Amazing rural transformation

Thursday, Aug 14, 2014

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Over the past 40 years the rural economy of Bangladesh

has undergone an amazing transformation. In the 1970s, close to 80 percent of the rural population was poor. By 2010, the poverty rate had decelerated to 35 percent. Life expectancy climbed from a low of 45.6 years in 1974 to 67.7 years in 2011, which is a remarkable 49 percent increase in less than 40 years. Over the same period, infant mortality rate was brought down from a high of 148 per thousand to below 38, while crude death rate fell from 20.8 per thousand to only 4.8.

Census data and Household Income and Expenditure Survey (HIES) data suggest that these substantial improvements in the fundamental indicators of wellbeing of the rural population were also accompanied by enhancements in the quality of life in terms of quality of dwelling, access to safe water, access to sanitary facilities, access to electricity, access to rural roads, access to telephone, access to internet, better health facilities and growing education of rural children at the primary and secondary levels. The adult literacy rate also improved significantly, from only 23 percent in 1974 to 53 percent in 2011. The Bangladesh rural economy and the social scenario today is vastly different from the 1970s.

What factors have brought about such remarkable transformation of the rural economy? In a thoughtful keynote paper presented to the recent Bangladesh Economist's Forum, June 21-22, Professor Michael Lipton of the University of Sussex in England emphasised the important role played by the three Fs: fertility, food and farming. He convincingly argues that the sharp cutback in fertility in Bangladesh, the rapid growth in food production and expansion in farm productivity contributed substantially to the increase in the welfare of the rural poor. The urban poor also benefitted from low food prices and fertility rate cutbacks, but the biggest improvements happened in the rural areas.

As a result of a very successful population control policy, the rural fertility rate came down from a high of 6.7 percent in 1974 to 2.2 percent in 2011. This sharply reduced the growth of population in the rural areas. Combined with urban migration, the rural population growth rate has now fallen to below 1 percent per year (0.7 percent in 2011) as compared with 2.3 percent in 1974. The average household size has fallen substantially, from 5.73 in 2011 to only 4.29 in 2011. The large reduction in household size has been an important driver of rural poverty reduction.

Rural Bangladesh also benefitted from the ongoing demographic dividend in another way: through growing labour force participation. As the age structure changed in favour of the working age and away from child dependency, more contributors to rural household income emerged.

The emphasis on food production from the early years of independence has been a hallmark of public policy in Bangladesh that has served well the cause of poverty reduction overall, but especially in rural areas. Investment in irrigation and rice technology has yielded huge dividends. Rice production soared from a low of only 9.3 million tonnes in 1972 to a remarkable 33.8 million tonnes in 2013. Along with some production of wheat, per capita foodgrain availability almost doubled from 133 kilograms per person per year in 1972 to 258 kilograms in 2013. This rapid expansion of food per capita has been an important contributor to the sharp reduction in the incidence of mass hunger and poverty. Due to land constraint, acreage under food production did not increase much (less than 1 percent per year) but production growth mostly happened from a strong increase in productivity. As a result of adoption of better production technology (seeds, fertiliser and water based green revolution) and multiple cropping, per acre rice productivity increased from only 403 kilograms in 1972 to 1,158 kilograms in 2013, which is almost a three-fold growth. This productivity improvement along with generous input subsidies allowed the government to keep the price of rice low for consumers. The productivity growth and subsidies protected farmer income and incentives from falling while low rice prices protected the consumers, especially the poor who have a much larger share of foodgrain in their consumption basket than the non-poor.

This is a powerful but incomplete story. Fertility, food and farming explain the developments in rural Bangladesh between 1972 and 2000 quite well. From 2000 onwards, other dynamic factors have started playing a more dominant role in changing the rural landscape. Rice and farming are still important, but the factors underlying the economics of rice production have changed quite a bit from the early years. Importantly, the rapid decline in rural fertility between 1972 and 2000 (from 6.7 to 2.7) has meant that further reductions in fertility will be much smaller, even allowing for regional variations in the countryside.

What are these other dynamic forces?

To appreciate their role, it is instructive to look at the sources of rural household income. While there are major concerns about the accuracy of the income data, especially those reported in the 2010 HIES, the directional changes indicated by earlier HIES numbers are helpful. These directional changes are also consistent with the independently prepared national accounts data. HIES data suggest that even in 1991 farming accounted for some 53 percent of rural household income. By 2005, this share had fallen dramatically to only 34 percent, whereas the share of non-agricultural income surged from 36 percent to 51 percent.

The other important and growing contributor is total transfers from domestic and foreign sources, which expanded from 11 percent in 1991 to 14 percent in 2005. Much of this transfer is accounted for by the contribution from foreign remittance. If reliable income data for 2010 were available (unfortunately the 2010 HIES income data appear to be seriously flawed), it is most likely that the share of income from agriculture would have shown a further decline whereas the share of both remittance and non-agricultural income would have increased.

This is corroborated by developments in national accounts that show that as compared with agriculture, which grew by an average of 4.4 percent during 2005-2010, manufacturing grew by 8.2 percent and services by 6.2 percent (i.e. both grew much faster than agriculture). The employment share of agriculture also fell while the employment share of manufacturing grew. Importantly, the value of remittance inflows nearly tripled between 2005 and 2010 in US dollar terms. If the 2010 rural remittance share was similar to its share in 2005 (57 percent), then this would imply that rural household income from remittance would have also grown by nearly three times in nominal dollars. Although, farmers benefitted from a substantial improvement in the terms of trade owing to a surge in rice prices, the most likely scenario is an increase in the income shares of non-farm and transfers and a further reduction in the share of income from farming.

These changing income trends suggest a huge transformation of the rural economy as non-farming activities are becoming the dominant source of income in the rural areas. While the income from farming tends to be more equalising than income from non-farming and transfers, once we allow for the general equilibrium effects of growing demand for services in the rural economy financed by the remittance and non-farm income, the most likely beneficiary of this is the rural wage earners, who tend to belong to the poorest income group. The observed improvement in the quality of life of the rural population in terms of housing, rural infrastructure, health and education is an example of the growing demand for services.

The expansion in rural electrification, cell phone services and internet services are also changing the economic and social character of the rural population. Better communications along with improvement in rural transport has lowered the transaction costs between the rural and the urban economy, thereby further supporting rural trade and commerce.

The economics of farming is also changing in important ways. First, on the supply side, with the growing encroachment on agricultural land, it is fast becoming a binding constraint on farm production and employment. Second, on the demand side, the substantial slowdown in population growth rate along with low income elasticity of rice has meant a gradual slowdown in the domestic demand for foodgrain. As income rises, the substitution of other food for rice will also come into play. This suggests that the government should actively pursue the option of rice exports to keep farmer incentives in place. This obviously has implications for real rice prices that will likely rise.

Will it not hurt poverty reduction? What is the recent evidence from Bangladesh?

As earlier noted, the government has rigorously pursued a policy of declining real prices of rice to reduce poverty. It supported farmer incentives through investment in technology supporting productivity improvements and input subsidies. But the substantial decline in the real price of rice (except for a brief reversal in 2005-2008 global food price crisis period) and budgetary constraints are increasingly making it difficult for the government to sustain rice as a major source of income for the rural economy.

The declining real rice price played a major role in reducing poverty at initial stages when income was very low, population growth was high, dependency ratio was high and there was a large incidence of hunger and food poverty. Today, the rural and urban scenarios of Bangladesh are vastly different in all these dimensions. Indeed research shows that the unintended consequences of the transmission of the global food price crisis on Bangladesh domestic rice prices were highly positive for growth of rural incomes and poverty reduction between 2005 and 2010. Furthermore, the fact that the urban poverty also declined the fastest during 2005-2010 despite increasing real rice prices suggests that a mildly increasing real price of rice may not be inconsistent with poverty reduction. Thus, securing a continuous decline in the real price of rice may not be the best policy in today’s Bangladesh.

So, instead of fearing a food price crisis, Bangladesh should seriously consider exporting rice. It can of course always watch price trends carefully to offset short-term upswings and significant from long-term trend through buffer stocking, trade regulation and other policies. The other policy implication for rice is that supporting further productivity improvements through investment in farm technology will continue to be important. Outside rice, supporting productivity of other farming activities will be important, especially for products with high income elasticity of demand (fruits, vegetables, fisheries, poultry, meat and dairy products).

In view of the growing importance of non-farm activities in rural areas, the government will need to support services that provide incentive to these activities. These include further efforts to intensify rural electrification, further improvements in rural roads, higher public spending on rural health and education, and supply of rural credit. Efforts to improve access of the low served rural areas to external migration facilities through information support, protection of worker rights and institutional loan facilities to lower the initial financial cost of migration may also be helpful.