The Emerging Quiet Revolution in Agrifood Value Chains and Livelihoods in Myanmar

Thomas Reardon, Keynote Speech for LIFT Conference 25/26 November 2014, Naypyitaw[1]

1. Introduction

I am grateful to be invited to give a keynote speech at the LIFT conference two years in a row. Last November I spoke from my experience living and working in other Asian countries for the past 12 years; today I will compare that experience with what I have observed in Myanmar over the past 12 months, and present a message of excitement, hope, and challenge.

Before turning to Myanmar I review from my observations from Bangladesh, China, India, Indonesia, the Philippines, and Vietnam, from field interviews with 10,000 persons in all the segments of food value chains, from input suppliers to farmers to wholesalers and logistic firms to processors and to retailers and exporters. This is what we found:

The rapid transformation of the Asian agricultural and food economy has been based on a "food security success triangle" with three corners.

The first corner of the triangle has been a profound and rapid transformation of rural-urban supply chains, which we call a "Quiet Revolution in value chains." This transformation has been led mainly by a huge surge in "grass-roots investments" - by 100's of 1000's of small and medium enterprises (SMEs) all along the value chains - from upstream in the value chains in equipment and machine rental, seed and fertilizer and chemical supply, irrigation installation, and fish pond excavation, - to midstream in the supply chain in trucking, processing, cold storage, warehousing, and wholesaling. Multinational corporations have played only a minor role, and government marketing agencies have played nearly no direct role, in this revolution in value chains. The transformation has been driven by policies of market liberalization in all the countries, of road and electricity investments by governments, and by the fast increasing demand from urban market growth. Trade has mainly played a minor role so far: imports and exports are only 5% of the overall food economy of Asia.

The second corner of the triangle is the modernization of Asia's small-scale farms – with rapid intensification of technology and commercialization; the farmers themselves have converted their traditional farms into small-scale businesses. Around the region hundreds of millions of small-scale farmers have invested in irrigation, farm machinery purchase or rental, and use of fertilizer, improved seeds, and chemicals. The result has been leaps and bounds in productivity and farm incomes.

The third corner of the triangle has been the diversification of rural livelihoods.

- Millions of small farmers have diversified their livelihoods by moving beyond just rice production into vegetables, oilseeds, fruit, dairy, livestock, fish, pulses/beans, and corn. This choice of what farmers are doing with their land, labor, and money, is driven by several facts. The first fact is that the non-rice products earn the farmers in Asia 2-5 times

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higher gross margins compared to rice. The second fact is the trend of long-term stagnation and decline in rice consumption per capita in Asia, pointed out by Peter Timmer of Harvard. This implies that rice prices will plateau or decline over time in absolute terms, and decline in relative terms compared to non-rice food products. The third fact is the trend of Asian consumers' increasing very fast their consumption of the non-rice foods just mentioned. Our detailed analysis of Asian consumers just showed that urban consumers (who are now two-thirds of the Asian food market) spend TWICE as much of their food budget on fish, chicken, vegetables and fruit as they do on rice; in rural areas they are EQUAL shares.

- Millions of rural households have sent members into the migration labor markets – adding enormously to rural incomes, enabling households to make investments in job-creating businesses in rural areas and invest in modernizing their small farm operations.
- Millions of rural households have entered rural nonfarm employment in their villages or in rural towns and secondary cities where they commute to and from. This also has added enormously to rural incomes.
- All three of these livelihood diversifications have been immensely important to rural people across Asia – and they have voted with their feet - and their yuan and rupees and bhat to invest in this diversification.

2. Can and is the food system transformation emerging in Myanmar?

When I gave my talk on the Asian food economy transformation a year ago at this forum, and I noted how important that transformation has been to fulfilling Asia's needs for food and for broad-based inclusive rural income growth - I asked myself and others, has this transformation started in Myanmar? Can such a transformation occur in a country where half the population is under the poverty line, half the rural people are landless, and half a century just passed in which the country had very low economic growth rates? Many people told me the answer is no, that it has not started and will not occur here, that the rural areas are stagnant, that local people are not investing in the supply chains, that farmers are not moving away from traditional practices, or into high-value products, that they have been too poor too long and lost their drive to succeed.

During the past year I have become firmly convinced that those that told me "no it cannot happen" are wrong. With our partner team of talented Myanmar researchers at Myanmar Development Resources Institute, Center for Economic and Social Development (MDRI-CESD), we have traveled to the south, the north, the east, and the west of Myanmar. Rather than finding stagnation, lack of drive, lack of any transformation, instead we have found many signs and indications of an emerging Quiet Revolution in the agrifood sector. We now have an image of a country filled with many rural entrepreneurs, on farms and off-farms, eager to succeed, to respond to the new market incentives, to vote with their feet and their kyat.

I will dwell for some minutes on several examples of what we have observed in the past year in Myanmar in terms of the emergence of the three corners of the triangle, transformation in value chains, modernization of small-farm technologies, and diversification of livelihoods.

First, I will illustrate value chain development, technology transformation, and farm product diversification with three key examples, those of fish, chicken & corn, and horticulture products. I picked these because they are all mainly sold to the domestic Myanmar market; they are important for nutrition for local consumers; and because all over Asia the rate of increase of their demand far exceeds that for rice, and so these will be the "products of the immediate future" in terms of opportunity for growth.

Let us start by considering the rapidly developing fish sector in Myanmar, which we have studied in field research in the Delta and Mon. More than 90% of fish production (capture fisheries and aquaculture) in Myanmar goes to domestic urban and rural markets. Less than 10% is exported, although there are excellent prospects to increase fish exports. But often in policy discussions there is a focus on export markets only, when in fact the domestic market is just as exciting if not more so. We have observed that over the past decade, clusters of fish ponds, both small and medium and large, have spread very rapidly over the Delta region; there has been a spread of private hatcheries and nurseries, of small and medium feed mills, or wholesaling and trucking and specialized boat services for transport of fish to Yangon and Mandalay and Shan markets. We have observed rural migrant remittances and local farmers cash invested into excavating ponds. We have observed laborers flocking to the fish zones for the year round work. The development of this sector is truly stunning and rivals, at take-off stage, what I have seen in Indonesia, Bangladesh, and China. This is good news for fish farmers, and for poor consumers for whom fish is a main source of protein. A similar fish sector revolution started in Bangladesh a decade earlier and turned around a situation which had been described as a fish price crisis in the 1990s to affordable fish available year-round to the poor in the 2000s. We think Myanmar has embarked on this same path.

The chicken sector is also developing quickly in Myanmar, especially in the Yangon and Mandalay areas. This again mirrors the experience of the rest of Asia in the past 15 years. Chickens raised intensively eat feed made from corn (maize). It is thus no surprise that production of corn has skyrocketed in a short time in Shan and the Dry Zone. Half of the corn is exported to other Asian countries, half goes to Myanmar chickens. I think the share to Myanmar will rise fast over time as chicken consumption here catches up with the Asian norm. The rapid rise of corn production mirrors what happened in China and Thailand and Vietnam. In China for example, corn was a tiny share of the rice acreage in 1990; now more corn than rice is grown in China. This dual development of the chicken and corn is a basic agricultural development motor throughout Asia. Poor consumers gain because the price of a main protein source is driven down over time. Logistics and processing and wholesaling actors and laborers they employ are benefitted as employment in supply chains rises. Corn and chicken production have also been a door into increasing contract farming by local and regional companies, reducing risk to farmers and providing them a premium.

The horticulture sector is yet another emerging success story in Myanmar. There is justifiable excitement about initial breakthroughs in exporting mangoes and melons and other fruit. This initial success will only be magnified and accelerated as domestic and international companies increasingly invest and help local farmers with know-how. To witness the export story, I had only to travel the road from Mandalay to Muse last December and watch hundreds trucks move from thousands of farms in the Dry Zone to the vast China market, and then stand and watch 300 trucks each morning sell 8000 dollars each of melons on the border, generating a river of cash going back up the supply chain to rural areas in the Dry Zone.

But my excitement has not been limited to observing the export value chains. In fact the great majority of vegetables and fruit grown in Myanmar go to city markets in Myanmar, diversifying diets and raising nutrition of poor consumers. To witness the emerging horticultural value chain revolution to Myanmar cities I had only to sit last February in a large tomato wholesale warehouse on the shore of Lake Inle. The tomato trader had recently invested in a fleet of boats and was loading trucks bound for Yangon market. He noted that a dozen years before there had been 1 such warehouse, and now there are 30. That dear audience is a sign of a Quiet Revolution starting, with the heroes the thousands of farmers and irrigation pump salesmen and truckers and wholesalers and retailers who are building this success.

Second, I give emerging cases we observe in Myanmar of beneficial links between value chain development and crop diversification on the one hand, and rural livelihoods on the other.

A first aspect of livelihood impact is that agricultural diversification and commercialization increase local labor demand – to pick and pack and transport fruit, to attend to fish ponds all year, to harvest and transport maize, and so on. Horticulture in particular is very labor intensive and is known throughout developing countries as an employment generator in rural areas. How this is happening in Myanmar came to us in a flash in a discussion with tea plantation managers in Shan; they noted how much of a shock to them it has been to see a doubling over the past four years of the wages they have to pay the tea-picker migrants from the Dry Zone; we asked them why, and they said "it is all due to the fruit and vegetable boom in their own Dry Zone, that is driving way up demand for labor and so now we have to compete and pay them higher wages!". We heard this story all over the country. Think of how good this is for the poorest people in Myanmar, the landless rural workers.

But there is also a challenge inherent in this story. As the cost of labor increases, we observe (and are told by farmers) that the use of small-scale farm machines is rising swiftly; we observed that in the Delta and in Shan. Michiko Ito of IOM told me of how the villagers describe the massive shift away from animal traction to tractors in the Eastern Shan villages she long worked in – shifting from a water buffalo to "Thai buffalo" by which they mean Thai farm machines.

This appears to be the start of a similar shift that occurred in the early to mid-2000s in Bangladesh and in China, where small farmers (with farms far smaller than in Myanmar) shifted massively over to renting small tractors and attachments, used for farming and for transport to product markets and employment in rural towns. However, this will also mean a difficult transition period for the poorest farm laborers lacking skills, seed capital, and education to transition to better employment. This will be an inevitable challenge in Myanmar to address over the next decade.

A second aspect of the impact of market change on local livelihoods is that the income from migration and the new agricultural incomes are feeding the **growth of rural nonfarm employment**. This was stunningly clear to us when we were on the roads in Southern Shan, observing literally hundreds of small construction sites, additions to homes, re-roofing, and transport jobs with hundreds of small tractor-pulled vehicles, but nearly no bullock-pulled carts in sight. This rise of rural nonfarm employment again shows Myanmar starting to converge with the normal trend in the other Asian countries, where rural nonfarm employment is 40% of rural incomes, actually much higher than the migration income share except in a few areas. It will be increasingly important for livelihood development to train and equip rural households to enter this kind of employment.

A third aspect of livelihoods links to market transformation is that migration (and rural nonfarm employment) are themselves important sources of investment capital for farm productivity and value chain investments. A stunning fact is that remittances from Myanmar citizens in international migration are estimated at 8 billion US dollars per year! That is near to the total official value of exports from Myanmar. Add to international remittances the largely uncounted internal migration remittances, from the 1000s of rural migrants in Yangon and Mandalay, or Dry Zone migrants in Mon or Shan or the Delta. And then add to that again a sizable amount that must come from rural nonfarm employment of rural laborers commuting to the local towns to work. Together these three sources of off-farm cash earned in migration and in the local nonfarm sector are fundamental sources of investment capital for rural development. From our fieldwork, it seems that at least part of these cash sources are used for that: we found in Mon and Delta that fish ponds were dug, and in Shan irrigation pumps and tractors bought, and housing construction undertaken, financed by remittances.

Experience in other regions of Asia is again telling: investment from migration remittances and local nonfarm income have been fundamental factors in the transformation of rural areas in the Philippines and China and Bangladesh. Governments in these countries have seen this inflow as a potential bonanza for rural areas – but have been worried about how to create the incentives for that reinvestment and lower the risk. The Mexican (and now the Philippine government following them) set up a "3 + 1" program where the government matches remittance based investments three to one. Rural banks have set up programs to cater to these flows. In the end, the "business climate" of profitability and risk will determine where migrants reinvest their cash. To that "business climate" I turn in the final portion of my talk.

3. **Strategies**

To this point I have made the case that Myanmar has indeed started on the path of transformation of its agrifood sector, with initial progress in all three corners of the triangle of success I introduced at the start of the talk. In the last part of the talk, I would like to suggest t**wo strategies to encourage that rapid transformation while promoting pro-poor inclusive development in Myanmar.** Of course the application of these strategies will need to be adapted to the very different kinds of zones and capacities of different socioeconomics groups and strata in the rural areas.

First, it is crucial for policymakers and international partners to encourage and leverage the emergence of the transformation. The take-off speed and altitude of that transformation, and its inclusiveness of the poor, will **depend a lot on the "business climate**" for the 1000's of small and medium investors – the 100's of 1000s of farmers who want to act like and earn like small businesses, and small and medium rural business entrepreneurs in agricultural services and supply chain services. The generation of local employment will depend on their investments and the hiring they do. The success of large investors will also in the end depend on whether there are investments by farmers and the cluster of local services needed to grow and move product.

While there is good and active discussion of the business climate for foreign direct investment (FDI), it is just as or even more important to have an intense and evidence-based policy discussion about the "business climate" for the small and medium enterprises (SMEs), the small farms and off-farm businesses along the value chains – the issues to focus on are the following:

- how free are they to choose the products they grow (or are they limited to paddy by law);
- How easily and at what price can they get complementary capital from banks and micro-credit institutions?
- How risky are their investments (or can they get titles to land whether they are rice farmers or not, even though our work shows how profitable and growing are the “beyond rice” diversification options)?
- How accessible are output markets (or are they constrained by poor roads and electricity access?); sometimes a good road is the difference between an area being a hinterland and being a dynamic area; witness a story I heard recently of Chin farmers bringing baskets of oranges on their heads down mountain paths; what a difference and an opening up of the area a good road would make!
- How close and well equipped is the nearest rural wholesale market (a fundamental success story in the take-off of Chinese and Thai farming)
- How accessible are input markets for fuel? Electricity? machines? Fertilizer? Good quality certified seed for paddy but also for vegetables?
- How much information can they get about investors and contract farming companies to help them?
- How much information can they get about new technology that goes beyond paddy farming, into non-rice production for farmers, and into packaging and processing and sorting and cooling and other technologies for the various services along the supply chains?

All these policy questions treat small and medium rural entrepreneurs as small businesses building diverse portfolios and expecting good return and low/moderated risk**.**

Second and finally, to complement the promotion of small and medium enterprise and job creation, it is important to match that with interventions that help landless households (and others) participate profitably in the changing rural economy. This will both speed up the overall transformation of agriculture and value chains by supplying these transformations with labor and grass-root cash investments, and will ensure fewer people are boxed out of benefiting. Two kinds of policy interventions can be useful. The first is to enable employment diversification (such as with credit and job training for rural nonfarm activities like construction and food preparation and processing). The second is to enable labor mobility (providing better information about distant opportunities, ensuring people can get National Registration Cards and passports if they want them; enabling access to public services in destination sites; enabling access to financial services - savings and credit - to enable migration).

Thank you very much for your kind attention.