)

Following decades of relative economic stagnation, sub-Saharan Africa has experienced notable economic growth over recent years. With an average growth rate close to 6% between 2001 and 2008, the continent has weathered the impact of the global and financial crisis quite well (AfDB et al., 2011). Between 2002 and 2012, six of the world’s ten fastest-growing economies were in sub-Saharan Africa. Over the next five years, it is likely to become a new growth pole that will energise the ailing global economy. In other words, economic growth rates in the average sub-Saharan African economy will outpace those of its Asian counterparts (The Economist, 2011; UNECA and African Union Commission, 2012; AfDB, 2012).

Nevertheless, despite some findings that African poverty has been falling steadily since 1995 (Pinkovskiy, 2010), the continent’s overall performance in poverty reduction has really been rather disappointing. The share of the poor has decreased only marginally – from 51.5% in 1981 to 47.5% in 2008 – while the number of poor people, measured as those living on less than USD 1.25 per day, has increased substantially – from 204.9 million in 1981 to 386 million in 2008 (Devarajan, 2013). This disconnect between growth and poverty reduction suggests that the continent’s development pattern, which has historically failed the poor, has not changed for the better with current globalisation processes. Sub-Saharan Africa still faces the challenge of achieving a virtuous circle of growth and poverty reduction, and of ensuring that poor people are the ultimate beneficiaries of economic growth.

In comparison, China’s high economic growth over the past three decades has been coupled with remarkable poverty reduction. From 1978 to 2008, the country’s economy grew at an average 9.8% annually, while its poverty incidence dropped from 63% in 1979 to less than 10% in 2008 (Wang, 2008). While care must be taken in drawing lessons for sub-Saharan Africa from China’s success in tackling poverty (Ravallion, 2009), China’s experiences of economic transformation and poverty reduction have attracted much interest from African countries and the international development community, for example within the China-DAC Study Group (CDSG, 2011). This chapter highlights key aspects of China’s success in growth and poverty reduction, drawing lessons that could be relevant to Africa.

**The number of people living on less than USD 1.25 per day in Africa increased from 204.9 million in 1981 to 386 million in 2008**

In the period spanning 1978 to 1985, China experienced the highest economic growth rate of its reform era – an average 9.9% every year – and the highest agricultural growth – at 7.7% a year on average (Figure 8.1; Song, 2008). This short period also witnessed about 50%
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Two-thirds of China’s impressive national decline in the number of people living under USD 1 per day occurred between 1981 and 1987, with an astonishing 40% taking place in just the first three years of that period (Chen and Ravallion, 2007). Growth in the agricultural sector contributed significantly to China’s GDP growth (35%) between 1978 and 2008 (Li, 2013), while the poverty elasticity of China’s agricultural growth* during the 1990s was –2.7, and remained at –1.5 from 2000 to 2008 (Li, 2010).

The contribution of China’s agricultural growth to poverty reduction over the 30-year period from 1978 to 2008 is estimated to be four times that of all manufacturing services combined (Ravallion and Chen, 2007; Ravallion, 2009). This suggests that China’s significant poverty reduction was primarily the result of agriculture-led economic growth. This can be explained by the labour-intensive nature of that agriculture: the rapid growth of the sector significantly absorbed unskilled labour.

This is not to negate the contribution of industry to overall economic growth. Nonetheless, a substantial part of China’s industrial growth had its origins in the capital, labour and raw materials that the growing agricultural sector provided for rural enterprises. The contribution of rural enterprises to total industrial production value expanded from less than 9.1% in 1979 to 20% in 1985, while total industrial production value increased from RMB 219.2 billion in 1980 to RMB 386.7 billion in 1985 (Huang, 2008).

* The rate at which poverty reduced relative to the rate of growth in agriculture. An elasticity of –2.7 would mean that for each 1% growth in agriculture, poverty reduced by 2.7%.

In China from 1978 to 2008, agriculture’s contribution to poverty reduction was around four times that of all manufacturing services.

Figure 8.1. Growth, agriculture and poverty in China, 1978-2010


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During China’s rapid economic growth, agricultural growth was broad-based but driven by different sub-sectors, which had diverse effects on poverty reduction. Food crop production was central in linking growth with poverty reduction. Between 1978 and 1985, rice production grew at a rate of 4.5% and wheat by 8.2% a year; together these were the primary drivers of China’s increase in food crop production (Li, 2013). The growth of wheat and rice had major implications for household income, as both were widely grown by the rural poor. It is important to note that the food crop production increases were driven mainly by productivity increases and not by area expansion.

Cash crop production also increased, with cotton and oil seed growing annually at 11.4% and 20.3% respectively (Li, 2013). Although this increase had an impact on poverty in certain areas, it was limited by these crops’ narrow geographical distribution. During this period, fruit production also grew annually by 10%. While this was more widely distributed across the country, the benefits were mainly accrued by the wealthier farmers.

Agriculture’s poverty-reduction impact in China was reinforced by a structural transformation, first within agriculture and then in the wider economy. Between 1978 and 1984 – with rapid increases in production of food crops, cash crops and livestock – agriculture shifted from a concentration on food crops to more diversified production, including cash crops and livestock. As a result, although the value of food crop production in itself was rising, it dropped as a share of total agricultural production – from 80% in 1978 to 69% in 1985; the value of livestock increased from 15% to 22% over the same period (Li, 2013). From 1985 onward, rural enterprises and off-farm employment became increasingly important engines of growth. By 2005, 200 million off-farm jobs had been created, providing 40% of the employment in rural areas and 46% of the income of rural households (Song, 2008).

A striking feature in China’s poverty reduction is that the largest and fastest inroads were achieved at an early stage in the transformation of the Chinese economy. Two-thirds of China’s poverty reduction in the 24 years between 1981 and 2004 happened in the first 7 years and 40% in the first 3 years. The increasing productivity and profitability of smallholder agricultural production drove rapid growth in the incomes of rural households, breaking the back of poverty and providing the capital, labour, raw materials and demand to kick-start growth in the non-agricultural sector.

This broad-based growth pattern would appear to confirm the importance of focusing on effective agricultural growth as a means of poverty reduction in countries where the rural population is dominant, as is the case both in China and in many African countries. This has also been seen in countries such as Viet Nam (Chapter 10, Local solution 6), and to some extent, Indonesia (OECD/FAO, 2010).

What China’s experience does is to challenge the widely held notion that growth and economic transformation in poor countries automatically result in poverty reduction. Instead it suggests a more complex causality, where poverty reduction is a precondition for sustained economic development and transformation. We could describe this as poverty-reduction driven growth.

**Key policies were investment, market reform and a focus on smallholders**

What factors combined to create and drive China’s interlinked growth and poverty reduction?
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Land reform, education and infrastructure were the building blocks

China’s remarkable economic growth, agricultural development and poverty reduction from 1978 onward are strongly associated with previous investments in a number of sectors that are critical to poverty reduction. For instance, in 1978 China’s primary and middle school enrolment rate was 95.9%, up from 20% in 1949. The proportion of irrigated planted area was 16.3% in 1949 and had already risen to 49% in 1980, close to the current 50% (Li, 2013). Land redistribution – which started with land reform in the beginning of the 1950s and continued with further reform at the end of the 1970s – provided poor, agriculture-dependent households with land rights, ensuring that they could benefit from growth (Wang, 2008).

Reform was gradual, state-led, market-driven and farmer-based

China’s agricultural policy since the end of the 1970s has been based on an incremental learning process. Agriculture was already the foundation of the national economy, with grain crops the central component. Market reform for agricultural products was never radical, but instead based on experiences and policy experiments at specific sites over various regions; this has allowed small-scale success to be replicated on a larger scale. Moving the grain market towards a free market system took more than 20 years of putting regulations and infrastructure in place, while at the same time controlling the prices of fertiliser and other agro-inputs to maintain affordability for farmers. Over this time, the state continued to provide public services such as research and extension. Finally, agricultural development was well integrated with non-agricultural development through encouraging agricultural diversification and rural enterprise development. Overall, the state-led, market-driven and farmer-based model has been central to the success of Chinese agriculture.

Smallholders are the lynchpins of agricultural transformation

The key for connecting growth with poverty reduction is the development of smallholder agriculture. In China, smallholder agriculture has been transformed in various key aspects:

1. Productivity was increased through an intensive household farming system. In most parts of China, multiple cropping is now widely practised, and double and triple harvests within one year help farmers maintain high output per unit of land. Even in northern China, intercropping – such as wheat-maize and maize-soybean combinations – is widely applied.
2. Crop-livestock mixed systems are common on Chinese smallholdings. Livestock are raised on almost all smallholder farms, despite differences in scales, helping to diversify household nutrients and incomes; animal manure is also collected as fertiliser to maintain soil fertility.
3. Smallholder agriculture in China employs manual labour very intensively, from land preparation to sowing, transplanting, weeding, fertilising, irrigation, harvesting and processing (although recently, some of this work has been taken over by machines).
4. Chinese smallholders make wide use of improved seed varieties and fertilisers. The state has lent strong support by providing irrigation, improved seed, research, training and affordable agro-inputs.
Three harvests a year keep productivity high

5. Settlement patterns and land use in rural China contribute to agricultural development: villages are usually nuclear with arable land belonging to different smallholders relatively concentrated (apart from in mountainous areas). This organised land-use pattern supports the development of large-scale commercial crop clusters, such as the maize clusters in northern China and the rice clusters in southern China. These cluster patterns favour the use of joint services provided by the state, such as irrigation, training, harvesting and marketing.

China’s experience has several relevant lessons for Africa

Agriculture in China and sub-Saharan Africa has developed under different historical, political, social and economic conditions. Nevertheless, there are some important lessons from China’s experience that could be useful to African countries when discussing and deciding on agricultural policies.

The headline message is that for countries where rates of poverty are high and a large proportion of the population – and especially of poor people – depend on agriculture for their livelihoods, rapid impact on poverty is possible. There can be a huge poverty reduction “dividend” during the early phases of economic transformation, when the increasing profitability and productivity of smallholder production drives growth in agriculture and agricultural growth in turn begins to stimulate the broader economy. This is very good news for most African countries where this phase of economic transformation has still to take off, and where most poor people are small-scale rural producers and most smallholders are poor. For them, there is potential for massive and rapid poverty reduction.

Passing through this phase of growth in smallholder production, profitability and incomes seems to be essential to realising the poverty reduction dividend. Pursuing rapid economic transformation without passing through this phase carries the risk of trapping people in poverty. People often give up farming and move off the land before sustained growth in agriculture has either increased their incomes or catalysed the economic transformations that can provide off-farm employment. In the process, they become disconnected from the source of their economic livelihoods before alternatives have materialised. This means that poverty becomes entrenched and much more difficult to escape. When this opportunity is missed, it may be gone forever, permanently altering the trend in poverty reduction.

On another front, China’s agricultural development experience suggests that the combination of sound policy making, strong state institutions, and leadership committed to poverty reduction are key (Ravallion, 2009). Today, the political and institutional contexts in which African countries develop and implement agricultural and economic policies are varied, and are significantly different from those of China during its period of rapid poverty reduction. In China, the state and public institutions have the role and capacity to determine, finance and implement policies in the agricultural sector, and to regulate markets in order to achieve specific development objectives. China’s political stability allows long-term perspectives and consistency in policy objectives and approaches over time. In many African countries, these conditions do not apply, or at least not to the same extent; this means that different approaches to policy formulation and financing will be required.
Nonetheless, there are fundamental lessons from the Chinese experience about policy focus and the critical objectives of those policies. China established a consistent agriculture-centred development strategy and a staple food-led agricultural development policy that were honed over time through an incremental learning process. This, in turn, shaped and developed smallholder agriculture. This underlines the need for long-term consistency of purpose, and for the confidence to invest in and develop production systems and capacities.

For Africa, the key lesson seems to be that a substantial increase in farmer income can transform the entire economy. Specific lessons could include the following:

- Promote high rates of agricultural growth based on enhanced productivity to enable the large population engaged in agriculture to generate a surplus and, at the same time, offer lower food prices for consumers and reduce the costs of industrial and service-sector development.
- Use growing farmer incomes to stimulate the wider economy by linking agricultural surplus to investment and business opportunities for the manufacturing or other sectors to help absorb surplus labour from agriculture and stimulate broader economic development.
- Rapidly develop the production volumes and productivity of the food crops already being grown by the majority of smallholders, in order to both provide food security and generate a surplus that will increase household incomes.
- Evolve from purely crop-oriented agricultural production to more diversified farming systems, including agro-forestry, livestock and aquaculture.
- Move to an efficient market system through a steady and incremental transformation that ensures smallholder access to markets and services on economically viable terms (Chapter 10, Local solution 4). This may, as it did in the case of China, involve the state guaranteeing provision of irrigation, improved seed, fertiliser and market facilities.

There are also negative aspects to China’s poverty reduction story which should also be heeded. It is true that China’s long-standing food-production-based agricultural policy has achieved national food security and increased food exports while farmers’ incomes have grown. Nonetheless, some of the high-input/high-output production systems that have contributed to this food security have also had an irreversible negative impact on the environment and natural resources; the falls in poverty levels have also been accompanied by inequality between urban and rural populations. Both problems are becoming major policy concerns.

**Conclusions**

African countries should carefully examine China’s experience, identify what can work for them and adjust and adapt the lessons to their national contexts. Given the diversity of the African continent, one of the most important lessons from China’s experience in agricultural development is the need to adapt to local and regional situations, just as China has done throughout its long history. Above all, African nations need to make their own agricultural plans and continue to develop the human and fiscal resources to implement them.
References


Huang, J. (2008), Institutional Change and Sustainable Change: 30 Years of China’s Agricultural and Rural Development, Shanghai Peoples’ Press, Shanghai.


