

IX. REGIONAL AGRICULTURAL TRADE LIBERALIZATION: PRIORITIES FOR POLICY MAKERS AND FUTURE RESEARCH NEEDS

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A. Overview of the regional studies

The preceding chapters amply demonstrate that regional trade arrangements and ongoing negotiations over new BTAs and RTAs are numerous in the Asia-Pacific region. In South Asia, SAPTA/SAFTA is the most extensive, bringing together seven regional economies (Bangladesh, Bhutan, India, Nepal, Maldives, Pakistan and Sri Lanka). However, some of these countries also have bilateral trade agreements among themselves – including India-Sri Lanka (the India-Lanka FTA), Sri Lanka – Pakistan, India – Bhutan, India – Nepal and India – Bangladesh. Some are also members of trade agreements with other Asian countries outside of South Asia, such as:

- (a) APTA, which brings Bangladesh, India and Sri Lanka together with the Republic of Korea, the Lao People's Democratic Republic and China;
- (b) The Thailand – Bangladesh preferential trade agreement; and
- (c) The economic cooperation between Bangladesh, India and Sri Lanka with Thailand and Myanmar (BIMSTEC).

South Asian countries are also involved in negotiating or studying additional agreements with economies within Asia and beyond.

Preferential trade agreements in East Asia and South-East Asia are much more numerous, which is perhaps not surprising given the number of countries in this region. Chapter III lists 20 agreements in force, 26 under negotiation and another 29 under study. Of those in force at the time of writing, seven of the completed agreements were solely between East Asian or South-East Asian economies. Of those economies, Singapore is included in most agreements, with 11 in force and another 18 under negotiation or study. The Republic of Korea is also active, with three agreements in force (one with Singapore and the other two with non-Asian partners) and 14 under negotiation or study. By far the most extensive in terms of the number of partner countries is AFTA (comprising the 10 ASEAN members), which is seeking further broadening through negotiations or studies underway with another three Asian countries (Republic of Korea, India and Japan) as well as the United States, Australia and New Zealand (CER) and the European Union.

The South Asian economies have experienced favourable economic growth in recent years, but this has not always been experienced within their agricultural sectors. In some countries of the region, rural poverty and income inequality have worsened and are

major issues given the high share of rural residents in the total population. Despite the geographic proximity of the South Asian economies, agricultural competitiveness shows some variation across countries, suggesting scope for trade expansion under liberalized regional trade policies; however, up to the present, intraregional trade has accounted for advantage was shown to be relatively strong for fish in Maldives and Bangladesh, tea, and spices in Sri Lanka and India, and cereals and sugar in Pakistan and India.

Following completion of the Uruguay Round negotiations (all except Bhutan are WTO members) these countries bound agricultural tariffs at generally high levels, although applied rates are often much lower. On average, Bangladesh and India face lower agricultural tariffs for their exports to the South Asian region than the tariffs they impose on other South Asian imports, which is a broad indication of scope for gains from further regional cooperation. Of the South Asian economies, Maldives and Sri Lanka were shown to be the most open to agricultural trade and India the least open. Considerable economic liberalization has taken place in the region, including the agricultural sector. Nevertheless, high agricultural bound tariffs remain, together with para-tariffs, quantitative restrictions on agricultural trade and state import monopolies in some countries. Domestic support, such as input and other subsidies, is also provided to farmers – the levels of which vary across the region and are relatively higher in India than elsewhere – and in some cases, export subsidies are used.

SAPTA¹ includes a number of agricultural products offering concessions to the member countries. However, many of the agricultural tariff preferences offered under this agreement were said to be irrelevant to the member countries, with the real interests of such countries being subject to sensitive listings. The agreement also provides for technical assistance and special concessions to its least developed members. Member countries have agreed to implement the agreement by various dates, with the process to be completed by 2015. Analysis has shown that, so far, it has had a significant agricultural trade creation effect. The other intra-/interregional and bilateral trade agreements of the South Asian economies have included very few additional agricultural products for further liberalization. Some of the bilateral agreements take similar approaches to product coverage and rules of origin; they may classify agricultural products as “sensitive” or use tariff rate quotas to allow limited imports at concessional or zero rates. The India-Lanka agreement, which has encouraged quite rapid growth in bilateral agricultural trade, has less stringent rules of origin than does SAPTA. The interregional agreements do not include a significant number of agricultural concessions. It should also be noted that the domestic support and export subsidy policies of some countries in the region, together with the activities of state trading enterprises, have not been explicitly addressed in any of the agreements, in contrast to efforts in multilateral trade negotiations.

¹ SAPTA, which was superseded by the implementation of SAFTA, was to have begun in 2006. However, some problems remain that are related to the extension of MFN treatment of India by Pakistan, and SAFTA therefore has not yet been fully implemented.

Turning to South-East Asia and East Asia, agriculture is also found to be a sensitive issue in bilateral and regional trade negotiations. Many of the agreements in place exhibit sensitive subsectors within agriculture that are either permanently or temporarily excluded, or contain liberal extension times for transition and subsequent adjustment. Nevertheless, some successes have been achieved in liberalizing agricultural trading conditions. Of particular note is the ASEAN approach to incorporating agricultural products within the scope of AFTA preferences. This agreement initially excluded unprocessed agricultural products from tariff concessions, but they were gradually incorporated through the use of temporary exclusion lists and sensitive lists. The time frame for moving such products from exclusion and sensitive lists to the inclusion list differs among ASEAN members, recognizing their particular concerns and stages of development.

Likewise, final concessionary tariff rates also can vary among member countries. At the time of writing, only a handful of unprocessed agricultural products remain on the sensitive list while any that have not already been liberalized are on track for eventual liberalization. As a result, average agricultural concessionary tariffs of ASEAN countries are well below MFN rates, and the dispersion of concessionary tariffs is also less than that of MFN rates. Perhaps because of the similarity of agricultural commodities produced in the ASEAN region, or because agricultural products were included relatively recently in the AFTA agreement, there has not as yet been a marked increase in intra-ASEAN agricultural trade that might be attributed to that agreement. The AFTA process of stepwise tariff reductions, phased transitions and other flexible arrangements illustrates how AFTA intends to eventually achieve agricultural trade reforms that were earlier thought impossible. It could constitute a model to be adopted elsewhere in order to influence the political economy, where it currently favours agricultural protectionism, towards a more liberal stance.

Also of note is the way in which agriculture was handled in the China – ASEAN agreement. Through its the Early Harvest Programme, most ASEAN countries have included nearly all agricultural tariff lines for accelerated tariff reduction. Reciprocity requires that China exactly matches the concessions for the same products. These ASEAN economies appear eager, therefore, to engage in more open agricultural trading with China and are prepared to permit Chinese access to their own markets in order to experience improved access to China's market. The Republic of Korea – Chile agreement also provides wide coverage of agricultural liberalization despite strong opposition from Korean farmers, although some products are subject to tariff rate quotas, exclusions lists and other lists of products that are to be negotiated once the Doha negotiations have been completed.

China is a relative latecomer to regional trade agreements. In force are the 2003 agreement with ASEAN and the 2004 agreements with Hong Kong, China, and Macao, China. However, China is negotiating or studying trade agreements with Australia, Chile, India, Japan, Republic of Korea, Malaysia, New Zealand and Singapore. China is a major producer and consumer of agricultural products and is becoming an increasingly important international trader of some of these products. The economic reforms of the 1980s and 1990s contributed to this process and, more recently, to the lowering of China's own trade barriers as a consequence of joining WTO in 2001. In addition to the non-tariff barriers

that impede the international trade of China (and many other countries covered in this study), China's potential gains from bilateral and regional trade agreements are currently restricted by its policy on grains self-sufficiency. Earlier quotas and now a price support system encourage grain production and thus discourage the shift of land use towards more labour-intensive activities, such as fruit and vegetable cultivation and livestock raising, in which China arguably has a comparative advantage.

One of the results of the Early Harvest Programme of the China – ASEAN free trade agreement is that China is taking market share for horticultural products away from ASEAN's traditional suppliers. Between 2002 and 2005, China's share of ASEAN's horticultural imports rose from 31 per cent to 38 per cent while that of the United States, Australia and New Zealand, for example, declined from 28 per cent to 20 per cent. However, China also has a comparative advantage relative to ASEAN in non-rice grain production, and this FTA could move against the imperative for China to reallocate land for horticultural and other labour-intensive farming activities.

Using an applied global general equilibrium model, potential gains from various bilateral and regional trade agreements are quantified and presented in chapter IV of this publication. Only agricultural tariffs have been eliminated in these studies. Therefore, they are valuable in that they are indicative of the gains that might be realized should member countries choose to extend preferences to all agricultural trade, including sensitive products such as rice. Before summarizing some of the main findings and implications of that work, a number of points need to be borne in mind. Only agricultural tariffs have been reduced in these analyses, so any existing domestic subsidies to agriculture, or agricultural export subsidies, remain untouched. Tariffs were completely eliminated by the member countries for all agricultural products – no sensitive or excluded products were recognized. The results provide a snapshot of outcomes at some time in the future when all those tariffs will have been eliminated by all parties to the agreement; implications of the timing of tariff reductions across products and countries, the resulting adjustment costs or the competitive and productivity gains often associated with freer trade have not been addressed. The studies recognize non-agricultural tariff preferences within existing agreements only to the extent that they were reflected in the 2001 base year database that was employed. (They are not recognized at all in hypothetical regional agreements analysed.) However, these non-agricultural preferences may have impacts on the agricultural sector; expansion or contraction of manufacturing sectors will have an impact on wages and resources available to the primary sector while changes in manufactured prices will affect the costs of agricultural activities that use such products (chemicals, machinery etc.). Finally, the analyses assume that trade will respond to tariff elimination – that is, there is no friction in trading channels, such as that due to non-tariff barriers, which will prevent agents responding to changes in price signals.

The analyses proceeded by first simulating an assumed Doha outcome, and then explored the additional welfare gains or losses from a range of regional trade agreements. Some were based on actual agreements such as SAFTA, AFTA and the India – Lanka agreement while others considered the addition of China, Japan, the Republic of Korea

and India to AFTA as well a wider grouping involving most ESCAP economies. Some of the conclusions arising from this work are detailed below.

For smaller bilateral agreements such as SAFTA, and also for AFTA, the gains to member countries tend to be small and much less than might be enjoyed following a successful Doha outcome, perhaps due to the similarity of their agricultural sectors. Within each agreement, the larger countries and/or those with a comparative advantage in agriculture (India and Pakistan, Thailand) gain the most from a regional agreement being extended to include agriculture. Agriculture is heavily protected in Japan and the Republic of Korea, so when these countries are added to the ASEAN – China trade agreement and agricultural tariffs are eliminated, they may be expected to dominate in terms of welfare gains. This is also the case, although with smaller gains, for China and most ASEAN economies. Viet Nam is shown to gain from agricultural liberalization within AFTA, but not in the extended AFTA, suggesting that this country may be competitive relative to other ASEAN countries but not with respect to China.

All members of this expanded AFTA agreement benefit from the addition of India, which is also currently very protective of its agriculture. It also appears that India stands to gain more by linking up with ASEAN and the North Asian economies, than with other South Asian partners. In most of these analyses, moderate trade diversion was found to occur. This appeared to be a greater problem with a Thailand – Japan agreement, since Japan's agricultural imports could be diverted from other competitive suppliers such as some in South-East Asia. Should all the Asia-Pacific economies (with the exception of the United States) come together in a pan-Pacific agreement, all members with the exception of Bangladesh and Sri Lanka are shown to gain from including agriculture. In fact, in many cases, the gains are larger than those resulting from participation in regional agreements involving fewer countries. A major conclusion is that the larger the group, and the more diverse the group in terms of both developed and developing country representation and economic structures, the larger the aggregate welfare gains from the inclusion of agriculture – with no exceptions – in regional agreements are likely to be.

B. Future shape of regionalism in Asia

Quantitative research conducted during this study and by others (for example, Gilbert, Scollay and Bora, 2001; Scollay and Gilbert, 2001) shows that larger regional trade groupings in Asia are economically preferable to a spaghetti bowl of smaller and bilateral groupings. Scollay and Gilbert (2001) demonstrated that an Asia-Pacific Economic Cooperation (APEC)-wide agreement combined with "open regionalism", an APEC preferential trade agreement, and a Western Pacific grouping are all preferable to other possible arrangements in the Asian region, with aggregate economic benefits declining in that same order. The superiority of the "open regionalism" approach is that preferences are also extended to non-members. This has the advantage of greatly simplifying administration procedures (for example, rules of origin would not be required), and trade diversion costs would not exist. A question is whether current efforts are likely to lead to such an expanded group.

As a continuing proliferation of smaller groupings and bilateral agreements would impose costs on non-members through trade diversion, this fact encouraged Gilbert, Scollay and Bora (2001) to wonder whether such costs would lead to friction within wider political forums such as APEC, or encourage non-members to actively pursue wider arrangements. While negotiating within smaller groupings might offer the path of least resistance from a political point of view, trade friction could result with non-members that might well add to political friction. In addition, when countries are involved in negotiations over a larger number of smaller groupings, scarce negotiating resources are absorbed that could be directed in other directions that offer greater economic gains.

The history of smaller bilateral or regional agreements within Asia, and the successive addition of new members may be viewed positively (Levy, 2006) as taking smaller steps forward is often politically easier (for example, adjustment costs may be less) while at the same time creating a certain momentum for regional integration. This process of progressive expansion and the potential amalgamation of smaller regional groups may also assist in sensitizing entrenched domestic interests and lobby groups to the benefits of liberalization and, therefore, the erosion of vested interests. This process might also provide what Levy called an “incubator” to enable domestic firms to adjust to new competitive pressures and learn to trade regionally without being abruptly exposed to fuller international competition.

From an Asian perspective, Scollay and Gilbert (2001) demonstrated that the progressive expansion of groups generally benefited new as well as existing members, and that amalgamation of groups generally benefited the members of the groups being merged. There is encouraging evidence that Asian economies are moving in that direction, especially involving the regional powerhouses of Japan and China. ASEAN has expanded to embrace China, is in negotiations with the Republic of Korea and India, and is conducting studies with Japan and Australia – New Zealand (CER). In addition, of course, there is much bilateral activity involving, among others, individual ASEAN countries, North-East Asian economies, India, Pakistan, Australia and New Zealand. Eventually, should ASEAN – China link up with CER, a Japan – Republic of Korea BTA and SAPTA, the gradual process will have resulted in the wider Asia grouping. Obviously, many impediments stand in the way of such an achievement, including the vexing issue of agricultural reforms. Some priorities for easing or removing these barriers and facilitating progress are discussed below.

C. Priorities for policymakers

The formation, extension and subsequent amalgamation of regional trade agreements can be facilitated through the harmonization of approaches in a number of areas as well as the adoption of what Harrigan (2006) referred to as “good practices”.²

² These include product coverage, rules of origin, customs procedures, intellectual property protection, foreign direct investment, anti-dumping and dispute resolution, government procurement, competition and technical barriers to trade.

Implementation of WTO procedures (for example, those of the safeguards, SPS, TBT, rules of origin, trade facilitation and agricultural agreements) as well as various international standards will contribute to the harmonization of regional rules as well as with the rules of the multilateral system. Because regional agreements involve relatively few members, it may be possible to achieve deeper integration than is afforded by multilateral agreements.

The trade agreements in effect in Asia currently vary widely, as discussed in the previous chapters of this publication. They can differ, for example, in terms of product coverage (contents of positive, negative and exclusion lists), the depth of preferences, timelines, their use of non-tariff barriers such as tariff rate quotas and safeguards, and varying and complex rules of origin, SPS and TBT rules, all of which can be reflective of underlying protectionism.

1. Product coverage and preferences

The agreements studied here vary widely in terms of their agricultural product coverage, ranging from quite comprehensive coverage in some cases to very restrictive coverage in others. There is some evidence that sensitive sectors can be addressed in regional agreements, albeit sometimes with long transitional periods and further progress an obvious priority in existing as well as new agreements. Wider coverage of agricultural products, using negative rather than positive lists and with less diversity of excluded products across agreements, should also assist in the harmonization of agreements and their possible amalgamation.

AFTA provides an example of a step-by-step approach to agricultural inclusivity, defining temporary exclusion, sensitive and highly sensitive product lists. These products are being liberalized according to an agreed timetable and end-of-period tariffs. As a result, very few agricultural products are excluded from the common preferential tariff scheme, a degree of liberalization not considered possible a decade ago.

The Early Harvest Programme of the China – ASEAN agreement is another notable example of where substantial agricultural coverage has been negotiated – several ASEAN countries including Thailand have not excluded any products and, because of reciprocity, China will exactly match those concessions. Selected use of safeguard mechanisms, which could be harmonized if based on WTO safeguard rules and tariff rate quotas, may also ease problems associated with the inclusion of sensitive products if applied over a strictly transitional period.

Where current applied tariffs and preferences for any product differ widely between members and potential new members, or between agreements, reaching a harmonized set is no easy task. Nevertheless, solutions have been found within existing agreements that can be applied to wider amalgamations. These include different treatment of each country by stage of economic development, transitional safeguards (whose application may be restricted to least developed members) and, if meaningful progress is to be made in some cases, recognition of some countries' unique strategic or social objectives when attempting to harmonize negative lists.

2. Rules of origin

Rules of origin are used in regional trade agreements to determine eligibility for preferential treatment. They raise important issues in the trading of agricultural products, for example, because processed foods may combine raw materials from several countries. For agricultural products, the country of origin may be determined in terms of whether or not the product was wholly produced in the exporting country (especially applicable to raw agricultural materials), by a process criterion (substantial transformation) or the percentage of product content or value-added. Documentary evidence is usually required by the importer, and sometimes traceability. Problems arise when a country belongs to two or more regional agreements and the applicable rules are determined by the intended destination of trade. This complexity adds to compliance costs, which are exacerbated when the rules are not especially transparent, and the increased costs may be perceived by the exporter as outweighing the value of the preferences.

Rules of origin may lead to inefficiencies in production, when imported raw materials (such as for processed foods) are diverted from the lowest-cost supplier in order to help meet origin rules and therefore have the potential to discourage external sourcing. Regulations that do not permit cumulation, or permit only partial cumulation, will have a similar effect when they discourage purchases of inputs from low-cost countries within the regional agreement. Rules of origin may be more stringent for sensitive products, and may provide a mechanism for increasing protection levels through their use as trade policy instruments.

An earlier chapter in this book concludes that the low utilization by some Asian developing countries of duty-free agricultural preferential access could well be due to problems associated with rules of origin. A priority is to amend the rules in order to allow the preferences written into regional trade agreements to be more fully realized. This requires that:

- (a) Attention is given to opportunities for harmonization and simplification of content requirements;
- (b) The rules are symmetrical between importer and exporter;
- (c) Rules of origin are set with recognition of the processing and technical capacity of exporters, and without reference to the political sensitivity of the product concerned;
- (d) Certification and administration procedures are simplified, and extension of cumulation covers all members of the regional agreement.

Bonapace and Mikic (2005) describe how the proliferation of trade agreements is “spinning a complex RoO web” and its trade deflecting or restricting effects. They draw attention to APTA’s rules of origin, which are simple, general and liberal, with a flat rate of 45% of local value content, reduced to 35% for LDCs.

Harrigan and others (2006) go further by suggesting that all Asian bilateral and regional trade agreements allow cumulation across the Asian region to avoid the prospect

of discouraging efficient production networks that might raise trade costs rather than lowering them. Such an approach to cumulation would also assist in the enlargement and eventual amalgamation of regional agreements. Exporters could be offered a choice between alternative rules – an equivalence approach – such as maximum non-originating value or minimum originating value, since the costs of applying different rules may not be the same. Special and differential treatment might also be considered by applying different rules to the least developed members of the trade agreement in order to allow them to take better advantage of tariff preferences. Should WTO eventually adopt a harmonized set of rules of origin, countries within regional trade agreements could be encouraged to apply them in their own rule-making in order to assist in achieving harmonized rules, both within and between preferential trade agreements.

3. SPS and TBT regulations

Progress on regional harmonization of SPS issues is found in some of the agreements. Adherence to the WTO SPS (and TBT) agreements and international standards should encourage a harmonized approach to these issues within and across regions, hence facilitating expansion and future amalgamation of agreements. It will also contribute to harmonization with the multilateral system, and will contribute to reducing related frictions in internal trade. Thus, in the case of products imported from other member countries:

- (a) Treatment should be no less favourably than domestic products;
- (b) Food safety and health regulations should be based on scientific principles and risk assessments;
- (c) Regulations should not deliberately create obstacles to trade between member countries, should be no more restrictive than necessary to achieve their objectives, and should be based on international standards where they exist to encourage harmonization;
- (d) Equivalence should apply, and information on regulations and standards should be transparent.

Some progress in these aims is reflected in the various regional trade agreements to a greater or lesser extent. AFTA, for example, makes provision for harmonization, equivalence, mutual recognition and technical cooperation in respect of SPS measures (Organisation for Economic Co-operation and Development, 2004). Chapter VIII, however, notes that of the many non-tariff measures in the ASEAN economies, a large proportion are applied to agricultural products, especially in the form of technical measures or health and safety standards. In other cases, there is more to be done in terms of facilitating the application of the SPS provisions of the agreements, in monitoring compliance, and in assisting the development of SPS regulations and inspection procedures among member countries that do not have well-developed regulatory regimes. Developed country partners, in particular, can and do provide assistance in these areas, perhaps as part of SDT components of regional agreements. Although in some cases such assistance may be provided initially to facilitate imports from foreign-based subsidiaries, they serve as examples

of what can be done; the institutions and processes so created may be generally available, or may serve as models of good practice for all traders.

4. Domestic agricultural policies

Domestic policies that provide assistance to farmers, such as price support, subsidies on farm inputs or transport and marketing activities – together with the use of state trading monopolies in exporting or importing, and export subsidies – are utilized by some Asian economies. The levels of protection of agriculture in Japan and the Republic of Korea are among the highest in the world, although there has been some decline in those levels since the mid-1980s (Organisation for Economic Co-operation and Development, 2005). There is also evidence that the level of protection is rising in some of the developing Asian countries, or at least becoming less negative. Despite recent agricultural reforms, Indonesia's agriculture sector has been protected during the past 20 years, with an increase in protection in recent years of some commodities including rice and sugar (Thomas and Orden, 2004). In Viet Nam, most agriculture was effectively taxed up until the mid-1990s; since then, however, rice, sugar and the agricultural sector in aggregate have been increasingly protected (Nguyen and Grote, 2004). In China, a trend increase in protection is evident, while in India support is largely counter-cyclical and exhibited liberalization during the 1990s and protection more recently with increased importance placed on input subsidies (Mullen and others, 2004 and 2005). Although the levels of protection in South Asia or South-East Asia have not reached the scale of protection in North-East Asia, the trend towards increasing protection bears some resemblance to similar trends that occurred in Taiwan Province of China, the Republic of Korea and Japan earlier in the twentieth century (Anderson and Hayami, 1986) that led to the high level of protection that is observed today.

Domestic assistance programmes may cause friction in trade among member countries of a trade agreement through a perception of unfair competition, and may distort intraregional trade. In addition, the use of domestic support policies can reduce the potential gains from formation of a trade agreement. Where such support involves the use of administered output price schemes, or subsidies on tradeable inputs, the price changes signalled through tariff reductions may not be transmitted to producers; as a result, the efficient reallocation of resources will be impeded. The corollary to this has been observed in NAFTA (Burfisher and others, 1998), where domestic policy changes in the member countries have allowed the strengthening of market signals and increased farmers' responsiveness to changing prices that were the result of NAFTA implementation. In fact, domestic policy changes were found to have had a greater impact on the region's agriculture than did NAFTA. By encouraging greater specialization within each country, the changes also enhanced the trade creation effect, and diminished trade diversion caused by formation of the regional agreement. The quantitative work of Burfisher and others illustrated that NAFTA provided greater welfare gains under the new farm policies than under the old ones. If these results could be replicated in Asia, they would provide sound reasons for the reform of domestic farm policies within the region's trade agreements.

Yet none of the agreements discussed in the previous chapters or in RTAs in general (Organisation for Economic Co-operation and Development, 2004) address domestic support. An obvious reason is that domestic subsidies cannot be reduced preferentially, as production for internal trade is generally not separable from other farm production. For such commodities that might be primarily destined for intraregional markets, or for products that are intensively traded at the regional level, the trade distortive effects of domestic support could be addressed, and more deeply than is achieved through the WTO process. Caution would have to be exercised in order to ensure that such subsidy cuts were not reapplied to other farm products. At the least, arrangements could be considered that mandate consultation when domestic subsidies are considered to be affecting internal trade. Export subsidies (either explicit or implicit) are sometimes also not included in regional trade agreements, although unlike domestic subsidies, export incentives can be reduced or eliminated preferentially. Within Asia, they are not mentioned in the AFTA, ASEAN – China or Republic of Korea – Chile agreements; however, export subsidies are not permitted under the New Zealand-Singapore bilateral agreement (Organisation for Economic Co-operation and Development, 2004). They are also not addressed in the South Asia trade agreements. Other non-Asian trade agreements may prohibit export subsidies on internal trade, or (as in NAFTA) they may allow such subsidies to be applied on internal trade if the importing country agrees to them, or the importer is benefiting from subsidies from other countries.

5. Trade facilitation

Trade facilitation is the simplification and harmonization of international trade procedures, and the topic is clearly relevant to agricultural products, especially perishable items. Inefficiencies in border procedures and within handling and transport systems can result in opportunities created through the formation of regional trade agreements not being fully realized. The design and efficient implementation of trade facilitation measures throughout the Asian region is a priority if the potential benefits of increased trade flows and opportunities, lower trade transaction costs, increased government tariff revenues and encouragement of FDI are to be fully realized. The costs that result from poor trade facilitation may become magnified in the case of overlapping trade agreements when the applicable tariff preferences and classification, rules of origin and other trade regulations vary across regions. For example, consider a Sri Lankan exporter wishing to sell to India – does he/she do business under the SAPTA rules, those of the India – Lanka agreement, or those of APTA? Given the information and transaction costs imposed by the complexity of trading arrangements – which are magnified if facilitation mechanisms are weak – it is possible that the trader will find it least costly to trade under MFN conditions and hence will be denied the potential benefits of the regional agreements.

A number of studies have demonstrated substantial welfare gains from reductions in transaction costs, sometimes in excess of the potential gains from tariff liberalization. Past studies have clarified priorities for improvement in the Asian region. An Asia-Pacific investigation (APEC, 2000) that was restricted to border procedures, listed complexity and lack of information on customs regulations as well as problems with customs appeals

mechanisms as major concerns of traders. An ARTNeT study (ESCAP, 2006) identified a number of areas requiring improvement as a result of a private sector survey in five countries. These included improvement of information completeness and timely availability, elimination of corrupt official practices, improved coordination among official agencies, simplification of documentation requirements, and improvements related to customs classification and valuation procedures. The continuing work of the WTO trade facilitation negotiating group will contribute to some harmonization of approaches within Asian regional trade agreements, although the WTO negotiations cover only a subset of facilitation measures. For example, the group's work does not extend to the application of TBT and SPS measures or rules of origin, or to infrastructural issues.

6. Capacity-building, infrastructure and technical assistance

Numerous priorities are to be found in the areas of capacity-building and infrastructure development, with the objective of permitting fuller realization of the potential gains of trade liberalization. Infrastructure can be thought of as both physical capacity (transport networks and facilities, and communication networks, for example) and "soft" infrastructure, which includes the essential elements of trade facilitation. Overcoming infrastructural deficiencies in conjunction with relevant capacity-building in institutions, processes and people can be vital to regional trade integration and growth, and the alleviation of poverty (Asian Development Bank, 2005). By reducing trade and transport margins, it can intensify comparative advantages, raise productivity and improve both international terms of trade, together with those of rural households (Roland-Holst, 2006). The pro-poor benefits of infrastructure in the context of agricultural liberalization are especially relevant to the connection of rural farmers through transport and information networks and markets to ports – it will allow them to engage in new trading opportunities opened up through regional integration, not to mention in urban domestic markets where prosperity and demand may be enhanced through trade liberalization.

Relative to their trade with the rest of the world, there is comparatively little trade between the regions of South Asia, South-East Asia and China – North-East Asia. Infrastructural deficiencies contribute to this state of affairs, and overcoming them will assist wider integration across Asia and spread the benefits of growth. Trade agreements per se may not address infrastructural issues, but infrastructural development could be facilitated should the agreements extend to services and foreign investment. Where trade agreements include both developing and developed countries, the latter may agree to provide financial, technical and capacity-building assistance of various kinds. This is already occurring in some instances, such as the development of soft infrastructure to better allow developing country partners to achieve effective compliance with various regulations and standards, such as rules of origin and standards associated with TBT and SPS.

In addition to technical assistance and financing received through existing bilateral and international processes, consideration should be given to how the "aid for trade" mandate of the WTO Doha Round might work in concert with regional trade agreements in Asia. While specifics have yet to be decided, the aid for trade concept is to assist least

developed and other developing countries to benefit from trade liberalization, by providing aid for trade-facilitating capacity-building and trade-related infrastructure and adjustment through new funding provided by donors. The recommendations of the aid for trade task force (World Trade Organization, 2006) include strengthening the processes for identifying cross-border and regional needs, and requesting countries to consider the merits and mechanisms for establishing regional cooperation and coordination. Arrangements already in place for the study, negotiation and ongoing administration of regional trade agreements could provide the opportunity to play a prioritizing and coordination role with regard to aid for trade.

7. Research priorities

Several areas exist where the quantitative analysis of agricultural liberalization in the Asian and Pacific region can be enhanced and extended. In a dynamic setting, trade liberalization can encourage gains due to the impact of increased competition on firms and their productivity as well as the impacts of investment flows on economic performance. Dynamic CGE models attempt to include such phenomena, and can specify time-dependent behavioural models for producers and consumers as well as quantify an economy's transition path over time due to new investment and factor accumulation. Compared with static CGE models, the dynamic formulations promise a more complete analysis of the impacts of trade liberalization on economic growth and poverty reduction.

Interest is growing in the relationship between liberalization, income inequality and poverty reduction. Some evidence points to increased inequality resulting from economic liberalization, but this may or may not be accompanied by reductions in the prevalence of absolute poverty. Work on this aspect, using both CGE models and more detailed models of household behaviour and income distribution, is at an early stage and further progress would be of value in informing policy makers of possible poverty-reducing approaches to liberalization. Global trade models can demonstrate welfare gains from trade liberalization, but are usually silent about the adjustments costs that must be incurred in the process of realizing those gains. In developing countries especially, where labour, financial and information markets might be weak, and where underdeveloped infrastructure and education systems impose barriers to skills improvement and regional migration, these adjustment costs can fall disproportionately on the poorest people.

Yet another area for further research is how trade liberalization in the Asia-Pacific agricultural sector might have an impact on the natural environment. Will land be abandoned or farmed more or less intensively? What will be the results in terms of biodiversity, deforestation, water and air pollution, and water scarcity?

Finally, where trade models such as GTAP are used to simulate the creation of new or expanded regional trade arrangements, further efforts can be made to ensure that the model structure, parameters and policy data are relevant to the study. For example, despite the best efforts of database creators, the databases may not incorporate the appropriate base-year tariff data, which can be crucial to the evaluation of preferential trade arrangements.

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