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TRANSIT SYSTEMS OF LANDLOCKED AND TRANSIT DEVELOPING COUNTRIES: RECENT DEVELOPMENTS AND PROPOSALS FOR FUTURE ACTION

Report by the UNCTAD secretariat

Executive summary

The high costs of international trade represent a serious constraint on the economic development of landlocked developing countries. Inadequate infrastructure (transport, telecommunications, electric power etc.) adds heavy costs to the production and export of goods, hampering their competitiveness in regional and international markets. Lack of adequate government financial resources (due to financial crises, budget deficits, international adjustment and austerity programmes) to maintain appropriate levels of investment both in the maintenance and in the modernization of infrastructure services, aggravated by a decline in concessional aid (both bilateral and multilateral) for infrastructure development and by customers' demand for more efficient and sophisticated logistical services, have opened the door to private sector capital and management expertise. Many developing countries have now introduced some form of private sector involvement in infrastructure. However, for many landlocked and least developed countries attracting private sector investment in infrastructure remains a major challenge owing to investors' perceptions of high country risk. For these countries, purely private financing schemes may not be feasible in many cases. However, a combination of private and public participation, together with the involvement of specific regional funds, local capital and increased official development assistance flows, could offer a viable solution. To that end, donors and international financial and development agencies are invited to promote innovative financial mechanisms which could help landlocked and transit developing countries meet their infrastructure financing and management needs.

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INTRODUCTION

1. In paragraph 11 of its resolution 54/199 of 22 December 1999, the General Assembly requested the Secretary-General of the United Nations to convene in 2001 another meeting of governmental experts from landlocked and transit developing countries and representatives of donor countries and financial and development institutions, including relevant regional and subregional economic organizations and commissions, to review progress in the development of transit transport systems, including consideration, pursuant to General Assembly resolution 54/199, of the proposal made by the previous meeting in 1999 regarding the convening in 2003 of a ministerial meeting on transit transport issues so as to give emphasis to the problem of landlocked and transit developing countries.

2. This report looks at the challenge and opportunities for improving transit systems in landlocked and transit developing countries. It is divided into three chapters. Chapter I examines the relationship between transport costs, competitiveness and export performance, and concludes that these variables are so closely related that countries which are geographically disadvantaged, such as landlocked developing countries, experience important adverse transport costs which they must absorb in order to penetrate export markets. Chapter II reviews major developments relating to improvement of transit systems in landlocked and transit developing countries. With respect to development of physical infrastructure, the report notes the shift towards private capital in the development of infrastructure. Although for a few developing countries, the decrease in official development assistance (ODA) in the development of infrastructure has been more than compensated for by the flow of private capital, this has not been so with respect to many landlocked and transit developing countries. Private capital can play an increasingly important role in those countries if more action can be taken to promote new modalities for financing. Chapter III highlights some of these financial modalities. It urges the international community to support the development of such modalities and increased ODA in order to meet the financing requirements of landlocked developing countries.

I. TRANSPORT COSTS, COMPETITIVENESS AND EXPORT PERFORMANCE

A. Impact of high international transport costs

3. In the past, transport costs have been something of a backwater, hidden behind the larger commercial burden of high tariffs and non-tariff barriers. This is no longer the case, however, because while the post-Uruguay Round most-favoured-nation (MFN) tariffs for the major developed markets (United States, Canada, European Union and Japan) will be about 3.7 per cent, the average cost of transport for landlocked developing countries' exports is three times greater, (approximately 14.1 per cent) and double the cost of transport for developing countries as a group (about 8.6 per cent).

4. The General Agreement on Tariffs and Trade (GATT) provisions require tariffs to be assessed on an equal MFN basis, but international transport costs for similar goods may vary markedly across countries. As indicated in table 1, while transport and insurance payments as a percentage of total exports of goods and services for developing countries in 1995 was about 8.6 per cent, it was 14.1 per cent for landlocked developing countries and 17.2 per cent for least developed countries, whereas for the least developed countries that are also landlocked these payments amounted to 47.1 per cent. These average figures as shown in table 1 hide

important differences among countries, ranging from Botswana's relatively low freight rate (under 8 per cent) to over 35 per cent for Mali.

Table 1. Transportation and insurance payments as a proportion of total exports of goods and services for landlocked countries, 1997 (or latest year available)

Country	Transportation and insurance payments ($ millions)	Exports of goods and services ($ millions)	Ratio (%)
Afghanistan [a]	92.1	260.5	35.4
Armenia	103.1	330.2	31.2
Azerbaijan	114.7	1150.1	10.0
Bhutan	..	..	..
Bolivia	284.4	1413.8	20.1
Botswana	229.6	3030.0	7.6
Burkina Faso [b]	70.4	271.9	25.9
Burundi	22.9	96.1	23.8
Central African Republic [b]	58.7	179.0	32.8
Chad [b]	98.5	190.1	51.8
Kazakhstan	391.9	7741.2	5.1
Kyrgyzstan	104.0	675.8	15.4
Ethiopia	239.6	979.0	24.5
Lao People's Dem. Rep.	50.0	424.1	11.8
Lesotho	43.3	283.0	15.3
Malawi [b]	213.7	384.8	55.5
Mali	229.0	643.6	35.6
Mongolia	73.3	621.2	11.8
Nepal	62.2	1279.5	4.9
Niger [c]	92.5	321.4	28.8
Paraguay	472.1	4535.0	10.4
Rwanda	69.8	144.3	48.4
Swaziland	30.4	1084.6	2.8
Tajikistan	..	..	..
The former Yug. Rep. of Macedonia	175.2	1329.7	13.2
Turkmenistan	164.8	1045.9	15.8
Uganda	268.8	757.2	35.5
Uzbekistan	..	..	..
Zambia [d]	215.5	1255.2	17.2
Zimbabwe [b]	379.3	2344.3	16.2
Landlocked countries [c]	3706.0	26314.0	14.1
Least developed countries [c]	4276.6	24839.5	17.2
Developing countries [c]	109054.6	1268580.9	8.6

Source: UNCTAD calculations based on IMF, Balance of Payments Statistics 2000 (CD-ROM).
Note: [a] 1989 ; [b] 1994 ; [c] 1995 ; [d] 1991.

5. In general, the level of international transport costs facing landlocked developing countries is explained by the fact that their exports incur additional costs in the country or countries of transit (customs clearance fees, road user charges etc.).[1] However, the difference in transport costs among developing countries is also due to other factors, notably the structure of exports (see appendix table B), where transport costs represent a smaller proportion of higher-value exports than of lower-value exports; and the impact of the

[1] Improvement of Transit Transport Systems in Landlocked and Transit Developing Countries: Issues for consideration. Report by the UNCTAD secretariat. TD/B/LDC/AC.1/13, (1999).

proportion of total trade represented by regional trade, in that a larger proportion of regional trade is likely to lower the average transport costs incurred, given the shorter distances usually involved in the regional trade (see appendix table A) and the differing efficiency of the transit transport systems (see paragraphs 8 and 9).

6. Landlocked developing countries are also negatively affected by the high cost of their imports. A rough measure of the transit cost disadvantages faced by landlocked developing countries is provided by balance-of-payments statistics which show freight costs as a proportion of cost, insurance and freight (c.i.f.) import values. In 1995, freight costs were approximately 4.4 per cent of the c.i.f. import values of developed countries (see table 2). But for landlocked developing countries in West Africa they were approximately 24.6 per cent ; in East Africa, approximately 16.7 per cent ; and in Latin America, approximately 14.6 per cent. The freight costs of the sample of landlocked countries exceeded the freight costs of all countries on their respective continents by between 6 and 11 percentage points.

Table 2. Freight and insurance as a percentage of c.i.f. import values for selected groups of countries

		1985	1990	1995	1997
1	World total	4.6	5.5	4.4	4.1
2	Developed market economy countries	3.8	4.2	3.5	3.4
3	Developing countries total: of which:	7.7	11.2	7.4	6.5
	Africa	11.3	10.6	11.3	10.0
	America	6.7	12.8	6.4	5.6
	Asia	7.7	11.2	7.4	6.5
4	Landlocked developing countries: of which:	14.8	15.8	10.7	..
	East Africa[a]	17.9	20.2	16.7	14.6
	Southern Africa[b]	12.5	11.5	9.9	..
	West Africa[c]	30.0	30.2	24.6	..
	Latin America[d]	16.4	18.5	14.6	11.4
	Europe[e]	-	-	-	8.3
	Other Asia[f]	3.3	9.3	8.1	4.2
	CIS countries[g]	-	-	6.0	9.6
5	Least developed countries	13.8	14.6	12.5	..

Source: UNCTAD secretariat calculations based on data from IMF, Balance of Payments Statistics 2000 (CD-ROM).
Note: Data not available for Afghanistan, Bhutan, Tajikistan and Uzbekistan.

a Burundi, Ethiopia, Rwanda and Uganda.
b Botswana, Lesotho, Malawi, Swaziland, Zambia and Zimbabwe.
c Burkina Faso, Central African Republic, Chad, Mali and Niger.
d Bolivia and Paraguay.
e The former Yugoslavia Republic of Macedonia.
f Lao People's Democratic Republic, Mongolia and Nepal.
g Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan and Turkmenistan.

7. The high transport cost of landlocked developing countries imports inflate the prices not only of consumer goods but also of fuel, capital goods and intermediate inputs, thereby increasing the cost of domestic agricultural and industrial production. A significant reduction in the transport cost of their imports would therefore not only increase their purchasing power but also boost their domestic production, underpinning their diversification efforts and increasing the competitiveness of their exports.

8. Research over the last 30 years has emphasized the cause-and-effect relationship between the availability of adequate transport services and the scope for trade-based development, correlating the degree of access to a functioning transport sector with the degree of participation by countries in the global trading system.[2] These empirical studies on the effect of improving transit systems on trade flows are now being complemented by econometric models which attempt to compute, for example, the elasticity of trade with respect to transport costs.

9. A recent World Bank econometric study[3] looked at the determinants of transport costs for landlocked countries as compared with coastal countries. The typical landlocked country is estimated to have transport costs which are 50 per cent higher than the typical coastal country, and to have volumes of trade that are 60 per cent lower – with major consequences for the relative income of such countries. The study emphasizes the importance of infrastructure investment for reducing this handicap. It shows how transport costs depend on both geography (distance and borders) and the level and quality of transport and communications infrastructure (both the physical infrastructure and the effectiveness of its utilization). The study estimated that the elasticity of the flow of trade with respect to transport costs was large, about –3, which implies that the volume of trade would drop by some 20 per cent if transport costs were to rise by 10 percentage points. Indeed, infrastructure improvements in landlocked countries and their transit neighbours could have impressive results – for example, if a landlocked country at the 75th percentile in the distribution of infrastructure quality among all countries sampled were to move to the 25th percentile, this would cut the transport cost penalty for being landlocked in half, and increase the volume of its trade by more than 100 per cent.

10. International trade for many landlocked and transit developing countries involves carriage by both maritime and inland transport. Inland transport (rail/road) is by far the more expensive. For landlocked developing countries facing long inland transport, such as those in Central Asia (where the minimum distance to the nearest port is 3,500 km) and Zambia, Mongolia and Chad (about 2,000 km), the cost burden is high. A comparison between ocean freight charges paid for containerized imports and inland transit costs shows the relative importance of the latter. The difference is quite significant, with land factors of between 1 and 4, suggesting that any attempt to reduce the transport costs of exports and imports of landlocked developing country will primarily have to aim at influencing the level of costs accruing to inland transit operations.[4]

B. Impact of inefficient and unreliable transit transport services on competitiveness and export performance

11. With increased competition in major markets forcing business to adapt to just-in-time production and management systems, flexibility, speed and reliability regarding the delivery of goods have assumed significant strategic importance: flexibility, because transport logistics

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[2] Amjadi A. Reinke U. and Yeats A. Did External Barriers Cause the Marginalization of Sub-Saharan Africa in the World ? World Bank Policy Research Working Paper No. 1586, (1996); Amjadi A. and Yeats A. Have Transport Costs Contributed to the Relative Decline of Sub-Saharan African Exports ? World Bank Policy Research Working Paper No. 1559, (1995).

[3] Lim o N. and Venables A. Infrastructure, Geographical Disadvantage and Transport Costs. World Bank Policy Research Working Paper No. 2257, (1999).

[4] Improvement of Transit Transport Systems in Landlocked and Transit Developing Countries: Issues for Consideration. Report of the UNCTAD secretariat. TD/B/LDC/AC.1/13, (1999).

must be capable of adapting to variations in consumer demand and to unforeseen circumstances; speed, because the speed with which transport operations are carried out reduces the duration for tying up products – and therefore capital; and reliability, because it reduces the risks of breakdown in the supply or distribution of goods, and therefore reduces the need for safety/buffer stocks.

12. The export competitiveness of landlocked developing countries is undermined by lack of flexibility. Sometimes importers, in response to crop failure (eg. coffee) in one part of the world offer to purchase greater quantities from other suppliers, but exporters from landlocked developing countries often miss such opportunities because of lack of transport capacity to carry additional export loads. Lack of adequate transport capacity and flexibility also affects their import strategies. In order to avoid interruption in production, they have to maintain large buffer stocks of essential inputs (up to three months), but this ties up significant capital, thereby increasing their production costs and reducing profit margins.

13. The export competitiveness of landlocked developing countries is also hampered by their inability to deliver goods on time. Exporters can earn better prices on contracts which specify "prompt shipment", while prices may be discounted if delivery is delayed. Just-in-time delivery is a concept which does not apply to manufacturers alone. It pertains to commodities as well, particularly those which undergo a degree of processing before export and are sold as inputs to manufacturing.

14. Inadequate infrastructure, poor transport organization and a proliferation of government controls in landlocked and transit developing countries make it difficult to guarantee timely delivery of goods or ensure reliability or flexibility of supply of goods. The fact that delays can occur outside the territorial boundaries of landlocked developing countries implies that these countries acting alone may not always be in a position to overcome the real obstacles.

15. Indeed, while delay can occur at any stage of the transit journey, the most notorious delays occur at the main interface or trans-shipment points, namely between maritime and inland transport, between adjoining railway networks, and on both sides of national borders. Inadequate rail/road off-take capacity in maritime ports can and does cause major delays, slowing ship turnaround times, which often triggers port demurrage charges for all port users. The slow interchange of rolling stock between railway networks not only holds up goods in transit, thereby tying up capital, but also results in poor utilization of railways assets, thus reducing their revenue incomes. Border posts are also often a major constraint on the movement of transit traffic. In a study carried out in Southern Africa, it was found that a heavy truck usually required three days for clearance. The economic cost to the Southern African Development Community (SADC) region in terms of reduced truck productivity alone in 1996 was about $50 million.[5]

II. REDUCING REAL COSTS AND IMPROVING THE EFFICIENCY OF TRANSIT TRANSPORT

16. Remoteness and isolation from global production and consumption networks inhibit the economic and social development of landlocked developing countries, but the negative impact of long distances to the market can be mitigated by enhancing the efficiency of their

[5] SADC Border Post Design, Operation and Transit Facilitation, 1998.

transit transport systems. The key to attaining this objective lies in taking measures geared to halting and reversing the deterioration of physical infrastructure in landlocked and transit developing countries, continuing support for policy, legislative and institutional reforms at the national and regional levels, including coordinated and collaborative human resource development, and enhancing international cooperation.

A. Development of transport infrastructure

17. Until the 1990s, physical transport facilities in landlocked and transit developing countries, as in the rest of the world, were primarily provided by the public sector. Railway services were usually under a public sector monopoly, and most countries owned and operated air and maritime national-flag carriers. The private sector generally operated trucking and bus transport, but State-owned enterprises also provided these services and generally parastatals possessed their own fleets of vehicles. Governments often played a critical role by regulating entry and the prices of private sector services.[6] However, owing to financial crises, budget deficits, international adjustment and austerity programmes, the public sector has not been able to maintain appropriate levels of investment to maintain and modernize infrastructure. This situation has been aggravated by the recent decline in total concessional aid to all developing countries. Total ODA declined sharply from a peak of $61.3 billion in 1991 to a low of $48.3 billion in 1997, recovering to only $51.6 billion in 1999. Multilateral ODA declined even faster, from a peak of $18.6 billion in 1994 to a low of $13.5 billion in 1999. Bilateral ODA from the Development Assistance Committee (DAC) countries of the Organisation for Economic Co-operation and Development (OECD) peaked at $43.2 billion in 1991, reaching a low of $32.4 billion in 1997, and rising to $37.9 billion in 1999 (thus representing some shift from multilateral to bilateral aid). At the same time, overall ODA flows to the 30 landlocked developing countries reached its highest level in 1995 ($10.6 billion), dropping sharply thereafter to $7.6 billion in 1999.

Table 3. Overview of average infrastructure coverage in landlocked/least developed countries, developing countries and developed countries

Indicator	Landlocked/ least developed countries	Developing countries	Developed countries
Power-generating capacity (thousand kilowatts per million persons)	53	373	2 100
Telecommunications (main lines per thousand persons)	3.2	81	442
Paved roads (kilometres per million persons)	396	1 335	10 106
Water (percentage of population with access)	62	74	95
Sanitation (percentage of population with access)	42	44	95

Sources: World Bank, World Bank Report 1994; Infrastructure for Development (New York, Oxford University Press, 1994).

18. The existing state of infrastructure in landlocked developing countries as illustrated in table 3 shows that across several sectors the need for investment in basic infrastructure (rail/road, transport equipment, telecommunications) is huge. Comparative assessment of the infrastructure coverage in landlocked countries indicates that in order to bridge the existing

[6] African Transport Infrastructure, Trade and Competitiveness. Report by the UNCTAD secretariat, TD/B/46/10, (1999).

gap between these countries and the other developing countries, not to mention developed countries, significant investment outlays will be necessary.

19. Faced with dwindling ODA, as indicated in paragraph 17 above, and bearing in mind the need to bridge the infrastructure gap (illustrated in table 3), landlocked developing countries, in keeping with global trends, have been increasingly attracted by new modes of partnership between the public and the private sectors in the development of public infrastructure, such as contracting out or management contracts, private financing of public facilities, leasing, joint ventures, build-operate-transfer (BOT) schemes and privatization or capitalization.

1. Rail transit

20. Railway privatization or concessioning in landlocked and transit developing countries, which began a few years ago, is gathering speed. Since 1994, when the Abidjan–Ouagadougou railway was acquired by Sitarail (a French-led consortium), similar arrangements have been implemented in Chile, Bolivia, Cameroon, Malawi, Mozambique and Brazil. In Chile and Bolivia, Chile's Cruz Blanca privatized in 1996 the State railway company, Empresa Nacional Ferrocarriles (Enfe). The national operator in Cameroon, the Régie nationale de Chemin de Fer du Cameroun (Regifercam), was privatized in 1998 and the concessionnaire, CAMRAIL, a consortium of the French SAGA-Ballore and COMAZAR of South Africa, took over operations in March 1999. The State-owned Malawi railways were taken over by the Central East African Railway Company (CEARC), a consortium headed by Mozambican Railways (CFM) and a United States-based company, Railroad Development Corporation (RDC).

21. Railways in many countries are now required by Governments to observe commercial principles, which in many cases involve retrenchment of staff, closure of unprofitable lines and cessation or reduction of loss-making services, such as passenger services. Such measures have been politically difficult to carry out. Efforts to restructure railways have received support from the World Bank. For example, in November 2000, the Zambian Government secured a $27 million loan from the World Bank to replenish its assets and help to pay for redundancies.[7] The Zambian railways, as well as a number of other railways, such as the Tanzania Railway Corporation, are using restructuring as a stepping stone to privatization. But other railways are taking similar measures to improve their finances as they no longer receive subsidies from Governments.

22. Railway privatization programmes typically involve a package of management and capital investment conditions that are offered by private-sector-led consortia in return for a time-bound right of exploitation or concession of normally 10–20 years. In the case of Malawi, the new operator-investor, CEARC, agreed to invest $26 million over a 15-year period, including $4.8 in 2000 to fund the restructuring of the company's rolling stock. In Bolivia, the new operator-investor, Trenes Continentales, a subsidiary of Tennessee-Yoming Railways (United States), which took over the Chile – Bolivia railway concession from Cruz Blanca in 2000, has expressed interest in investing up to about $1 billion in the venture.

[7] EU Country Report, January 2001.

23. There is some evidence that railway concessioning is achieving positive results. In 1998 it was reported that in the four years following the acquisition of the Abidjan-Ouagadougou railway about 322,000 tonnes of transit freight was carried – a 20 per cent increase in tonnage compared with 1994. It has also been reported that the concessionnaire is continuously rehabilitating the infrastructure, improving train speeds and decreasing the number of derailments. Although the initial impression is positive, it is too early to provide a definite worldwide assessment of the result of concessioning as the exercise has just begun.

2. Road transit

24. The decline in railway traffic has increased the burden of road networks, but lack of adequate public funds to build and maintain road networks has opened the door to new partnerships leading to greater participation by the private sector in the development and maintenance of roads and related infrastructure and services facilities.

25. BOT projects in landlocked and transit developing countries have been concentrated in Latin America and Asia. In Africa, examples of such projects include the Riviera-Morcory toll bridge in Abidjan, awarded in 1997 to the Ivorian subsidiary of the French engineering group Bouygues-Setas, and the construction of the Maputo – Witbank road operated by Trans African concession (TRAC). Road maintenance contracts have been another new area for extending public–private sector partnership.

26. Although there have been few BOT projects in landlocked developing countries themselves, some of the landlocked developing countries benefit from BOT facilities located in transit countries as many of these facilities are built along the major transit corridors which serve their regional and international trade.

3. Maritime ports

27. In efforts to increase port capacity, the private sector has been invited to build and/or manage port operations. In a number of countries, initiatives to attract the private sector involve approval of up to 100 per cent foreign equity participation in constructing ports and harbours. In Côte d'Ivoire, an Anglo-Dutch consortium led by P&O Nedlloyds was recently awarded a 30-year BOT concession to build a new terminal on the other side of the Abidjan lagoon in Locodjoro. A number of countries, including Djibouti and the United Republic of Tanzania, have opted for concessioning of all or part of their port facilities. The container terminal in Dar es Salaam, United Republic of Tanzania, was leased to a Philippine company, International Container Terminal Services Inc. (ICTS), through its local subsidiary, the Tanzania International Container Terminal Services Ltd (TICTS). TICTS promised to increase the number of containers handled at the port from 100,000 to 200,000 by end of the contract in 2010. It is paying lease fees, royalties and wharfage fees to the United Republic of Tanzania.

4. Air transport

28. Air freighting accounts for a relatively small proportion of landlocked developing countries' foreign trade, except for a few countries such as Nepal, where exports of carpets and other low-volume, high-value products transported by air are important. However, air transport is important in supporting passenger and tourism sectors in many landlocked developing countries. Despite low air traffic in many of these countries, the operating

regional hub-and-spoke system ensures them access to international air services. Policy changes in recent years in many landlocked and transit developing countries, providing an opportunity to the private sector to invest in airport facilities, are expected to expand capacity and improve the operating performance of their airports.

29. With regard to national airlines, the current situation in many landlocked and transit developing countries is turbulent. Many have cut back their services severely in order to avoid serious financial losses. Regional alliances have not done well either. For example, the Alliance Airline launched in 1994 between South African Airways, Uganda Airlines and Air Tanzania fell apart in 1998. Air Afrique, the flagship airline in West Africa owned largely by West African countries, is being restructured pending privatization. However, there is a small silver lining in the troubled skies of landlocked and transit developing countries. Many of these countries have undertaken policy, regulatory and institutional reforms in the airline subsector. A recent agreement in Yamoussoukro, Côte d'Ivoire, to liberalize skies for African airlines could provide a new departure for a better-structured and coordinated, and more efficient, air industry in Africa. Meanwhile, a number of landlocked developing countries, including Bolivia, Zambia, Burkina Faso and Mali, have privatized their national airlines. Other countries contemplating privatization have, as a first step, partially liberalized their skies to allow new private sector entrants, to compete with the established public-sector-owned national airlines.

5. Telecommunications

30. Transport and communications have entered a new stage in their relationship. The use of sophisticated telecommunication systems not only makes transport operations safer but also enables operators to run more trains or permit a greater number of aircraft landings and take-offs, making more efficient use of existing infrastructure and generating more revenue. The advent of electronic data interchange, enabling documents such as customs declarations to be transmitted in advance of arrivals (by ship, train, aircraft etc.), has facilitated forward planning by transport operators, port authorities, customs and other agencies, leading to fast customs clearance of goods and to improving transit times of ships and other means of transport, thereby reducing the overall cost of international trade.

31. Lack of adequate public investment funds and the need to attract management expertise and new technologies have opened the door to private sector investment in many landlocked and transit developing countries. In Bolivia in 1995, Telecom Italia won a six-year monopoly on long-distance and international calls until November 2001 in exchange for a commitment to invest $610 million, of which $458 million was planned to be invested by the end of 1999. Local telephone services in all urban areas are now provided by 18 local cooperatives, the largest of which are Cotel (La Paz), Costas (Santa Cruz) and Comtel (Cochabamba). The launch of the GSM cellular system by Nuevatel in November 2000 prompted the State-owned Empresa Nacional de Telecomunicaciones (Entel) to do the same the following month in order to maintain its market share. Concessions for mobile telephone networks have been granted in many other countries, including Brazil, Malawi, the United Republic of Tanzania, Côte d'Ivoire, Niger and India. The Detecom – MSI consortium bought a 35 per cent share in the Tanzania Telecommunication Company for $120 million. The consortium is committed to increasing the number of telephone connections from the present 162,000 to 800,000 by 2004.

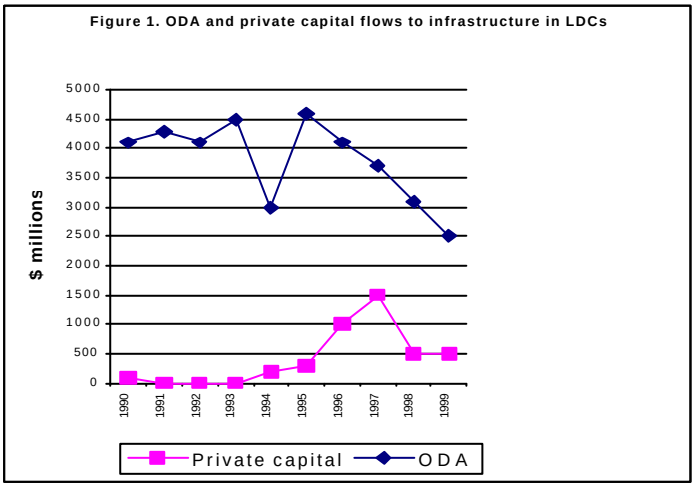
6. Pipelines

32. Pipelines provide the most cost-effective means of transport for both crude oil and its finished products. Because the development of pipelines requires substantial capital investment, the role of the private sector has been on the increase. To give an idea of the magnitude of capital investment, the pipeline from Tenghiz field in Kazakhstan to Novorossysk (Russian Federation) on the Black Sea is expected to cost the International Caspian Pipeline Consortium $2.2 billion to build. Pipelines are not only important for oil-exporting countries, but also advantageous for importing countries because they are the least expensive mode of transport for crude as well as finished products over long distances. A number of landlocked developing countries, such as Zimbabwe and Zambia, have been operating pipelines for the import of oil products for many years. Recently, Kenya agreed to extend its pipeline to Uganda.

7. ODA and private capital flows to infrastructure in landlocked and transit developing countries

33. Private capital flows have largely been concentrated in a handful of developing countries. About 80 per cent of such flows in the 1990s went to six countries : Brazil, Argentina, Mexico, the Republic of Korea, Hungary and Malaysia. Brazil alone received almost a third of the total. Although a number of landlocked developing countries succeeded in attracting some degree of private investment, overall less than 1 per cent of private capital flowed to this group of countries. Consequently, ODA remains the dominant source of infrastructure finance for landlocked and least developed countries, representing a total of more than $35 billion over the decade compared with less than $5 billion of private capital flows (figure 1). However, the relative importance of private finance to landlocked and least

Figure 1. ODA and private capital flows to infrastructure in LDCs

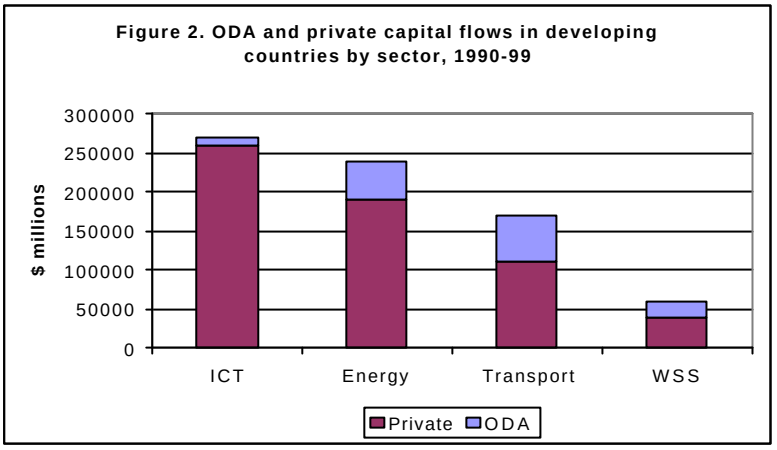


developed countries unquestionably increased throughout the decade. The ratio of private capital to ODA grew from 10 per cent in 1990 to 50 per cent in 1997, falling back to 20 per cent in 1999.

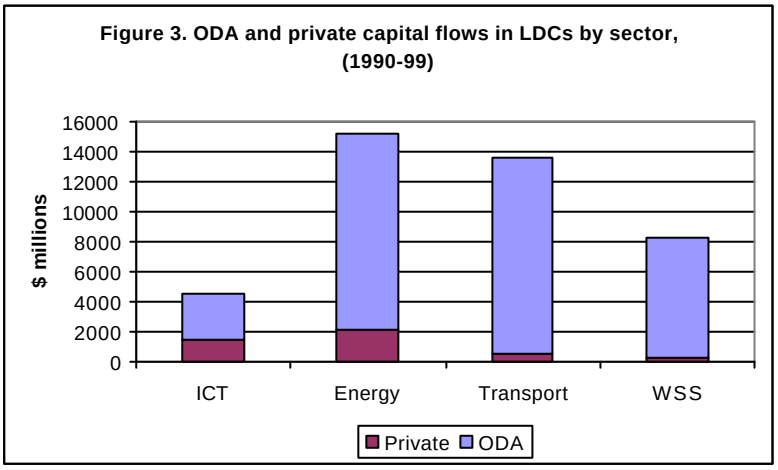
Sources: World Bank PPI Database (2001); OECD IDS Database (2001).

34. Private capital is also highly concentrated at the sectoral level, flowing primarily to telecommunications and energy. This is essentially a reflection of the greater difficulties encountered in applying the new infrastructure paradigm to the transport and water sectors. Overall, 43 per cent of private capital flows went to the information and communication technology (ICT) sector, 32 per cent to the energy sector, 19 per cent to the transport sector and only 5 per cent to water and sanitation (WSS) (figure 2). The relative importance of ODA

in total sector financing is inversely related to the size of private capital flows to each sector. However, in absolute terms, sectors such as energy and transport have each received a higher amount of ODA than the water and sanitation sector, even though they have succeeded in attracting a substantially higher volume of private investment. The sectoral pattern of private capital flows is similar in the landlocked and least developed countries (figure 3). However, what is particularly striking is that in the landlocked and least developed countries, the ICT sector captures only 10 per cent of total external finance, compared with 45 per cent in developing countries as a whole.



Sources: World Bank PPI database (2001); OECD IDS Databank (2001).



Sources: World Bank PPI database; OECD IDS Databank (2001).

B. Overcoming non-physical barriers to enhance the efficient use of available transit transport systems

1. Regulatory frameworks

35. Even as many Governments retreat from commercial transport operations, they still retain the critical role of financing physical transport infrastructure, maintaining and managing such infrastructure, as well as formulating and enforcing transport regulations. International conventions, and regional, subregional and bilateral agreements, ratified by Governments are the main vehicles through which harmonization, simplification and standarization of rules and documentation can be achieved. Action at the industry level, for

example the conclusion of inter-railway agreements, and implementation of informal arrangements, including regular consultations and exchange of information between customs administrations, are also very important.

36. Several international conventions provide a valuable basis for tackling various problems related to transit traffic operations. The Central Asian countries have done a commendable job in complying with ESCAP resolution 48/11 of 23 April 1992, which recommends that its members make efforts to accede to basic conventions (see table 4). This report uses the example of one of the international conventions – the Customs Convention on the International Transport of Goods under Cover of TIR Carnets, 1975 (the TIR Convention) – to illustrate the transit transport facilitation effect of transport and transit conventions.

Table 4. Accession to international conventions by the Central Asian countries and their transit neighbours, as at February 2000

State	CMR [a]	TIR [b]	Containers	Harmonization frontiers	Road traffic	Road signs	ADR [c]	ATP [d]	AETR [e]	AGR [f]	TEMP [g]
Armenia		X		X							
Azerbaijan	X								X	X	
China			X								
Georgia	X	X	X	X	X			X			
Iran, Islamic Republic of	X	X			X	X					
Kazakhstan	X	X			X	X			X	X	
Kyrgyzstan	X	X		X		X					X
Mongolia					X						
Russian Federation	X	X	X	X	X	X	X	X	X	X	
Tajikistan	X	X			X	X					
Turkey	X	X	X							X	
Turkmenistan	X				X	X			X		
Uzbekistan	X	X	X	X	X	X		X	X		X

Source: Economic Commission for Europe.

a Convention on the Contract for the International Carriage of Goods by Road, 1956.

b Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention), 1975.

c European Agreement concerning the International Carriage of Dangerous Goods by Road, 1957.

d Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be used for Such Carriage, 1970.

e European Agreement concerning the Work of Crews of Vehicles engaged in International Road Transport, 1970.

f European Agreement on Main International Traffic Arteries, 1975.

g Customs Convention on the Temporary Importation of Commercial Road Vehicles,1956.

37. The scope of the TIR Convention of 1975, which replaced an earlier version adopted in 1973, had initially been restricted to the carriage of goods by road, but the current version covers other modes of transport (air, rail and multimodal transport), provided that part of the journey is by road. The TIR Convention enables a vehicle or container covered by a specific customs document, the TIR carnet, to journey from its point of departure to its point of destination without undergoing any customs examination when crossing intermediate frontiers.

38. TIR carnets are issued by the secretariat of the International Road Transport Union (IRU) in Geneva and distributed to national associations representing IRU in the countries which are contracting parties to the Convention. To obtain a TIR carnet, the carrier must belong to a national association which can furnish professional and economic guarantees and

which is authorized to issue carnets. Moreover, the vehicles and containers used must fulfil technical and other conditions laid down in the Convention.

39. Each association stands guarantor, under an agreement with the customs authorities, for the duties and taxes payable on goods carried under cover of the TIR carnets issued by it, or by any other member of the international chain of guaranteeing associations. Similarly, the national guaranteeing association must sign an undertaking with IRU, regulating the reciprocal rights and liabilities implicit in the operation of the TIR system.

40. To guarantee fully the payment amounts claimed on account of irregularities in a TIR operation, IRU has negotiated a surety bond with a pool of international insurance companies.

41. The pillars of the TIR transit system are that: (a) goods should travel in secure vehicles or containers; (b) duties and taxes at risk should be covered by an internationally valid guarantee throughout the journey; (c) the goods should be accompanied by an internationally accepted carnet taken into use in the country of departure and accepted in the countries of transit and destination; and (d) customs control measures taken in the country of departure should be accepted by the countries of transit and destination.

42. Many of the landlocked and developing countries in Central Asia have acceded to the TIR Convention.[8] It offers advantages to customs administrations, national economies and the transport industry. It avoids the need (expensive in terms of manpower and facilities) for the physical inspection of goods in the countries of transit other than the checking of seals and the external condition of the vehicle or container, and processing the regional customs transit document. The use of a regional customs transit system could do away with temporary importation procedures for vehicles or the container, as such procedures could be included in that system. It abolishes the operation of national guarantees and national systems of documentation, since these are provided in a regionally recognized customs document and in a regional guarantee chain which ensures that all duties and taxes are covered at all times either by the transport operator or by a national guarantee organization. The advantages to commerce and to transport operators are quite clear: regional and international trade is facilitated by the fact that goods travel across national frontiers with minimum interference by customs administrations. By reducing delays in transit, the system promotes quicker turnaround times, enabling vehicle fleets to generate higher revenues.

43. In both West Africa and Southern and East Africa initial steps have been taken to implement regional customs transit regimes. In West Africa the TRIE (Transport Routier Inter-Etats) Convention, although ratified in 1982, has not been operational; similarly, there are still many obstacles facing current efforts to implement the COMESA/SADC Customs Document and the Regional Customs Bond Guarantee (RCBG) system in Southern and East Africa. The operation of regional customs transit regimes is crucial for transit facilitation in many regions. But their early implementation requires financial and technical support from the international community.

44. Success has been recorded in a number of other areas of transit facilitation, including third-party motor insurance schemes, harmonization of axle load limits and road transit charges. In Southern and East Africa, for example, the benefits from harmonized axle load limits are as follows : (i) transport operators are able to load their trucks with the maximum

[8] Armenia, Islamic Republic of Iran, Kazakhstan, Russian Federation, Tajikistan, Turkey and Uzbekistan.

payload; (ii) harmonized axle load limits facilitate uniform axle load enforcement; (iii) these limits also facilitate exchange of information on overloading and on habitual violators of axle load limits; and (iv) there is uniform application of fines for overloading and excessive gross vehicle weights, based on an agreed pavement damage formula.

45. The benefits of the COMESA carrier licence in Southern and East Africa include the following: (i) there is automatic entry into the regional transport market for road hauliers in possession of the COMESA carrier licence; (ii) the COMESA carrier licence is paid for in local currency in the country of vehicle registration, and hence there are foreign exchange savings; (iii) a carrier licence valid for 12 months provides stability and predictability in the road transport service industry; (iv) the liberalization of the regional trucking industry has resulted in competitive freight rates as a result of the abolition of trucking monopolies and quotas that were characteristic of the heyday of road services permits; and (v) there is improved use and productivity of trucks through the avoidance of non-use as a result of delays by authorities in other countries in issuing road services permits.

46. In Latin America members of the Latin American Southern Common Market (MERCOSUR)[9] have committed themselves to applying common transit procedures contained in the number of agreements. These agreements include: (i) Acuerdo de alcance parcial sobre transporte internacional terrestre en los paises del MERCOSUR (Agreement on International Road Transport within MERCOSUR Countries), which introduces internationally recognized principles of road transportation; (ii) Principios generales para el acceso a la profesi n de transportista y su ejercicio en el ámbito del MERCOSUR (General Principles for Access to the Profession of International Transporter, and Their Operation within MERCOSUR Countries), which comprise regulatory measures to guarantee goods transport through MERCOSUR Countries; (iii) Acuerdo sobre reglamentaci n basica unificada de Transito) Agreement on Basic Unified Regulations for Transit, which sets out uniform transit rules for transporters; and (iv) Acuerdo de alcance parcial para la facilitacion del transporte multimodal de mercancias del MERCOSUR (Agreement on MERCOSUR which introduces Multimodal Transport Facilitation), trade facilitation concepts to facilitate border crossing.

2. Institutional frameworks

47. Transit transport management requires effective national and intergovernmental support arrangements. To deal effectively with the cross-sectoral issues involved in transit transport, many landlocked and transit developing countries have intensified their inter-ministerial consultative process. UNCTAD has helped developing countries to strengthen their institutional frameworks on the basis of the concept of the National Trade and Transport Facilitation Committee (NTTFC). Such a committee brings together representatives of all public and private parties concerned with international trade and transport facilitation in a country: governmental entities, services providers and transport users. Established as a consultative body, an NTTC serves as a national forum for the creation of formalities, procedures and documentation used in international transport and trade, its mandate being to prepare the development of trade and transport through proposals to the institutions concerned and to the executive branch of the Government.

[9] Argentina, Brazil, Paraguay and Uruguay.

48. To be effective, national and intergovernmental arrangements must be able to respond to the changing needs of transport and trade. In this context and as discussed in paragraphs 57 and 58 below, new modalities and institutional structures for transit are emerging in a number of landlocked and transit developing countries in response to the expanding role of the private sector in transit service delivery.

3. Deregulation, liberalization, privatization and competition

49. Deregulation, liberalization, privatization and competition are among the new instruments being pursued in efforts to reduce real costs and improve the efficiency of transit transport. Reforms affecting all modes of transport are under way. However, the pace of implementation varies a great deal from one region to another and among countries within the same region.

50. Policies which enable all transport modes to compete fairly in a commercial environment for national and transit traffic are playing an important role in promoting cost-effective transport services and strengthening transit systems. A typical example of where deregulation has affected the transport sector relates to the withdrawal of protection for railways, which has triggered fierce competition from road transport. However, deregulation without accompanying measures, such as the establishment of professional bodies (haulier associations) to set professional standards and maintain discipline among members, could create a vacuum which could be exploited by unscrupulous operators engaging in illicit or illegal practices.

51. Privatization is also having a major impact on the transport sector. Different measures, ranging from the granting of greater management autonomy to public corporations, such as railways, and the lease of public assets, to the signing of management contracts and a complete change of ownership, have been tried with varying degrees of success. Greater railway autonomy, for example, has allowed management to streamline operations, reduce labour costs and conclude mutually beneficial inter-railway arrangements. Among the measures that have had the most positive impact for transit transport is the operation of block trains across borders. Other measures to improve railway operations have included concessioning or privatization of certain services, such as catering and maintenance.

III. CHALLENGES AND OPPORTUNITIES FOR FURTHER IMPROVING TRANSIT SYSTEMS IN LANDLOCKED AND TRANSIT DEVELOPING COUNTRIES

A. Measures at the national and regional levels

1. Transit environment

52. An effective strategy to improve transit systems requires, first and foremost, action at the subregional level because cooperation between landlocked countries and their transit neighbours is pivotal for the effective solutions of transit problems. This cooperation must be promoted on the basis of the mutual interest of both landlocked and transit countries. Arrangements for regular review and monitoring of the implementation of transit agreements and for public and private sector dialogue and consultation must be established or reinforced.

53. Action to improve transit systems should have as its objective the development of efficient, flexible and well-managed transit systems geared to meeting the needs of exporters and importers from landlocked countries. It should not simply focus on cargo movement per se, but on the whole set of operations required in order to facilitate transit as a critical link in the international trade logistics of enterprises in landlocked countries. It should be targeted at corridor-specific and subregional-specific problem solving.

54. Transit traffic and crew operating between two or more countries face a broad range of challenges. Crew must cope with foreign languages, comply with different transit formalities and endure difficult working conditions, including long delays when crossing national borders. Landlocked and transit developing countries should do their utmost to improve the transit environment, especially with regard to security en route and provision of basic amenities such as accommodation and restaurants at national borders, where traffic is often held up for many hours or even days. Indeed, some transit corridors still suffer from frequent roadblocks where informal payments are not uncommon, adding substantially to total transport costs.[10]

55. More effort is required in order to facilitate transit traffic through border posts. Efforts should be made to ensure that all control agents at the border – customs, immigration, health, veterinary and phytosanitary – coordinate their services to avoid unnecessary delays to transit traffic. Efforts should also be made to provide basic facilities, such as telephone, photocopiers and basic medical facilities. Opening hours on both sides of the border should be harmonized and where traffic density is high, consideration should be given to 24-hour service. Landlocked and transit developing countries are encouraged to establish one-stop border posts.

2. Regulatory frameworks

56. Many landlocked and transit developing countries have undertaken wide-ranging measures to modernize their legislation in order to provide an enabling environment for efficient transit operation and to attract private sector management expertise and capital. In this connection, the subregional and regional initiatives under the transport and transit facilitation instruments discussed in chapter II above have been part of this reform process. The international community has played an important role in supporting the normative law reform processes (drafting of laws), but greater financial and technical assistance would be required to help landlocked and transit developing countries to effectively implement their bilateral and regional agreements and arrangements.

3. Institutional arrangements

57. Many landlocked and transit developing countries have accepted that the changing structure of transit services calls for new institutional arrangements. At the national level, three distinct but complementary institutional structures are emerging to reflect the expanding role of the private sector as the main provider of transport and related commercial services. **First**, as the public sector retreats from commercial services, allowing the private sector to take the leading role, the public sector is assuming the role of regulator to ensure fair competition among service providers, protecting the consumer against monopoly abuse and

[10] Evlo K. (UNCTAD consultant). Review of Progress in the Development of Transit Transport Systems in West and Central Africa, 1999.

enforcing quality and safety standards to protect the consumer. **Second**, on the other hand, the private sector is organizing itself through the establishment of professional bodies and associations. This is in keeping with the belief that effective private sector representation and participation in decision-making require structures and organization. **Third**, in the light of this evolution, many landlocked and transit developing countries have initiated public–private dialogue and consultations. Many of these arrangements are still ad hoc in nature, but in some countries (Uganda, Ghana and the United Republic of Tanzania) the emerging public–private sector partnership has been institutionalized, and consultations are being held regularly. Indeed, there has also been a proliferation of joint government and private sector seminars in a number of countries focusing on information dissemination, brainstorming and review of policy implementation. Some countries (in the SADC region) have reached agreement on creating public–private joint committees in government line ministries to review policy implementation within agreed time frames.

58. At the regional level three elements have been critical in energizing intergovernmental agreements and arrangements: (a) political and financial commitment by signatory governments to follow through on agreed commitments; (b) availability of government officials vested with technical capacity which enables them to formulate appropriate instruments and monitor and review progress in their implementation; and (c) where the agreements involve many countries and a wide range of commitments, establishment of a permanent secretariat to coordinate implementation of such instruments.

59. Some intergovernmental agreements, for example the Protocol on Transport, Communication and Meteorology in the SADC region, provides for the participation of the private sector in intergovernmental machinery. Article 3.5 of the Protocol stipulates that "Member States shall promote the establishment of crossborder multimodal Corridor Planning Committees comprising of public and private sector stakeholders in the Member State or States whose territory or territories are traversed by such corridors". Many landlocked and transit developing countries still need to do more to strengthen their institutional frameworks. The international community should provide financial and technical support to help them.

4. Human capacity building

60. The changing role of the public and private sectors discussed above requires improvement of the skills of those involved in policy-making as well as of those responsible for day-to-day operations through training, including continuing education for existing professionals. Increasing (quality/quantity) of primary and secondary education in many landlocked and transit developing countries is fundamental for building absorptive capacity for investment and implementation of reforms. Shortage of skilled labour is a major bottleneck with regard to attracting and benefiting from foreign direct investment (FDI). The private sector, including foreign investment, can and should contribute to the upgrading of professional skills in landlocked and transit developing countries. It can provide efficient supply chain management, and there is the ripple effect of technology diffusion. But for the private sector to participate fully, a climate supportive of long-term commitment must be apparent in terms of policy frameworks, attitude and practice.

61. Regional transit transport cooperation involving the adoption of common rules and technical standards requires Governments and private transit operators to introduce many new policy measures and actions designed to implement the various commitments. This requires improvements in the knowledge and skills of those involved in policy-making and

implementation of new systems. Some of the training can be done through national and/or regional workshops, but specialized training requires proper vocational training. Landlocked and transit countries are encouraged to pool resources to establish regional training institutes, existing examples of which are the Eastern and Southern African Management Institute (ESAMI) in Arusha, United Republic of Tanzania, and Bandari College in Mombasa, Kenya.

5. Infrastructure development

62. As noted in chapter II above, private capital flows have largely been concentrated in a handful of developing countries. This is mainly due to the small size of markets in individual countries – a handicap which could be overcome by promoting regional projects. Regional cooperation can help to overcome the problem of the market size. Indeed, it is no surprise that many of the railway concessions that have been granted in Africa (Burkina Faso – Côte d'Ivoire and Malawi–Mozambique Railways) involve more than one country.

63. Another modality for regional cooperation relates to the corridor development concept. This addresses the basic problem facing infrastructure in countries with low income levels – the chicken-and-egg problem. On the one hand, infrastructure investment is not viable until economic activity justifies it; that is, transport is a derived demand. On the other hand, economic activity cannot emerge unless there are adequate transport facilities; also, its development is impeded by high costs until traffic flows increase to levels where economies of scale can be achieved and competition becomes more effective.

64. The corridor development approach addresses this issue by seeking to concentrate viable industrial investment projects within selected corridors connecting inland production areas to ports at the same time as infrastructure investment takes place. The synchronous development of directly productive activity and infrastructure ensures a revenue stream which makes the infrastructure investment attractive to private business. At the same time, infrastructure investments attract economic activity and help to promote the agglomeration process. Government policy aims to attract "anchor investments" which ensure the basic viability of infrastructure and then to seek to attract other investment. Special attention is paid to small and medium-sized enterprises in this process, which is called "densification".[11]

65. The corridor development concept has been very successful in the case of the Maputo Corridor. Other development corridors in the SADC region include the Beira development corridor between Mozambique and Zimbabwe and the Mtwara development corridor in the United Republic of Tanzania, which is intended to serve Zambia, Malawi, northern Mozambique and the southern part of the United Republic of Tanzania (for further discussion, see box).

[11] African Transport Infrastructure, Trade and Competitiveness, op. cit.

An overview of the Southern African Regional Development Corridors and Spatial Development Initiatives

1. Background

The Spatial Development Initiatives (SDI) programme was initiated 5 years ago by the governments of Mozambique and South Africa. The initiation of the programme was made possible by the tremendous political changes that took place in the region during the first part of the 1990s.

With the coming to power of a democratic government in South Africa, and with generally improved prospects for "peace" in the region, the member countries of the Southern African region were finally in a position to collaboratively address the region's socio-economic challenges, and specifically to generate regional development programmes and strategies in support of sustainable long-term economic growth and employment creation.

Within this context, the rehabilitation and enhancement of the regional transport corridors (that had existed for many decades) became priority focus areas. The successful implementation of the Maputo Development Corridor SDI served to boost support within SADC for the concept of multi-sectoral economic development corridors (as opposed to purely transportation-based corridors), and for the planning and investor mobilization approach embodied in SDIs. The key principles, objectives and strategies embodied in the SDI approach have become far more widely used in the design and implementation of all the development corridors (whether formally part of the SDI programme or not.)

2. Generic development strategies

Firstly, to re-establish the road, rail, port, telecommunications and port-side infrastructures that were fundamental to the efficient and effective functioning of each of the corridors as transportation routes and as economic development corridors.

Secondly, to mobilize private sector investors and operators to partner the public sector in the rehabilitation, operation and maintenance of the infrastructure.

Thirdly, to identify economic development opportunities that could be sustainably developed (economically, financial, and environmentally) as a means of increasing the development momentum in and around the development corridor.

Fourthly, to identify development opportunities that are suited to private sector development and operation, and to develop detailed strategies to identify and mobilize such investors.

Fifthly, to promote the the variety of extractive industries active and/or potentially active in the area, ensuring that the local populations benefit.

Sixthly, to identify and support opportunities for the local beneficiation of resources derived from the extractive industries and activities as a basis for generating value added exports.

Seventhly, wherever possible to identify opportunities for the establishment of viable and sustainable partnerships between foreign investors, the local private sector in each country, and local communities.

Eighthly, to enhance the level of linkages between the main towns and provinces located astride the various development corridors.

Ninthly, to promote the establishment of an enabling/investment environment within which the local, regional and international private sector could utilize these investment opportunities.

Source : Changing Transport for Growth and Integration in Southern Africa.

66. Facilitating transit traffic through border posts is also a key area for regional cooperation. In the SADC region agreement has been reached on establishing "one-stop border posts" to be financed and/or managed by the private sector. The advantages of these include reducing the time truckers and travellers spend at border posts. Border control is carried out more efficiently as government officials from both countries work together and share information and infrastructure resources.

B. Measures at the international level

67. During the 1990s overall ODA flows to infrastructure projects in developing countries fell by half, largely in response to the dramatic increase in private flows. In a few large developing countries, and particularly for the telecommunication and energy sectors, private capital flows more than compensated for loss in ODA, but for the majority of landlocked and transit developing countries the decline in ODA was not offset by private capital flows. For these countries, a substantial deficit thus persists, particularly when projected population growth and accelerating urbanization are taken into account. In these countries, a substantial increase in investment is required even just to maintain the status quo. The World Bank has

estimated that Africa alone needs $18 billion to be invested in infrastructure on an annual basis. There is therefore a need to reverse the decline in external finance, especially ODA. In this context, donor countries and financial and development institutions are invited to give priority to projects and programmes which adopt subregional/corridor development and spatial development initiatives.

68. Because purely private financing schemes may not be feasible in many landlocked and transit developing countries, the international community is invited to support new modalities of financing, such as :

- Regional venture funds – the idea of regional venture funds is to use grants from multilateral organizations to pay development and management fees for selected countries or projects and to assist in promoting interest in more risky infrastructure projects by reducing development risks;
- Equity participation in local financial institutions – a foreign institution purchases shares in a selected bank that lends to small infrastructure projects;
- Co-financing – this involves parallel loans to an infrastructure project by a multilateral financial institution and the local bank;
- Bank-to bank loans – the foreign institution makes a long-term loan to a local bank for forward lending to small infrastructure projects.

69. The multilateral and bilateral institutions should continue to act as guarantors with respect to traditional and non-traditional political risk and as major providers of concessional funds and soft loans either directly or through local banks. Such multilateral loans, coupled with private lending, will make it possible to keep the price of public services affordable for both public and local enterprises. Investment guarantees offer an increasingly popular means of inducing private investors to enter into comparatively risky environments. The Multilateral Investment Guarantee Agency (MIGA) issued $1.605 million of guarantees in the year 2000, up from $132 million in 1990. On average, every $1 of MIGA guarantee supports $5 of private investment. Almost a third of MIGA's portfolio is in the infrastructure sectors, and about 12 per cent of the total is allocated to least developed countries. In a recent survey of investors, 73 per cent reported that the MIGA guarantee had played a critical role in facilitating the investment project.

70. The international community should continue to support policy, legislative, regulatory and institutional reforms at the national and regional levels, establishing autonomous accountable transport authorities, strengthening private sector associations and promoting modalities for fostering effective dialogue between the public and private sectors.

71. The international community can be an effective partner in improving public and private sector performance. Development partners should encourage FDI to contribute to the upgrading of the professional and managerial skills of the private sector in landlocked and transit developing countries. ODA to support public sector capacity building would play an important role in enhancing good governance and economic development and in maintaining peace and stability, without which business cannot succeed.

72. In view of the increasing importance of information technologies, telecommunications and containerization in efficient international trade/transport operations, the donor community should give special attention to projects along the transit corridors in these areas.

73. UNCTAD should continue to provide technical assistance to support landlocked and transit developing countries in their efforts to improve transit systems, and will thus make its contribution in the various areas mentioned above. This assistance includes:

(a) Accumulating, evaluating and disseminating information on transit matters, and drawing lessons from experiences in different regions and subregions with regard to the design and improvement of transit systems;
(b) Carrying out transit-related studies which help decision makers, particularly with a view to identifying critical bottlenecks which could be removed quickly and at minimum cost;
(c) Organizing training programmes tailored to the needs of transit policy makers, managers and operators;
(d) Monitoring progress in the implementation of measures by the international community related to the transit needs and problems of landlocked developing countries;
(e) Formulating measures to be adopted at the national, subregional and international levels to improve transit systems in the light of changing economic and political environments.

APPENDIX

Table A. Intraregional trade of landlocked developing countries,1998 and 1999:
proportion of total exports and imports whose destination or source are countries of the same region or continent

(Percentages)

Country	Exports		Imports	
	1998	1999	1998	1999
Afghanistan	36.0	54.9	56.1	55.8
Armenia	33.8	24.5	26.1	25.5
Azerbaijan	48.8	22.7	40.0	32.6
Bolivia	44.4	37.7	35.1	46.4
Burkina Faso	8.4	13.8	27.7	30.6
Burundi	2.8	2.0	17.6	19.7
Central African Republic	2.3	2.0	17.2	17.9
Chad	5.1	6.0	31.8	34.3
Ethiopia	9.2	14.5	2.7	2.4
Kazakhstan	17.2	27.0	14.6	24.7
Kyrgyzstan	33.0	34.0	44.1	41.4
Lao People's Democratic Republic	5.8	21.5	84.9	86.9
Malawi	9.3	5.4	21.6	21.7
Mali	8.4	8.1	23.9	24.2
Mongolia	40.9	53.9	27.1	35.9
Nepal	36.5	31.4	79.4	73.7
Niger	31.9	32.8	28.3	33.2
Paraguay	63.6	65.9	52.4	54.6
Rwanda	2.2	4.1	24.2	24.9
Tajikistan	30.0	32.2	48.3	60.8
The former Yugoslav Repepublic of Macedonia	8.8	8.6	11.5	12.7
Turkmenistan	59.2	23.7	47.7	46.1
Uganda	2.3	2.2	38.5	41.5
Uzbekistan	40.9	45.9	38.4	40.4
Zambia	13.2	14.4	17.2	12.5
Zimbabwe	21.7	18.2	5.6	5.7

Source: IMF, Direction of Trade Statistics, CD-ROM (April 2001).
Note: Data are not available for Bhutan, Botswana, Lesotho and Swaziland.

Table B. Export structure of landlocked developing countries ranked by average 1997–98 value

Country	Three leading commodities	As percentage of total exports
Afghanistan	057 Fruit and nuts, fresh or dried	18.4
	268 Wool and other animal hair excl. wool tops	10.8
	247 Other wood in the rough or roughly squared	7.9
Armenia	667 Pearls, precious, and semi-precious stones	21.4
	288 Non-ferrous base metal waste and scrap n.e.s.	11.8
	112 Alcoholic beverages	8.8
Azerbaijan	334 Petroleum products, refined	30.0
	263 Cotton	14.4
	333 Crude petroleum	11.1
Bhutan	523 Other inorganic chemicals	21.3
	634 Veneers, plywood, improved or reconstituted wood	19.6
	057 Fruit and nuts, fresh or dried	17.2
Bolivia	287 Ores and concentrates of base metal n.e.s.	15.6
	081 Feeding stuff for animals	8.6
	971 Gold, non-monetary n.e.s.	8.6
Botswana	No data available	
Burkina Faso	263 Cotton	72.0
	971 Gold, non-monetary n.e.s.	6.7
	611 Leather	6.4
Burundi	071 Coffee and coffee substitutes	82.1
	074 Tea and mate	12.0
	263 Cotton	1.9
Central African Republic	667 Pearls, precious and semi-precious stones	34.5
	277 Natural abrasives n.e.s.	25.6
	263 Cotton	19.4
Chad	263 Cotton	87.2
	292 Crude vegetables materials n.e.s.	8.2
	792 Aircraft & associated equipment and parts	1.9
Ethiopia	071 Coffee and coffee substitutes	67.7
	611 Leather	7.1
	222 Seeds for soft fixed oils	4.9
Kazakhstan	333 Crude petroleum	30.5
	682 Copper	10.4
	674 Universals, plates and sheets, of iron or steel	6.3
Kyrgyzstan	351 Electric current	14.5
	061 Sugar and honey	11.2
	263 Cotton	6.8
Lao People's Democratic Republic	248 Wood, simply worked	18.1
	845 Outergarments and other articles, knitted	12.4
	071 Coffee and coffee substitutes	10.7
Lesotho	No data available	
Malawi	121 Tobacco unmanufactured; tobacco refuse	64.4
	074 Tea and mate	8.3
	061 Sugar and honey	4.6
Mali	263 Cotton	86.9
	611 Leather	1.3
	667 Pearls, precious and semi-precious stones	1.1
Mongolia	287 Ores and concentrates of base metal n.e.s.	24.7
	334 Petroleum products, refined	11.1
	268 Wool and other animal hair excl. wool tops	8.8
Nepal	659 Floor coverings etc.	42.0
	842 Men's outerwear, unknitted	16.5
	931 Special transactions and commodities, not classified to kind	8.8
Niger	333 Petroleum oils crude and crude oils obtained from bituminous minerals	47.5
	524 Radioactive and associated materials	33.2
	541 Medicinal and phamaceutical products	6.6
Paraguay	222 Oil-seeds and oleaginous fruit, excl. flours and meals	43.5
	081 Feeding stuff for animals	9.4
	263 Cotton	6.5
Rwanda	071 Coffee and coffee substitutes	37.6
	971 Gold, non-monetary n.e.s.	34.4
	074 Tea and mate	8.9
Swaziland	No data available	

Tajikistan	263 Cotton	40.7
	684 Aluminium	17.2
	057 Fruit and nuts, fresh or dried	9.4
The former Yugoslav Republic of Macedonia	843 Outergarments, women's, of textile fabrics	9.6
	674 Universals, plates and sheets, of iron or steel	7.7
	844 Undergarments of textile fabrics	6.6
Turkmenistan	263 Cotton	25.9
	334 Petroleum products, refined	19.9
	341 Gas, natural and manufactured	18.6
Uganda	071 Coffee and coffee substitutes	73.2
	034 Fish, fresh, chilled or frozen	8.9
	263 Cotton	2.9
Uzbekistan	263 Cotton	51.3
	971 Gold, non-monetary	5.0
	341 Gas, natural and manufactured	4.7
Zambia	682 Copper	70.8
	689 Miscellaneous non-ferrous base metals	7.7
	651Textile yarn	3.6
Zimbabwe	121 Tobacco, unmanufactured; tobacco refuse	26.7
	671 Pig iron, sponge iron, iron or steel	8.3
	263 Cotton	6.6

Source: UNCTAD secretariat calculations based on United Nations Statistical Division data and UNCTAD Handbook of Statistics, 2000.