UNITED NATIONS
ECONOMIC
AND
SOCIAL COUNCIL

GENERAL

E/ESCAP/FAMT/SGO/5
27 October 2009*

ORIGINAL: ENGLISH

ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

Forum of Asian Ministers of Transport
Meeting of Senior Government Officials

First session
14-16 December 2009
Bangkok

MAJOR ISSUES IN TRANSPORT: TRANSPORT AND POVERTY

(Item 5 (c) of the provisional agenda)

RURAL ACCESS AND FARM-TO-MARKET LOGISTICS**

Note by the secretariat

SUMMARY

At its first session, which was held in Bangkok from 29 to 31 October 2008, the Committee on Transport agreed that the agenda item on transport and poverty would focus on reducing problems related to the transport of agricultural products from farm to market and on providing rural communities with access to the main transport and logistics networks.

The introduction of the present document provides a brief overview of poverty in the region and highlights its different characteristics in rural and urban areas. It is followed by a discussion of the importance of improved infrastructure to provide access to economic and social opportunities and to improve the quality of delivered agricultural produce.

A number of recent initiatives being implemented in countries of the region are described to illustrate the significant progress that has been made in improving access for rural communities.

Delegations may wish to appraise the Forum of the transport and logistics interventions that they are implementing to assist in rural poverty reduction.

In order to assist the secretariat in implementing the Regional Action Programme for Transport Development in Asia and the Pacific, phase I (2007-2011) of the Busan Declaration on Transport Development in Asia and the Pacific, delegations may also wish to indicate their interest in: providing best practice case studies; sharing reports of their studies on links between transport and socio-economic development; and hosting seminars and workshops.

* The present document was the subject of extensive review, which resulted in its late submission.
** Mention of firm names and commercial products does not imply the endorsement of the United Nations.

CONTENTS

Introduction

1. Interventions that improve transport and logistics infrastructure and services, including rural roads, motorized and non-motorized transport, storage facilities, markets, marketing and farm-to-market logistics, can have a substantial impact on reducing poverty and increasing food security. This was recognized by the Committee on Transport at its first session, which was held in Bangkok from 29 to 31 October 2008, when it agreed that the agenda item on transport and poverty would focus on "reducing problems related to the transport of agricultural products from farm to market and on providing rural communities with access to the main transport and logistics networks" (E/ESCAP/CTR/8, paras. 10 and 65).

2. The introduction of the present document provides a brief overview of poverty in the region, especially in rural areas. It is followed by a discussion of the importance of rural-urban linkages. The document then considers the constraints to rural poverty reduction being imposed by inadequate physical access or non-physical barriers to economic and social opportunities and inefficient logistics supply chains.

3. The document outlines a number of recent initiatives being undertaken in which countries have made significant progress in improving access for rural communities. It then submits a number of issues for consideration by the Forum.

4. Delegations may wish to share their experiences in developing rural transport and logistics, and provide the secretariat with guidance on its future work in this area.

I. POVERTY IN THE REGION

5. In their joint Millennium Development Goal publication, *A Future Within Reach 2008: A Path to 2015 in Achieving the Millennium Development Goals in Asia and the Pacific*, ESCAP, the United Nations Development Programme and the Asian Development Bank reported that, in the Asian and Pacific region, there were about 641 million people living on less than $1 purchasing power parity (ppp) per day; about 545 million people consuming less than the global standard of 2,200 calories

per day, constituting 65 per cent of the world's undernourished; some 4 million children dying before the age of 5; and some 250,000 women dying each year during childbirth or from pregnancy-related complications. Net primary enrolment ratios in the region were above 90 per cent in almost all countries.[1] The proportion of primary students reaching grade 5, however, was only 79.1 per cent in South-East Asia and 73.1 per cent in South and South-West Asia.[2]

6. Many countries in the region are making significant progress towards achieving the Millennium Development Goals; however, the above indicators of income and non-income poverty clearly show that poverty is a matter for deep concern.

7. Given that rural populations in most countries of the region tend to be larger than urban populations, it would be expected that greater numbers of the poor are located in rural areas than in urban areas. This is borne out in statistical data. Column (6) of table 1 shows that, for some selected countries in the region, the share of income poverty in rural areas ranges from 71 per cent for the Philippines to over 99 per cent for Bhutan, with Bangladesh, India, Indonesia and Pakistan lying between 80 and 90 per cent. However, columns (2) and (3) highlight the disparities been rural and urban areas with, for example, India, the Lao People's Democratic Republic and Nepal having about two thirds of their rural populations living on less than $1 ppp per day, compared with between 19 and 27 per cent for urban populations. In other words, the rural poverty rate can be higher than the urban poverty rate by a factor of three or more.

Table 1. Rural-urban breakdown of poverty as measured by the Asian poverty line[a] (2005 poverty survey purchasing power parties)

		Headcount index (Percentage)		*Magnitude (Millions)*		*Share of rural poverty in total poverty (Percentage)*
Country	*Year* (1)	*Rural* (2)	*Urban* (3)	*Rural* (4)	*Urban* (5)	(6)
Bangladesh	2005	49.7	23.5	57.1	9.0	86.3
Bhutan	2003	38.7	2.2	0.2	0.0	99.3
Fiji	2002	43.5	11.9	0.2	0.0	78.9
India	2005	65.8	26.8	532.0	87.1	85.9
Indonesia	2005	34.1	8.8	40.0	9.5	80.8
Lao People's Democratic Republic	2003	63.2	23.1	2.7	0.2	91.7
Nepal	2004	64.4	18.9	14.5	0.8	95.0
Pakistan	2005	31.4	8.2	32.3	4.5	87.7
Philippines	2003	44.5	11.6	14.1	5.8	71.0
Sri Lanka	2002	11.1	2.8	1.8	0.1	95.6
Viet Nam	2004	21.7	2.9	13.5	0.6	95.5

Source: Asian Development Bank, *Key Indicators for Asia and the Pacific 2008*, part I, table 5.5.

[a] The Asian poverty line is $1.35 ppp per day and represents the median of the national poverty lines of 15 countries (Bangladesh, Bhutan, Cambodia, India, Indonesia, the Lao People's Democratic Republic, Malaysia, Maldives, Mongolia, Nepal, Pakistan, the Philippines, Sri Lanka, Thailand and Viet Nam).

[1] Asian Development Bank, ESCAP and the United Nations Development Programme, *A Future Within Reach 2008: A Path to 2015 in Achieving the Millennium Development Goals in Asia and the Pacific* (United Nations publication, Sales No. E.08.II.F.15).

[2] ESCAP, *Statistical Yearbook for Asia and the Pacific 2008* (United Nations publication, Sales No. E.09.II.F.1), table 13.1.

8. Recognizing the importance of rural poverty reduction, the report of the Secretary-General on promoting an integrated approach to rural development in developing countries for poverty eradication and sustainable development (E/2003/51) stated that "the millennium development goals of halving the proportion of people living on less than a dollar a day and the proportion of those who suffer from hunger by 2015 cannot be achieved unless rural poverty is urgently reduced. Moreover, attaining the other goals will not be possible without significant increases in rural incomes and opportunities and significant improvements in rural health, education and social services" (paras. 1 and 2).

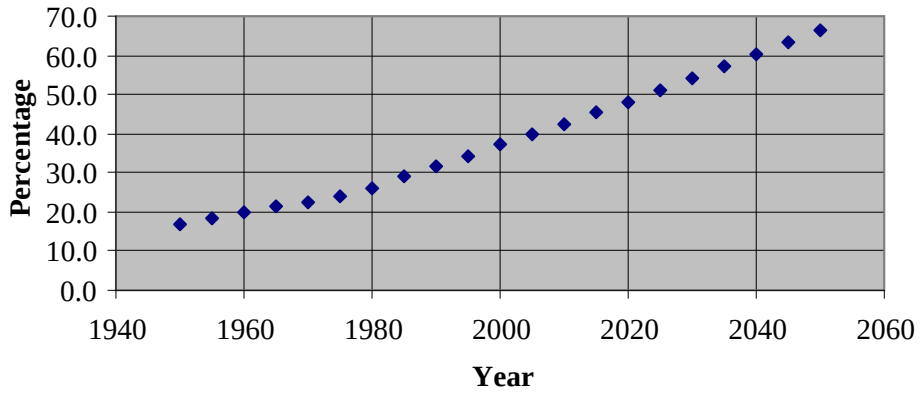
9. Transport and logistics infrastructure and services provide physical access to these economic and social opportunities. Consequently, their development can make a significant contribution to achieving the Millennium Development Goals.

II. TRANSPORT AND RURAL-URBAN LINKAGES

10. Many of the economic and social opportunities referred to above are located in urban areas. Thus, from a transport policy perspective, it is important to consider the nature of the urbanization process, physical access to these areas and the importance of rural-urban linkages.

11. The 2007 revision of the United Nations *World Urbanization Prospects*[3] estimates that the urban population in Asia increased from 16.8 per cent in 1950 to 39.7 per cent in 2005 and will further increase to 66.2 per cent by 2050 (see figure).

Figure. Urban population in Asia, 1950-2050



Source: Based on data from United Nations, Department of Economic and Social Affairs, Population Division, *World Population Prospects: The 2006 Revision* and *World Urbanization Prospects: The 2007 Revision*, accessed from http://esa.un.org/unup on 25 June 2009.

12. In *The State of the World's Cities Report 2006/2007,* the United Nations Human Settlements Programme expresses its view that the struggle to achieve the Millennium Development Goals will be won or lost in cities.[4]

[3] United Nations, Department of Economic and Social Affairs, Population Division, *World Population Prospects: The 2006 Revision* and *World Urbanization Prospects: The 2007 Revision*, accessed from http://esa.un.org/unup on 25 June 2009.

[4] *The State of the World's Cities Report 2006/2007: 30 Years of Shaping the Habitat Agenda* (Earthscan, 2006).

The same report also expands upon one of the ways in which winning the struggle to achieve the Millennium Development Goals in cities assists in reducing rural poverty:

> Cities are also engines of rural development. They provide many opportunities for investment, which not only support urban development but also contribute to rural development in an environment of strong urban-rural linkages. Improved infrastructure between rural areas and cities increases rural productivity and enhances rural residents' access to education, health care, markets, credit, information and other services.[5]

13. From the perspective of the cities, improved rural-urban transport and logistics linkages provide benefits by bringing lower prices and an improved quality of agricultural produce to urban consumers, as well as extending the market for goods and services produced in urban areas.

14. The message contained in *World Development Report 2009: Reshaping Economic Geography* is similar:

> Rural-urban transformations are best facilitated when policymakers recognize the economic interdependence among settlements. Within a country's hierarchy of cities, towns, and villages, each specializes in a different function and has strong interrelationships with others. So the policy discussion should be framed not at the extremes of the national level or the individual settlement. Instead, it should be framed at the level of what is termed an "area," usually a state or province.[6]

15. Strong rural-urban linkages have been an integral part of the formulation of the Asian Highway and Trans-Asian Railway networks, where the criteria for the selection of road, rail and road-cum-rail routes included: (a) capital-to-capital links (for international transport); (b) connections to main industrial and agricultural centres (links to import origin and destination points); (c) connections to major sea and river ports (integration of land and water transport networks); and (d) connections to major inland container terminals and depots (integration of rail and road networks). In most cases, the Asian Highway and Trans-Asian Railway networks are subsets of national trunk route systems, which in turn are subsets of the overall transport networks of countries.

16. The messages are clear: urbanization will continue; transport infrastructure and services are required for rural and urban areas; and strong rural-urban transport linkages are essential.

III. TRANSPORT AND LOGISTICS IN RURAL AREAS

17. The discussion above shows that lack of access is one of the principle contributing factors to poverty.

18. Improved transport and logistics infrastructure and services provide proximity (reduced travel times between origins and destinations) and mobility, thereby increasing physical and economic access.

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[5] See note 4, p. 49.

[6] World Bank, *World Development Report 2009: Reshaping Economic Geography* (Washington, D.C., 2009), p. 199.

19. This chapter considers physical accessibility provided through rural transport infrastructure and services, rural logistics and supply chains, and institutional and organizational factors that impede the efficiency of transport and logistics systems.

A. Rural access

1. All-weather road access

20. While initiatives are being implemented in countries of the region (see chapter IV below), physical access, especially in rural areas, remains a general problem. In some countries, 30 to 40 per cent of villages are without all-weather road access and a minority have no road access at all. In other countries, many road connections between the capital city and provincial capitals are unpaved and large percentages of provincial roads remain unpaved and may be impassable during the rainy season.

2. Food security

21. An important dimension of poverty is food insecurity, an element of which is access.

22. Food security encompasses systemic availability of food at all times, economic access to food, physical access to food and access to food that has the requisite nutritional value for a healthy life. Food insecurity can be temporary due to, for example, natural disasters, economic collapse or conflict, or permanent due to such factors as persistent poverty and lack of economic development. Improved transport and logistics infrastructure and services can increase food security, thereby contributing to poverty alleviation.

3. Reduction of impacts of disasters

23. Access is also of primary importance when disasters occur and relief aid needs to be transported to victims of floods, droughts, tsunamis and earthquakes. The ability to respond to disasters requires not only the adoption of risk mitigation strategies, including the development of contingency transport and logistics plans, but also the adaptation of the design and alignment of infrastructure so that it is resilient to such disasters. Experience shows that more attention needs to be paid to these mitigation and adaptation strategies in the transport and logistics sectors.

B. Rural logistics and supply chains

24. Rural logistics and supply chains are affected by a number of complex and interrelated factors and issues that include: land tenure, farm size, market structure (including the market power of various actors in the chain), information flows, the availability and cost of finance and banking facilities, available logistics infrastructure and services, government policies (legislative, regulatory and fiscal environment), and levels of public and private participation. Many of these factors lie outside of the scope of issues normally dealt with by transport ministries. They do, however, illustrate the need for a multisectoral approach to rural logistics and supply chains.

25. The following paragraphs highlight the symptoms of inefficient transport, logistics and supply chains. Policies that may constrain their efficient operation are among the topics considered in the next section.

26. For cereal crops, post-harvest losses are recognized as being significant. Estimates made by the Food and Agriculture Organization of the United Nations suggest the following ranges of losses for these crops at different stages of the supply chain: harvest (1-3 per cent), handling (2-7 per cent), threshing (2-6 per cent), drying (1-5 per cent), storage (2-6 per cent) and transport (2-10 per cent). The range of total losses is therefore 10-37 per cent, with much of this amount related to the logistics components of storage and transport, representing 4-16 per cent. [7,8]

27. For fresh food and vegetables, a study published by the Indian Institute of Management suggests that total wastage was about 50 per cent.[9] The breakdown of these figures is shown in table 2.

Table 2. Margins and wastage in the fresh produce supply chain

Supply chain	*Farmer*	*Village commission agent*	*District commission agent*	*Wholesaler*	*Sub-wholesaler*	*Retailer*	*Total*
Margin (percentage of final price)	35	15	10	10	10	20	100
Wastage (at each level)	20	8	2	5	5	10	50

Source: Chodavarapu Yasaswi, "Development of an efficient supply-chain model for organized retail in farm-fresh fruits & vegetables", Indian Institute of Management (Bangalore, ca 2007).

28. In a World Bank study of the competitiveness of India's horticulture, it was also observed that "the single most important indicator of the lack of adequate storage and marketing infrastructure for horticulture [was] the level of wastage in the system—which according to some estimates is as high as 20-40 per cent of total production."[10]

IV. INTERVENTIONS AND EXPERIENCE IN SELECTED ESCAP COUNTRIES

29. In many countries of the region, projects are being implemented which focus on, or have a component related to, the development of rural transport and logistics. In many of these cases, the targeted communities are benefiting from these interventions. If, however, progress is to be made in addressing the levels of rural poverty outlined in chapter I, then positive interventions can be replicated.

30. The following section outlines a number of recent initiatives being undertaken in selected countries, including some which are of a larger scale.

31. It is recognized, however, that while transport and logistics interventions can contribute to and be an entry point into the poverty reduction process, there is a need for a multisectoral approach to the problem.

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[7] M. de Lucia and D. Assennato, "Agricultural engineering in development: Post-harvest operations and management of foodgrains", Food and Agriculture Organization of the United Nations Agricultural Services Bulletin No. 93 (Rome, 1994), accessed from www.fao.org/DOCREP/T0522E/T0522E00.htm#Contents on 29 October 2009.

[8] Food and Agriculture Organization of the United Nations, "Prevention of post-harvest food losses: fruits, vegetables and root crops", Training Series: no. 17/2 (Rome, 1989), accessed from www.fao.org/docrep/T0073E/T0073E00.htm#Contents on 29 October 2009.

[9] Chodavarapu Yasaswi, "Development of an efficient supply-chain model for organized retail in farm-fresh fruits & vegetables", Indian Institute of Management (Bangalore, ca 2007).

[10] A. Mattoo, D. Mishra and A. Narain, *From Competition at Home to Competing Abroad: A Case Study of India's Horticulture* (World Bank, 2007).

A. Rural access

32. In India, a rural roads programme, the Prime Ministers Rural Roads Scheme (PMGSY), was launched as a 100 per cent Centrally Sponsored Scheme, with the objective of boosting rural connectivity. The aim of the scheme was to provide habitations with a population of 1,000 and above, as well as those with a population of 500 and above, with all-weather roads. In hilly/desert/tribal areas, its aim was to link habitations with populations of 250 and above. Table 3 shows that, in 2002, there were a total of 178,768 habitations falling within these categories. During the Tenth Five Year Plan (2002-2007), 88 per cent of the targeted habitations were connected.

33. A number of innovative features of the project include: first, that it is financed from a 50 paisa (one half of one Indian rupee) tax on diesel fuel; second, that the engineering design standards are set by the central Government; and third, that physical and financial implementation of the scheme is through a centralized computer system, with projects submitting online reports including photographs of works.

Table 3. Connectivity status under PMGSY, targets versus achievements (as of 31 March 2007)

Population category	*Eligible habitations*	*Target up to end of Tenth Plan (2002-2007)*	*Habitations connected*
1 000 and above	60 030	25 371	20 478
500 and above	79 208	14 854	13 193
250 and above	39 530	2 511	3 816
Total	**178 768**	**42 736**	**37 487**

Source: Government of India, *Eleventh Five Year Plan (2007-2012),* vol. III, Planning Commission (New Delhi, 2008), chapter 9, accessed from http://planningcommission.nic.in/plans/planrel/fiveyr/welcome.html on 29 October 2009.

34. In 2007, PMGSY was folded into the Bharat Nirman programme (initiated in 2005-2006). This is a more broad-based programme that includes drinking water, telecommunications, roads, electricity and irrigation. With respect to rural roads, it aims to connect all 1,000-plus habitations in rural areas (500-plus in hilly and tribal areas) by 2012.[11]

35. In China, about 2 million kilometres of roads classified as rural were constructed during the period 1996-2004. A feature of the interventions in China is that they provide not only transport infrastructure but also transport services. The road development strategy envisages that regular bus services will serve no less than 95 per cent of villages by 2010 and all villages by 2020.[12]

36. The Gama Neguma programme in Sri Lanka is designed to achieve island-wide economic development through the creation of economically prosperous villages. The programme was launched in 2006 in 119 Grama Niladhari divisions and will ultimately cover all of the 14,034 divisions. Under the programme, 3,354 km of roads and bridges were built in 2008 at a cost of 7,058 million Sri Lanka rupees.[13]

[11] Government of India, "Bharat Nirman: A Business Plan for Rural Infrastructure", accessed from www.bharatnirman.gov.in on 29 October 2009.

[12] Wang Ruijun, Li Huaijian and Li Yang, "Government policy on provincial and rural road development in China", Asia-Pacific Network for Transport and Logistics Education and Research (ANTLER) Conference on Transport and Millennium Development Goals, New Delhi, 14-15 April 2005.

[13] Government of Sri Lanka, *Annual Report 2008*, Ministry of Finance and Planning, available at www.treasury.gov.lk/FPPFM/fpd/annualreports.htm.

37. Bhutan has constructed eight priority feeder roads in five districts, where isolated rural communities had to walk for one to three days to reach all-weather roads or markets, schools, health clinics, hospitals and district headquarters.[14]

38. In an evaluation undertaken by the Programme Evaluation Organization of the Planning Commission of India, it was recorded that:

> PMGSY has succeeded in providing connectivity to some of the most deserving habitations although the pace of implementation in most of the selected states is rather slow. Selection of these road works seem[s] to be justified, unless one gives a high weightage to the opportunity cost in terms of road works forgone in other districts/other states. All the implementing states have designated an implementing agency as the nodal agency. All the selected implementing states have more or less adhered to the PMGSY guidelines as far as selection of habitations; project proposals and clearance are concerned. Quality of PMGSY roads has been found to be generally good. PMGSY roads provide connectivity to important places such as school/college, market centre, and block office.... [They have] improved … accessibility [for] beneficiary villagers and resulted in higher income in the form of better price[s] for agricultural produce, new employment avenues, etc. The cost of providing connectivity for some of the habitations in states like Himachal Pradesh is very high due to difficult terrain. But for PMGSY, no road would have been taken up in these sparsely populated habitations.[15]

39. In China, a study on road development, economic growth and poverty reduction concluded the following:

> The most significant finding of this study is that low-quality (mostly rural) roads have benefit-cost ratios for national [gross domestic product (GDP)] that are approximately four times larger than the benefit-cost ratios for high-quality roads. Even in terms of urban GDP, the benefit-cost ratios for low-quality roads are much greater than those for high-quality roads. As far as agricultural GDP is concerned, high-quality roads do not have a statistically significant impact while low-quality roads are not only significant but also generate 1.57 yuan of agricultural GDP for every yuan invested. Investment in low-quality roads also generates high returns in rural non-farm GDP. Every yuan invested in low-quality roads yields more than 5 yuan of rural non-farm GDP.
>
> In terms of poverty reduction, low-quality roads raise far more rural and urban poor above the poverty line per yuan invested than do high-quality roads.
>
> Another significant finding of the study is the trade-off between growth and poverty reduction when investing in different parts of China. Road investments yield their highest economic returns in the eastern and central regions of China while their contributions to poverty reduction are greatest in western China (especially the southwest region). This implies different regional priorities depending on whether economic growth or poverty reduction is the most important goal for the country.[16]

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[14] International Development Association, "Transport: Improving services for the poor" (Washington, D.C., World Bank, September 2008) p. 16, accessed from http://siteresources.worldbank.org/INTSDNETWORK/Resources/IDA_Transport.pdf on 29 October 2009.

[15] Government of India, "Summary of A Quick Concurrent Evaluation of Pradhan Mantri Gram Sadak Yojana", Planning Commission, Programme Evaluation Organization (2005), accessed from http://planningcommission.gov.in/reports/peoreport/peoevalu/peo_pmgsy.pdf on 29 October 2009.

[16] Shenggen Fan and Connie Chan-Kang, "Road Development, Economic Growth, and Poverty Reduction in China", International Food Policy Research Institute, Research Report 138 (Washington, D.C., 2005), p. 46, accessed from www.ifpri.org/sites/default/files/publications/rr138.pdf on 29 October 2009.

B. Rural logistics and supply chains

1. Supply chain infrastructure

40. Constructing, rehabilitating and maintaining transport infrastructure is only part of the process of improving physical and economic access. The development of other supply chain infrastructure, including storage, warehousing and marketplaces, is also of vital importance.

41. The improvement of markets was an important component of the Second Rural Roads and Markets Improvement and Maintenance Project in Bangladesh. The project included the improvement of 137 growth centre markets and 15 union parishad centre markets. The Implementation Completion Report of the project provides evidence of the impact of transport and logistics interventions. The report noted that the improvement of infrastructure had substantially increased the total turnover and attendance of the markets, produced a significant change in the modal mix of vehicles, reduced costs of transport and provided a large number of vulnerable sections of the society with employment.[17]

2. Value chain development and support

42. In a number of countries in the Asia-Pacific and other regions, various organizations are undertaking projects under the general heading of value chain development and support. These projects are aimed at enabling value chain actors to establish and maintain effective linkages for improved business performance. In Viet Nam for example, the Netherlands Development Organization (SNV) is implementing the following four projects:[18]

(a) Lai Chau and Ha Giang: development of the tea value chain aimed at increasing the income of 2,000 associated tea producers by 20 per cent by 2012;

(b) Lai Chau and Lao Cai: development of the cardamom value chain aimed at increasing the income of 5,000 poor households by 20-30 per cent by 2012;

(c) Binh Thuan, Ninh Thuan, Quang Tri and Thua Thien Hue: development of the jatropha value chain aimed at raising the incomes of 10,000 poor households by the end of 2010;

(d) Thua Thien Hue, Quang Tri and Quang Binh: development of the cassava value chain aimed at increasing the income of 60,000 poor households by 30-40 per cent by the end of 2010.

43. Some of the institutional and organizational aspects of value chain development are discussed below.

3. Roadside facilities

44. Roadside stalls, shops and restaurants, often located in clusters, are a feature of national highways in countries of the region. These establishments provide local communities with income and employment-generating opportunities, and travellers with the opportunity to rest, eat and purchase produce from the areas that they have visited or passed through.

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[17] World Bank, "Second Rural Roads and Markets Improvement and Maintenance Project: Implementation Completion Report, Bangladesh", Report No: 25229-BD (10 January 2003), pp. 38-39.

[18] SNV, "Smallholder Cash Crops, Connecting rural poor with enabling cash crop solutions", http://www.snvworld.org/en/countries/vietnam/ourwork/Documents/Brochure%20Cash%20Crop%20Final.pdf.

45. In Japan, these facilities are called *michinoekis*. Today in Japan, there are about 800 of these roadside stations. They are different from other roadside services for three reasons. First, they are designed with the help of the communities and provide much stronger links between local communities and the users of the roads. Second, they provide local residents with business opportunities, as they are possible venues for the provision of multiple public services, such as health care, education and training activities, and cultural activities, as well as for the provision of the normal restaurant and commercial services. Third, while service areas target road users, their services are not only available to people arriving in vehicles, but to people arriving on foot or bicycle. In other words, *michinoekis* can help meet the multiple needs of both local residents and travellers. Projects based on similar concepts have been undertaken in China, Kenya and Thailand.[19]

C. Institutional and organizational aspects of logistics and marketing services

46. Institutional and organizational measures to support logistics and marketing services are being initiated by different actors, including central, state and local governments; bilateral and international aid agencies; international financial institutions; domestic and international nongovernmental organizations; cooperatives; and the private sector.

47. At the central, state and local levels, countries are taking initiatives to deregulate agricultural markets and streamline supply chains, thereby increasing the access of farmers to markets.

48. The implementation of these policies provides the opportunity not only to increase the incomes of farmers but also to increase efficiency in the supply chain and reduce prices.

49. The advent of the supermarket in countries of the region has opened the opportunity for farmers to diversify from basic staple pulses, cereals and starch crops into high-value crops, such as vegetables, fruits, flowers, ornamentals, condiments and spices. Marketing these crops in local, national, regional and global markets can help reduce poverty in two main ways. First, it can increase incomes, thereby increasing economic access to food, and second, it can increase the nutritional value of the food consumed.

50. In India, a number of large companies, including Future Group, Reliance Fresh and FieldFresh Foods (a joint venture between Bharti Enterprises and Del Monte), each with their own logistics companies, are developing such retail outlets. The business model of Reliance is one of “farm to fork”. In this way, farmers can deliver directly to stores or to collection centres, where the produce is processed before being distributed to stores. This model reduces the length of the supply chain, which can include farmer, consolidator, commission agent, trader, wholesaler, semi-wholesaler, retailer and consumer.

51. In Bangladesh, the company Agora, which operates four supermarkets in Dhaka, has signed an agreement with a cooperative of 1,000 farmers in North Bengal for direct procurement of vegetables and fruits from fields. Prices for the produce are set following their day’s average in the wholesale markets of the adjacent areas. The cooperative has agreed to follow Agora’s quality standards, with a commitment to not use pesticides, chemicals or unnecessary fertilizer during the cultivation and harvesting periods written into the contract.

[19] Multiply, Inc., “‘*Michinoeki*’: urban-rural exchange in Japan”, accessed from http://marukuwato.multiply.com/journal/item/184 on 29 October 2009.

52. While there are a number of unresolved policy issues with respect to contract farming and large supermarkets, among other things, many consumers and farmers are benefiting from these developments.

53. Recognizing the importance of the development of efficient supply chains and the realization of economies of scale in storage, transport, marketing, and wholesale and retail distribution, cooperatives have been established in many countries of the region. In some of these countries, cooperatives are responsible for a significant proportion of national output. While experiences with and the reputations of these institutional and organizational structures are mixed, many are considered to be successful in reducing poverty.

54. The development of clusters and the strengthening of social networks within supply chains are increasingly being viewed as important ways to address rural poverty. The work of SNV discussed above is an example. Such initiatives are important aspects of knowledge management for rural communities and incorporate improved access to technical information on crops and markets, as well as the external benefits of belonging to networks within which information can be shared and advice sought. In this respect, there is a strong case for supporting the development of clusters.

V. ISSUES FOR CONSIDERATION

55. Delegations may wish to appraise the Forum of the transport and logistics interventions that they are implementing to assist in rural poverty reduction.

56. Given the country-specific nature of some of the above-mentioned problems, the Forum may wish to provide the secretariat with further guidance on regional activities it could undertake in this area.

57. In this respect, delegations may wish to comment on the need to address items contained in the Busan Declaration on Transport Development in Asia and the Pacific (E/ESCAP/63/13, chap. V), namely:

(a) Seminars and workshops on transport interventions aimed at achieving the Millennium Development Goals, and informational material on regional good practices in Goal-responsive transport development;

(b) Reviews and analytical and quantitative studies on the links between transport and socio-economic development;

(c) The dissemination of information on best practices and interventions designed to improve transport connectivity and access.

58. In order to assist the secretariat in implementing the Regional Action Programme for Transport Development in Asia and the Pacific, phase I (2007-2011) of the Busan Declaration (E/ESCAP/63/13, annex), delegations may also wish to indicate their interest in: providing best practice case studies; sharing reports of their studies on links between transport and socio-economic development; and hosting seminars and workshops.

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