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## MAJOR ISSUES IN TRANSPORT

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# TRANSPORT AND POVERTY: FROM FARM TO MARKET—EXTENDING THE REACH OF LOGISTICS

Note by the secretariat

## SUMMARY

Recent increases in the price of food and concerns over its availability and access to it have focused attention on overcoming problems related to the transport of agricultural food products. Rising transport costs can account for up to two thirds of food prices. In addition, spoilage between farm and market as a result of inadequate transport, storage and processing render a large share of perishable food unusable, which is having a major impact on the poorer segment of communities in the region.

While food trades are increasingly complex and some countries have put in place advanced logistics solutions, the majority of the countries in Asia and the Pacific have yet to establish the infrastructure and institutional frameworks needed to ensure the efficient, seamless transport of foods from farm to market.

This document contains a preliminary investigation of the way transport and logistics impact the sustainable development of the food industry and identifies issues that need to be further addressed at the national and regional levels. Delegations may wish to share their experiences and progress and discuss challenges concerning food transport and logistics. The Committee may also wish to propose further research that could be presented to the Forum of Asian Ministers of Transport in 2009 as the basis of a regional exchange of experiences to enhance the availability of and access to food through improved transport and logistics.

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#### **INTRODUCTION**

1. Recent soaring food prices have brought the agricultural food industry into the international spotlight. Table 1 shows the dramatic increase in the cereal export prices of the main suppliers to the Asian region. While prices in major grain trades increased by some 50-70 per cent between mid-2007 and mid-2008, those for rice, the main staple food in Asia, nearly tripled over the same period of time. Although the food market situation differs from country to country and future development remains highly uncertain, a report by the Food and Agriculture Organization of the United Nations suggests that food prices are likely to remain high in the years to come.<sup>1</sup>

	2007			Increase between				
	June		March	arch April		June	June 2007 and June 2008 (Percentage)	
United States								
Wheat	231	449	481	382	349	355	54	
Maize	165	220	234	247	242	277	68	
Sorghum	166	222	233	243	240	266	60	
Argentina								
Wheat	239	365	395					
Maize	156	206	216	224	207	255	63	
Thailand								
Rice, white	332	483	567	873	963	873	163	
Rice, broken	255	431	522	726	772	683	168	

## Table 1. Selected international cereal export prices (United States dollars per ton)

Source: Global Information and Early Warning System International Cereal Export Prices, Food and Agriculture Organization, 20 June 2008.

Note: Two dots ( .. ) indicate that data are not available.

2. Transport and logistics account for a large part of final food prices and increasing oil and energy costs have made this topic even more relevant. Despite the high share of transport costs and the increased incidence of food spoilage in the process of transport and storage, questions of food transport and logistics have not been addressed in a comprehensive and coherent manner at the international level. A report by the United States Government Accountability Office in April 2007 showed that transport and other overhead costs consumed 65 per cent of United States food aid dollars, mainly due to rising fuel prices.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Food and Agriculture Organization, "Soaring food prices: facts, perspectives, impacts and actions required" (HLC/08/INF/1), High-level Conference on World Food Security: the Challenges of Climate Change and Bioenergy (Rome, 3-5 June 2008).

<sup>&</sup>lt;sup>2</sup> "Food Crisis: Soaring prices are causing hunger around the world", *Editorial, Washington Post*, 14 March 2008, p. A16, accessed from www.washingtongpost.com on 11 September 2008.

3. Inadequate logistics systems not only increase costs but also impact the availability of food to consumers. According to a report by the Pacific Economic Cooperation Council, China's cold storage capacity is estimated to cover only 20-30 per cent of demand. A lack of controlled atmosphere and refrigeration equipment leads to spoilage losses of up to 33 per cent of perishable food.<sup>3</sup> In India, various research studies by the Economic Times Intelligence Group and the Investment Information and Credit Rating Agency reveal that large quantities of grain are wasted due to improper handling and storage, pest infestation, poor logistics, inadequate storage and a lack of transport infrastructure.<sup>4</sup>

4. Furthermore, adequate infrastructure and access to transport services are prerequisites for the development of sustainable food trade, and requirements are becoming increasingly complex in importing countries and regions as more countries move into sophisticated trading in fresh fruit and vegetables, meat or fish at the domestic or international levels.

5. Given the importance of agricultural food production and delivery in meeting the basic needs of human beings, the food industry has become the centre of attention of Governments and international organizations. The Commission decided at its sixty-fourth session that "sustainable agriculture and food security" would be the theme topic for its sixty-fifth session.

6. The present document contains a preliminary investigation of the way transport and logistics can impact the food supply and contribute to the sustainable development of the food industry in Asia and the Pacific. The document seeks to identify key issues that need to be addressed by transport ministries and agencies and provides initial inputs into the process of identifying possible actions at the national, subregional and regional levels aimed at improving food transport and logistics.

### I. FOOD TRANSPORT AND LOGISTICS

7. Food logistics services are built around transport processes and include warehousing, stock management and related activities, particularly those concerned with information and document flows. They are a fundamental part of the supply chain, which encompasses the integration and coordination of various activities of participating organizations, such as marketing, distributing, planning, manufacturing and purchasing. Consequently, any consideration of improving food logistics processes has to be seen in the context of optimizing the total supply chain, a process often referred to as "from farm to fork". In order to meet trade requirements, logistics processes need to be both efficient and effective, which means responsive to the requirements of customers, be they farm producers or consumers.

8. In Asia and the Pacific, supply chains and logistics capacities and requirements vary greatly from the most basic to highly sophisticated chains. In many rural areas, the traditional market is still

<sup>&</sup>lt;sup>3</sup> Pacific Economic Cooperation Council, *Pacific Food System Outlook 2004-2005: The Role of Transportation Infrastructure in a Seamless Food System*, p. 17, accessed from www.pecc.org/food/papers/PFSO-2008.pdf on 11 September 2008.

<sup>&</sup>lt;sup>4</sup> A. Sachan, B.S. Sahay and D. Sharma, "Developing Indian grain supply chain cost model: a system dynamics approach", *International Journal of Productivity and Performance Management* (2005), vol. 54, No. 3, pp. 187-205.

prevalent. Farmers grow crops according to their experiences and forecast of the market and their food sales to consumers in the local marketplace. Transport requirements are equally basic, but they do extend to the provision of rural road networks to link farms to the nearest market or to a wider transport and logistics network that would create basic conditions for the distribution of commercial or humanitarian food supplies to rural communities. Such an infrastructure would also be a prerequisite for farmers to be able to participate in more sophisticated food trades and supply chains.

9. In order to capture the changes and diversity in agricultural food supply chains, the Food and Agriculture Organization has categorized different types of food supply chains and discussed the various characteristics associated with each one. It also differentiates a three-tier system of production and marketing.<sup>5</sup> At the low end, the traditional local production and market can be easily accessed by small-scale producers. Products normally have low prices. Almost no coordination can be found in the supply chain. For export markets in the top tier, there are stricter requirements for quality, safety, added value and continuous supply. Therefore, businesses in the export market are often vertically integrated, with transport and logistics functions included within commercially organized supply chains. Small-scale producers participate through contract farming arrangements initiated by the exporters. The middle tier consists of production for retail sale in the domestic modern urban sector, where the requirements for quality and safety are higher than those at the top end.

10. International food trade supply chains and corresponding logistics processes between developing and developed countries tend to be driven by the consumer (developed countries). It is, however, essential that developing countries in the region play a more active role in designing and implementing domestic extensions of logistics chains. They can create the necessary conditions for the beneficial development of international trade in agricultural products and become the backbone of more sophisticated and better performing domestic food distribution systems.

#### A. Staple agricultural food transport and logistics

11. While the nature of staple foods varies from place to place, rice and wheat constitute the most important ones in Asia.<sup>6</sup> The ESCAP region is also by far the largest wheat consuming region, accounting for almost half of global wheat consumption. The major portion of wheat and rice is consumed by the producing countries. Accordingly, 19 per cent of wheat production is traded in the market. The rice market is a relatively narrow in comparison with wheat market, with 7 per cent of world production traded. Figure 1 shows the largest producers of rice and other cereals in the Asia-Pacific region.

<sup>&</sup>lt;sup>5</sup> Kees van der Meer and Laura Ignacio, "Standards and supply-chain coordination: impact on small-scale producers", in *Governance, coordination and distribution along commodity value chains, Rome, 4-5 April 2006*, FAO Commodities and Trade Proceedings, No. 2, Food and Agriculture Organization.

<sup>&</sup>lt;sup>6</sup> Food and Agriculture Organization, *Asia Pacific Food Situation Update*, Regional Office for Asia and the Pacific, June 2008.



Figure 1. Largest producers of cereals in the Asia-Pacific region, 2006

Source: Food and Agriculture Organization, Asia Pacific Food Situation Update, Regional Office for Asia and the Pacific, June 2008.

12. Table 2 shows the development of grain imports into Asian countries. It can be noted that total trade has remained relatively stable up to the crop year 2007/2008, which saw a reduction of about 10 per cent both globally and into Asia. Forecasts for 2008/2009 indicate recovery to levels close to those observed in earlier years. It can also be observed that the portion of total grain production that is traded has not increased significantly over time; it has remained at approximately 15 per cent of global production. A regional breakdown shows that Asia has consistently been the single most important grain importing region, absorbing about one third of global grain trade. The main importing countries are Japan and the Republic of Korea, which together account for about 50 per cent of Asian imports.

13. In terms of global dry bulk shipping trades, grains account for about 15 per cent of major bulk trades (iron ore, coal, grain, bauxite/alumina and phosphate rock) as compared to 22 per cent a decade ago in 1998. This relative reduction implies that freight costs in grain trades are increasingly being influenced by other bulk trades, most recently those in coal and iron ore. The extreme volatility is reflected in the high chartering rates for dry bulk vessels, thus exacerbating the impact of the recently increased f.o.b. export prices, particularly for maize and rice. For instance, the cost of transporting grain from the United States Gulf coast to Japan (US Gulf to Japan) increased by some 160 per cent from a yearly average of about \$50 per ton in 2006 to \$130 per ton in May 2008.

(Millions of tons)											
	2000/2001	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009 <sup>a</sup>					
Japan	26.1	24.7	25	24.7	24.2	24.4					
Republic of Korea	12.9	11.5	13.2	11.9	11.6	12.0					
Indonesia	5.9	5.6	6.4	7.2	5.9	6.2					
Taiwan Province of China	5.9	5.9	6.4	7.2	5.9	6.2					
Malaysia	4.0	3.7	3.6	3.7	3.1	3.5					
Iran (Islamic Republic of)	8.0	3.9	3.7	3.4	2.9	4.0					
Philippines	3.1	2.7	3.3	2.8	2.5	2.8					
Bangladesh	1.3	2.0	2.3	2.0	1.8	2.0					
Pakistan	0.1	1.4	1.0	0.1	1.5	2.5					
Viet Nam	0.7	1.4	1.6	1.7	1.5	2.1					
China	2.4	8.9	3.3	1.8	1.4	1.8					
Thailand	0.9	1.2	1.3	1.3	1.3	1.4					
Sri Lanka	0.8	1.3	1.3	1.1	1.1	1.3					
Democratic People's Republic of Korea	0.4	0.0	0.0	0.0	0.0	0.0					
Total	75.8	77	74.5	76	69.1	73.1					
Percentage of world trade		36.3	34.7	34.4	29.7	32.2					

## Table 2. Asian grain imports

Source: International Grain Council, reproduced from Clarkson Research Services, Ltd., Dry Bulk Trade Outlook, vol. 14, No. 6, June 2008.

<sup>a</sup> forecast

14. Developing countries of the region which import grain will have to address the international transport issues in a way that creates the necessary structural changes to reduce the potentially adverse effects of volatile freight markets. Issues that transport ministries and agencies need to address may include the following:

- The consolidation of consignment and economy of scale. Freight costs are highly susceptible to economies of scale. In grain trades, for instance, it can be observed that the cost of ocean transport for consignments of about 50,000 tons are some 15-30 per cent lower than those for consignments of 30,000 tons, depending on the market situation.
- An increase in port productivity in order to reduce vessel lay time, an important element in determining transport cost.
- The provision of essential infrastructure, particularly with regard to port, discharging and storage facilities. The latter facilities would not only be able to accommodate larger consignments but could also be extended to provide for strategic stockpiles. Storage has

proven to be a particularly critical issue with incident of spoilage<sup>7</sup> due to insufficient storage being on the increase.<sup>8</sup>

• The creation of sufficient storage facilities closer to centres of consumption; the facilities should have sufficiently large capacity and the capability to provide support services such as cleaning, weighing and testing.

#### 1. Humanitarian food aid

15. The transport and logistics problems of commercial food imports weigh even more heavily in the case of food aid as part of humanitarian or disaster relief operations. The recent example of humanitarian relief operations in Asia gives a clear indication of the critical importance of transport infrastructure and operations in bringing food supplies to the population in need. It highlights two problems in many areas in the region: *first*, the lack of appropriate infrastructure and, *second*, the insufficient quality of the existing infrastructure and facilitation measures. In a broader sense, transport and logistics issues related to agricultural food production and distribution impact the effectiveness and efficiency of emergency and humanitarian food supply operations. Challenges in this aspect include the right distribution network configurations, inventory control mechanisms, disaster assessments, cooperation and coordination among various actors, procurement uncertainties and limitations, and performance measurement. The lack of investment in adequate and sustainable rural transport infrastructures increases the vulnerability of the poor in cases of disaster.

#### **B.** Transport of agricultural food products

#### 1. Fruit and vegetable transport and logistics

16. According to a World Bank study,<sup>9</sup> international trade in high-value food products has expanded enormously over the last several decades, reflecting development in both demand and supply sides, with organizational and technology-based supply-side changes reflected in advances in production processes, packaging, storage and temperature-controlled transport. Developing countries have successfully participated in this dynamic trade. Fresh and processed fruits and vegetables, fish, meat, nuts and spices now account for more than 50 per cent of the agricultural food exports of developing countries, while the share of traditional commodities such as coffee, tea, cocoa, sugar, cotton and tobacco continues to decline. The growth of integrated international supply chains and access to them for developing countries will provide extensive opportunities for competitive suppliers of higher-value foods by allowing them to target a market segment that suits their competitive profile.

<sup>&</sup>lt;sup>7</sup> It is considered that 25-50 per cent of rice harvests in developing countries are destroyed by wastage and spoilage, half of which occurs during transport and storage. J. Rickman and M. Gummert, *Rice Storage Systems*, International Rice Research Institute, accessed from www.knowledgebank.irri.org on 15 September 2008.

<sup>&</sup>lt;sup>8</sup> For storage conditions and requirements, see for example, International Rice Research Institute, *Grain Storage and Pest Management*, accessed from www.knowledgebank.irri.org/postproductioncourse/factsheetsNRefences/Storage/Training %20 Manual%20Grain%20Storage.doc on 15 September 2008.

<sup>&</sup>lt;sup>9</sup> S. Jaffee, "Food Safety and Agricultural Health Standards and Developing Country Exports: Rethinking the Impacts and the Policy Agenda", Trade Note 25, September (The World Bank Group).

17. In terms of the physical movement of fresh fruits and vegetables, the storage and packaging facilities need to meet the requirements of markets with different degrees of sophistication. In some cases, transport is carried out by air.<sup>10</sup> It is, however, important to note that the current reliance on air shipments may not be sustainable due to the high cost and limited availability of air cargo space. These problems are aggravated by the seasonal nature of fruit and vegetable trades, which leads to low prices for produce and shortages of air cargo space to ship it—which causes air cargo shipping costs to increase—in seasons when fruit and vegetables are abundant. Only a few highly priced and graded types of fruit will be able to bear the incidence of air freight costs even at times when concessional rates are granted as belly cargo of passenger airplanes. At the same time, the shortage of air space and the corresponding need for early planning and booking leaves very little, if any, room for new entrants to the trade. For the vast majority of trades, it is thus necessary to create physical conditions and establish commercial and operational channels that can take advantage of the opportunities offered by maritime transport services at prices and conditions that meet the requirements of the trade. These would help trade to develop and contribute to higher and more stable returns, and thus income, for local farmers as well as for the packing, storage and transport industries.

18. The difficulty and complexity of fruit and vegetable logistics should not be underestimated. In most cases, they involve the coordinated actions of multi-stakeholders in the chain. While packing and initial storage facilities are instrumental to ensure the proper conditioning of the fresh fruit and produce to be traded, they must also be integral part of a cold logistics chain extending from production to consumption or export areas. An integrated view must thus be taken by traders, logistics service providers and Governments to ensure coherent policies and practices along the cold chain. This would enable all stakeholders to identify bottlenecks and points of disruption which could be at the source of product deterioration or loss.<sup>11</sup> The nature of such bottlenecks could be expected to vary and would not be confined to infrastructure-related shortcomings, even though they might be the most visible ones. While actual investment in storage and packing facilities will, in most cases, be undertaken by private sector entities, Governments will still have an important role to play in providing an environment conducive to private sector engagement. This could lead to the development of a rather broad range of policy measures, from general fiscal incentives to specific public-private partnership arrangements for critical individual facilities that require particular Government attention.

<sup>&</sup>lt;sup>10</sup> In July 2008, Thai Airways announced the inauguration of cargo flights to Germany to support sales of Thai farm products in the European market by cutting the producers' logistics costs. According to the Thai Fruit and Vegetable Exporters Association, the cargo flights to Germany would start by mid-August for exports of short-lived Thai fruits and vegetables to Europe, now valued at about 10 billion baht per year. See *Bangkok Post*, 16 July 2008.

<sup>&</sup>lt;sup>11</sup> India is the world's largest producer of fruits, the second largest producer of vegetables after China and one of the leading producers of milk, pulses and a range of cereal crops. Around 25-30 per cent of the fruits and vegetables, however, suffer from spoilage and wastage due to improper handling practices and inadequate storage infrastructure. See Netscribes (India), *Logistics- Warehouses and Cold Chains*, Research and Markets, June 2008, accessed from www.research andmarkets.com/reportinfo.asp?report\_id=612431 on 15 September 2008.

#### 2. Fish transport and logistics

19. While this document deals primarily with transport and logistics aspects of land-based agricultural food production and trade, there are analogies to the potential for trade in fresh fish and seafood that could be of considerable importance for Pacific island countries as well as for Asian coastal countries with existing or potentially substantial fishing industries. The transport and logistics issues involved in developing a thriving trade in fresh fish and seafood are essentially those that are discussed above in relation to fresh farm products. There are, of course, different technologies and operational differences in production techniques and in logistics processes that impact concrete solutions to supply chain shortcomings. There is a need to establish a cold chain that starts at the earliest point after the catch and to ensure its uninterrupted functioning up to the consumer. It is critical that refrigeration and temperature-controlled storage be assured already on the fishing boat. For this purpose, extensive fleet modernization programmes may have to be launched and fishing practices may have to be adapted. Port-based infrastructure needs to be provided to conduct downstream activities of product processing and commercial transactions. Coordination mechanisms need to be put in place, with Governments playing an important role in the provision of infrastructure and an administrative environment which facilitates supply chain activities.

### II. FURTHER DEVELOPMENTS IN TRANSPORT INFRASTRUCTURE, FACILITATION AND COORDINATION

20. While the ESCAP region has seen tremendous growth in transport infrastructure, much needs to be done to extend the reach of transport and logistics services inland. In South Asia, 35 per cent of the rural population lives more than two kilometres from the nearest all-weather road.<sup>12</sup> This means that farmers in these areas might find it difficult to send their agricultural products to the market or, alternatively, that it might be difficult or costly to transport food to these areas. It has also been established that there is a close link between the creation of rural transport networks and the ability of local farmers to cultivate land which would only become economically accessible following infrastructure investment. Transport thus provides an important contribution to the sustainable development of local farming communities, be it on the basis of subsistence farming or of participation in food trades.

21. The need for rural transport networks is being increasingly recognized by Governments and some corresponding policies have been put in place. The example of India is most indicative in this respect, as the Government has initiated a programme to ensure balanced rural development. Recognizing the importance of infrastructure, more than 38,000 villages with a population of more

<sup>&</sup>lt;sup>12</sup> "Food crisis is a wake-up call for Asian agriculture: World Bank", *The Economic Times*, 17 July 2008, accessed from http://economictimes.indiatimes.com/Markets/Commodities/Food\_crisis\_is\_a\_wake-up\_call\_for\_Asian\_agriculture\_World\_Bank/articleshow/3242206.cms on 16 September 2008.

than 1,000 are to be connected to all-weather roads. The Business Plan for Rural Infrastructure<sup>13</sup> extends further to telecommunications, irrigation, water supply, housing and energy. Box 1 contains information about the road development programme that is designed to ensure farm-to-market connectivity.

## Box 1. Ministry of Rural Development of India Bharat Nirman: A four-year business plan—Rural Roads

To upgrade rural infrastructure, the Government of India has conceived a time-bound business plan under Bharat Nirman. It is a flagship programme for the country. A commitment of over 1,740 billion Indian rupees (Rs) has been made to Bharat Nirman with the objective of unleashing the growth potential of Indian villages. As part of the programme, the Government of India intends to ensure that every village with a population of over 1,000—or over 500 in hilly and tribal areas—has an all-weather road by end of the financial year 2008/2009.

To achieve the targets of Bharat Nirman, 146,185 kilometres of road are proposed for construction by 2009. This will benefit 66,802 unconnected eligible habitations in the country. To ensure full farm-to-market connectivity, the upgrading of 194,132 kilometres of the existing associated through routes has also been proposed. To achieve the upgrade, approximately Rs 480 billion in investments have been proposed.

Source: www.bharatnirman.gov.in/road.html

22. Apart from the traditional transport infrastructure, other essential logistics facilities for food transport and logistics—including warehousing, storage places and information systems—should also be addressed. These facilities may be sophisticated and capital-intensive and may impose challenges for many developing countries in Asia and the Pacific.

23. The physical and commercial infrastructure to be created in the producing regions would, in some cases, best be developed as an integral part of dry port projects that would serve both the agriculture and manufactures trade and would thus become a true transport hub and, consequently, a centre of development contributing to a more balanced national development process. The importance of developing dry ports as a means of fostering the economic development of landlocked countries, as well as that of regions of coastal countries which are distant from the coast, has been highlighted in a number of ESCAP publications<sup>14</sup> and has been the subject of inter-ministerial debate on different occasions. For instance, the Ministerial Conference on Transport held in Busan, Republic of Korea in

<sup>&</sup>lt;sup>13</sup> See India, Bharat Nirma: A time-bound plan for rural infrastructure by the Government of India in partnership with State Governments and Panchayat Raj Institutions 2005-2009, accessed from www.bharatnirman.gov.in on 16 September 2008.

<sup>&</sup>lt;sup>14</sup> For example, see Korea Maritime Institute and ESCAP, *Logistics Sector Developments: Planning Models for Enterprises and Logistics Clusters* (United Nations publication, Sales No. E.07.II.F.23, 2008).

November 2006 adopted the vision of an international integrated intermodal transport and logistics system which would encourage the development of logistics activities around inland locations. The 2003 Almaty Programme of Action accords high priority to the establishment of dry ports in landlocked and transit developing countries.

24. Although the transport and logistics infrastructure is the backbone of efficient food logistics, it has been widely agreed that to improve the infrastructure alone is not enough to overcome all the problems. Non-infrastructure barriers must not be underestimated. These non-infrastructure barriers can be found in cross-border procedures, institutional arrangements, commercial practices, a lack of coordination among different actors along the supply chain and regulatory shortcomings reflecting the need for facilitation measures by Governments of countries along the chain. This latter aspect is of particular importance for landlocked countries wishing to engage in the trade of perishable foods, where additional sets of administrative hurdles might have to be faced. In these cases, they would primarily relate to border crossing procedures and transit regimes. Similar problems might be faced in the development of intraregional bilateral trades. While such customs-related issues may be of the highest concern, there are also issues of a regulatory nature that would fall under the auspices of ministries of transport and that need to be addressed. Such issues include, for example, regulatory and promotional policies relating to transport modes, modal policies and the licensing of foreign operators along the cool chain. Policy approaches would need to reflect the requirements of the chain and, consequently, be harmonized in cases where international corridor operations are involved.

25. Reference has been made to the need for an integrated approach to the supply chain and logistics operations, in particular. The ability to develop a seamless corridor is of critical importance and will determine the success, or failure, of attempts to promote perishable food trade. Coordination mechanisms need to be put in place at both the operator and Government levels. At the national level, the creation of an industry association would provide an opportunity for members of the cold chain to develop commonly accepted practices and to speak with one voice in favour of constructive changes in government policies—at all levels of government—to increase the rate of growth in the industry. These policies and practices define operational standards and benchmarks for the packaging, handling, storage and transport of fresh produce along the cold chain, reflecting the obligatory and voluntary quality standards and traceability requirements of the trade, and ensure that they are implemented.

#### **III. ISSUES FOR CONSIDERATION**

26. Committee members may wish to share their experiences and progress and discuss the challenges faced concerning food transport and logistics. In doing so, the Committee may wish to place particular emphasis on policies and activities relating to the extension of rural transport networks and their impact on access to food, including the potential for cultivating arable land. Given the problems and challenges outlined in the document, the Committee may also wish to propose further research that could be presented to the Forum of Asian Ministers of Transport in 2009 as a

basis of regional exchanges of experience in enhancing the availability of and access to food through improved transport and logistics.

27. The Committee may also wish to examine priorities and emerging issues in this particular area, discuss regional and subregional dimensions of global mandates, identify areas for regional collaboration, suggest potential partners and provide suggestions on the need for any regional mandates.

28. The Committee may further wish to provide the secretariat with guidance on its future work in this area, as contained in the document entitled "Strategic framework and proposed outputs for the proposed programme of work for 2010-2011" (E/ESCAP/CTR/7).

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