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The Role of Supply Chains and International Networks in Enhancing the Agricultural Sector's Competitiveness in Cambodia, Laos, Myanmar and Vietnam (CLMV)

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ABSTRACT

The expansion of supermarkets in Asia typifies the effects of the increasing liberalization in trade and the inflow of foreign investment. The supermarket revolution thus occupies a focal point in this paper which tracks its phenomenal growth in Asia, and its continuing inroads into CLMV – Cambodia, Laos, Myanmar and Vietnam. Given the significant transformation that this major development is expected to bring into these countries' agricultural sector as well as food distribution systems, the paper examines the growing role of supply chain management. The value-adding potential at each level of the chain will allow agriculture to drive overall development by leveraging on the nations' advantage at the input, processing, wholesale and retail trade as well as international trade levels. The initial successes in Myanmar and Vietnam are highlighted.

In the wake of these developments, the paper emphasizes the glaring need to address the issue of how to balance the interests of the key players along the supply chain with that of the national interest, and how to gear up for globalization while also strengthening internal structures and institutions. The challenge is to ensure the orderly and balanced development of supply chains. Specifically, the respective governments would need to launch focused and holistic interventions that would not only manage the supply chains and international networks, but also minimize the marginalization of small farmers and other stakeholders.

INTRODUCTION

The purpose of this paper is to consider the implications of some regional and global developments on agriculture and its competitiveness in the countries collectively referred to as CLMV from an economist's perspective (perhaps a worm's-eye view?) gained over years of establishing and managing supply chains and international production and trading networks in the region.

Conditioned by my inherent bias towards the topic at hand, I focus on the rise of supermarkets in Asia and the increasing relevance of supply chain management, with cursory treatment of the World Trade Organization (WTO), the ASEAN Free Trade Agreement (AFTA), other regional and bilateral free trade agreements (FTAs), and the rise of China. Consequently, there would be passing mention of

other related issues like 'spaghetti bowl effect', and 'peaceful rising'.

The underlying theme is that in the wake of these developments, it is imperative for the CLMV (i.e., Cambodia, Laos, Myanmar and Vietnam) to 'get the balance right' between gearing up for globalization and putting their own houses in order, or between balancing sectoral considerations as well as the interests of the stakeholders along the entire agri-food supply chain and that of the nation.

Following this introduction, the next section provides an overview of some relevant global and regional developments and how they can be viewed from the CLMV countries' perspective. Section 3 focuses on the rise of supermarkets in Asia by tracing its historical development, expansion path, and the factors fueling it, as well as some other countries' experiences, before examining the development

of supermarkets in the CLMV region. Section 4 underscores the increasing relevance of the supply chain management and international networks by drawing upon some countries' (including some in CLMV's) experiences and examples of its convergence or inter-relatedness with the rise of supermarkets, especially in agri-food, fresh produce and high-value products. Section 5 emphasizes the need for CLMV governments 'to get the balance right' in moving forward, while Section 6 contains the conclusions.

BACKGROUND

Overview of Global and Regional Developments

Largely due to the stop-and-start nature of WTO progress, especially during the current Doha Round, and the rise of open regionalism and bilateral arrangements, regional FTAs and bilateral Trade Agreements (TAs) and Economic Partnership Agreements (EPAs) have proliferated over the last few years. These are often overlapping, as is apparent from Figure 1, giving rise to the 'spaghetti bowl' (or 'noodle bowl'?) effect (Urata 2004).

We also witness the increasing interdependence in East Asia through trade and financial cooperation which has heightened the need for greater regional cooperation and integration. This, no doubt, is also spurred by the impact and lessons learnt from the last regional financial crisis, coupled with the somewhat dubious value of the Asia-Pacific Economic Cooperation (APEC) (Akhtar 2004).

At the ASEAN +3 Summit in November 1999, there was a joint statement on East Asian cooperation covering trade, investment, technology transfer, e-commerce, agriculture, small- and medium-scale enterprises (SMEs), tourism, and the development of the Mekong River Basin.

In relation to the East Asian regional cooperation, ASEAN is, in many important ways, the current 'hub' but this is largely by default. Many consider China as the key driver (given the hitherto unwillingness of Japan), owing to its advantage of centralized decision-making, coupled by its declared 'peaceful development' or 'peaceful rising' strategy.

With this broad-brush overview, we now take a closer look at developments from the CLMV's perspective.

CLMV Perspective

In relation to WTO, it should be noted that three of the four CLMV countries are less developed countries (LDCs), and two (Vietnam and Laos) out of the four are not yet members. Though affected by developments elsewhere, LDCs themselves are not committed to further reduction on anything, under current WTO ruling. So, all in all, and for all intents and purposes, the impact of WTO may appropriately be likened to "distant drums".

On the other hand, the implications and impacts of AFTA are more pressing. Among other things, they will have to cope with the revenue loss from reduced import tax as well as the industry implications. These are well covered by Tongsan et al. (2005).

As mentioned earlier, bilateral TAs/EPAs have mushroomed in East Asia and ASEAN, and CLMV will be increasingly be sucked into this 'rush' or 'herd mentality'. In this respect, I find useful the insights on the potential pitfalls and the recommendations for LDCs which came out of the Third World Network Regional Workshop held in Kuala Lumpur last year (Third World Network 2005). It would be prudent for CLMV countries to reflect upon them carefully.

With respect to the 'rise of China', I feel that the impact of China's 'peaceful rising' or 'peaceful development' strategy is likely to more than offset the negative impact on CLMV countries, in the immediate and medium term, at least. However, China is one of the few countries that have formally adopted a national strategy on managing supply chains and trading networks; this development is likely to exercise a deeper and more wide-ranging impact on the CLMV countries, both in the positive and negative sense.

THE RISE OF SUPERMARKETS

*Historical Development*¹

In a spatial perspective, Reardon and Timmer (2005) contend that there are three discernable

¹ This section draws heavily from, and builds upon Reardon and Timmer (2005) and Chen et al. (2005).

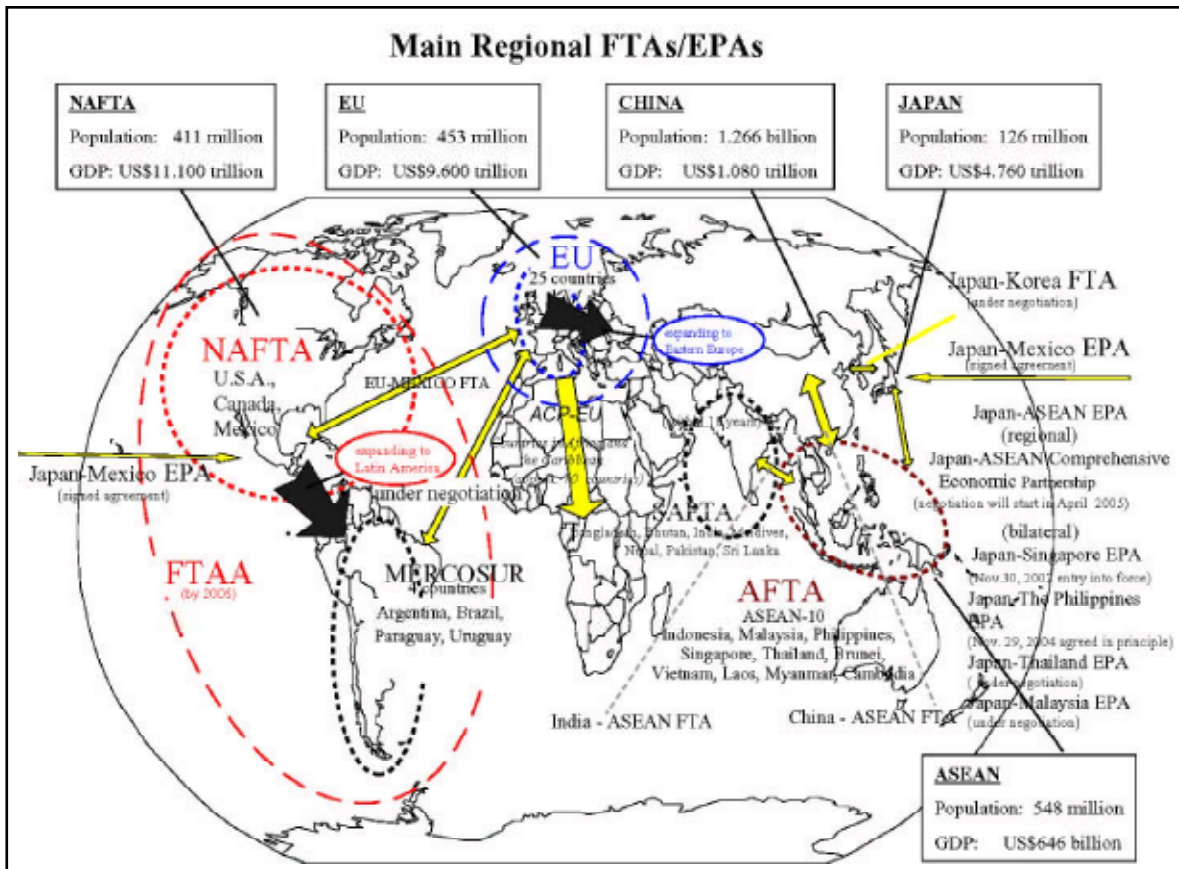


Fig. 1. Main regional free trade agreements/economic partnership agreements

‘waves’ in the rise of supermarkets in Asia. The first wave covers China (Taipei), Korea and Hong Kong, followed by Thailand, Malaysia and the Philippines, with inflection or take-off points in the early to mid-1990s. The average share of their supermarkets in the national food retail currently accounts for 50-60%. To cast this spectacular growth in proper perspective, it must be noted that this group took one to one-and-a-half decades to achieve the same rate of supermarket development witnessed in the US and Europe in five decades. The second wave is typified by Indonesia where food retail share went from 5-10% in the 1990s to 30% by the early 2000s. The third wave includes Vietnam (see also Tam 2004), China and India where supermarkets took off in the late 1990s or early 2000s and has reached 10-20% of national food retail by 2004.

At this stage, a closer look at China would prove instructive. China had no supermarkets as recently as 1989 and food retail then was almost completely controlled by the government. Supermarket development began in 1990 and by

2003, its share in national food retail had risen meteorically to 13% nationwide (30% in urban areas and a whopping 60% in Shanghai) involving 71 billion dollars of sales and growing fastest in the world at 30-40% per year (see Reardon and Timmer 2005). There were some 3,000 supermarkets in China towards the end of 2005.

All these developments, of course, beg the question of what contributed to this rapid rise of supermarkets in or across Asia. The contributory factors include the following:

- Increasing demand for supermarket services due to:
 - o Urbanization – which saw a growing number of women entering the work force, thereby creating a bigger demand for convenience shopping as well as easy-to-cook and ready-to-eat food;
 - o The reduction of the prices of processed food, by supermarkets, often together with large scale manufacturers;

- o Rapid income growth, coupled with the increased ownership of refrigerators as well as access to cars and public transport.
- Policy changes – especially the liberalization of foreign direct investment (FDI) in retail business. To illustrate, this development occurred in China in 1992, Indonesia in 1998, and India in 2000, and coincides with the onset of the respective ‘waves’ referred to earlier. In fact, Reardon and Timmer (2005) argue that the liberalization of FDI had as much, if not more impact on food systems in Asia as trade liberalization.
- Increasing supply of supermarket services: The take-off or inflection points of the three waves invariably coincided with FDI liberalization as mentioned above. These waves of FDI from Europe and US in Asia were largely ‘pushed’ by saturated markets back home and ‘pulled’ by growing markets and margins in Asia.
- Reinforcing the above factors are the new retail management practices, logistics and distribution systems, and advances in technology, particularly information and communication technology (ICT) which allowed for seamless and almost real-time sharing of information and tracking along the supply chain.

Expansion Path of Supermarkets in Asia

At the regional level, there appears to have been a ‘domino effect’, with supermarkets expanding first and fastest in the richest and more developed countries (Taiwan, Korea, and Hong Kong), involving both home-grown as well as US (notably Wal-Mart) and European chains (notably Ahold, Tesco, Carrefour, Metro, Big C and Auchan). Some home-grown entities have developed into regional chains. For example, we witness chains from Hong Kong, Taiwan, Japan and Korea spreading to China; the chains from Hong Kong and Japan spreading to Malaysia and Indonesia; and, recently, even Vietnamese chains spreading to Cambodia.

At the national level, we witness the spread of supermarkets from large cities, then to intermediate and smaller cities, and subsequently to towns. At the individual city level, we witness the spread

from rich neighborhoods to middle-class, and then to poor neighborhoods. At the same time, there is a discernable shift from processed and bulk staples to fresh or more perishable food, especially fresh fruits, vegetables, meat and fish.

There also appears to have been a rolling consolidation phase involving mergers and acquisitions, with global chains acquiring regional and national chains; regional chains acquiring national and localized chains; and national chains acquiring local supermarkets. Interestingly, we have witnessed the recent merger of national chains, such as that of Lianhua and Hua Lian, the two largest national chains in China. Similarly, it would be interesting to understand the reasons for, and impact of the rumored disposal of the Carrefour and Wal-Mart chains in Korea to existing Korean chains.

RISE OF SUPERMARKETS IN CLMV COUNTRIES

Vietnam

Amongst CLMV countries, all of which belong to the group of Asian countries affected by the “third wave”, Vietnam is undoubtedly the most advanced in terms of the development of supermarkets. For one, it is the only CLMV country where global chains are present, namely the Big C (French) and Metro (German). It is rumored that regional chains like Dairy Farm are poised to join in the fray. There are also local chains like the Saigon Coop Supermarket Chain (CoopMart). [See Trinh 2004, for a detailed account]. There has also been a recent cross-border investment into Cambodia.

Myanmar

Despite the absence (quite understandably) of global and regional chains, supermarket development in Myanmar is quite advanced and probably ranks second to Vietnam amongst the CLMV countries. There are a number of local supermarket chains that are slowly spreading to other cities outside of Yangon. Notable chains include the Yuzana Supermarket, Super-One, City Mart and K-Mart. All of them carry local and imported goods (mainly from ASEAN countries, China and India). It’s interesting to note that fresh fruits, vegetables, meat and fish are available in

some of the supermarkets, since last year.

Cambodia²

While there are still no global chains, to date, in Cambodia, it is interesting to note the presence of the Vietnam Goods Supermarket, a cross-border investment from Vietnam. As its name suggests, it carries mainly Vietnamese goods as well as other imported goods and local products. There are also local chains developed by Cambodians who used to run businesses overseas. These include the Soriya and the Lucky Supermarket.

Laos

The only supermarket in Laos was opened in Vientiane last year. This is the Tang Feres Supermarket started by the Chan Brothers who have had experience in owning and operating supermarkets in Paris. It has turned out to be quite an attraction and remains hugely popular.

As evident from the above, the supermarket revolution has started in all the CLMV countries as well, albeit at different stages of development. Consequently, the organization of food systems and supply chains are expected to undergo increasingly significant transformation and development. This, at the same time underscores the increasing relevance and importance of supply chain management.

RELEVANCE OF SUPPLY CHAIN MANAGEMENT

Overview

Supply Chain Management (SCM) has, in recent years, attracted the attention of a cross-section of academics, researchers and practitioners alike. It has spawned textbooks and even specialized journals like *Supply Chain Management*, an international journal. The development of the idea of a supply chain owes much to the emergence of the systems theory and the associated notion of holism, in the middle of the last century. It has been contended (for example, Boulding 1956)

² The situation and developments in both Cambodia and Laos were obtained through personal communication with contacts there, particularly the Chinese Chambers of Commerce.

that the behavior of a complex system cannot be understood completely by the segregated analysis of its constituent parts. New (1997) has suggested that despite the undisputed importance of financial services, electronic communication and media industries, the economy still revolves around the production, processing, moving, buying and selling of 'stuff', and that SCM is about the mechanisms and processes by which these activities are organized.

A central tenet of SCM is that in future, competition will no longer be between firms but rather between supply chains, with each chain comprising groups of companies intricately linked through a series of partnership and alliances at various levels. A cursory review of the literature indicates that SCM has been applied from the perspective of an individual firm; related to a particular product or item (such as the supply chain of rubber, or rice, or pork); and from the perspective of industry group or sector (such as grains, or other agri-food items).

As all components along a supply chain need not belong to one company or group, varying degrees of strategic alliances can be observed at the operational level: from loose structures (joint ventures 'at the door'), dedicated/designated suppliers (as in the case of supermarkets), to cross-investments. At the operational level, there is significant value-adding along the entire supply chain. Furthermore, supply chains can reduce the asymmetry of information at interface with each subsequent level, thereby reducing transaction costs as well as increasing feedback and improving response rate to changes in consumer preferences and tastes, thus enabling the capturing of premiums. Of course, this sharing of information is greatly facilitated, enhanced and even revolutionized by recent advances in information and communication technology (ICT).

Empirical evidence suggests that there can be amicable/sustainable sharing of margins along supply chains, including the transmission of prices back to farmers/producers. Consequently, an appealing strategy is to hook up (or integrate) small farmers/producers to increasingly sophisticated local supply chains (involving supermarkets) and more lucrative overseas markets, especially niche markets.

I am bullish that supply chains can and will speedily exploit advances in biotechnology and its impending convergence with ICT as well as other innovations. Similarly, there will be exponential growth, if and when the interconnectivity of supply chains is exploited, as is already happening with telecommunication companies and multimedia superhighways.

From a policy and institutional standpoint, it is noted that most government interventions and programs are invariably overtly ‘production-centric’ so much so that the farming/production subsystem is not well linked or integrated (and often ‘out-of-sync’) with the post-harvest subsystem. As can be gleaned from the big picture of a generalized agri-food supply chain depicted in Figure 2, the power of supply chains is the value-adding potential at each level of the chain when agriculture is viewed in its broader and more holistic (agribusiness) perspective. This will offer the basis for agriculture

to drive overall development by leveraging on inherent advantages and potential of nations at the inputs, processing, wholesale and retail trade as well as international trade levels. The challenge is to ensure or facilitate the orderly and balanced development of supply chains, for as with all chains, its strength (or competitiveness) is invariably determined by its weakest link.

Myanmar

An interesting example of SCM in Myanmar is that involving rice geared towards the export market, as developed by the Myanmar Agriculture Products Trading (MAPT) in collaboration with Bernas of Malaysia over the period 2000–2003. This initiative was a crucial part of the strategic thrust to (re)establish Myanmar as a major exporter in the global rice market using Malaysia (a net importer of rice) as a springboard. Buttressed by

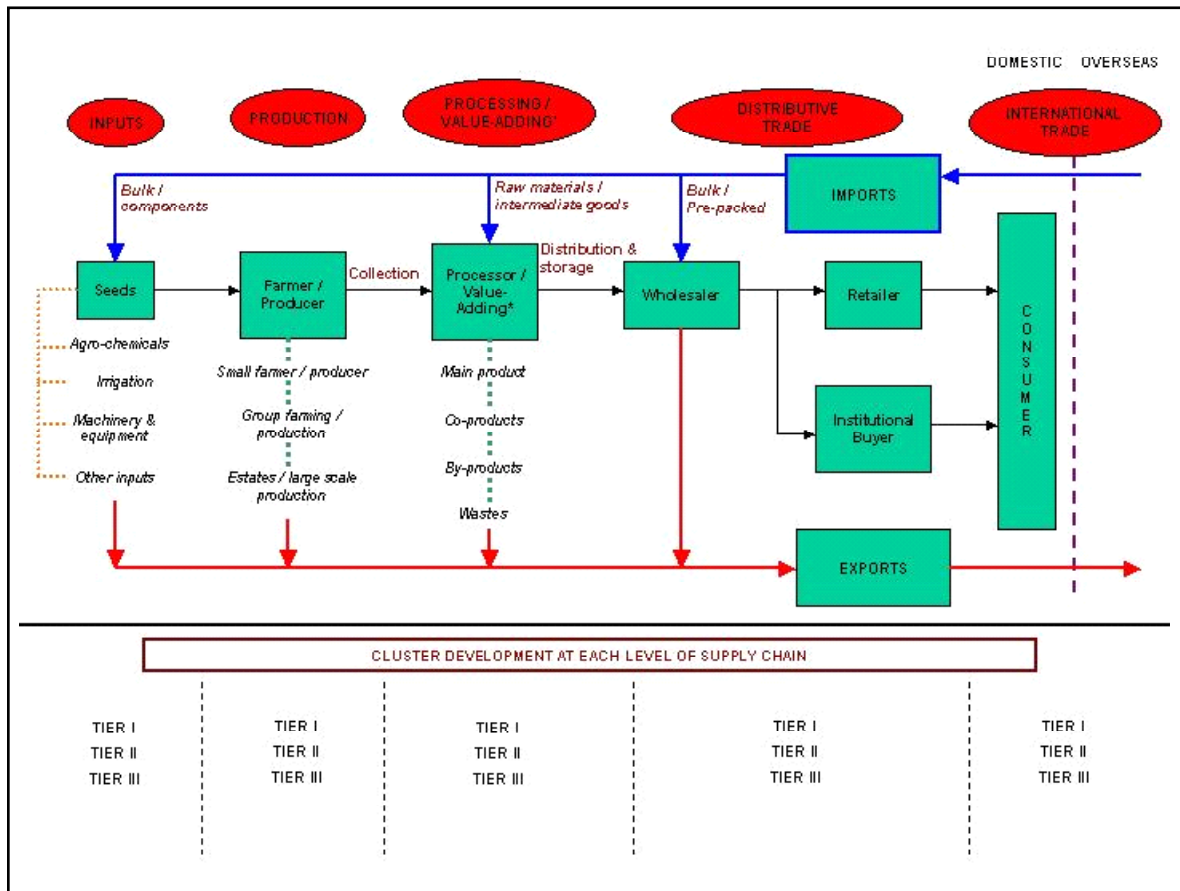


Fig. 2. Agri-food supply chain – The big picture: potential economic activities ‘from seed to shelf’

a counter-trade offer from Bernas to upgrade specific mills, reprocessing plants and warehouses with state-of-the-art machinery and equipment, two distinct supply chains originating from two major rice-producing areas for different rice varieties were developed to converge at a dedicated port facility at Hteetan, Yangon, as depicted in Figure 3. In return Bernas will buy back the necessary amounts of improved grades of specified varieties via the newly developed supply chains. Within a period of less than two years, Myanmar was able to export 100% Super vacuum-packed Paw San Hmwe fragrant rice under the brand name “Longevity” and Lone Thaw Hmwe fragrant rice under the brand name “Carnation” to Malaysia using this traceable ‘seed to shelf’ supply chain. During this same period, Myanmar was also able to export top-grade rice to Europe.

Vietnam

Here we find two interesting examples. Firstly, there is the case of the Angimax-Kitoku Joint Venture Company formed in 1991 between the

Japanese rice wholesaler Kitoku in Japan and the Vietnamese state-owned import-export corporation Angimex involved in the ‘seed-to-shelf’ cultivation of high-grade Japonica and long-grain rice, targeted at Japan and other lucrative markets. This involves contract farming in the Mekong Delta province of An Giang where they also have a 4,000 square meter rice milling complex with twin six-ton/h milling lines (with a milling capacity of 25,000 tons per year), plus a warehouse that could accommodate 4,000 tons, and a cold storage room for premium quality Japonica rice.

Secondly, there is the more recent and arguably more interesting case (in view of our topic of discussion) of the supply chain involving the seedless Happy Sweet Watermelon that is developed and promoted by a leading international seed company, Syngenta, in collaboration with selected dedicated growers and suppliers for the supermarket outlets.

In this regard, it is interesting to relate the more advanced supply chain involving watermelons in Indonesia which is developed along the same lines but also targeting the regional market, via a

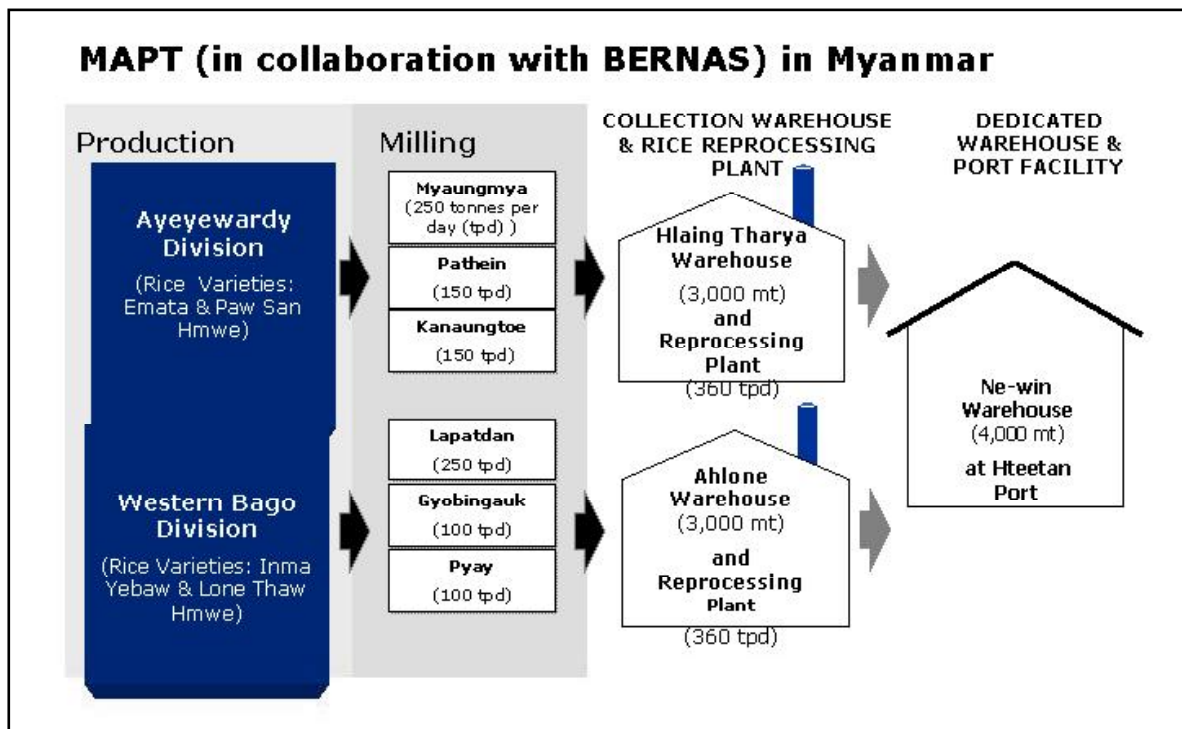


Fig. 3. Rice supply chain developed in Myanmar

global chain. This black mini-melon supply chain involves a seed company, Syngenta; a series of dedicated contract growers coordinated by Makar Buah Farmer's Association near Yogyakarta; a specialized wholesaler, Bimandiri; and a supermarket chain, Carrefour. This chain is not only targeted at domestic Carrefour outlets but also at Carrefour outlets in Singapore and further afield, leveraging on its regional network. This chain is also supported by government agencies and adopts strict in-house quality and safety standards imposed by Carrefour. In fact, Chowdhury et al. (2005) argue that the rise of supermarkets has invariably enabled and speeded up the development of supply chains for high-value products in Indonesia.

The above examples, especially those involving supermarkets are, in many important ways, indicative not only of the possibilities but also of an emerging trend that we ignore at our own peril.

MOVING FORWARD

Governments and development practitioners are beginning to recognize the changes in food distributive trade/retailing highlighted above. Consequently, this underscores the importance of supply chains and the need to address their implications for small farmers, poor people as well as other stakeholders in the supply chain. The inherent challenge is how to balance the interests of the key players along the supply chain with that of the respective nations as well as to balance efforts to gear up for globalization with those addressing internal structural and institutional weaknesses.

It has been generally noted (e.g., Readon and Timmer 2005; and Chen et al. 2005) that with the rise of supermarkets, the procurement system invariably exerts more demanding requirements of processors and farmers, implying the need for increased investments and changes in practices. Empirical evidence seems to suggest that chains tend to select medium/large processors and wholesale firms, wherever possible. Consequently, these changes would invariably pose threats and opportunities leading to potential winners and losers.

Therefore, governments would have to formulate policies, strategies and programs that would enable farmers to meet the investment requirements of new market channels as well as develop appropriate and adequate human resources to develop and manage agri-food supply chains. This would include the development of the wholesale sector and the strengthening of retail alternatives for farmers so as to minimize the marginalization of small farmers and other stakeholders. This calls for more focused/holistic government intervention to facilitate the development and management of selected supply chains and international networks.

CONCLUSION

It is clear from the above that the increasing liberalization in trade and FDI flows will fuel the expansion of supermarkets in Asia, including the CLMV countries, in due course. Now, whether countries benefit or lose from these developments depends on the net benefits to consumers and producers through better prices, time costs, and food safety; the access to markets; the amount of employment generated, and other skill and wage effects in the whole agrifood supply chain. It will also, no doubt, depend on how well countries develop and manage their supply chains and integrate them into their economies as well as international networks.

In so far as agriculture is concerned, stakeholders may find farming and related agribusiness more profitable and sustainable than ever, or they may be forced out altogether. A key challenge is to help them become players in this new market/economy and minimize their marginalization.

Now, given the obvious relevance and spin-off from this ongoing SEARCA Policy Roundtable series, it is envisaged that cooperation, collaboration and assistance through shoring and sharing capacities and capabilities will increasingly progress in a balanced, meaningful and sustainable manner, step by step.

Finally, it is perhaps appropriate to be reminded of Victor Hugo's prediction that, 'Markets open to trade, and minds open to ideas, will be the final battleground'.

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