

GEOGRAPHY **AGAINST** **DEVELOPMENT**



A Case for Landlocked Developing Countries

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Least Developed Countries, Landlocked Developing Countries
and Small Island Developing States (UN-OHRLLS)

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NOTE

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Preface

It was almost fifty years ago when the General Assembly of the United Nations in its resolution 1028 (XI) first recognized “the need of landlocked countries for adequate transit facilities in promoting international trade”. At that time, in 1957, the landlocked developing countries that were Members of the United Nations were few in number: Bolivia and Paraguay in Latin America, and Afghanistan, Bhutan, Lao People’s Dem. Rep. and Nepal in Asia. To date, the number of landlocked developing countries has increased steeply to 31 countries. The greatly increased number of landlocked developing countries, coupled with their wide geographical stretch encompassing the continents of Africa, Asia, Europe and Latin America, means that the particular needs and problems of landlocked developing countries have become a matter of concern to the international community as a whole.

Geographical factors put landlocked developing countries at a distinct disadvantage in the development process. Lack of access to the sea and remoteness and isolation from major international markets result in prohibitive transit costs. They create formidable obstacles in importing essential items and exporting goods. Consequently, landlocked developing countries find themselves increasingly marginalized in the globalizing world economy. The development gap between them and the rest of the world is further widening. It is a fact that excessive transit costs have become more a significant barrier than tariffs. The success or failure of trade of landlocked developing countries is largely determined by the availability and cost of transit transport.

Consequently, the transit problems of landlocked developing countries are generating serious interest at the United Nations. This interest has coincided with astounding growth in international trade. The most palpable demonstration of that was the 2000 United Nations Millennium Declaration, in which world leaders called for a global partnership to address the special needs and problems of landlocked developing countries. Subsequently, the 2003 UN Conference on landlocked developing countries, held in Almaty, Kazakhstan, negotiated an action-oriented programme of action. In this programme, the international community agreed to undertake specific actions in five priority areas to establish efficient transit transport systems in landlocked and transit developing countries. In addition, trade facilitation was included

in the Doha Round of trade negotiations; transit is a major component in trade facilitation.

In *Geography Against Development*, the authors attempt to analyse the impact of geographical handicaps on external trade and economic development of landlocked developing countries and identify practical solutions to address them. The book is divided into four chapters. Chapter 1 analyses factors that hamper the effective participation of landlocked developing countries in international trade and economic development. Chapter 2 examines the corridor approach for establishing efficient transit systems and outlines the challenges faced and efforts made in different landlocked subregions. Chapter 3 describes major international conventions that are essential for securing freedom of transit and day-to-day transit operations. Chapter 4 outlines international support measures for establishing efficient transit transport systems.

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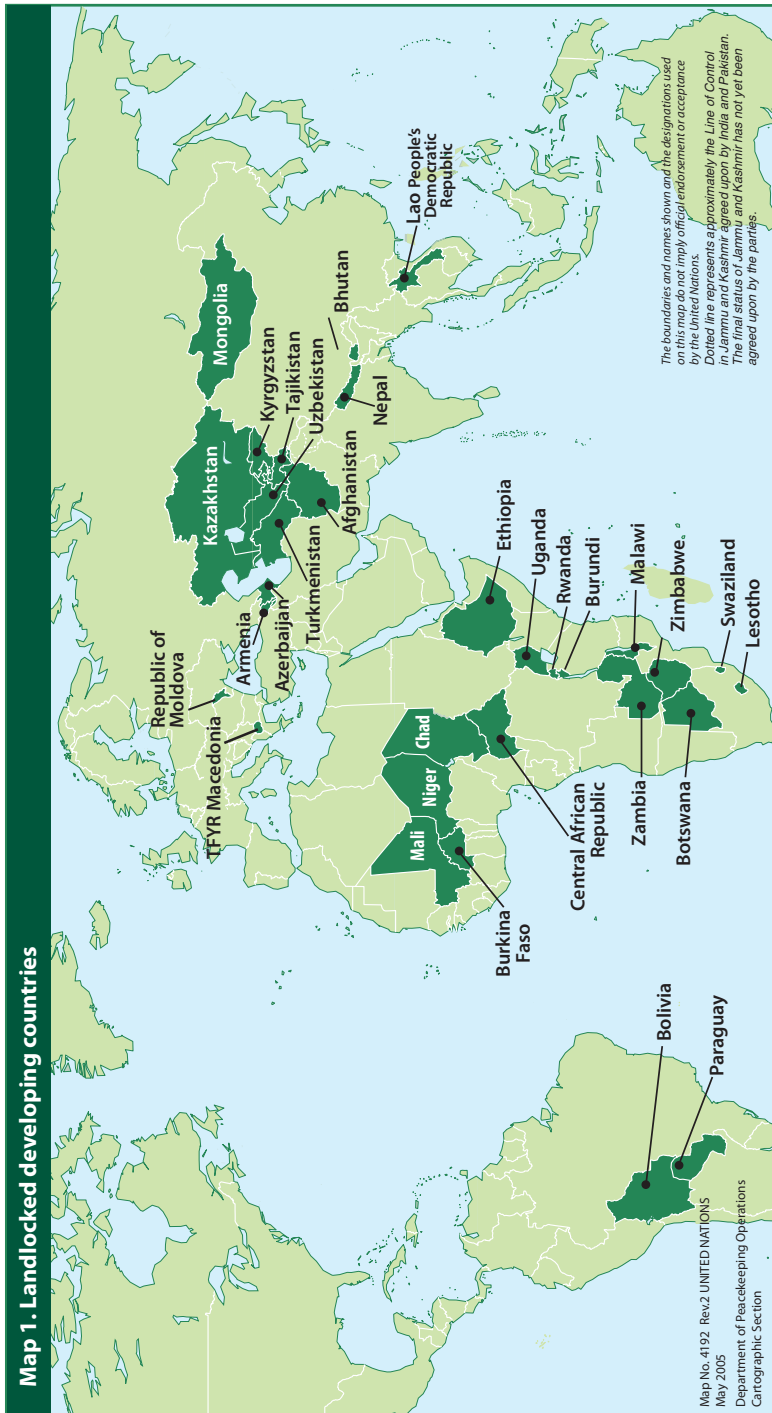
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Chapter 1



**THE DEVELOPMENT
QUANDARY OF
LANDLOCKED
DEVELOPING
COUNTRIES**



The development quandary of landlocked developing countries

I. Introduction

Landlocked countries, by definition, are those that do not possess any seacoast. They are also among the most disadvantaged and under-achieving countries in the world. As even a cursory examination of global economic activities during the past decade will reveal, being divorced from the sea has imposed tremendous negativities on the socio-economic development of these countries. Landlocked developing countries (LLDCs) have found themselves increasingly marginalized in a Darwinian world economy. For LLDCs, the “death of distance”, so ubiquitously and optimistically touted in recent times, is more fiction than fact.

This review contrasts the relative underdevelopment of LLDCs against the varying degrees of progress that have been achieved by the rest of the world blessed with ready access to the sea. Even though it is clear that the vast majority of developing countries have some way to go on the long road to economic and social well-being, the LLDCs constitute a specific subgrouping that has fared even worse as a result of their unique and considerable geographic handicaps.

II. Economic and social underdevelopment

There are 42 landlocked countries in the world today. Except for relatively wealthy States in Western and Central Europe (for example, Switzerland, Austria, the Czech Republic, Hungary and Slovakia), they are all poor and can accurately be classified as LLDCs. Sixteen of the LLDCs are also

categorized as least developed countries (LDCs).¹ Notably, there are more landlocked developing countries in sub-Saharan Africa (SSA) than in any other region in the world.

Taken as a whole, a distinguishing feature of LLDCs is their comparatively poor economic and social performance when this is matched up against that of other developing country groups. LLDCs are among the poorest of the developing countries, with the weakest economic growth rates and the direst social development records. More alarmingly, the development gap between LLDCs and coastal developing countries appears to be growing at a brisk pace. If current trends persist, there is a likelihood of LLDCs becoming, sometime in the not-too-distant future, the most abject and impoverished members of the world community.

Economic performance of LLDCs

The adverse geographical attributes that encumber landlocked developing countries represent an important but oft-ignored factor explaining their dismal economic showing over the past few decades. In general, it is safe to assert that coastal economies enjoy higher income than landlocked ones. Indeed, there is not a single high-income landlocked country outside of Europe.

Collectively, LLDCs accounted for just 2 per cent of the developing world's total GDP in 2002, even though they occupied 12.5 per cent of the planet's total surface area.

LLDCs' share of the world economy is unlikely to improve, and in fact can only worsen, if they maintain their current level of economic performance. In particular, the Central Asian landlocked States have suffered the greatest economic setbacks within the group of landlocked developing countries. It is far from surprising that the average GDP of landlocked developing economies is approximately 57 per cent of that of their maritime neighbours.²

LLDCs have thus unquestionably seen the most anaemic real income growth in the developing world during the last decade of the twentieth century, with average real GDP per capita growth of negative 0.93 per cent per year. Meanwhile, coastal LDCs and transit developing countries

¹ The United Nations uses measures of GDP per capita; a composite Augmented Physical Quality of Life Index (APQLI) based on indicators of: (a) nutrition; (b) health; (c) education; and (d) adult literacy; and a composite Economic Vulnerability Index (EVI) based on indicators of: (a) the instability of agricultural production; (b) the instability of exports of goods and services; (c) the economic importance of non-traditional activities (share of manufacturing and modern services in GDP); (d) merchandise export concentration; and (e) the handicap of economic smallness (as measured through the population in logarithm) for criteria for classification as an LDC.

² Faye, Michael A., and others, "The Challenges Facing Landlocked Developing Countries", *Journal of Human Development*, Vol. 5, No. 1, March 2004.

Table 1: Size of LLDC economies (2001)

<i>LLDC</i>	<i>GDP (US\$ millions)</i>	<i>GDP per capita (US\$)</i>
Kazakhstan	22 387	1 441
Uzbekistan	10 276	406
Zimbabwe	8 970	703
Bolivia	7 934	935
Paraguay	7 206	1 286
Ethiopia	6 051	90
Turkmenistan	5 962	1 263
Uganda	5 779	239
Azerbaijan	5 717	695
Nepal	5 447	226
Botswana	5 025	2 872
TFYR Macedonia*	3 743	1 835
Zambia	3 647	345
Burkina Faso	2 486	203
Mali	2 453	200
Afghanistan	2 169	98
Armenia	2 121	687
Niger	1 955	176
Lao People's Dem. Rep.	1 750	324
Rwanda	1 650	205
Kyrgyzstan	1 530	309
Malawi	1 497	129
Swaziland	1 274	1 204
Tajikistan	1 059	172
Mongolia	1 055	417
Chad	1 033	127
Central African Republic	907	244
Lesotho	752	419
Burundi	689	107
Bhutan	511	241
LLDC total	123 035	
LDC (less LLDC) total	133 406	
Transit developing country total	2 835 468	
Developing country total	6 256 339	
World total	32 252 480	

Source: UN Department of Economic and Social Affairs, Statistics Division, 2003.

* The former Yugoslav Republic of Macedonia.

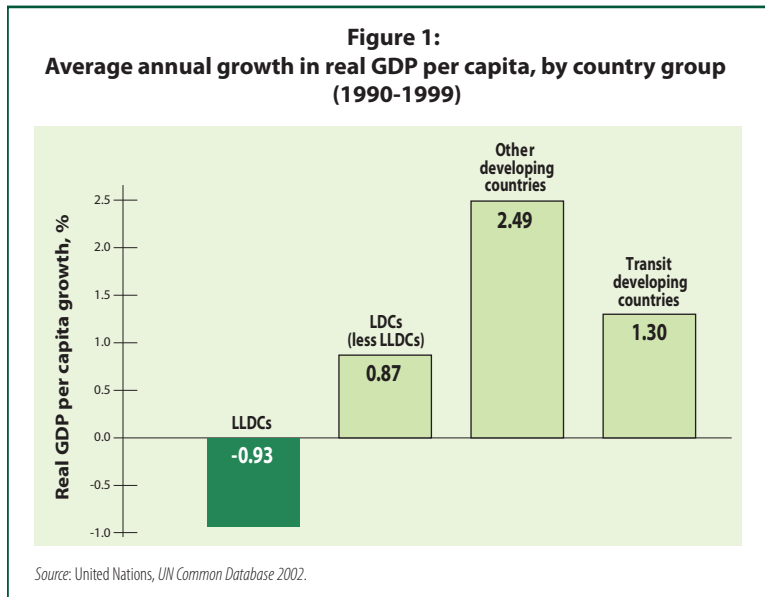
achieved positive average growth rates of 0.9 per cent and 1.3 per cent, respectively. With such a marked divergence in income growth, LLDCs are now increasingly trailing their coastal peers, and are becoming even more marginal to the functioning of the world economy.

Table 2: Average annual output growth by LLDC (1990-2001)

<i>LLDC</i>	<i>Average annual GDP growth (%)</i>	<i>Average annual growth in agriculture (%)</i>	<i>Average annual growth in manufacturing (%)</i>
Armenia	-0.7	1.0	-3.2
Azerbaijan	-0.3	-0.5	-11.8
Bolivia	3.8	2.8	3.6
Botswana	5.2	-1.3	4.4
Burkina Faso	4.5	3.7	5.4
Burundi	-2.2	-1.1	-8.0
Central African Republic	2.1	3.9	0.3
Chad	2.5	4.0	—
Ethiopia	4.7	2.3	5.4
Kazakhstan	-2.8	-6.5	—
Kyrgyzstan	-2.9	2.1	-14.1
Lao People's Dem. Rep.	6.4	4.9	12.6
Lesotho	4.0	1.7	6.2
Malawi	3.6	7.2	0.4
Mali	4.1	2.9	2.8
Mongolia	1.2	3.2	—
Nepal	4.9	2.6	8.4
Niger	2.5	3.2	2.7
Paraguay	2.1	2.3	0.8
Rwanda	0.8	3.4	-4.8
Swaziland	3.2	1.5	2.7
Tajikistan	-8.5	-5.8	-12.6
TFYR Macedonia	-0.2	-0.3	-4.5
Turkmenistan	-2.8	-3.2	—
Uganda	6.8	3.8	12.8
Uzbekistan	0.4	0.9	—
Zambia	0.8	3.9	1.1
Zimbabwe	1.8	3.7	-0.8

Source: World Bank, 2003 World Development Indicators.

It should be cautioned, however, that deviations in income growth rates within the group of LLDCs are far from negligible. Average annual per capita GDP growth ranged from a high of 4 per cent in Uganda to a dismal -11.6 per cent in Tajikistan during the 1990s. Uganda, Bhutan, the Lao People's Democratic Republic, Malawi, Burkina Faso, Nepal and Botswana, which attained average per capita income growth above 2 per cent per annum, constitute the high-growth segment among LLDCs. All the transitional Central Asian economies were located at the opposite end of the spectrum, underscoring the massive economic difficulties that have enveloped Central Asia since the collapse of the Soviet Union.



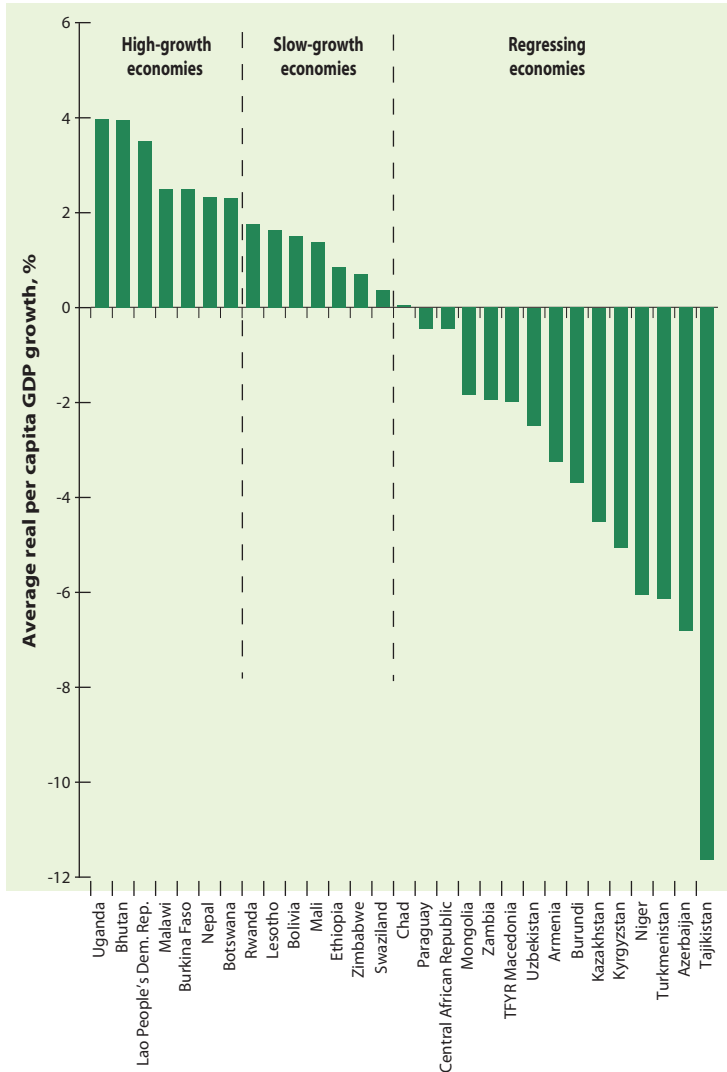
Foreign direct investment (FDI)

The existence of a well-functioning transport system is a prerequisite not only for trade to take place but also for private FDI to be channelled to a specific country. Among the main economic reasons for selecting a host country are physical infrastructure and the availability of reliable and efficient transport and communication services. On the basis of this criterion, it is easy to understand why the geographically challenged LLDCs have heretofore received such a minuscule proportion of international FDI. Inward flows of FDI stood at a combined US\$ 5.7 billion in 2001, or just 0.007 per cent of total world flows (US\$ 735.2 billion).

However, this figure for total FDI in LLDCs is an imprecise reflection of their ability, or lack thereof, to attract foreign investment, since

it is skewed by one country: Kazakhstan. Of the LLDCs' share in 2001, energy-rich Kazakhstan alone accounted for half the total FDI inflows, with US\$ 2.8 billion. In comparison, the numerous landlocked States in Africa shared a measly US\$ 859 million in total among them, for an average of US\$ 61 million per country.

Figure 2:
Average annual growth in real GDP per capita, by LLDC
(1990-1999)



Source: United Nations, *UN Common Database 2002*.

On a per capita basis, LLDCs' inflow of FDI averaged US\$ 30 in 2001, below the US\$ 42 registered by transit developing countries and the US\$ 41 for developing countries as a whole. However, if the special case of Kazakhstan is removed from the calculations, then the per capita FDI inflow for LLDCs was only US\$ 17, less than that for coastal LDCs (US\$ 19).

Box 1: Transition woes

The transition process in the LLDCs of the former Soviet Union has turned out to be a more difficult undertaking than initially expected. The process of transition was accompanied by a profound and abrupt decline in total output.

This fall in output has led to a significant increase in poverty during the past decade. A sizeable proportion of the population now lives in absolute poverty. Physical indicators of poverty, such as malnutrition, have steadily worsened, and the effectiveness of the social safety net has declined greatly, in large part because of the limited resources available for poverty reduction. Although the growth in poverty is mainly attributable to the collapse in output, other factors, such as inflation and currency depreciation, have also disproportionately affected the poor, for instance by undermining the real value of their pensions and savings deposits. Government efforts to provide social protection were limited by tight fiscal constraints and their limited ability to target spending.

There was also an increase in non-income dimensions of poverty, such as deterioration in access to health care and education, as diminished government resources have compelled a reduction in public spending. In 1991, the average health expenditure was about 4.5 per cent of GDP. By 1998, this average had decreased to just half the previous level, where it has more or less remained. In an extreme case, such as Tajikistan, the total level of public-health expenditures has dropped to less than 1 per cent of GDP.

In education, enrolment in basic education was high, essentially 100 per cent, during the Soviet period. Gross enrolment rates at this level of education have fallen quite a bit since, and are even below 85 per cent in Armenia and Tajikistan. This is in marked contrast to other transition economies, such as Poland and Russia, in which rates have remained roughly constant. Public spending on education has also declined precipitously, from an average of 7.6 per cent in 1992 to around 3.9 per cent in 2000.

Source: IMF/World Bank, "Poverty Reduction, Growth and Debt Sustainability in Low-Income CIS [Commonwealth of Independent States] Countries", February 2002, and "Social Protection in Low Income CIS Countries", "Healthcare during Transition and Health Systems Reform: Evidence from the Poorest CIS Countries" and "Public Spending on Education in the CIS-7 Countries: The Hidden Crisis", papers prepared for the Lucerne Conference of the CIS-7 Initiative, 20-22 January 2003.

Table 3: Share of FDI inflows, by country group (1998-2001)

Country group	FDI inflow (US\$ millions)			
	1998	1999	2000	2001
World total	694 457.3	1 088 263.0	1 491 934.0	735 145.7
Developed countries	484 239.0	837 760.7	1 227 476.0	503 144.0
Developing countries	187 610.6	225 140.0	237 894.4	204 801.3
LDCs (less LLDCs)	2 804.2	4 545.7	2 804.7	2 948.9
LLDCs	6 147.8	4 465.1	3 721.4	5 713.3
Transit developing countries	107 037.3	120 770.6	102 035.2	103 304.8

Source: UNCTAD, World Investment Report 2002.

Transit developing States, meanwhile, have benefited wonderfully from the FDI explosion in recent years. Their share of the developing world's FDI leaped from 59 per cent in 1990 to 90 per cent in 1999. Most transit developing countries have relatively higher income levels, kinder geography and higher population densities, all of which are attractive to foreign investors. This voracious appetite for FDI is an important factor explaining their rapid economic growth relative to the rest of the world, either developed or developing.

Official development assistance (ODA)

Between 1990 and 2001, official development assistance fell from 0.33 per cent (US\$ 57.6 billion) to 0.22 per cent (US\$ 54 billion) of donor countries' gross national income. But that drop mostly occurred in the early and mid-1990s. By the end of the decade, aid had gone up considerably. This trend continues today, with ODA rising by 5 per cent from 2001 to 2002. Still, such resources fall far short of what is needed to make a real difference.³

Of the total aid that found its way to the developing world in 2001, LLDCs accounted for 17.5 per cent which was roughly at par with that received by coastal LDCs. However, coastal LDCs' per capita aid was more than double that of LLDCs', although the latter are mired in equivalently appalling economic straits. Moreover, the transit developing countries obtained a significantly larger share (37 per cent) of total ODA in absolute terms, despite their superior economic performance and geographic advantages.

³ UNCTAD/LDC/112, 28 June 2001.

The transit States also expended much more of their foreign aid on infrastructure development than their landlocked neighbours. Only 27 per cent of the development assistance received by LLDCs was committed to physical infrastructure in 1999, compared to an impressive 70 per cent for transit developing countries.⁴ The allocation of development assistance to transport

Table 4: FDI inflows, by LLDC (1997-2001)

LLDC	FDI inflow (US\$ millions)					
	1997	1998	1999	2000	2001	2002
Afghanistan	-1	—	6	—	1	—
Armenia	52	221	122	104	70	100
Azerbaijan	1 115	1 023	510	129	227	1 067
Bhutan	-1	—	—	—	—	—
Bolivia	879	1 023	1 008	723	660	553
Botswana	100	90	37	54	26	37
Burkina Faso	13	10	13	23	9	8
Burundi	—	2	—	12	—	—
Central African Republic	—	—	3	1	5	4
Chad	44	21	27	115	—	901
Ethiopia	288	261	70	135	20	75
Kazakhstan	1 321	1 152	1 472	1 283	2 823	2 561
Kyrgyzstan	84	109	44	-2	5	-12
Lao People's Dem. Rep.	86	45	52	34	24	25
Lesotho	32	27	33	31	28	24
Malawi	-1	-3	46	-33	-20	—
Mali	74	36	51	83	122	102
Mongolia	25	19	30	54	43	78
Nepal	23	12	4	—	21	10
Niger	25	9	—	9	23	8
Paraguay	236	342	95	104	95	-22
Rwanda	3	7	2	8	4	3
Swaziland	-15	152	100	39	78	107
Tajikistan	18	25	21	22	9	9
Turkmenistan	108	62	89	131	150	100
Uganda	175	210	222	254	229	275
Uzbekistan	167	140	121	73	570	65
Zambia	207	198	163	122	72	197
Zimbabwe	135	444	59	23	4	26

Source: UNCTAD, *World Investment Report 2003*.

⁴ UNCTAD, *World Investment Report 2001*.

Table 5: Official development assistance received, by LLDC (2001)

<i>LLDC</i>	<i>Total ODA received (US\$ millions)</i>	<i>ODA per capita (US\$)</i>	<i>As % of GDP</i>
Armenia	212.2	68.7	10.0
Azerbaijan	226.2	27.5	4.1
Bhutan	59.2	27.9	11.1
Bolivia	728.5	85.9	9.1
Botswana	29.1	16.6	0.6
Burkina Faso	389.0	31.7	15.6
Burundi	130.8	20.4	19.0
Central African Republic	76.0	20.2	7.9
Chad	179.0	22.1	11.2
Ethiopia	1 079.8	16.1	17.3
Kazakhstan	148.2	9.5	0.7
Kyrgyzstan	188.1	37.7	12.3
Lao People's Dem. Rep.	243.3	45.0	13.8
Lesotho	54.0	30.1	6.8
Malawi	401.5	34.5	23.0
Mali	349.9	28.6	13.2
Mongolia	212.1	83.9	20.2
Nepal	388.1	16.1	7.0
Niger	248.6	22.3	12.7
Paraguay	61.4	11.0	0.9
Rwanda	290.5	36.0	17.1
Swaziland	29.3	27.6	2.3
Tajikistan	159.2	25.9	15.1
TFYR Macedonia	247.7	121.7	7.2
Turkmenistan	71.8	15.2	1.2
Uganda	782.6	32.3	13.8
Uzbekistan	153.2	6.1	1.4
Zambia	373.5	35.3	10.3
Zimbabwe	159.0	12.5	1.8
Developing countries	43 811.3	9.7	0.6
LDCs (less LLDCs)*	7 457.1	64.0	15.7
LLDCs	7 671.8	30.3	9.9
Transit developing countries	16 185.2	20.8	5.6

Source: UNDP, *Human Development Report 2003*.

* Figure excludes Kiribati, Tuvalu, Somalia and Liberia.

and communications does vary greatly from one LLDC to another, however. Uganda, Kazakhstan, Zimbabwe, Zambia, Bolivia, Paraguay, the Lao People's Democratic Republic, the Central African Republic, Mongolia and Swaziland allocate relatively larger shares of ODA to infrastructure development than their fellow LLDCs. Even so, more substantial resources need to be invested in this area if LLDCs are to overcome the handicaps of their landlockedness and enhance their long-term growth prospects. In 1999, according to the OECD statistics, about 12 per cent and 15 per cent of the total ODA to the LLDCs were used for transport sector and other physical infrastructure.

Central government debt

International financial institutions have classified one in every three landlocked developing States as a heavily indebted poor country (HIPC) with unsustainable levels of external debt. Excessive external debt is a serious constraint on the ability of poor countries to pursue economic development and reduce poverty. As a whole, the LLDCs have a debt-to-GDP ratio of 77 per cent, much higher than the 38 per cent average for all the other developing countries.⁵

Long-term debt sustainability for the LLDCs will only be achieved if the fundamental causes that triggered the debt build-up in the first place have been redressed. Such causes include weak macroeconomic management, inconsistent implementation of policy reforms and poor governance, as well as external factors such as worsening terms of trade and protectionist policies that restrict access to export markets. In addition, LLDCs typically have a narrow production and export base, heavily dependent upon a few primary commodities, which make them particularly vulnerable to external shocks. Finally, past borrowing on market terms has exacerbated the debt burden of many of these countries.⁶

Social performance of LLDCs

Dismal economic growth has led in turn to acute resource constraints for the LLDCs, inhibiting their capacity to alleviate serious social difficulties. It is little wonder that LLDCs score poorly on many human development indicators. According to the 2004 *Human Development Index* (HDI) of the United Nations, nine of the world's 15 lowest-ranking countries are landlocked, with Burundi, Mali, Burkina Faso and the Niger among the bottom five.

⁵ World Bank, "The Challenge of Maintaining Long-Term External Debt Sustainability", 2001.

⁶ Ibid.

Table 6: Central government debt, by LLDC

<i>LLDC</i>	<i>Total debt as % of GDP (2001)</i>	<i>Total debt as % of exports (2001)</i>	<i>Total external debt (2001) (US\$ millions)</i>
Armenia	47.2	8.1	1 001
Azerbaijan	21.3	4.7	1 219
Bhutan	—	—	—
Bolivia	59.0	16.1	4 682
Botswana	7.4	1.7	370
Burkina Faso	59.9	11.0	1 490
Burundi	154.6	36.3	1 065
Central African Republic	90.6	11.5	822
Chad	106.9	10.0	1 104
Ethiopia	94.1	20.6	5 697
Kazakhstan	64.2	4.7	14 372
Kyrgyzstan	112.2	12.0	1 717
Lao People's Dem. Rep.	142.6	9.0	2 495
Lesotho	78.7	12.4	592
Malawi	173.8	15.5	2 602
Mali	117.8	4.5	2 890
Mongolia	83.9	7.9	885
Nepal	49.6	6.2	2 700
Niger	79.5	6.6	1 555
Paraguay	39.1	8.3	2 817
Rwanda	77.8	7.6	1 283
Swaziland	24.2	2.5	308
Tajikistan	102.5	6.3	1 086
TFYR Macedonia	38.0	10.3	1 423
Turkmenistan	—	14.4	—
Uganda	64.6	9.7	3 733
Uzbekistan	45.0	20.6	4 627
Zambia	155.5	13.4	5 671
Zimbabwe	42.1	3.4	3 780

Source: World Bank, World Development Report 2003.

Sadly, LLDCs showed little progress in human development between 1975 and 2001. Even though they have made some progress in improving their social indicators during the past two decades, the divergence between them and the coastal developing world appears to be widening rather than closing. Successful human development is critical, as it can promote economic growth, which in turn advances human development. But the opposing corollary holds true as well — poor human development contributes to economic decline, thus leading to further deterioration in human development.

Table 7: Human development index, by LLDC (2003)

<i>Medium human development (ranking)</i>	<i>Low human development (ranking)</i>
TFYR Macedonia (60)	Lesotho (145)
Kazakhstan (78)	Uganda (146)
Armenia (82)	Zimbabwe (147)
Turkmenistan (86)	Rwanda (159)
Paraguay (89)	Zambia (164)
Azerbaijan (91)	Malawi (165)
Uzbekistan (107)	Chad (167)
Kyrgyzstan (110)	Central African Republic (169)
Bolivia (114)	Ethiopia (170)
Tajikistan (116)	Burundi (173)
Mongolia (117)	Mali (174)
Botswana (128)	Burkina Faso (175)
Bhutan (134)	Niger (176)
Lao People's Dem. Rep. (135)	
Swaziland (137)	
Nepal (140)	

*Source: UNDP, Human Development Report 2004.**
 *The rankings were carried out for a sample of 177 countries.

Poverty alleviation

Between 1990 and 2001, more than one in three people (35 per cent) in LLDCs subsisted on less than US\$ 1 a day. Moreover, the picture is strikingly worse if the former Soviet republics are omitted, with the impoverishment figure sinking further to a calamitous 47 per cent. These numbers are much higher than those of coastal LDCs (25 per cent) and transit developing countries (19 per cent).

In an otherwise bleak landscape, the Central Asian landlocked States exhibited significantly lower poverty levels (8 per cent) compared

to their landlocked peers in the rest of the world (47 per cent), thanks in large part to their socialist history. However, the pains of economic transition have caused economic collapse and contributed to a sharp fall in their social expenditure in recent years. The jury is still out on whether these countries can maintain such a low level of impoverishment in the years ahead, even as all indications point to the negative.

Table 8: Incidence of extreme poverty, by LLDC

<i>LLDC</i>	<i>Population living below \$1 a day, 1990-2001 (%)</i>	<i>Undernourished people, 1998-2000 (%)</i>
Afghanistan	—	—
Armenia	—	—
Azerbaijan	—	—
Bolivia	14.4	23
Botswana	23.5	25
Burkina Faso	61.2	23
Burundi	58.4	69
Central African Republic	66.6	44
Chad	—	32
Ethiopia	81.9	44
Kazakhstan	—	—
Kyrgyzstan	—	—
Lao People's Dem. Rep.	26.3	24
Lesotho	43.1	26
Malawi	41.7	33
Mali	72.8	20
Mongolia	13.9	42
Nepal	37.7	19
Niger	61.4	36
Paraguay	19.5	14
Rwanda	35.7	40
Swaziland	—	12
Tajikistan	—	—
TFYR Macedonia	—	—
Turkmenistan	—	—
Uganda	82.2	21
Uzbekistan	—	—
Zambia	63.7	50
Zimbabwe	36.0	38
LLDC average	34.8	31

*Source: UNDP, Human Development Report 2003.**

** Figures for Afghanistan, Armenia, Azerbaijan, Bhutan, Kazakhstan, Kyrgyzstan, Tajikistan, TFYR Macedonia, Turkmenistan and Uzbekistan are not available.*

Health care provision

Illustrating their severe lack of resources, per capita health expenditure in LLDCs (excluding Central Asian landlocked States) averaged only US\$ 91 in 2000, less than half the amount registered by their transit neighbours (US\$ 221). The amount spent on health care by the landlocked SSA (sub-Saharan Africa) countries is even lower, only US\$ 76 per person.

There is a similar pattern for life expectancy. The LLDCs (excluding Central Asian landlocked States) have made precious little headway, with life expectancy rising pitifully from an average of 46.1 years in the 1970s to 46.9 years today. But over the same period of time and starting from a lower base, coastal LDCs have increased the life expectancy of their people by 19 per cent to 52.3 years. Indeed, 11 of the landlocked developing countries have actually experienced declines in life expectancy, with the most egregious being Botswana, Lesotho, Swaziland, Zambia and Zimbabwe.

The minimal progress that LLDCs have achieved in health care provision bodes ill for the future. Even after accounting for initial incomes, countries with better health conditions have been shown to be systematically more successful in achieving higher economic growth.

In countries with per capita incomes below US\$ 750 — the LLDC average is US\$ 624 — and infant mortality rates (IMR) above 150 per 1,000 live births, incomes grew by an average of only 0.1 per cent a year. Those with IMR between 100 and 150 grew by an average of 1.0 per cent a year, and those with IMR below 100 grew by an average of 3.7 per cent a year.⁷

Educational attainment

In terms of education, the LLDCs (excluding Central Asian landlocked States) have once again carved out some progress, though not to the extent accomplished in the coastal developing world. Primary school enrolment, a critical first step in uplifting the economic conditions of the impoverished, grew by an average of 19 per cent between 1990 and 2001. LDCs (excluding landlocked LDCs), tellingly, saw primary school enrolment increase by 41 per cent over the same period of time. However, enrolment should not be equated with completion. For instance, in sub-Saharan Africa, only one in three children enrolled in primary school actually finishes it.⁸

For LLDCs, adult literacy rates rose from an average of 53 per cent to 62 per cent between 1990 and 2001. Despite this welcomed progress, however, there is no question that the adult literacy rate in landlocked developing countries is still too low, especially compared to their transit

⁷ UNDP, *Human Development Report 2003*, pp. 68-69.

⁸ *Ibid.*, p. 92.

neighbours. Moreover, two thirds of the illiterate adults are women.⁹ Therefore, the current educational and literacy levels attained by LLDCs are modest at best, and there is still much room for improvement.

III. The burden of landlockedness

The less-than-spectacular economic and social accomplishments of the LLDCs compared to those of coastal developing countries suggest a powerful linkage between geography and development. A lack of direct access to the sea, isolation from major economic centres, inadequate transport infrastructure and cumbersome transit procedures combine to hamper the ability of landlocked developing economies to grow successfully, especially through the well-worn path of international trade. It appears that the median LLDC has no more than 30 per cent of the trade volume of a typical coastal economy.¹⁰

High transport costs discourage trade in goods and services

Not as blessed as their maritime neighbours, LLDCs lie far from seaports. They thus incur higher transport costs during their participation in foreign trade. The cost of international transport services is a crucial determinant of a developing country's trade competitiveness. Higher trade costs reduce a country's welfare and inhibit economic growth by making imports expensive and exports uncompetitive. Developing countries that are landlocked therefore suffer a conspicuous disadvantage when competing in global markets against coastal States. It has been estimated that doubling transport costs reduces a country's trade volume by around 80 per cent.¹¹

It has only recently been recognized that, in many instances, prohibitive transport costs represent a more restrictive limitation on LLDCs' participation in international trade than tariffs or other trade barriers. Most LLDCs already benefit from WTO (World Trade Organization) initiatives providing greater market access for goods of developing countries. Tariffs imposed by the developed countries (e.g., Canada, the European Union (EU), Japan and the United States of America) currently range from 3 to 7 per cent on goods originating from most developing countries. Fatally for LLDCs, however, what they

⁹ *Ibid.*, p. 93.

¹⁰ Limão, Nuno, and Anthony J. Venables, "Infrastructure, Geographical Disadvantage, and Transport Costs".

¹¹ Henderson, J. Vernon, Zmarak Shalizi and Anthony J. Venables, "Geography and Development", 1 September 2000, p. 10.

pay for transport services is on average almost three times more than these tariffs.

To demonstrate with a specific example: 168 out of 216 United States trading partners fall prey to higher transport costs than tariff barriers. Sub-Saharan Africa exports to the United States, for instance, enjoy a tariff of less than 2 per cent of the value of a good, but this is more than offset by transport costs that are usually in excess of 10 per cent.¹²

Excessive transport costs also impede trade in services, especially the export of tourism services. Holidaymakers are highly sensitive to variations in travel costs, and it has been estimated that a doubling in travel costs can reduce tourism demand as much as eightfold. Since more than 90 per cent of tourists visit developing countries by air, efficient air transport services are critical for the success of tourism exports. In this regard, it has been found that air transport in Eastern and Southern Africa is 10 times more costly than for the U.S. state of Florida. Such astronomical costs greatly limit the scope of mass-market tourism in these regions.¹³ This reality is reflected in the fact that LLDCs accounted for only 1.7 per cent of the total exports of services by developing countries in 2001. The transit developing countries, on the other hand, accounted for 34 per cent, a two-and-a-half times increase from a decade earlier.

Table 9: Value of global services exports, by country group		
<i>Country group</i>	<i>Export of services (US\$ millions)</i>	
	<i>1990</i>	<i>2001</i>
World	779 971	1 446 288
Developed countries	624 631	1 055 844
Developing countries	145 422	335 894
— LLDCs	1 829	5 860
— Transit developing countries	42 673	114 087

Source: UNCTAD, Handbook of Statistics 2002.

¹² World Bank, *Global Economic Prospects and the Developing Countries 2002*, p. 99.

¹³ *Ibid.*, p. 100.

Measuring LLDCs' transport costs

CIF/FOB margins

The most commonly used measure for transport costs is the CIF/FOB margins in international trade. These margins measure the ratio of import costs according to the following categories:¹⁴

Free on board (FOB)	Cost-insurance-freight (CIF)
Measures the cost of an imported item at the point of shipment by the exporter, specifically as it is loaded on to a carrier for transport.	Measures the cost of the imported item at the point of entry into the importing country, including the costs of transport (i.e., insurance, handling and shipping costs) but not including customs charges.

Gallup, Sachs and Mellinger have found that there is a penalty both for distance from the core economies and for being landlocked. Each additional 1,000 km raises the CIF/FOB margin by 1 per cent, and being landlocked raises the CIF/FOB margin by a further 11 per cent.¹⁵ Further research by Limão and Venables has shown that the median landlocked country experienced transport costs 42 per cent higher than the average coastal economy (US\$ 8,070 versus US\$ 4,620).¹⁶

In support of these findings, the World Bank has concluded that transport costs for LLDCs were consistently and significantly higher than those faced by transit developing countries. This was based on 1999 data collected by the Bank concerning the shipment of a 40-foot container to 35 different landlocked country destinations and 29 transit country destinations from Baltimore, Maryland, in the United States. The same study concluded that doubling the ad valorem freight rate led to a five- to sixfold decline in aggregate import values.¹⁷

An important factor contributing to high CIF/FOB margins for LLDCs is the greater economic and political risks they face, considering their absolute dependence on transit neighbours for trade flows. The uncertainty of inland road conditions and customs clearance inevitably means higher insurance premiums in addition to basic transport costs. An UNCTAD study has shown that transportation and insurance payments comprised 12.9 per cent of the FOB export value of LLDCs, on

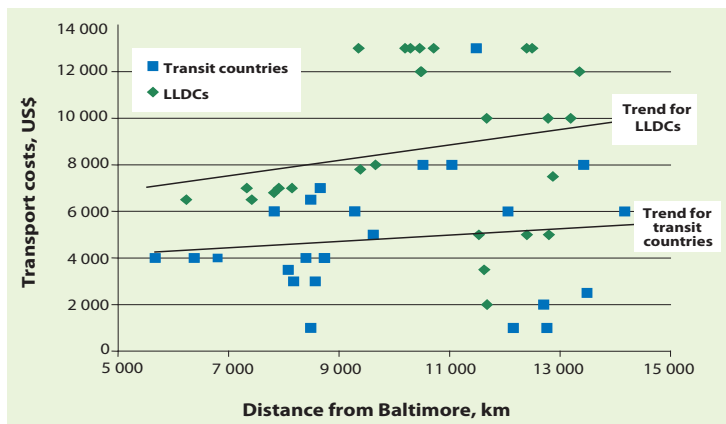
¹⁴ Radelet, Steven, and Jeffrey Sachs, "Shipping Costs, Manufactured Exports, and Economic Growth", January 1998, p. 3.

¹⁵ Gallup, John Luke, Jeffrey Sachs and Andrew D. Mellinger, "Geography and Economic Development", Harvard Center for International Development Working Paper No. 1, March 1999, p. 18.

¹⁶ Limão and Venables, pp. 5-6.

¹⁷ World Bank, *Global Economic Prospects ... 2002*, p. 100.

Figure 3:
Comparative shipping costs from Baltimore, Maryland, United States, to LLDCs and transit countries (1999)



Source: Limão and Venables, "Infrastructure, Geographical Disadvantage, and Transport Costs", World Bank, 1999.

average. The corresponding figure for coastal developing countries was only 8.1 per cent, and 5.8 per cent for developed countries.

On the basis of the foregoing, Gallup, Sachs and Mellinger have argued that CIF/FOB margins are a reliable predictor of economic growth. There is an inverse relationship between the two variables: the higher the CIF/FOB margin, the slower the economic growth. Sub-Saharan Africa's economic stagnation can thus be explained largely by its unfavourable geography. The region has the greatest number of LLDCs and thus the highest CIF/FOB margin by far. Moreover, the transport hurdle faced by LLDCs could in fact be even more dreadful than statistics reveal. This is because freight rate calculations based on CIF/FOB comparisons, which only include the international leg of the transport journey, understate the true door-to-door transport cost. Port and inland transportation costs can comprise as much as two thirds of the total door-to-door costs in many instances.¹⁸

Ratio of freight-to-import costs

A second way to show the higher transport costs experienced by LLDCs is by comparing their average freight-to-import ratio with that of transit developing countries. From the IMF trade statistics pertaining to 26 LLDCs and 26 transit developing countries, it is apparent that the

¹⁸ Ibid., p. 100.

Table 10: Transportation and insurance costs as percentage of export earnings (1997)	
<i>Country group</i>	<i>% of export value</i>
LLDCs	12.9
Coastal developing countries	8.1
Developed countries	5.8

Source: UNCTAD, "Challenges and Opportunities for Further Improving the Transit Systems and Economic Development of Landlocked and Transit Developing Countries", May 2003.

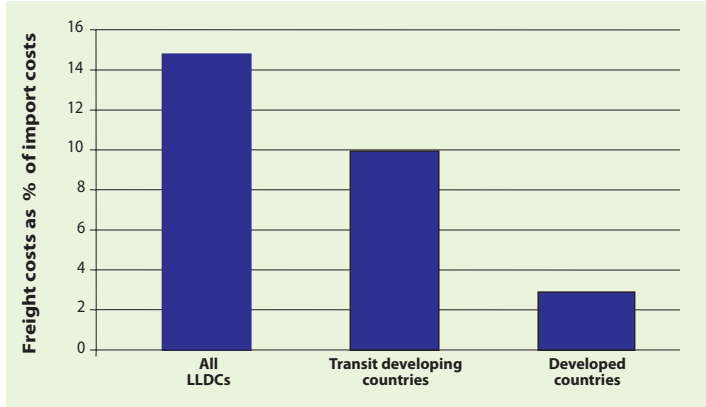
Table 11: CIF/FOB variations, by region (1995)	
<i>Region</i>	<i>CIF/FOB margin</i>
United States of America	3.6%
Western Europe	4.9%
East Asia	9.8%
Latin America	10.6%
Sub-Saharan Africa	19.5%

Source: Gallup, Sachs and Mellinger (1999).

former have a much higher ratio of freight-to-import costs. On average, freight costs comprised 15 per cent of total import costs for the LLDCs, exceeding by a significant margin the corresponding 10 per cent for transit developing countries.

This result is clearly discernible at the regional level, with the gap between LLDCs and transit developing countries being particularly noticeable in West Africa (15 per cent). The disparity was also conspicuous in East Africa, Central Asia and South America. On a more heartening note, the efficacy of multilateral trade and transit cooperation is demonstrated in Southern Africa. The formation of the Southern African Development Community (SADC) and the implementation of its transit-facilitating Protocol on Transport, Communications and Meteorology have gone a long way towards reducing the freight-to-import costs gap (2.4 per cent) between the LLDCs in that area and South Africa, the major transit country.

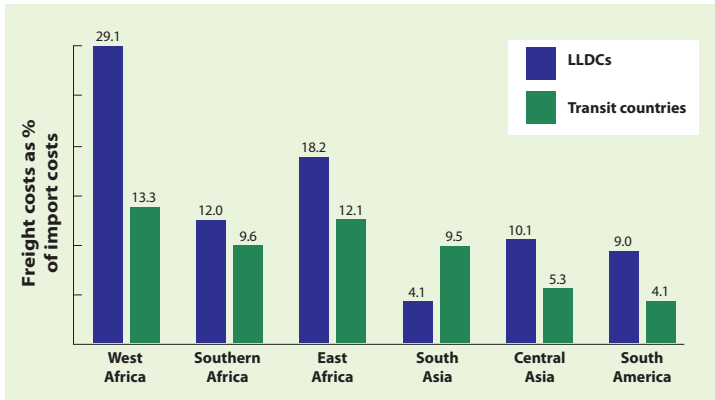
Figure 4:
Average freight costs as a percentage of import costs,
by country group (2000)*



Source: IMF Balance of Payments Statistics.

* This figure estimates the value of a country's merchandise imports on an FOB basis, together with estimates of foreign exchange payments (debts) for freight costs, which are defined as the costs of moving goods between origin and destination, handling charges at terminals (warehouse, ports, airports, inland depots), and storage costs which are auxiliary to cargo movement.

Figure 5:
Average freight costs as a percentage of import costs, by region



Source: IMF Balance of Payment Statistics 2000.

Note: The low freight-to-import ratio in South Asia was due to one specific outlier, Nepal. Nepal has one of the lowest ratios of freight-to-import costs (1.8 per cent) in the world because a large proportion of its imports originate from neighbouring countries, with India accounting for over half of these imports. The same reasoning could be applied to the Lao People's Democratic Republic, wherein Thai goods constituted two thirds of its total imports.

IV. Why are LLDC transport costs so high?

Remoteness and isolation from major markets

In many cases, the physical distances that LLDCs must overcome before they can reach international trade routes are colossal. This challenge is especially acute for the transitional Central Asian economies. The capital cities of Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan are all more than 4,000 km from the nearest port. In another twist, Uzbekistan is doubly landlocked. It has to transit at least two countries before reaching a maritime coast. Bhutan and Nepal appear to have two transit neighbours, but in fact the only practical transit corridors are through India. The impassable mountainous terrain of the Himalayas emphatically precludes a China route from consideration.

Unfortunately, even those landlocked countries that can potentially benefit from much shorter distances to the sea are not necessarily better off. Due to a variety of political or military difficulties involving transit neighbours, the shortest route often is not the one actually used,

<i>LLDC</i>	<i>Distance from the sea (km)</i>
Kazakhstan	4 800
Kyrgyzstan	4 570
Tajikistan	4 450
Uzbekistan	4 300
Turkmenistan	3 800
Azerbaijan	3 090
Armenia	2 865
Rwanda	1 530
Burundi	1 455
Uganda	1 150
Botswana	1 100
Zambia	950
Malawi	815
Lesotho	740

Sources: UNCTAD/LDC/2003/3, "Improvement of Transit Systems in Southern and Eastern Africa", April 2003; and Jeffrey Sachs, *Geography and Economic Transition*, Center for Economic Development at Harvard, November 1997.

rendering the actual distance traversed much longer and costlier. For example, the distance is over 10,000 km for Central Asian countries preferring to utilize the trans-Siberian railroad to reach the Russian Far East port of Vladivostok; and routes from eastern Bolivia to Atlantic ports exceed 2,000 km, much farther than the Chilean ports 200 km away from La Paz.

Such immense distances, especially for Central Asia, mean that LLDCs are naturally located very far from major world markets, with a predictable effect on their transport costs. The problem of distance is compounded by the structure of LLDC exports, which are predominantly low-value bulky commodities. This makes freight and related transit costs highly burdensome relative to the low value of LLDC exports, thus affecting their competitiveness in a very fundamental way.

The resulting lack of integration with external markets hinders economic growth by limiting the scope of the market, which enables specialization in production and the efficient utilization of labour. This problem of market access is exacerbated by the fact that the principal markets for LLDCs are, almost without exception, outside their immediate regions. For the landlocked developing States, neighbouring countries do not, for reasons of regional underdevelopment and export structures concentrated on primary commodities, constitute their major export markets or sources of imports. According to the IMF Balance of Payments Statistics in 2001, half of the total exports by LLDCs end up in developed country markets, with their close neighbours accounting for less than 30 per cent.

Landlockedness and the attendant high transport costs thus greatly magnify the costs and problems experienced by LLDCs in linking up with important, but distant, rich-country markets. This unhappy situation can easily be contrasted with the experience of European landlocked States, which are propitiously located within an industrially developed region. Rich neighbours that constitute immediate markets wholly surround Austria and Switzerland. Landlockedness is also likely to be a non-issue for Hungary, Slovakia and the Czech Republic, since they are linked to Western Europe by good roads over very short distances.

Lack of direct access to the sea

Although the transportation problems associated with remoteness and isolation are similar to those faced by some interior areas of coastal developing countries, the circumstances confronting LLDCs are trickier in that they are totally dependent on neighbouring countries for access to international shipping routes. In other words, LLDCs need to cross at least one additional international barrier before they can partake in

Table 13: Aggregate structure of LLDC exports (2001)

<i>Export category</i>	<i>% of total exports</i>
Fuel, ores and minerals	33
Agricultural goods	24
Manufactured goods	23
Services	20

Source: UNCTAD, "Challenges and Opportunities", May 2003.

foreign trade. The ultimate result of this extra step is that LLDCs' transport costs are substantially higher than those of transit countries and coastal States in general. This inevitably translates into higher costs of traded goods for the landlocked developing countries.

The precariousness and costliness of LLDCs' reliance on their transit neighbours are manifested in several ways:

- (i) Even if an LLDC possesses world-class infrastructure, it will encounter sizeable barriers to trade and economic growth if the transit country has not invested sufficiently in its physical infrastructure.
- (ii) LLDCs can find themselves subject to border blockages or other impediments to trade should they find themselves in conflict with their transit neighbours.
- (iii) When transit neighbours suffer from strikes, natural disasters, civil war or economic upheavals, the transit routes used by LLDCs may become damaged, unsafe or even closed.
- (iv) Passing through the territory of transit neighbours invariably results in significant administrative burdens on LLDC traders.

The last factor above, administrative barriers, often imposes the greatest burden on LLDCs. Cumbersome administrative requirements on the part of transit countries often contribute mightily to making their international trade onerous and expensive. Transit countries, themselves developing countries with their own economic agendas, generally have little incentive or resources to build transit transport systems to a high technical and administrative standard. Understaffing, opaque customs procedures, poorly defined administrative rules, burdensome documentation requirements, endemic corruption and a host of accompanying obstacles dramatically increase the overall logistics costs of international shipments for LLDCs.

In the overwhelming majority of transit developing countries, there is also rarely any utilization of sophisticated electronic docu-

mentation technologies to increase the expediency and efficiency of transport-related transactions. This lack of information technology adds greatly to the costs and delays suffered by both local and LLDC traders. Congestion and long queues at border crossings are especially common. For example, there are as many as 1,500 Nepali and Bhutanese trucks queued up at key Indian border crossings each day. The waiting time for these unlucky trucks can stretch from one to five days.¹⁹ Similarly, it takes an Uzbek truck 120 hours on average to cross over to Turkmenistan, at an exorbitant cost of US\$ 650.²⁰ In Southern Africa, it has been estimated that delays at border crossings cost the region US\$ 48 million annually.²¹

Additionally, transit operations create new cost components that do not arise in international conveyance by ship from coastal countries. Some of these cost components, such as custom guarantees at the port of entry (refunded when transit goods leave a country), reflect costs borne by transit countries for allowing LLDC goods to travel across their territories, including the risk of transit goods seeping into their own markets. However, the reimbursement process is often unjustifiably long and costly. Also, customs guarantee amounts are often excessive and do not reflect the true cost of transit goods. Other cost components, such as port fees, reflect the near-monopoly control on seaport access enjoyed by transit countries. This control affords transit developing countries the opportunity to exploit the inelastic demand for transit services faced by LLDCs.²²

Last but not least, cross-border infrastructure development (investments in roads, custom houses, etc.) between the landlocked country and the transit country is often very difficult to coordinate and even more difficult to implement. In this regard, a particularly thorny issue is working out the appropriate division of investment costs between landlocked and transit developing countries.

Infrastructure deficiencies within LLDCs

The poor trade performance of LLDCs can frequently be explained by poor infrastructure within their respective borders. Even though many coastal developing countries face considerable infrastructure shortfalls as well, they may not need to contend with the abysmal geographical conditions and low population densities characteristic of LLDCs. These tend to aggravate the costs of providing physical infrastructure and

¹⁹ World Bank, *Global Economic Prospects ... 2002*, p. 110.

²⁰ E/ESCAP/1282/Rev.2, 9 May 2003.

²¹ TD/B/LDC.1/19, May 2003.

²² World Bank, *Global Economic Prospects ... 2002*, p. 110.

<i>Border post</i>	<i>Countries</i>	<i>Estimated delay (hours)</i>
Machipanda	Zimbabwe/Mozambique	24
Zobue	Malawi/Mozambique	24
Mutare	Zimbabwe/Mozambique	26
Beit-Bridge	Zimbabwe/South Africa	36
Chirundu	Zambia/Zimbabwe	24
Victoria Falls	Zambia/Zimbabwe	36
Kazungula	Botswana/Zambia	24
Nakonde	Zambia/United Rep. of Tanzania	17

Source: Infra Africa Consultants, SADC Transport Corridor Agenda, July 2000.

delivering social services significantly. As a result, the task of building and maintaining efficient transportation and communications networks in LLDCs, not to mention the extra burden of additional infrastructure needed to reach the sea, is a much more expensive undertaking for them compared to other countries. The relevant infrastructure will be required to cover a larger surface area given the same population. The low level of urbanization in LLDCs further exacerbates this problem. In 2000, only 33 per cent of the total LLDC population resided in towns or cities, well below the 59 per cent for the rest of the developing world.²³

<i>Country grouping</i>	<i>Population density (people per sq km)</i>
LLDCs	57
All coastal economies	207
LDCs	107
Developing countries	233
Transit developing countries	284

Source: Gallup, Sachs and Mellinger (1999).

²³ UNDP, *Human Development Report 2001*.

Additionally hobbled by scarce economic resources, the availability of growth-generating modern infrastructure in LLDCs is thus woefully inadequate at best. By any measure of infrastructure access, the people living in LLDCs are appreciably worse off than their counterparts in coastal developing countries, much less those in the developed world. For instance, coastal developing countries have more than three times the stock of paved roads that LLDCs have. Poor infrastructure, of course, only escalates the transport costs faced by LLDCs. Elbadawi, Mengistae and Zeufack have found that domestic transport costs are at least as strong a constraint on a country's trade as are international costs.²⁴

Even more alarmingly, the LLDCs are trailing badly in the one area that could better connect them to the rest of the world: information technology (IT). It is common knowledge that there is a gaping digital divide between the developed and developing worlds today, but the discrepancy between landlocked developing States and their transit neighbours, also developing countries themselves, appears to be just as daunting. Transit developing countries have 3.5 times more PCs than LLDCs, and 5 times more Internet usage. Even more worryingly, coastal LDCs now have greater access to IT than LLDCs. This chasm will only widen in the years ahead in the absence of massive new IT investments by LLDCs. Already, the transit developing countries outspend their landlocked peers in this area by an overwhelming ratio of 96 to 1, while the corresponding ratio for coastal LDCs is almost 2 to 1.

Multimodal transportation

When freight must be shipped both by land and by sea, extra costs are incurred from shifting between differing modes of transport. Since multimodal transport requires multiple changes of transport modes en route to the final destination, it necessitates frequent and costly reloading of goods, shipment delays and the need to contract several transport operators instead of a single door-to-door service provider.²⁵ Another contributing factor is the sporadic use of containers for inland transport, for example because of long turnaround times, risks of loss or damage to containers, and unsuitable road infrastructure. Both in and out of port, containerization is believed to be an important source of improved shipping efficiency and cost savings.

As a result, Limão and Venables found that transport overland is 7 times more expensive than sea transport. An extra 1,000 km by sea adds US\$ 190 to shipping costs whereas a similar increase in land

²⁴ Elbadawi, Ibrahim, Taye Mengistae and Albert Zeufack, "Geography, Supplier Access, Foreign Market Potential ...", World Bank, December 2001.

²⁵ World Bank, *Global Economic Prospects ... 2002*, p. 109.

distance adds a whopping US\$ 1,380.²⁶ For the same distance, therefore, countries with a higher proportion of transit by land will incur significantly higher overall transport costs.

This axiom has been confirmed by the World Bank's Baltimore study mentioned earlier. The Bank decomposed transport costs into sea and overland components by subtracting shipping costs to the transit port from the overall transport costs to the LLDCs. Although overland transit costs varied widely from 90 per cent in Burundi to 15 per cent in Armenia, such costs constituted at least half the total transport costs for

Type of infrastructure	LLDCs	Coastal developing countries	Developed countries
Power generating capacity (thousand kW per million people)	53	373	2 100
Paved roads (km per million people)	396	1 335	10 106
Water (% of population with access)	62	74	95
Sanitation (% of population with access)	42	44	95

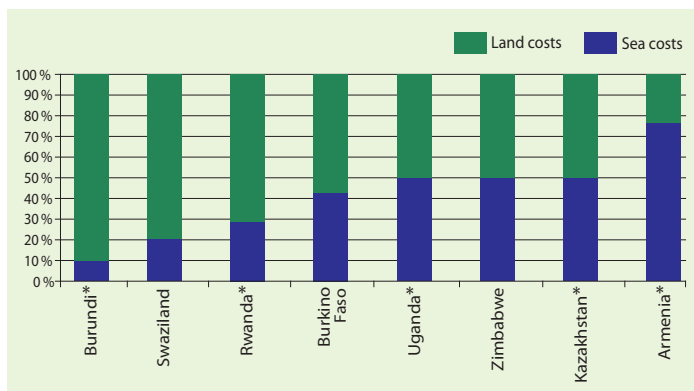
Source: World Bank, World Development Report 1994: Infrastructure for Development.

Country group	Main telephone lines (per 100 inhabitants)	Mobile phone subscribers (per 1,000 inhabitants)	Personal computers (per 1,000 inhabitants)	Internet users (per 1,000 inhabitants)	Investment in telecommunications 1998-2000 (US\$ millions)
LLDCs	5.00	31.9	6.7	5.6	46.73
Transit developing countries	6.95	57.1	23.9	29.2	4 508.08
LDCs (less LLDCs)	1.70	13.9	8.3	9.6	85.56

Source: UNCTAD, Handbook of Statistics 2001.

²⁶ Limão, Nuno, and Anthony J. Venables, "Infrastructure, Geographical Disadvantage, and Transport Costs", World Bank Policy Research Working Paper 2257, December 1999, pp. 5-6.

Figure 6:
Decomposition of overland and sea transport costs for LLDCs



Source: Limão and Venables, "Infrastructure, Geographical Disadvantage, and Transport Costs", World Bank, 1999.

* Overland transit cost for these countries is calculated from a major city in transit countries rather than from the port of entry.

14 out of the 15 LLDCs observed. This figure stood in sharp contrast to the actual distance of inland travel, which was less than 5 per cent of the total distance travelled in all 15 cases.

A similar study conducted by Radelet and Sachs corroborated this result. The data included the costs of shipping by sea for 97 developing countries, plus the additional road or rail costs for those that were landlocked. They found that LLDCs paid between 25 per cent (Malawi shipping by rail through the United Republic of Tanzania) and 228 per cent (Burundi shipping by road through the United Republic of Tanzania) more than their coastal neighbours for an identical export shipment, even though overland distances comprised a very small proportion of the total transport distance.²⁷

The same tendency is obvious in Latin America as well. Mexico's CIF/FOB margin is extremely low relative to other countries in the region. In fact, its average transport cost margin of 4.5 per cent is only slightly more than that for the United States. This is doubtless a reflection of Mexico's proximity to the United States market. In sharp contrast, landlocked Paraguay faces an average CIF/FOB margin that is nearly triple that of Mexico. More amazingly, its CIF/FOB margin is significantly higher than that of Argentina, Brazil or Chile even though the distance to the United States market (that is, New York City) is shorter.

²⁷ Radelet and Sachs, p. 4.

Table 18: Transport costs in selected Latin American countries (1999)

Country	CIF/FOB margin %	Distance from capital city to New York (km)
Mexico	4.5	3 360
Paraguay	13.3	7 580
Argentina	7.5	8 570
Brazil	7.3	7 700
Chile	8.8	8 290

Source: Bond, Eric W., "Trade Structure and Development: The Role of Logistics Costs in Latin American Countries", World Bank paper, Annual Bank Conference on Development, June 2000.

V. High transport costs and export-led growth

Transport costs are a critical determinant of a country's economic geography, which in turn has an inestimable bearing on the country's development prospects. Transport costs are important because they govern the potential access of a country's goods to domestic and foreign markets. Given the same factor endowments, countries with higher transport costs will more often than not achieve lower real incomes because more resources need to be employed for transportation and the gains from trade are consequently reduced. According to research by Redding and Venables, this market access indicator explained around 70 per cent of the variations in countries' per capita GDP in 1996, and access to the coast raised per capita income by 64 per cent.²⁸

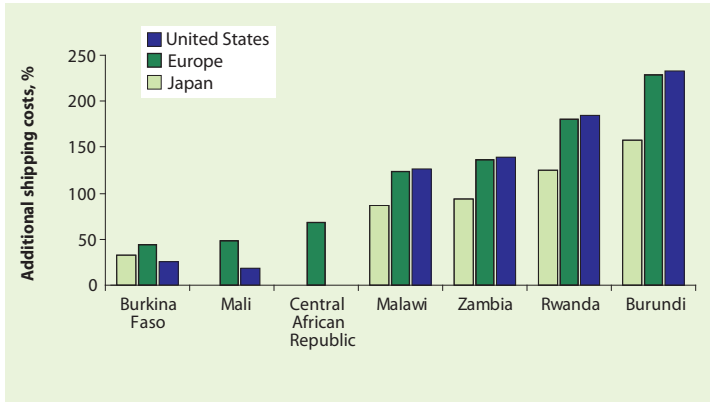
Whither the East Asian model?

In developing countries, particularly the poorest ones where inexpensive labour is plentiful, export-led manufacturing growth can accelerate the reduction of poverty. Above all else, faster export growth can boost income growth of the poor through the stimulation of overall economic growth. In addition, exports are crucial for earning the foreign exchange needed to purchase the capital imports necessary for growth. There is therefore an intimate linkage between successful export performance and economic development.

As myriad statistics have shown, the countries that have been most successful in promoting labour-intensive manufacturing exports are exactly those that have recorded the fastest rates of economic growth

²⁸ Redding, Stephen, and Anthony J. Venables, "Economic Geography and International Inequality", *Journal of International Economics*, April 2003.

Figure 7:
Additional costs incurred by African LLDCs to ship exports to developed markets (1997)



Source: Radelet and Sachs (1998).

during the past 30 years. Among developing countries with sufficient data on trade and economic growth for 1980-1998, 24 exported primarily manufactured goods and 61 exported mainly primary commodities (other than oil) in 1995. Only one of the manufacturing exporters failed to achieve economic growth during this period, compared with 32 of the primary commodity exporters.²⁹

The newly industrialized economies of East Asia are the most obvious testament to the efficacy of this approach. By opening their doors to a flood of export-centred FDI, they profited immensely from the swift growth in world exports between the early 1970s and the late 1990s. These economies also benefited from the tendency for FDI inflows to contribute more to investment and to GDP growth than an equal amount of foreign borrowing.³⁰ With the benefits of the so-called East Asian model apparent to all, this approach has quickly become the most popular prescription to help developing countries extricate themselves from poverty.

Unfortunately, the geographical constraints faced by LLDCs — lack of direct access to the sea, remoteness from major markets — have an enormously unfavourable impact on their international transport costs,

²⁹ World Bank, *Global Economic Prospects ... 2002*, p. 102; and UNDP, *Human Development Report 2003*, pp. 70-71.

³⁰ Agrawal, Pradeep, "Economic Impact of Foreign Direct Investment in South Asia", Bombay, January 2000.

and hence on their potential to become viable export-oriented manufacturers. If such costs cannot be precipitously reduced, indiscriminate imitation of the East Asian approach is unlikely to bear much fruit for these geographically challenged nations, even if they reduced tariff rates, removed quantitative restrictions and followed prudent macro-economic policies.

Indubitably, coastal countries with lower transport costs have enjoyed greater export growth than landlocked ones with higher transport costs. Exceptions to this rule are few and far between. Economic data for LLDCs show a negative correlation between transit costs and exports. As transit costs appreciate, the share of exports in a country's GDP will correspondingly decline.

In a similar vein, Radelet and Sachs have also found that increasing a country's CIF/FOB ratio from 12 per cent to 17 per cent reduces the long-term growth of the share of non-primary manufactured exports in GDP by around 0.2 per cent per annum. They further concluded that the countries that have succeeded in labour-intensive export manufacturing tended to have populations living almost totally within 100 km of the coast. This condition is, of course, impossible to meet in the case of LLDCs.

Populations in sub-Saharan Africa are especially concentrated in the interior. Only one fifth of the population lives within 100 km of the coast. Indeed, Africa has the highest proportion of landlocked population of any continent in the world. This stems from the fact that a large fraction of the population lives far away from the coast even in countries

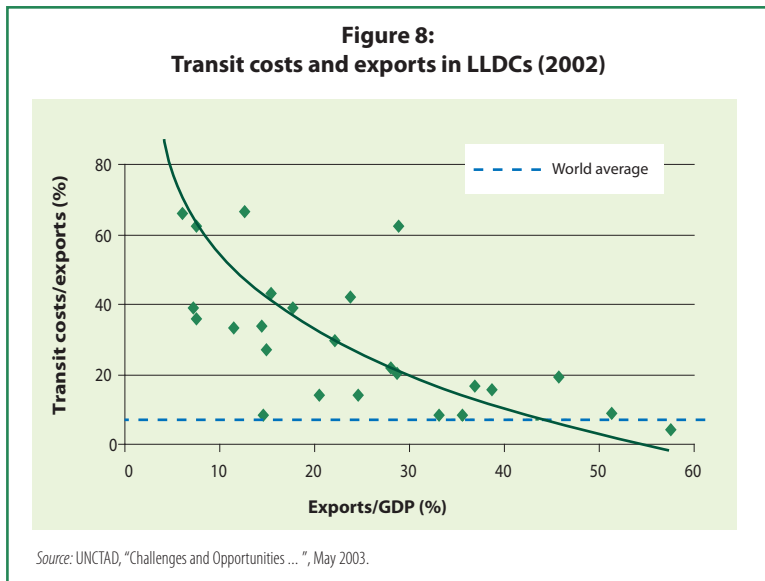


Table 19: Top developing country exporters of non-primary manufactured products (1965-1990)

Country	Average annual non-primary manufactured export growth (% of GDP)	Share of population living within 100 km of the coast (%)
Singapore	11.6	100
Republic of Korea	4.40	94
Malaysia	2.30	88
Mauritius	2.22	100
Dominican Republic	2.04	100
Bahamas	1.42	100
Israel	1.38	98
Cyprus	1.38	98
Tunisia	1.31	84

Source: Radelet and Sachs (1998).

with coastlines, such as the Sudan (in which 2 per cent of the total population is coastal), Kenya (6 per cent) and the United Republic of Tanzania (16 per cent).³¹ Aggravating matters further, Africa's interior regions are not accessible by seagoing vessels because of impassable river barriers that prevent any meaningful entry into the continent's interior.

It is far from surprising, then, to see that none of the developing countries with the fastest export growth is landlocked. Although the average export volume of LLDCs rose from US\$ 0.6 billion in 1990 to US\$ 1.6 billion in 2000, the rate of increase (16 per cent per year) was some way below the 22 per cent achieved by transit developing countries (from US\$ 9 billion to US\$ 31 billion).³²

As a consequence, the amount contributed by LLDCs to the developing world's share of total global exports has exhibited a consistent decline. Their proportion of developing country exports has fallen from an already-minuscule 2.4 per cent in 1990 to only 2 per cent in 2000, representing a yearly decrease of 2.1 per cent. In contrast, the share accounted for by transit developing countries rose from 53 per cent to 60 per cent, which was an annual increase of 1.1 per cent. This trend attests to the inexorable marginalization of LLDCs that has been taking place in the world economy for a number of years.

³¹ Gallup, Sachs and Mellinger, "Geography and Economic Development", CID Working Paper No. 1, March 1999, p. 19.

³² Radelet and Sachs, 1998.

Table 20: Value and share of exports by LLDCs

Country	Exports (1990)*		Exports (2001)	
	Value (US\$ millions)	% share of world exports	Value (US\$ millions)	% share of world exports
Botswana	1 785	0.05	2 462	0.04
Burkina Faso	152	0.00	175	0.00
Burundi	75	0.00	39	0.00
Central African Republic	120	0.00	128	0.00
Chad	188	0.01	197	0.00
Ethiopia	298	0.01	462	0.01
Lesotho	62	0.00	250	0.00
Malawi	417	0.01	448	0.01
Mali	359	0.01	740	0.01
Niger	283	0.01	291	0.00
Rwanda	110	0.00	85	0.00
Swaziland	557	0.02	702	0.01
Uganda	152	0.00	457	0.01
Zambia	1 309	0.04	853	0.00
Zimbabwe	1 722	0.05	1 935	0.03
Bolivia	926	0.03	1 285	0.02
Paraguay	959	0.03	936	0.02
Armenia	271	0.01	392	0.01
Azerbaijan	637	0.01	2 674	0.04
Kazakhstan	5 250	0.10	8 647	0.14
Kyrgyzstan	409	0.01	543	0.01
Tajikistan	749	0.01	804	0.01
Turkmenistan	1 881	0.04	2 381	0.04
Uzbekistan	2 821	0.06	3 079	0.05
Afghanistan	235	0.01	92	0.00
Bhutan	70	0.00	133	0.00
Mongolia	661	0.02	336	0.01
Nepal	204	0.01	737	0.01
Lao People's Dem. Rep.	79	0.00	336	0.01
TFYR Macedonia	1 204	0.02	1 187	0.02

Source: UNCTAD, *Handbook of Statistics 2003*.

* Figures for the former Yugoslave Republic of Macedonia and Central Asian States are for 1995.

The competitiveness of domestic firms

A key conduit through which high transport costs undercut a landlocked developing country's export performance is the great weakening of the international competitiveness of its domestic firms. Among others, there are two important avenues through which this occurs:

- (i) High transport costs preclude the profitable importation of intermediate goods;
- (ii) Inventory costs will balloon if high transport costs are a function of weak infrastructure.

Expensive intermediate goods

Considering the razor-thin profit margins and high import content in most labour-intensive export manufacturing, the reality of high transport costs will quickly eliminate the majority of LLDCs from international competition right from the start. Most of the main manufactured exports of coastal developing countries involve the low-cost importation and assembly of intermediate manufactured goods (e.g., fabrics, electronic components) and the subsequent re-export of final goods to world markets. The more costly transport is, the more expensive intermediate good imports will be, and the less income firms will receive for their exports. For this sort of activity to be viable, therefore, it is critical to minimize the transport costs associated with the import of intermediate products and their re-export after domestic processing. Good transport access to world markets is thus crucial to the establishment of a flourishing assembly sector, as even a minute appreciation of transport costs can render it uncompetitive.³³

In this regard, a revealing example is the electronics industry, where variations in transport costs can reduce potential value added drastically. Typically, every US\$ 1 of electronics export contains up to 85 cents of imported inputs, meaning that the value added by the developing country could be as low as 15 per cent of the final output. In this event, even a 10 per cent hike in transport costs will constitute two thirds of the domestic value added, thereby dealing a fatal blow to a country's export competitiveness.³⁴

Transport costs will thus weigh heavily on the choice of production location for high-import-content, assembly-type industries such as electronics. For a typical LLDC with a CIF/FOB margin of, say, 18 per cent, value added in electronics would be totally wiped out. It would therefore be quite a stretch to imagine the occurrence of a gainful electronics

³³ Ibid.

³⁴ Sachs, "Geography and Economic Transition", p. 6.

sector in such landlocked developing economies. Export-oriented foreign investors, for example, would certainly be less than enthusiastic about the prospects for profit in LLDCs faced with high transport costs.

<i>Country</i>	<i>CIF/FOB band (%)</i>
Mali	41.7
Rwanda	40.6
Malawi	33.5
Burkina Faso	26.6
Niger	19.5
Zambia	18.1
Zimbabwe	11.2
Uganda	10.9

Source: Radelet and Sachs (1998).

Domestic firms and foreign investors in some LLDCs with comparatively lower CIF/FOB, such as Zimbabwe and Uganda, could possibly still compete in world markets. But in order to make their exports competitive, these firms would need to pay substantially lower wages and accept smaller returns on capital to compensate for higher transport costs.³⁵ As a result, high transport costs serve to shrink the real income of both firms and workers in landlocked countries even if they are able to get an export industry going. A more likely consequence, however, is that LLDCs remain stuck with cottage industries because they are not able to achieve the necessary economies of scale for modern production.³⁶

The same problem underlying the costliness of intermediate imports will naturally extend to investment goods as well. In the vast majority of developing countries, virtually all equipment investment has to be brought in from abroad, especially from the developed world. High transport costs serve to push up the prices of imported investment goods significantly. Empirical studies have shown that economic growth is a decreasing function of the relative cost of investment goods; i.e., the more costly the imported capital good, the lower the growth rate.³⁷ Therefore, high transport costs inhibit real investment and put a brake on the process of technology transfer through capital imports.³⁸

³⁵ Radelet and Sachs, p. 6.

³⁶ Sachs, "Geography and Economic Transition", p. 7.

³⁷ Gallup, Sachs and Mellinger, p. 11.

³⁸ Radelet and Sachs, p. 10.

Reducing transport costs is, therefore, of critical import if landlocked developing economies are to minimize their input costs. In this context, Elbadawi, Mengistae and Zeufack have found that a country's export rises significantly with improvements in supplier access. Bound by their geographical and infrastructural constraints, poor supplier access — which refers to how cheaply firms in a given country acquire inputs from domestic or foreign markets — is a characteristic common to all LLDCs.³⁹ This goes some way towards explaining the falling share of developing countries' total imports accounted for by LLDCs (from 3.5 per cent to 2.4 per cent) between 1990 and 2000. There was a decline of close to 4 per cent per year. In contrast, the share of transit countries has soared from 54 per cent to 68 per cent during the same period, representing an annual rise of 2.5 per cent.

Excessive inventory costs

Poor infrastructure also forces LLDC firms to contend with its negative impact on inventory levels. In the light of the high real interest rates that generally prevail in developing countries, one would expect to observe lower inventory levels because of the relatively higher holding costs. However, Guasch and Kogan have reported the opposite phenomenon in developing countries. A possible explanation for high inventory levels in low-income countries is that infrastructure deficiencies make supply more variable, and this raises the safety stocks of inventory that firms hold. There is thus a negative relationship between a country's infrastructure and inventory levels, the effects of which must be even more pronounced for LLDCs.⁴⁰

High inventory levels entail significant hidden costs to an economy. United States businesses typically hold inventories equal to about 15 per cent of GDP, while the inventory levels in a landlocked developing State such as Bolivia are more than four times as large for raw materials and three times as large for final goods. Given the high costs of capital in developing countries, usually in the 15 per cent to 30 per cent range, the impact on unit costs of production is enormous. If the private sector interest rate for financing inventory holdings is conservatively estimated at 15 per cent, Guasch and Kogan have estimated that the cost to the economy of additional inventory holdings is greater than 2 per cent of GDP.⁴¹ This amount represents a gargantuan waste of precious resources that could otherwise be put to better use (e.g., augmenting the infrastructure stock) in any economy.

³⁹ Elbadawi, Mengistae and Zeufack.

⁴⁰ Bond, "Trade Structure and Development: The Role of Logistics Costs in Latin American Countries", p. 18.

⁴¹ Guasch and Kogan.

**Table 22: Latin America ratios to United States inventories
(1990-1999)**

<i>Country</i>	<i>Average raw materials inventory level (ratio to United States level by industry)</i>
Bolivia (landlocked)	4.20
Brazil	2.98
Chile	2.17
Mexico	1.58
<i>Country</i>	<i>Average final goods inventory level (ratio to United States level by industry)</i>
Bolivia (landlocked)	2.74
Brazil	1.98
Chile	1.76
Mexico	1.46
<i>Source: Guasch and Kogan (2001).</i>	

At the firm level, the debilitating effect of such high levels of inventories is also immense. With capital so expensive in the developing world, Guasch and Kogan believe that halving inventory levels could potentially reduce unit production costs by over 20 per cent.⁴² Realizing these savings would no doubt reduce the costs of doing business in LLDCs, thereby conferring a significant boost to their competitiveness, aggregate demand and employment. But making such savings possible will require a sustained commitment by LLDCs to improve their infrastructure and enhance their cooperation with transit partners. Only with the establishment of efficient and suitably regulated road, port and telecommunications systems at the transnational level can LLDCs make a belated start at slashing inventory levels.

In short, LLDCs with high transport costs are unattractive to export-oriented FDI and their domestic firms will be much less competitive in international markets. This is because even small differences in transport costs can easily determine whether or not export ventures are at all profitable. FDI and trade, however, are the chief means through which any developing country can gain access to much-needed technology and capital.⁴³ LLDCs, unfortunately, will find themselves excluded from these benefits without vastly enhanced transport access. They will also have to continue suffering from the distorting side effects of persistent trade imbalances.

⁴² Ibid.

⁴³ World Bank, *Global Economic Prospects ... 2002*, p. 101.

Table 23: Trade balance of LLDCs (2001)

Country	Trade balance (US\$ millions)	Trade balance (% of imports)	Country	Trade balance (US\$ millions)	Trade balance (% of imports)
Bolivia	-440	-25.49	Botswana	185	8.11
Paraguay	-1 210	-56.39	Burkina Faso	-481	-73.36
TFYR Macedonia	-664	-35.88	Burundi	-101	-72.36
Afghanistan	-627	-87.20	Central African Rep.	-20	-13.56
Bhutan	-47	-26.11	Chad	-420	-68.07
Lao PDR	-215	39.04	Ethiopia	-837	-64.43
Mongolia	-189	-34.03	Lesotho	-431	-63.27
Nepal	-736	-49.98	Malawi	-129	-22.37
Armenia	-618	-61.20	Mali	83	12.65
Azerbaijan	1 045	64.19	Niger	-86	-22.70
Kazakhstan	2 284	35.89	Rwanda	-165	-66.00
Kyrgyzstan	2	0.31	Swaziland	-148	-17.41
Tajikistan	19	2.42	Uganda	-1 137	-71.33
Turkmenistan	395	19.9	Zambia	-197	-18.77
Uzbekistan	20	0.65	Zimbabwe	507	35.50
LLDC average	-145	-24.38			

Source: UNCTAD, Handbook of Statistics 2002.

VI. As if that weren't bad enough...

Besides hampering export growth, there are additionally many channels through which harsh geography and high transport costs seriously curtail the economic growth of LLDCs. These include the following.

Diminished earnings from primary exports

At the beginning of the 1980s, three quarters of all developing country exports were primary commodities. Now, around 80 per cent are manufactures. LLDCs have found themselves far from being an integral part of this transformation. They have not achieved any headway in the global market for manufactures and thus remain factor-driven economies

highly dependent upon the export of a few primary commodities.⁴⁴ For instance, agricultural products still provide about 60 per cent of export revenues for sub-Saharan Africa, with little contribution from manufactures.⁴⁵ High transport costs invariably reduce rents earned from the export of primary products. This in turn lessens the savings that are eventually available for productive investment by an economy.⁴⁶

Limited choice of trading partners

A country's choice of trading partners is largely decided by transport costs. It has been estimated that raising shipment duration by one day reduces the probability of trade by an average of 1 per cent.⁴⁷ If a country's trading partners consist of stagnant, underdeveloped countries nearby, and the costs of switching to rich and high-growth markets further away are prohibitive, the country's growth prospects will be severely restricted.⁴⁸ This is best demonstrated by the poor trade performance of sub-Saharan Africa, which is not neighboured by countries with fast-growing import demand.

Suppressing human capital accumulation

Being located on the economic periphery can reduce the returns to skill, thereby minimizing incentives for human capital investment. When transport costs are high, the economic effect of remoteness is akin to a reduction in the relative price of manufactured goods. Since manufacturing is relatively skill-intensive, the wages of skilled workers correspondingly fall, together with the incentive to educate, vis-à-vis unskilled labour engaged in primary sectors.⁴⁹ In comparison, countries with easy access to supplies and markets will be able to extract higher returns from their processed exports and thus can afford to give manufacturing workers higher wages. This in turn enhances the incentive to invest in skills and increases the resulting number of skilled workers.⁵⁰ In this light, LLDCs benighted by poor market access will, not surprisingly, have lower levels of educational attainment. This dearth of human capital accumulation inevitably impedes long-term development and income growth.

⁴⁴ Collier, Paul, "Primary Commodity Dependence and Africa's Future", World Bank, April 2002, p. 2.

⁴⁵ World Bank, *Global Economic Prospects ... 2002*, p. 38.

⁴⁶ Radelet and Sachs, p. 10.

⁴⁷ Hummels, David, "Time as a Trade Barrier", Purdue University, July 2001, p. 21.

⁴⁸ World Bank, *Global Economic Prospects ... 2002*, p. 101.

⁴⁹ Redding, Stephen, and Peter K. Schott, "Distance, Skill Deepening and Development", *Journal of Development Economics* 72(2), 2003, p. 3.

⁵⁰ *Ibid.*, p. 14.

Obstructing technology diffusion

Not all developing countries are created equal when it comes to the absorption of exogenous technologies. Successful importers of technology tend to be close to big markets and/or are located on principal sea routes. Technology is drawn across borders to countries such as NAFTA-enriched Mexico; to Poland and Hungary, neighbours of the European Union; to coastal China, Hong Kong, China, and Singapore in Eastern Asia; and to the coastal cities of southern India. It does not flow as easily to remote mountainous regions (e.g., the Himalayan and Andean countries), landlocked developing countries (e.g., Central Asia) or inland regions that are far from seaports (western China or northern India). The inability to keep up with global technology can often prove fatal for developing countries.

The long-term decline in the terms of trade of many primary commodities is a side effect of technological innovation. For instance, copper is displaced by fiber optics; natural rubber, jute and cotton are rendered obsolete by high-tech synthetic materials. Countries whose incomes depend on a narrow range of primary exports that are desperately losing ground in the world economy — the situation that many LLDCs now find themselves in — will be hard pressed to maintain their current standard of living, much less increase it.

Demographic pressures further magnify the risks. Impoverished countries typically experience rapid population growth until urbanization, education of women and falling childhood mortality put a check on fertility. These factors are subdued, however, in technologically stagnant countries. There are few employment opportunities in the towns and cities because technological backwardness limits export competitiveness; and childhood mortality remains high because of poor health care. Poor families thus find themselves in a vicious cycle from which there is no recourse. They continue to have many children, which leads to unsustainable population growth and even lower government investment per capita in health and education, which further intensifies their misery.⁵¹

Less openness to the outside world

Geography indirectly affects economic performance by influencing the evolution of economic policies and institutions within a country. Governments in coastal economies have to contend with mobile factors of production (human, physical and financial capital), while landlocked economies are characterized by largely immobile factors (land and peasants). Conditioned by such divergent circumstances, landlocked country

⁵¹ Sachs, Jeffrey, "A New Map of the World", *The Economist*, 22 June 2000.

governments usually find non-market extractive mechanisms such as agricultural controls or closed trade policies more attractive policies, while coastal governments are forced to compete for mobile factors by fostering an appealing economic and legal climate for inward investment.

Evidence from the post-Second World War period supports this contention, in that there is a general tendency for coastal developing economies to be relatively more open to trade and foreign investments. Sachs and Warner have found a positive correlation between openness to trade and the ratio of seacoast to land area.⁵² More recently, Wei has shown that almost 60 per cent of country-to-country variation in openness can be explained by immutable “natural” factors — geography, population and languages spoken.⁵³ Therefore, it would appear that landlocked developing States, because of their intrinsic physical circumstances, are inherently less open to trade than coastal developing economies. This lack of openness has a deleterious effect on the economic performance of LLDCs.

Radelet, Sachs and Lee have estimated that open economies grew 1.97 per cent faster per year compared with closed ones over the period from 1965 to 1990.⁵⁴ As an example, it was pointed out that 1.7 percentage points of the difference in growth rates between East Asia and sub-Saharan Africa emanated from policy variables, with differences in openness to trade accounting for the bulk of the difference.⁵⁵ The openness of a country’s public policy to foreign trade is a very strong influence on firm-level exports as a determinant of both supplier access and foreign market access.

A country’s innate aptitude for trade may be central to its control of corruption. According to empirical evidence furnished by Wei, countries with a natural propensity for international trade (coastal countries) have more to gain from stemming corruption than do those that are relatively isolated. Those who consume only domestic goods have fewer options than do those who can import from abroad; they also deal with fewer government officials when buying goods and services. As a result, isolated countries that import little have less to lose from turning a blind eye to corruption than do countries that are more open to foreign trade. On this basis, low trade volumes are one of the roots of corruption, rather than one of its self-perpetuating consequences, and greater natural openness makes for substantially lower levels of corruption.⁵⁶

⁵² Sachs, Jeffrey, “Geography and Economic Transition”, p. 8.

⁵³ Wei, Shang-Jin, “Natural Openness and Good Government”, 2003.

⁵⁴ Radelet, Steven, Jeffrey Sachs and Jong-Wha Lee, “The Determinants and Prospects of Economic Growth in Asia”, *International Economic Journal*, 15(3), Autumn 2001, p. 16.

⁵⁵ *Ibid.*, p. 20.

⁵⁶ Wei, 2003.

VII. Making things better

As must be clear by now, geography matters. Compared to coastal countries, the penalty of distance and high transport costs will continue to hold down the growth rates and income of landlocked developing States with inadequate international transport links.⁵⁷ This is a brutal axiom that is supported by a wealth of cross-country evidence:

- (i) On average, LLDCs experience 1 per cent slower growth than coastal economies.⁵⁸
- (ii) Being entirely landlocked subtracts roughly 0.7 per cent from a developing country's annual growth.⁵⁹
- (iii) A landlocked country with transport costs 50 per cent higher than a similar coastal economy can expect slower growth of about 0.3 per cent per annum.⁶⁰

If LLDCs are to lift themselves from poverty and underdevelopment, the formidable obstacle of high transport costs must first be overcome. However, the nature of this challenge is such that enlightened policy on the part of LLDC governments alone, while necessary, will not be sufficient to address the real roots of the problem. Rather than wallow in geographical determinism, decision makers must recognize that the real costs of remoteness and lack of sea access faced by LLDCs can be conspicuously alleviated by constructive cooperation with transit developing countries and generous financial and technical assistance from the rich countries.

Regional cooperation

The trade of a landlocked developing country must inescapably go through the territory of a neighbouring country. In the light of this absolute dependence by LLDCs on transit partners for trade routes, close regional cooperation in transit transport and trade promotion is of foremost importance if LLDCs are to progress economically. Far from being a zero sum game, such collaboration will be of mutual benefit. On the one hand, the linkages of LLDCs to the global trading system will be greatly advanced by unfettered and cost-effective access to the sea. On the other, transit developing countries will benefit from efficient transit transport services and revenues generated by the provision of such

⁵⁷ Redding and Venables, "Economic Geography and International Inequality", *Journal of International Economics*, April 2003, p. 25.

⁵⁸ Gallup, Sachs and Mellinger, p. 23.

⁵⁹ Sachs, Jeffrey, *Emerging Asia*, Asian Development Bank and Harvard Institute for International Development, 1997.

⁶⁰ Radelet and Sachs, p. 11.

services. As its landlocked neighbour becomes more prosperous from increased trade, the transit country will surely profit in many other ways, not least from having a growing market next door.

A particularly desirable manifestation of such regional cooperation would be the setting up of cooperative infrastructure agreements between landlocked and transit developing countries. This would avoid the inefficient investment levels and technical incompatibilities that arise in non-cooperative circumstances. Bond has found that in the absence of cooperative agreements between countries, there will likely be underinvestment in those forms of infrastructure in which the investments will have spillover effects on other countries (e.g., transit infrastructure). A transit developing country, for example, would tend to invest less in railway and highway infrastructure to improve connections with neighbouring landlocked countries compared to airport and harbour infrastructure that carry goods to the rest of the world.⁶¹ In some regions, coordinated transport projects have already proved their worth in promoting international trade, with the South Asia Regional Initiative and the Southern Africa Transport Protocol among the most successful examples.

Improving infrastructure

The need to improve physical infrastructure within the borders of LLDCs and along the transit corridors that they use is of no less importance. Most LLDCs' poor trade performance can be accounted for by poor infrastructure. Currently, the infrastructure connecting most LLDCs to world markets is gravely deficient due to either economic and political factors or just plain neglect. Taking the transport sector as a specific example, investment commitments as a percentage of GNP range from a mere 5 per cent in the Lao People's Democratic Republic, 3.5 per cent in Mongolia and 2.7 per cent in the Central African Republic to less than 1 per cent for 14 other LLDCs.

Research by Limão and Venables indicates that improving an LLDC's own infrastructure and the transit country's infrastructure from the median to the twenty-fifth percentile would reduce the cost penalty of landlockedness from 46 per cent to 32 per cent and 36 per cent respectively. If both countries' infrastructure is enhanced at the same time, then the penalty drops even further, to 26 per cent.⁶² Such improvements and cost reductions would raise the LLDC's volume of trade considerably — by 8 per cent with improvements in its own infra-

⁶¹ Bond, Eric W., "Transportation Infrastructure Investments and Trade Liberalization", April 2000.

⁶² Limão and Venables, p. 16.

structure; by 2 per cent with improvements in transit country infrastructure; and by 11 per cent in the event of a simultaneous improvement.⁶³

Taking into account the expensive and long-term nature of major infrastructure projects, especially cross-border ones, this is precisely the area where substantial financial and technical assistance from the developed world would be most welcomed by resource-strapped LLDCs. In Africa alone, the World Bank has estimated that at least US\$ 18 billion needs to be pumped *each year* into infrastructure if the continent is to attain the sort of growth that might lift large numbers of people out of poverty. Investment currently runs at less than a third of this. Since profit-motivated private companies in the West are less than enthusiastic about such undertakings, least of all in Africa, this gap can only be filled by governments and foreign donors.⁶⁴

Table 24: Private participation in transport in developing countries, by region (1990-2001)

<i>Region</i>	<i>Number of countries</i>	<i>Number of projects</i>	<i>Investment (2001) (US\$ billion)</i>
Sub-Saharan Africa	17	38	2.7
Europe and Central Asia	10	43	5.1
East Asia and Pacific	10	229	55.7
Latin America and Caribbean	19	295	67.6
Middle East and North Africa	6	16	1.8
South Asia	4	41	2.4
Total	66	662	135.3

Source: World Bank, Private Participation in Infrastructure: Trends in Developing Countries (1990-2001).

Trade facilitation

Because LLDC imports and exports have to cross multiple borders, regulatory and procedural constraints are often as critical as infrastructure deficiencies. The trade transaction costs faced by LLDCs can be significantly reduced through meaningful trade facilitation measures — simplifying requirements, harmonizing procedures and documentation, standardizing commercial practices and introducing agreed codes for the representation of information elements — especially on the part of the transit country. In many places, documentation requirements often lack transparency and are vastly duplicative, a problem

⁶³ *Ibid.*, p. 17.

⁶⁴ "The Road to Hell Is Unpaved", *The Economist*, 19 December 2002.

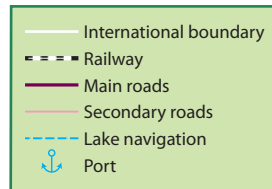
often compounded by a lack of cooperation between traders and official agencies. Despite advances in information technology, electronic data submission is still far from commonplace. Reducing institutional interference and simplifying procedures can be achieved, but only if the countries involved display greater commitment to the international, regional, subregional and bilateral agreements pertaining to this issue.

Chapter 2



MAIN TRANSIT
TRANSPORT
CORRIDORS
AROUND THE WORLD

Map 2. East Africa



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Main transit transport corridors around the world

Transit systems in Africa, Asia and Latin America, both those that serve inter-State trade and those that serve overseas trade, have a subregional rather than a regional scope. Ten major subregional transit systems serve the 30 landlocked developing countries. In each subregion, landlocked developing countries have made efforts to address both the physical and the non-physical impediments to their transit trade through investment in infrastructure to develop existing or new routes; through measures taken in collaboration with transit countries to improve operational efficiency along transit corridors, increase competition in the supply of services and introduce new technologies; and through bilateral or regional agreements with their neighbours.

I. Transit transport corridors in East Africa

There are three landlocked developing countries in East Africa, namely Burundi, Rwanda and Uganda. They have access to two main corridors: the Northern Corridor (2,000 km) stretches through the port of Mombasa in Kenya; and the Central Corridor (1,500 km) crosses the middle of the United Republic of Tanzania and terminates at the port of Dar es Salaam.

The Northern Corridor is a network of rail, rail/lake and road routes up to Kampala in Uganda. Road links further extend southward to Burundi and Rwanda and westward to the eastern hinterland of the Democratic Republic of the Congo. Kampala-Malaba-Nairobi-Mombasa is the main railway line. The rail/lake route links Port Bell or Jinja and Kisumu (lake) with Nakuru (rail). The Malaba route is a main road linking Bujumbura and Kigali with Mombasa. The Isebaria road links Mombasa to Rwanda and Burundi via the United

Republic of Tanzania through Musoma and Mwanza on Lake Victoria. There is a 1,000 km pipeline which links the port of Mombasa with the Kenyan lake port of Kisumu and Eldoret. It is planned to extend it to Uganda.

The Central Corridor comprises road and rail/lake routes to Burundi through Lake Tanganyika, rail/road routes to Rwanda, and a rail/lake route to Uganda via Lake Victoria. This is the main transit corridor for the exports and imports of Burundi. It is made up of the 1,254 km central line operated by the Tanzania Railways Corporation (TRC) from Dar es Salaam to Kigoma port on Lake Tanganyika, followed by trans-shipment to barges which cross the lake. The Mwanza rail/lake route consists of a 1,229 km railway from Dar es Salaam to Mwanza. The Dodoma road routes pass through Rusumo Falls (United Republic of Tanzania–Rwanda border) or to Kobero on the United Republic of Tanzania–Burundi border. The Isaka railroad route involves rail from Dar es Salaam to Isaka with a transfer to trucks at Isaka for onward delivery by road.

Burundi, lying south of Rwanda and Uganda, uses the Central Corridor for 75 per cent of its international traffic, of which 65 per cent uses the TRC rail/lake link through Kigoma on Lake Tanganyika. About 20 per cent traverses the Northern Corridor. A third route, which is gradually gaining importance, is the Southern Corridor, carrying cement and sugar coming from Southern Africa across Lake Tanganyika from Mpulungu to Kalemie and then to Bujumbura. The all-road route to Dar es Salaam from Bujumbura is mainly used for coffee exports by truck. Northern Corridor traffic passes through the United Republic of Tanzania, via Kobero and Mwanza, and comprises mostly tea exports and certain imports, including petroleum products.⁶⁵

In Eastern and Southern Africa, the basic policy and institutional framework for transit transport cooperation already exists through bilateral and multilateral agreements. In East Africa, the East African Community Treaty and the Second East African Community Development Strategy (2001-2005) have provisions intended to improve transit transport. The Northern Corridor Transit Agreement (NCTA), which has been implemented for a long time, is under review in order to further facilitate the smooth flow of transit traffic in the Northern Corridor.

A feature of the region from the transit transport point of view has been the developing competition between the two corridors and between the two ports of Mombasa and Dar es Salaam. Whereas previously the Northern Corridor was dominant, periods of conflict, civil strife and political disagreements which have occurred in East Africa over more than two decades, when some of the traditional routes have been closed, have induced the landlocked countries as a major policy to diversify their trade routes and to invest in building their own substantial transport capacity. Uganda, for example,

⁶⁵ Secretariat of the Transit Transport Coordination Authority of the Northern Corridor (TTCA).

has reduced its transit dependency on Kenya by developing the lake/rail route through the United Republic of Tanzania, and the Central Corridor's share of transit traffic has been increasing in recent years. As a result, there are now quite a range of routes and modal combinations in East Africa.

There is simultaneously competition between road and rail. Unlike the adjoining Southern African region, road haulage is the dominant mode of transport for transit cargo, accounting for an estimated 70 per cent of the total along the Northern Corridor and 60 per cent in the Central. The rapid growth of the road haulage industry from the late 1960s was related to the substantial decline in efficiency and service standards within the rail transport system. The long-distance road transport route Bujumbura-Kigali-Kampala-Malaba-Mombasa is now the main artery of the Northern Corridor.

Infrastructure facilities

It is noted in recent studies commissioned by the UNCTAD secretariat that the Eastern and Southern African regional road network is in fair condition in the southern tier of the Southern African Development Community (SADC) subregion (South Africa, Botswana, Lesotho, Swaziland, Namibia and Zimbabwe) and in parts of the Northern Corridor. However, a substantial part of the designated network of the Northern Corridor is unpaved roads, particularly in the Democratic Republic of the Congo, Uganda and Burundi. Also, the quality and level of road transit services are still inadequate thanks to poor maintenance, violation of load limits, inadequate road safety, poor vehicle maintenance, and border and interface facilities.

Two of the three landlocked countries of East Africa are not linked with the regional rail network, which significantly reduces their choice of transit modes. In addition, different gauges of the rail network there produce major bottlenecks for the smooth and efficient movement of goods in transit. Railway operations in Kenya, the United Republic of Tanzania and Uganda continue to face persistent problems of locomotive and wagon availability due to lack of spare parts, poor maintenance practices, failure to earmark funds for repairs and poor planning of equipment acquisition. Cooperation among the three national railway corporations, however, has raised capacity, increased utilization of available capacity and achieved some economies of scale. Cooperation has included the use of each other's excess rolling stock, leasing of locomotives and wagons, and the use of each other's lines. The introduction of block trains in the Northern Corridor and the establishment of inland container depots (ICDs) or dry ports have helped to attract a substantial volume of traffic back to rail and reduced transport costs to Uganda.

The main roads used by transit traffic along the Northern Corridor are generally in good condition after substantial donor infusion of funds, except

for the disintegrating Mombasa-Nairobi section. The biggest problem has been deterioration due to inadequate maintenance and heavy, uncontrolled use by overloaded trucks.

Inland waterways are increasingly important as major transit transport links in East Africa. Navigable waterways of Lakes Malawi, Nyasa and Tanganyika and the Congo River are widely used for traffic. Therefore, the landlocked and transit developing countries have been investing to improve ports on these rivers and lakes, including the ports of Mwanza, Kisumu, Port Bell and Jinja on Lake Victoria, and Kigoma, Bujumbura and Kalemie on Lake Tanganyika. Efforts have been made to rehabilitate ports, improve access links and interface facilities and liberalize marine services.

There is also a 1,000 km pipeline linking Mombasa with the Kenyan lake port of Kisumu and with Eldoret, near Malaba. Now with public loading facilities in Kisumu and Eldoret, "it has become much more cost effective for operators from inland countries to source their oil products from or to route their own imported products ... through Kenya".⁶⁶

Container handling facilities at Mombasa and Dar es Salaam ports are overstretched, and operating at full or close to full capacity. Conventional cargo handling capacity offers more room for growth but management, operational and traffic facilitation deficiencies hamper capacity utilization. There is a need for improved container handling capacity through conversion of conventional berths and/or extension of container terminals.

Customs procedures at both Mombasa and Dar es Salaam are widely reported to remain cumbersome despite efforts at harmonization by the Transit Transport Coordination Authority of the Northern Corridor (TTCA) and other institutions. A specific problem at Mombasa is the high level of verification of containers, which causes delays and can lead to pilferage. Though negotiations within the framework of the NCTA have reduced it, further efforts need to be made to scale down such inspection. In the Central Corridor transit containers are not opened unless the original seals have been broken or tampered with. In addition, transit cargo going by road is also supposed to use routes prescribed in the Northern Corridor Agreement, for some cargoes have to be followed by a police escort between Mombasa and the station of exit in order to avoid possible diversion. For all transit cargo, security bonds have to be posted. For Uganda, cargo bond cancellation is only effected after the third copy of the transit document has been received by the Uganda Revenue Authority in Nakawa.

In the Central Corridor, the use of a single bill of entry, the equivalent of the single goods declaration form, has replaced nine forms previously in use. It has significantly reduced the delay for clearance and document

⁶⁶ UNCTAD/LDC/2003/3, 2003.

processing. There is no customs cargo verification of transit containers unless the original seals have been broken. Within the Central Corridor, there are also some designated transit routes and stations. Transporters have to report at set intervals and the maximum period for farthest customs exit is 10 days. A bond security guarantee is also required for transit cargo.

Both ports suffer from periodic congestion associated with poor management and frequent breakdown of equipment, as well as the cumbersome customs and security procedures mentioned. Rehabilitation of port facilities has produced some improvement. A particular handicap at Mombasa is the lack of special facilities for transit cargo, which hampers quick transit cargo offtake, especially when there is a backlog of cargo for the domestic market. Telecommunications facilities are also underdeveloped both within the two ports and between each port and its hinterland. Insufficient communications facilities along both corridors constitutes a major problem for transporters and importers monitoring the movement of their goods.

There is a strong tendency in East Africa to containerize transit traffic. This tendency requires further development of intermodal terminals to handle various types of containerized cargo. Dry ports have been established in the major cities Nairobi, Kisumu, Eldoret, Kampala, Kigali, Isaka and Bujumbura.

External assistance remains the major source of funds for infrastructure development. However, some countries in East Africa have undertaken extensive road sector reforms involving commercialization of roads by applying the user-pays principle. This would enable countries to strengthen the sustainability of the road sector by establishing stable and regular financing systems through adequate user charges.

The latest trend in transit transport infrastructure financing and management is characterized by emerging new partnerships between the public and private sectors resulting in increased private sector participation in policy dialogue, system design and programme implementation. For example, TTCA has the Northern Corridor Stakeholders Forum, which brings together port authorities, customs, freight clearing and forwarding companies, railway corporations, road carriers, shipping companies and shippers, as well as government agencies. The Nacala and Maputo corridors offer good examples of how this type of partnership can be effective in mobilizing investments and technical capacity to develop and maintain road, railway, port and inland waterway infrastructure.

The role of the donor community and development partners, which is critical to the success of these reforms, should be commended. The road sector reform programmes received technical support from all major donors. The contribution of the Regional Economic Communities (RECs) is equally commendable. The SADC transport investment forum held in Windhoek, Namibia, in April 2001 and more recently the donors

conference organized by the East African Community (EAC) in April 2003 are a clear testimony of their resolve to support new strategies for mobilizing investment for transit transport infrastructure maintenance, rehabilitation and upgrading.

Trade facilitation measures

There is a long history of economic cooperation in East Africa. Basic policy and an institutional framework for transit transport cooperation exist in the subregion. Transit transport cooperation found its place in the East African Community Treaty and the Second East African Community Development Strategy (2001-2005). In late 1993 the Common Market for Eastern and Southern Africa (COMESA) was established. The Northern Corridor Transit Agreement (NCTA) was signed in 1985 in Bujumbura with the objective of simplifying and harmonizing procedures for transit traffic. The Transit Transport Coordination Authority of the Northern Corridor (TTCA) was established in 1985, with a permanent secretariat in Mombasa, to facilitate a smooth flow of transit traffic along the Northern Corridor. Burundi, the Democratic Republic of the Congo, Kenya, Rwanda and Uganda are members of TTCA. Bilateral working agreements governing rail and lake services are also in effect between the Uganda and the United Republic of Tanzania railway corporations and between the Uganda and Kenya corporations. The Central Corridor does not have an equivalent institutional framework. EAC, COMESA and TTCA have played an important role in developing the legal framework and procedures for transit traffic. Transit traffic is traditionally high on the priority lists of regional integration efforts, and major issues have been considered at the summit level in the subregion.

In particular, the countries of the subregion have adopted harmonized axle load limits and axle control. However, implementation of the load limits agreement is widely considered to be poor. A COMESA/SADC unified regional customs document replaced the road customs transit declaration. In 1990 the COMESA member Heads of State adopted a regional customs guarantee scheme. However, the agreement has not yet entered into force. Harmonized road transit charges and a coupon system for payment of road transit charges were adopted by COMESA and TTCA. However, some of the COMESA members do not implement this agreement mainly because of differences among them as to the most appropriate basis for determining rates. A regional vehicle third-party insurance scheme (Yellow Card scheme) is one of the major achievements of the regional trade facilitation efforts and is being implemented effectively. But the COMESA carrier licence allowing foreign-registered vehicles to transit through any country within the subregion without being subjected to domestic licensing requirements has not been implemented fully. Many countries of the subregion still require transit permits.

The Railtracker system, part of the Advance Cargo Information System (ACIS) developed by UNCTAD, is, however, being implemented in some transit corridors. Within the Kenya rail network, the use of the Railtracker module has brought some definite benefits, including more effective utilization of wagons, reduced cargo transit times and movement information for customers.

Border posts throughout the region, particularly those with heavy traffic such as Busia, Malaba, Isebania, Rusumo and Isaka, suffer from organizational problems and lack of facilities such as offices and parking areas for trucks. Repetition of the same formalities at each side of the border adds to waiting time. An important initiative being undertaken by the Northern Corridor's TTCA for joint customs control at adjacent border posts is not being fully implemented.

Transit procedures for road traffic in the Central Corridor are more straightforward than in the Northern Corridor. Countries that use the port of Dar es Salaam are exempted from the customs requirement of posting transit bonds and commercial vehicle guarantees. In lieu of these, clearing and forwarding agents and transport operators are authorized by the Commissioner of Customs to use a Transit Pass, which is then cancelled when the goods leave the United Republic of Tanzania. There is no escort system in the Central Corridor, except recently for very limited categories of cargo. However, particularly since the implementation of economic liberalization policies in the United Republic of Tanzania, there has been an increase in the diversion of transit goods for home consumption. Accordingly, once goods are released from the port, trucks must immediately follow approved routes and report at specified stations along the way.

II. Transit transport corridors in Southern Africa

There are six landlocked countries in Southern Africa, namely Botswana, Lesotho, Swaziland, Malawi, Zimbabwe and Zambia. Transit countries of the subregion are South Africa, Angola, Namibia, Mozambique and the United Republic of Tanzania. They are all members of the Southern African Development Community (SADC). Unlike the landlocked countries in East Africa, Southern African landlocked countries have several routing options available to them, including the well-developed South African corridors. Transit corridors link landlocked countries through Mozambique (Beira, Maputo and Nacala), the United Republic of Tanzania (Dar es Salaam), South Africa (Durban, Cape Town, Richards Bay and Port Elizabeth), Namibia (Walvis Bay) and Angola (Namibe, Lobito and Luanda).



- International boundary
- Railway
- Main roads
- Secondary roads
- Port

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Box 2: Botswana: the importance of good governance and regional cooperation

Which country has had the fastest growth in per capita income over the last three decades? If you guessed an East Asian “tiger” such as the Republic of Korea or Singapore, or an oil-rich Gulf State, or China or the United States, then you are wrong. The answer, surprisingly, is Botswana. As a landlocked developing country located in a region mired in poverty, Botswana serves as a useful case study in getting the details right.

In many African countries (e.g., the Congo and Sierra Leone), the surfeit of diamonds and other natural resources has proved more bane than boon, triggering civil wars, economic collapse and widespread misery. Valuable minerals, however, have had more benign effects on the political and economic milieu in Botswana. Enquiring deeply into the secrets of Botswana’s success and Africa’s failures, Acemoglu, Johnson and Robinson argue that gems have enriched the Botswana elite enough to discourage more exploitative rent seeking and expropriation at the expense of the general populace. In particular, the strongly entrenched institutions of contract law and private property in Botswana, legacies of British colonialism, were a major factor in protecting the material affluence of this patrician class.

Wealthy and secure, the interests of the Botswana elite have been harnessed to good effect. They have pursued sensible policies, such as a customs union with South Africa and a currency pegged to the rand. Foreign mining companies were welcomed, and the government dealt with them fairly but firmly. It is also one of the rare African countries that have come to grips with the AIDS pandemic that is ravaging their citizenry. Here, Botswana’s diamond wealth is being put to good use, including free AIDS drugs to anyone in need.

As regards its lack of access to the sea, Botswana’s cause has been furthered by the relatively successful implementation of a comprehensive regional transit transport agreement, the Protocol on Transport, Communications and Meteorology. Under the active leadership of the regional powerhouse, South Africa, this protocol provides for the operation of an integrated regional transport system, including improved transit facilitation. What emerges from the region’s experience to date is that where such a cooperative framework is adopted and complied with to even a modest extent, it can greatly alleviate the transport burden of a landlocked developing economy.

Botswana’s experience suggests that good governance is all-important to economic growth, as are better courts and legal systems. Close cooperation with enlightened transit partners helps greatly too, if a country happens to be landlocked.

Source: Acemoglu, Daron, Simon Johnston and James A. Robinson, “An African Success Story: Botswana”, CEPR Discussion Paper 3219, February 2002.

Box 3:
The development corridor concept in Southern Africa

The introduction of the development corridor concept and in particular the organization of the Maputo Development Corridor (MDC) Investors' Conference, in May 1996, represent an innovative form of private sector involvement in transit transport operations which offers prospects for replication elsewhere. At the conference a package of projects was presented to potential investors covering such fields as transport, tourism, mining and agriculture with the aim of exploiting the natural resources and development opportunities along the corridor. The conference succeeded in its objectives primarily because the MDC can significantly cut costs for Southern African exporters, given the short distance between some of Southern Africa's industries and Maputo. In the long run, this outlet could also help ease congestion at the ports of Durban and Cape Town.

One of the main advantages of the development corridor concept is that those interested in investing in the infrastructure are made aware of other projects whose implementation would generate new traffic to pay for the investment, while those intending to invest in the other economic sectors are also assured of the complementary development of necessary infrastructure to facilitate regional and international trading in the goods and services resulting from such investments. The Beira Development Corridor Investors Conference held in Harare in 1996 attracted over 400 participants from Africa and abroad. There is clearly a strong desire by the private sector to forge ahead with new investments given the political stability in the region.

These corridors involve different modes of transport. The Dar es Salaam corridor to Zambia and Malawi comprises road, rail and pipeline. The Malawi northern route connecting to TAZARA (the Tanzania-Zambia Railway Authority) includes combined rail, lake and road routes. The Nacala corridor is the main transit route to Malawi by rail through Entrelagos and also offers transit services to Mozambique and eastern Zambia. The Beira corridor is a gateway to the sea for Malawi, Zambia and Zimbabwe. The route to Malawi has two parallel links by rail and road. The Beira corridor to Zimbabwe and Zambia is a network of road and rail routes through the Machipanda border post. The Maputo corridor comprises routes to Zimbabwe via the Limpopo rail line and to Swaziland by rail and road through Goba. The Durban corridor provides transit services for Zambia, Zimbabwe and the Democratic Republic of the Congo. The Richards Bay corridor is mainly used for transit traffic destined to Swaziland.

Since the coming of peace in Angola and Mozambique and of democracy in South Africa, they, along with Namibia, have assumed greater impor-

tance as transit States for the interior countries of Southern Africa and are being integrated into the development system of SADC:

“Within this context, the rehabilitation and enhancement of the regional transport corridors ... became priority focus areas. The successful implementation of the Maputo Development Corridor [Spatial Development Initiative] served to boost support within SADC for the concept of multi-sectoral economic development corridors (as opposed to purely transportation based corridors ...).”⁶⁷

Infrastructure facilities

The Southern African countries designated a Regional Trunk Road Network (RTRN) with corresponding common design standards and specifications and common road signs. In general, the road network in Southern Africa is in fair condition. The main transit roads are generally in satisfactory condition in the southern tier of the region (South Africa, Botswana, Lesotho, Swaziland, Namibia, Zimbabwe), but the roads of the northern tier of SADC countries (Zambia, Malawi, United Republic of Tanzania, Democratic Republic of the Congo, Angola, Mozambique) require major rehabilitation and upgrading. Some of these are ongoing.

The major problems related to road haulage concern user charges and enforcement of axle load limits. Although there is agreement in principle to a uniform system of road user charges for the SADC RTRN, the problem has been to develop modalities for implementing it at the regional level. At the national level, Southern African countries agreed to set up dedicated road funds for long-overdue road maintenance projects. Most SADC countries have already set up or are in the process of establishing such structures.

All major transit transport corridors enjoy railway connections between seaports and remote inland destinations, except Burundi, Lesotho and Rwanda. The main bottleneck for the speedy movement of traffic is the different gauges used in different countries, however. The railway system in Southern Africa suffers from a number of operational problems related to the poor condition of the infrastructure compounded by poor telecommunications links between railways which lead to delays. These have affected the capacity of rail to compete with road transport. The Southern African railways are in fair condition with the exception of those in Angola and Mozambique. This is mostly due to the age of the rail track and deferred maintenance over many years (leading to frequent derailments), a consequence of poor management, inadequate funding and civil wars.

⁶⁷ SATCC, 2001, Vol. Two, p. 1.

Five railway lines pass through Mozambique. Following the Peace Agreement of October 1993, they have benefited from the return to security as evidenced by the volume of trade. Thus, the Goba line linking the Swaziland and Mozambique rail systems, on which rehabilitation work was completed with EU assistance in 1993, led to a significant increase in tonnage.

The SADC railway industry comprises 14 operating railways, 12 of which are government-owned and the other two are concessioned. These are the Beitbridge-Bulawayo Railway (BBR), a 350 km network, and the Central East African Railway (CEAR), which is operating the former Malawi Railways (1994). Of the 12 government-owned railways, 11 form the Interconnected Regional Rail Network (IRRN), with a total of nearly 34,000 route-kilometres of standard-gauge (1.067 m) track. Of the 11, South Africa's SPOORNET accounts for 61.8 per cent of the network. The other IRRN railways are National Railways of Zimbabwe (NRZ), two railways of Mozambique's CFM, the Tanzania-Zambia Railway (TAZARA), (jointly owned by the two governments), Zambia Railways, TransNamib Rail, Botswana Railways, Swaziland Railways and SNCC of the Democratic Republic of the Congo. Angola has four railways, none of which is currently in operation for most of its length. One of these, the Benguela Railway, connects to the port of Lobito, and, if in operation, would add some 1,300 km to IRRN, since it connects to the SNCC system.

IRRN serves most of the principal ports of continental SADC, the exceptions being the Mozambique port of Nacala and the Angolan ports. The port of Dar es Salaam is served not only by IRRN, but also by Tanzania Railways Corporation (TRC), which operates a 2,600 km network of 1,000-mm-gauge track connected to the Kenya and Uganda East African System. The port of Nacala is served by a standard-gauge network of 1,640 route-kilometres, comprising CEAR and CFM (North). Agreement has been reached to concession CFM (N) to the same concessionaire that is operating CEAR.

All the railways are primarily "freight railways" and have been losing traffic to road transport primarily because of their failure to provide a seamless, efficient, cost-effective, predictable railway service which is responsive to market needs. In addition, there appears not to be a level playing field between road and rail, as some railways pay a diesel fuel levy, for building and maintaining the roads, while they have to provide and maintain their own infrastructure. In addition to the ineffective enforcement of the cost recovery principle for roads, this exacerbates the railways' uncompetitiveness.

In Southern Africa, the principal pipelines which have been available for transit traffic are the TAZAMA pipeline, between Dar es Salaam and

Zambia, and the Beira-Zimbabwe pipeline. A major weakness of the current pipeline network in the subregion is the inadequacy of the facilities at the interfaces with other transport modes, as illustrated by the case of the Nairobi pipeline terminal.

Another development which will be of major assistance to a land-locked country is the recently completed Trans-Kalahari highway connecting Botswana with Walvis Bay. The highway will open up Botswana's coal and soda ash mining area and provide the country with an additional outlet to world markets. Walvis Bay is up to eight days nearer major world markets in Europe and North America than the nearest competitor port in South Africa. The connection will also benefit southern Zimbabwe.

A widespread problem in the region is premature road damage due to overloading of heavy goods vehicles. The SADC Protocol on Transport, Communications and Meteorology calls for the development and implementation of a regional overloading control strategy, including harmonized legislation and controls, penalties and charges.

Trade facilitation measures

The three subregional integration organizations in Southern Africa are making major efforts to boost regional cooperation, including in the area of transit trade. Within SADC, the Southern Africa Transport and Communications Commission (SATCC) was established in 1981. The main objectives of SATCC are to provide coordination in overcoming transport and communications problems of the subregion, to provide economic and efficient means of transport and communications in the region, to achieve self-sufficiency in technical manpower, training and development, and to encourage the efficient utilization of available resources for the improvement of transport and communications within the subregion.

SADC overlaps in terms of membership with two other regional integration schemes: COMESA, discussed above, and the Southern African Customs Union (SACU), which includes South Africa, the BLS countries (Botswana, Lesotho and Swaziland) and, since 1990, Namibia. The focus is on customs union arrangements, which allow for redistribution of sales and customs duties. Within SACU there are no serious problems with respect to customs documentation and procedures.

Facilitation of international traffic continues to be a major problem within the SADC countries. As an example, a trucker moving from South Africa to the United Republic of Tanzania transiting Zimbabwe and Zambia has to undergo six different checks at three border points: South Africa/Zimbabwe, Zimbabwe/Zambia and Zambia/United Republic of Tanzania.

Often the requirements are different in terms of documentation, customs inspections, security checks, and transit and other charges and, more critically, requirements may change from time to time without operators being given adequate notification of the changes.

Border post facilities in terms of parking, communications, accommodations (both office and rest) and sanitation are seriously lacking at most SADC international borders. Almost all do not even have basic workshop facilities to attend to minor breakdowns. Clearly, therefore, international border posts provide immense investment opportunities for the private sector. Efforts have been made to improve the situation. In particular, SADC countries have a memorandum of understanding (MOU) to facilitate cross-border investment and management of international border posts along the lines of the "one stop concept". South Africa and Mozambique have undertaken measures to establish such a facility along their major transit corridor.

Apart from low staffing levels at border points, a major cause of traffic delays is lack of harmonization of customs procedures and documentation across countries. Lengthy procedures at borders in order to verify truck contents are encouraged by the high incidence of illegal diversion of transit goods within countries and the lack of reliable means of communication to allow verification that goods in transit actually reach their scheduled destination.

Computerization of customs operations using the Automated System for Customs Data and Management (ASYCUDA), developed by UNCTAD, is being implemented in Mauritius, Zimbabwe, Namibia and the United Republic of Tanzania, while other countries have shown interest. Such a system would enable countries to match computerized customs entries at different border points.

Regional motor insurance arrangements are important for free movement of transit traffic. The SADC countries do not have a third-party insurance scheme, except for South Africa, Botswana and Lesotho, but have used the COMESA Yellow Card scheme, which started in 1987. The advantage of the scheme is that the vehicle owner pays the insurance in his country of residence, and in local currency, to cover the whole journey.

III. Transit transport corridors in the Horn of Africa

There is only one landlocked country in the Horn of Africa — Ethiopia. This has been the case only since 1993, when Eritrea obtained its independence. Ethiopia has three main transit corridors to the sea through the port of Assab in Eritrea, the Djibouti port in Djibouti and the Berbera port in Somaliland, the former British colony now largely independent of Somalia.

Map 4. Horn of Africa



- International boundary
- Railway
- Main roads
- Other roads
- Port

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Until 1995 most transit cargo was carried through Assab. The road connecting Ethiopia to this port became Ethiopia's main corridor, accounting for 90 per cent of imports and over 50 per cent of exports.⁶⁸ However, as a result of the border conflict between Ethiopia and Eritrea, which erupted in 1998, Ethiopia has had to divert its transit traffic through Djibouti port. Transit via Berbera remains less attractive because of its poor infrastructure development and the political situation in Somalia. Djibouti has thus become the main access to the sea for the external trade of Ethiopia. Ethiopia has important leverage on its transit neighbours since its transit trade has a huge impact on their economy and serves as a major source of revenue, whereas the transit traffic of most other landlocked developing countries tends to have insignificant effects on their transit neighbours.

Infrastructure facilities

The Assab–Awash–Addis Ababa corridor (882 km) consists entirely of paved road recently rehabilitated with the aid of a World Bank loan. The Somaliland corridor, Berbera–Addis Ababa, extends for 854 km through Hargeisa (the Somaliland capital), Jijiga, Harer and Dire Dawa. This corridor, especially in Somaliland, needs to be rehabilitated, and it is difficult to use the corridor during the rainy season. The main bridges, which were damaged by the war, have just been rebuilt.

The 910 km road via Galafi, of which 217 km is in Djibouti territory, is another route. Galafi is the border post between Djibouti and Ethiopia. The main road meets the Assab–Addis Ababa route at Dobi and currently carries almost all the traffic into Djibouti. It extends for 844 km via Dawenle; 100 km is in Djibouti. The road runs parallel to the railway as far as Dire Dawa, where it meets the Assab–Addis Ababa road. The stretch in Djibouti is asphalted, but from the border to Dire Dawa, Ethiopia, this is an earth road except for the 56 km surfaced section between Kulibi and Dire Dawa. Using funding from the European Union, the entire road was to be improved, including the asphaltting of the earth stretches, by 2005.

The port of Berbera has one 650 m wharf capable of accepting ships of up to 15,000 tonnes and a line of seven wharves, including one for RO-RO (roll on–roll off). The “Russian” wharves (400 m) were built in 1960, and the “American” ones (250 m) in 1986. There is also an oil terminal with a capacity of 30,000 tonnes, distributed among 22 tanks currently operated by Total.

Ethiopia is connected by railway to the port of Djibouti. The poor performance of this railway is one of the primary factors limiting growth on this corridor. The railway is more than 100 years old, has limited capacity, and is subject to excessive delays and inefficiencies. Since the closure of the Eritrean transit corridor, these inefficiencies have had a more pronounced

⁶⁸ UNCTAD/LDC/2003/4.

Box 4: Making hay together

Currently, Ethiopia's primary access corridor to the sea is via Djibouti. Indeed, Ethiopian transit trade through its neighbour has grown by one and a half times between 1997 and 2002, and now accounts for an overwhelming 80 per cent of the port traffic in Djibouti. The Djibouti–Addis Ababa corridor is arguably one of the most thriving transit routes in the world today, and is a salutary example of what can be achieved through progressive cooperation between a landlocked developing country and its transit neighbour.

The success of the Djibouti–Addis Ababa corridor is primarily a result of the political will exhibited by the governments of the two countries. Both sides are strongly committed to the success of the transit corridor because they have much to gain. For Ethiopia, its economic survival depended on finding a safe and competitive alternative route to the sea after losing its coastal region in the fighting with Eritrea. For Djibouti, Ethiopian transit trade has proved to be highly lucrative, generating 70 per cent of its port income.

Illustrating the commitment of both countries to making transit trade a success, both sides signed in April 2002 the "Agreement on Port Utilization and the Transit of Goods". This agreement is based on the major United Nations conventions and the principles of free access to the sea for landlocked countries. It covers the various aspects of transit transport, such as port entry, customs, documentation, land transport, security along the corridor, maintenance of facilities and approval procedures for transport operators.

Despite the staunch commitment of the two countries, misunderstandings and operational problems do of course arise. But the authorities on either end are aware of the obstacles and have decided to work together to solve them in a spirit of mutual understanding. To that end, the governments of Ethiopia and Djibouti have established official consultative mechanisms aimed at adopting recommendations, setting guidelines and settling disputes. In this regard, a bilateral expert committee meets every three months and a ministerial committee every six months.

It also helps that the Djibouti port is, by African standards, a very efficient one. All the requisite services involved in marine transport (shipping records, insurance, resupply, etc.) and transit and customs operations conveniently coexist at Djibouti. Storage facilities are extensive as well, especially the "Magasins Généraux" operated by the Djibouti International Chamber of Commerce and Industry (CICID), which possess great expertise in guarding and handling goods, operating transit and bonded warehouses, etc.

Paradoxically, it is the landlocked country, Ethiopia, which causes more headaches, both financial and logistical, to its own traders. In particular, the administrative flexibility shown on the Djiboutian side stands in contrast.

effect on Ethiopia's trade costs. Ethiopia has announced plans to revitalize the railway and reduce the number of checkpoints along its route.

At present approximately 98 per cent of Ethiopia's international trade passes through the port of Djibouti, amounting to more than 70 per cent of all traffic passing through the port.⁶⁹ This dominance has yielded significant bargaining leverage for Ethiopia. It benefits from the 1993 Djibouti Port Utilization Agreement, adopted well before the Eritrea-Ethiopia conflict began, which allows Ethiopia the permanent right to use the port. Ethiopia also enjoys preferential tariffs at the port of Djibouti. The period of grace, or exemption from storage fees, on imports bound for Ethiopia is 30 days, compared with 10 days for goods imported via Djibouti; and the period applicable to exports coming from Ethiopia is 60 days, compared with 10 days for goods exported via Djibouti.

In 2001 the Djibouti Dry Port was commissioned as an extension to the port located on the road leading to Ethiopia (route de Venise) and intended for long-term storage. This modern, secure complex offers facilities not only for goods storage (through appropriate customs arrangements) but also for the marketing of goods, domestic appliances, vehicles, and equipment for use in industry, civil engineering and agriculture. Thus, at least 300 km from the Ethiopian border and a few dozen metres from Yemen's shores, Ethiopian, Somali and Arab traders will have an enormous showroom, banking facilities and the latest goods available, within a short distance of the end-users. To finance the storage, warranty arrangements and supplier credits will have to be set up. It is also important to guarantee delivery dates and cut carriage costs; this is the stage at which facilitation measures and administrative reforms are needed.

IV. Transit transport corridors in West Africa

There are three landlocked developing countries in West Africa: Mali, Burkina Faso and the Niger. These countries are among the very poorest in the world, and they have been seriously affected by the civil conflicts in their subregion that led to the damage of transport infrastructure and closure of the borders or stringent security inspection.

The bulk of transit trade in the West African region takes place among the three landlocked countries and four transit countries, Senegal, Côte d'Ivoire, Togo and Benin. The landlocked developing countries of West Africa are linked to the sea by rail and road, but the Niger has no rail link. Although Burkina Faso, Mali and the Niger have a variety of transit options, they have largely maintained their traditional routes through their francophone coastal neighbours. This is in part

⁶⁹ World Bank, *World Development Report 2001*.

Map 5. West Africa



- International boundary
- Railway
- Main roads
- Secondary roads
- Port

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due to the common currency and language and similar administrative cultures. However, these advantages notwithstanding, transit of goods across borders in West Africa is subject to cumbersome administrative controls which significantly add to the cost of transport. The corridors through Ghana and Nigeria are insignificant in terms of their transit trade.

Burkina Faso's transit trade suffers from the concurrent problems of high levels of civil conflict in its neighbours, poor domestic infrastructure and cumbersome border and administrative procedures. In addition, despite Burkina Faso's several potential routes to the sea, Burkinabe trade passes almost solely through its francophone neighbours Côte d'Ivoire (the port of Abidjan) and Togo (the port of Lomé). Shorter trade routes through Ghana are less frequently used due to language difficulties, currency problems and bad road conditions.

Due to its dependence on these two routes, Burkina Faso is highly vulnerable to the civil conflicts in Côte d'Ivoire and Togo. Between 1990 and 1993, as a result of the crisis in Togo, the volume of Burkina Faso transit through the port of Lomé fell by 60 per cent. Similarly, the crisis in Côte d'Ivoire (former outlet for 80 per cent of Burkinabe trade) has significantly restricted transit movement, causing Burkina Faso to attempt to open up a new route to the Gulf of Guinea in Ghana.

Three transport corridors exist in the West African subregion, the Dakar-Bamako and Abidjan-Ouagadougou rail routes and the Cotonou-Niamey rail and road corridor. The Dakar-Bamako corridor railway is owned and run jointly by parastatals belonging to each of the two countries, the Régie des Chemins de Fer du Sénégal (RCFS) and the Régie des Chemins de Fer du Mali (RCFM). Coordination is provided by the Organisation Commune de Gestion du Trafic International (OCGTI).

The Abidjan-Ouagadougou corridor railway has been managed by a private company, SITARAIL, since 1995, when it took over from a system similar to that for Dakar-Bamako, with two national parastatals operating jointly, the Société Ivoirienne des Chemins de Fer (SICF) and the Société des Chemins de Fer Burkinabe (SCFB), coordinated by the Bureau du Trafic International (BTI). The Cotonou-Niamey railway is managed by a joint parastatal of the two States, the Organisation Commune Benin Niger (OCBN), although the railway terminates within Benin at Parakou, where cargo has to be transferred to trucks for onward shipment.

Both have long-standing management and maintenance problems which have considerably reduced their competitiveness over the last few years vis-à-vis road transport, the share of which has increased in both cases. Factors in the Cotonou-Niamey case have been the rehabilitation of the road system, delays at the trans-shipment point in Parakou and the competitive prices charged by road hauliers. The state of rail infrastructure

and rolling stock is a basic problem on the Dakar-Bamako and Cotonou-Niamey railway links. Rails are in poor condition, mostly over 25 years of age (80 years in the latter case). Rolling stock is in addition inadequate to cope with demand, aggravated in both railway systems by poor management and ineffective use of available wagons. SITARAIL in Côte d'Ivoire has made much more progress and was able to institute a clearly defined rehabilitation and maintenance programme.

There are eight main road corridors in the West African subregion: Abidjan to Bamako and to Ouagadougou; Lomé to Niamey, to Bamako and to Ouagadougou; Cotonou to Niamey and to Ouagadougou; and Lagos to Niamey. Agreements exist in the region for the harmonization of axle loads, but they have not been enforced, one of the main reasons for the rapid deterioration of the roads in the region. The absence of weighbridges and other control devices on the roads facilitates such breaches.

The transit countries have had difficulties in maintaining adequate road maintenance programmes for lack of finance, in the face of increasing road traffic and, thus, rates of road degradation. At the same time, the authorities do not pursue any systematic strategy for road maintenance, often delaying until deterioration has reached a serious level and repair is even more expensive. There are obvious issues of cost and benefit in relation to road maintenance expenditures as between landlocked and transit countries.

Another major issue is the balance between road and rail transport. Massive investments in road construction during the 1970s significantly increased the speed, flexibility and reliability of road transport and dramatically altered the pattern of freight movement in favour of roads. The trend continues as the road corridors remain highly competitive compared with rail, and would have been even stronger but for the mandatory confining of specific bulky goods such as logs and cement to the railways. One factor underlying the trend, however, is that road hauliers are not made to pay the full costs of road maintenance.

Four main ports serve the West African LLDCs: Abidjan, Lomé, Cotonou and Dakar. Abidjan is the largest and busiest. Although Abidjan is more expensive than the other ports, it is attracting an increasing share of traffic because of its superior facilities and handling equipment for large vessels. Other potential ports, however, are Lagos, Tema/Accra, Conakry and Nouakchott. Mali and the Niger could also develop trans-Saharan links to Algerian ports. The advantages and costs of diversifying transport corridors, where restricted use may be due in part to inertia and information or organizational gaps, need to be more closely explored and these options developed accordingly.

The primary road for Malian transit trade is from Bamako to Abidjan. It is in relatively good condition but suffers from cumbersome border processes and delays resulting from obligatory customs escorts. Mali's

domestic transport system, consisting largely of the road network, is considered to be relatively poor. Its road density remains one of the lowest in Western Africa. Its most important rail corridor, from Bamako to Dakar, is in poor condition. As is common in the region, recent deteriorations in the rail system have shifted trade towards the road network. The governments of Mali and Senegal, however, have attempted recently to improve and commercialize the rail system, including an agreement to transfer it to a private operator.

The Niger's primary international road corridors and domestic road network are both in relatively good condition. Although there is currently no domestic rail system in the Niger, the Beninese railway to Parakou plays a major role in the Niger's transit trade, carrying approximately 65 per cent of the total. The railway suffers from problems similar to those of the other rail networks of the region: old, poorly maintained rolling stock and infrastructure, and inadequate trans-shipment facilities.

Trade facilitation measures

The landlocked countries in West Africa and their transit neighbours have concluded a host of bilateral agreements and operational arrangements related to roads, railways and ports, but there is still scope for greater coordination and harmonization of practice through the major subregional institutions. The Economic Community of West African States (ECOWAS) was established by the Lagos Treaty of 1975. In 1982 it adopted two important supplementary instruments, the Convention Relating to Inter-State Road Transit of Goods (TRIE) and the Inter-State Road Transport Convention.

Major achievements in West Africa include: (i) the establishment of the trans-West African road network, along which minimum road standards and axle load limits should apply; (ii) harmonization of highway legislation on such matters as vehicle registration, drivers' licences, technical inspection of vehicles, road safety and compilation of road statistics; (iii) establishment of a regional third-party motor insurance system (ECOWAS Brown Card); and (iv) maintenance of the ECOWAS institutional machinery for intergovernmental consultations and decisions on matters related to trade.

The main weakness has been in the implementation of decisions based on these agreements which, following adoption by ECOWAS ministers or Heads of State, is left to the political will of individual States. Although, promisingly, the promotion of the trans-West African road network and the ECOWAS Brown Card are two initiatives which have been widely implemented, the important TRIE convention, which seeks to introduce an international customs transit system in the ECOWAS subregion, has not been operationalized, certain member countries no longer being willing

to accept the principle of a single customs declaration. Disagreement also persists regarding another critical element in the system, the ownership and management of the customs bond or security.

The Maritime Organization for West and Central Africa (MOWCA), formerly the Ministerial Conference of West and Central African States for Maritime Transport (MINCONMAR), five of whose 25 member States are landlocked, seeks to foster an integrated maritime development programme in the subregion involving: (i) the harmonization and coordination of member States' policies in respect of maritime transport; (ii) the setting up of appropriate national and subregional institutions, including National Shippers' Councils; (iii) the negotiation of freight rates for the whole region with Shippers' Councils through a regional negotiating committee; (iv) the development of national and/or multinational merchant fleets; and (v) the efficient organization of maritime services in the subregion based on maximum cooperation between national and subregional shipping lines.

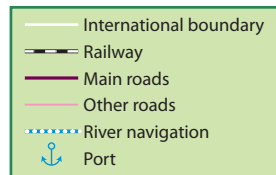
V. Transit transport corridors in Central Africa

There are two landlocked developing countries, the Central African Republic (CAR) and Chad, in Central Africa. These countries are among the very poorest in the world. Their international transit transport costs are the highest and strongly reinforce an already unfavourable situation in terms of their overseas trade. Landlocked countries in Central Africa also suffer from civil wars in major transit countries of the region.

The main transit corridors serving the Central African Republic comprise three Cameroon routes, Douala-Bertoua-Bangui by road, Douala-Boulai-Ngaoundéré-Bouar-Bangui by rail and road, and Douala-Belabo-Bertoua-Bangui by rail and road; and a Congo route, by rail Pointe Noire-Brazzaville (510 km) and the Congo and Oubangui rivers to Bangui. The Pointe Noire (Congo) corridor was once the only transit corridor to the CAR, but since the 1980s it has become relatively less important, though it is used for export of logs. Douala routes are used for cotton and coffee exports, largely because the harvest periods coincide with months when navigation on the Oubangui River is closed or restricted, and because speed of delivery is more important for higher-valued commodities. For general cargo imports, which are containerized, and sawn wood exports, there is competition between the land and river corridors. The dominant proportion of transit traffic passing through Douala, including imports and cotton exports, uses road transport to Bangui, rather than rail-road, freight rates for road transport being more favourable.

The main weakness of the Congo route is that navigation on the Oubangui River is not possible for four months of the year, February to

Map 6. Central Africa



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May, and restricted to some extent for two months more, when the CAR is totally dependent on Douala routes. Similar conditions prevail on the Lobaye and Sangha rivers. River transport is extremely slow, so that the transit journey normally takes 40 or 50 days. The rail section of this route is operated by the Chemin de Fer Congo-Océan (CFCO). The river component is operated mainly by the Société Centrafricaine des Transports Fluviaux (SOCATRAF), a joint venture between the government and the French company SAGA.

In addition to the poor state of the transit road through Cameroon and its susceptibility to heavy rains, the Douala-Bangui transit corridor is subject to rigorous customs procedures and seemingly arbitrary checkpoints by police and the army, leading to further delays and higher transport costs. Customs procedures at the border can take as long as two weeks, with goods often waiting at the border for the requisite information to be sent from Bangui. The Central African Customs and Economic Union (UDEAC) has been less successful at streamlining such processes and introducing regional standards than ECOWAS.

Beyond the difficulties of transport to Bangui, the Central African Republic faces immense difficulties with its internal transport network. Without any rail system, the Central African Republic depends almost exclusively on its road network for internal transport. The paved roads concentrated around Bangui are wholly inadequate for reaching much of the country. In fact, the northern and eastern parts of the country remain largely inaccessible for several months each year during the wet season. The Cameroonian railway is considered to be in good condition and is operating below capacity. There are, however, delays associated with inadequate trans-shipment facilities.

Trade facilitation measures

The CAR's transit trade passes through Cameroon or (via Pointe Noire) the Congo, and the laws and practices governing this trade in the two countries form part of the overall legal framework within which it has to operate (all three countries are members of UDEAC). Overall, it can be said that CAR's transit transport costs through Cameroon are very high and that a significant portion of such costs represents unnecessary non-tariff barriers which could be reduced by simplification and harmonization of customs procedures and elimination of superfluous interruptions of traffic flow en route.

The two seaports available to the CAR, Douala and Pointe Noire, are major ports with facilities for general cargo, container terminals and specialized berths for minerals, fruit, etc. CAR trade passing through each port is less than 4 per cent of the total, so no capacity constraints exist as

regards the CAR. Douala port has a problem in that the limited draught of the access channel means that large vessels have to be loaded lightly. Douala port includes a 20 ha UDEAC zone, and two of its seven units are reserved for CAR transit cargo. However, rigorous port and customs clearance procedures at Douala can take up to 30 days and constitute a major bottleneck for transit traffic.

In Central Africa, the Central African Customs and Economic Union (UDEAC) was established with headquarters in Brazzaville in 1964. The main document required by transit traffic within UDEAC is the D.15, issued in the first port of entry for imports and in the originating country for exports. The D.15 procedure is cumbersome. Apart from requiring detailed information, it has to be accompanied by a number of additional documents, including bills of lading, invoices for goods and for transport services, and a certification of "*domiciliation bancaire*", which may require additional information to be sent from Bangui to Douala before goods can be released. Customs clearance for goods travelling by rail from Douala is easier because REGIFERCAM is exempted from certain customs formalities, such as customs bond requirements. However, frequent and extended stops for inspection of cargo en route by various security agencies, police, gendarmerie and the army result in a series of unwarranted delays. Added to the delays in customs, these can extend the total transit time by this route to three to four weeks.

Chad is the most isolated of all countries in the subregion. International transit trade is vital to its economy, which is highly dependent on external supplies. Imports amount to about half the value of GDP and transit imports about two thirds of total imports. A portion of the country's cereal supplies is imported. Exports consist mainly of cotton and cottonseed oil, all passing through Ngaoundéré in Cameroon. Chad has one dominant corridor to the sea through Cameroon to Douala by a combination of rail (to Ngaoundéré, 884 km) and road (785 km), total 1,669 km, or all-road from Douala, 1,932 km, with only the last 17 km in Chad. The rail-road route carries more than 80 per cent of Chad's transit traffic.

Chad is considerably disadvantaged by a forced dependence mainly on the Cameroon transit route. The Congo route is too long, with other physical disadvantages, but has been used since 1985. Another route does exist through Nigeria, cutting across the northern tip of Cameroon, to and from Lagos. More than 80 per cent of Chad's petroleum products are imported from Nigeria, but the Nigerian corridor is also coming to be used for high-value containerized cargo. The lengthy customs clearance at Douala and excessive police inspections on the Cameroon route have encouraged this alternative. Nigerian hauliers transport most Chad-bound commodities. The Nigerian corridor is not open, however, to goods which Nigeria classifies as sensitive — wheat, rice, maize, wines, vegetables, oils, etc. — which has been a limiting factor in its development.

Box 5: On the road in Cameroon

Douala is Cameroon's commercial capital. It is also one of Africa's busiest ports, handling 95 per cent of Cameroon's exports and also serving two landlocked neighbours, Chad and the Central African Republic. Unfortunately, the poverty of the city's infrastructure means that the city is hardly up to the task. In 1980, there were 7.2 km of roads per 1,000 people; by 1995, the figure had shrunk to only 2.6 km per 1,000. According to one estimate, less than 10 per cent of Cameroonian roads are paved, and most of these are in a foul condition. Things have improved in recent years, thanks to World Bank aid. Douala, once considered to be one of the worst ports on earth, has been substantially rehabilitated since 2000 — but much more still needs to be done.



Today, the roads are resurfaced from time to time, but the soil is soft and the foundations typically too shallow. Small cracks yawn quickly into wide potholes. Street boys fill them with sand or rubble, and then beg for tips from motorists. But their amateur repair work rarely survives the first rainstorm. Besides the potholes, motorists must dodge the wrecks of cars that have crashed. Under Cameroonian law, these may not be moved until the police, who are in no hurry, have arrived. In this case, bad roads make life harder not only for Cameroonians, but for traders from the landlocked countries that depend on these roads as well.

To demonstrate the precariousness of depending on Cameroonian roads for internal and transit trade, we can look at the myriad trials and travails faced by a major foreign investor, Guinness Beer, in delivering its products to Bertoua, a small town in Cameroon's south-eastern rainforest.

As the crow flies, the intervening distance is less than 500 km. However, what should take a delivery truck 20 hours, including an overnight rest, usually takes four days. The main culprit for this inordinate delay is the almost 50 roadblocks along the way. At most of these roadblocks, policemen run a fine-tooth comb over the truck's safety gear (e.g., tail-lights, axles, wing mirrors and tyres) and paperwork, in the hope of

discovering some problems or errors from which they can extract bribes before letting the vehicle through. Such unfriendly quibbling can lead to delays of three-and-a-half hours at each roadblock.

Weighing stations represent another major difficulty for truckers. In Cameroon, vehicles over 50 tons face steep tolls. If a vehicle is overweight, permission needs to be sought for the excess freight to be offloaded. Unfortunately, obtaining such permission may be a drawn-out affair. Once permission is received, it takes an inexplicably long time for the excess freight to actually be taken off, despite the fact that the weighing station may be equipped with excellent forklifts.

Even without the unwelcome attention of venal cops and inefficient bureaucrats, the journey would have been a slog in any case. Most Cameroonian roads are long, unpaved stretches of rutty red laterite soil with sheer ditches on either side. The heavy rainfall that descends often on rainforest-dominated Cameroon frequently renders these dirt roads wet and impassable. The Cameroonian government has tried to grapple with the problem of the erosion of roads by rain by erecting a series of barriers, with small gaps in the middle, that allow light vehicles to pass but stop heavy trucks from passing while it is pouring. The barriers, which are locked to prevent truckers from lifting them when no one is looking, are supposed to be unlocked when the road has had a chance to dry. Unfortunately, the officials whose job it is to unlock them are generally unreliable and difficult to locate in the first place.

Including the considerable costs of vehicle maintenance that have to be borne by the company, Guinness estimates that bad infrastructure adds about 15 per cent to its costs. But low labour costs and high demand for alcoholic beverages ensure that Guinness continues to run a healthy business in Cameroon despite the transportation challenges it faces. The big losers from deficient infrastructure, mainly, are ordinary Cameroonians.

The simplest way to measure the harm caused by bad infrastructure is to look at how prices rise as one moves away from big cities. A bottle of Coca-Cola, for example, costs CFA 300 in Yaoundé, where it is bottled. A mere 125 km down the road, in the small town of Ayos, it is CFA 315, and at a smaller village 100 km further on, it is CFA 350. A Guinness that costs CFA 350 in Douala will set you back CFA 450 in an eastern village that can be reached only on foot. This principle of prices rising in proportion to distance holds true for other essential goods, such as soap, kerosene and medicine, as well.

At the same time, the stuff that the poor have to sell for hard cash — yams, cassava, mangoes — fetch less in the villages than they do in the towns. As a consequence of poor roads and bad transportation, however, it is difficult and expensive to get such perishable, heavy items to market. So peasant farmers are hit by a double whammy: they pay more for what they buy, and receive less for what they sell. The strength of the linkage between poverty and remoteness cannot be more obvious.

Where roads improve, incomes tend to rise in parallel. In Cameroon, where the soil is wondrously fertile, farmers start growing cash crops as soon as nearby roads are repaired. Big commercial farmers benefit too. Along the highway to Douala lie great plantations of sugar cane and banana plants serving the needs of European consumers. Where roads are left to deteriorate, women bear the heaviest burden. According to the World Bank, a typical Ugandan woman carries the equivalent of a 10 litre (21 pint) jug of water for 10 km every day, while her husband lugs only a fifth as much. With better roads, both men and women can, if nothing else, hitch rides on lorries, thereby sparing their feet and getting their goods more swiftly to market.

In short, the governments of poor countries ought to pay more attention to their roads. A good first step in Cameroon would be to lift those roadblocks and put the police to work repairing potholes.

Source: "The Road to Hell Is Unpaved", The Economist, 19 December 2002.

Another possible route is the trans-Saharan road between N'Djamena and Algiers, which should reduce delivery time between Marseilles and N'Djamena compared with the sea route from 27 to 15 days. The limiting factor here, however, is the much higher unit cost of overland transport compared with maritime transport, as well as high road taxation in Algeria.

The most useful infrastructural improvements, apart from better roads, that would assist Chad's transit trade would be physical and administrative facilities at the railhead trans-shipment point at Ngaoundéré and facilities at N'Djamena to ensure proper handling, storage and clearance of goods. The all-road route to N'Djamena could also benefit from simplified customs clearance if standard international arrangements for transit trade were adopted. However, the entire route to N'Djamena, except for the last 17 km, is in Cameroon territory, so that transit traffic is completely subject to Cameroonian legal and administrative arrangements for transit.

Although the roads of Chad's neighbours are in fair to poor condition, with extensive delays during the wet season, Chad's internal road network, both primary and rural, is even worse. In fact, much of Chad's primary road network is not passable for several months of the year. The failure of the rural roads to reach the aforementioned agricultural enclaves has been a major detriment to poverty eradication. For example, the Salamat region in south-east Chad, considered to be the breadbasket of the country, is unreachable by larger vehicles for almost half the year.

Chad does not have a rail system. It does, however, depend heavily on the Cameroonian railway from Douala to Ngaoundéré, which is consid-

ered to be relatively good and is currently operating under capacity. Improvements in the rail system are also planned with the construction of the new Chad-Cameroonian pipeline.

VI. Transit transport corridors in Central Asia

There are five Central Asian landlocked States, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, in the middle of the Eurasian land mass. They face specific international transit transport situations which emerged from the sea changes caused by the disintegration of the Soviet Union. The transport infrastructure and arrangements in place at that time are not appropriate in the new context which requires contact with new markets and new sources of imports. The share of Russia in trade with the Central Asian countries has been declining during the last decade while the shares of the European Union, Turkey, Iran and China are surging. At the same time there has been little reorientation in transit routes to match this new reality. Commodities remain the major export items for these countries. Continued regional tensions further hinder the smooth movement of goods in transit. As a consequence, in all countries, transport infrastructure remains a significant impediment to expansion of trade. Identification of an optimally shaped transport network in the new context presents a difficult challenge. The Soviet legacy is central to this current situation: "In the Soviet economic system, transportation was never considered to be a cost factor, but was accepted as a by-product of the politically determined production and consumption structure. Hence, resource allocation decisions ignored transport costs. With the end of the Soviet system, however, Central Asian States were again at an economic disadvantage: they lacked infrastructure and proximity [to] major economic markets. After the disintegration of the USSR, Central Asia faced the consequences of being landlocked and felt the negative impact on trade and future development."⁷⁰

The distances of the Central Asian countries from the nearest seaports are among the longest in the world. Uzbekistan is doubly landlocked because it has to go through at least two countries to reach a sea coast. There exists a clear, immediate need for cooperation among the five countries and with their new transit neighbours for the benefit of all. Efforts in this direction have already been made through bilateral agreements, but an effective overall transport system will only be achievable through the elaboration and implementation of more comprehensive regional arrangements.

⁷⁰ Raballand, Gaël, "Determinants of the Negative Impact of Being Landlocked on Trade ... ", *Comparative Economic Studies*, Vol. 45, 2003, p. 532.

Box 6:
Uzbekistan — losing out in cotton

Over the last 20 years, the combined share of India, Pakistan, Turkey, Australia and the Franc Zone African countries in the global cotton market has inexorably grown from around 20 per cent in the early 1980s to 35 per cent by 2000. Uzbekistan, one of the eight largest cotton producers in the world, has meanwhile seen its share eroded from around 10 per cent in 1989 to less than 5 per cent in 2002. This development has hit the Fergana Valley district in Uzbekistan, which hosts much of the country's cotton production and processing, particularly hard. Today, the demand by Fergana Valley processing plants is in fact higher than local production, making the region a net buyer of raw cotton.

Cotton is transported in bales, and it is especially well suited for containerized trades as well as break-bulk shipments. As of the autumn of 2002, one railway wagon could accommodate approximately 20 tons of cotton with a trade value at around US\$ 20,000. According to anecdotal evidence, the transport cost of one rail wagon of cotton from Uzbekistan to Moscow can reach a whopping US\$ 5,000, or 25 per cent of the cargo value.

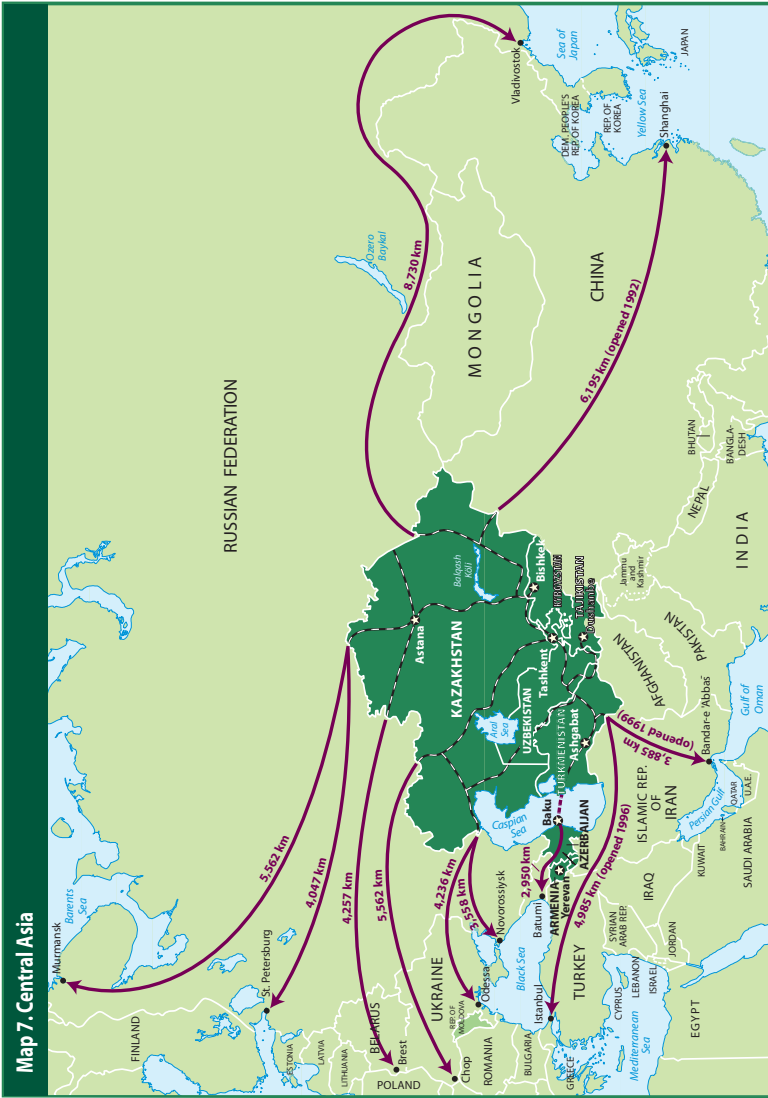
The extremely high fees, both official and unofficial, in transport and customs arrangements, and unreliable transport in addition to a drought, have almost certainly caused much of Uzbekistan's loss in its global market share of cotton. The same also applies to Turkmenistan, which accounted for 0.7 per cent of the world's output of cotton at the end of 2002, down from approximately 3 per cent in 1989.

Source: IMF/World Bank, "Transport and Trade Facilitation Issues in the CIS 7, Kazakhstan and Turkmenistan", paper prepared for the Lucerne Conference of the CIS-7 Initiative, 20-22 January 2003.

At the same time, the Central Asian subregion has tremendous potential as a transit region itself, linking Europe with China and the East. The fast-developing countries to the east and south, China and Pakistan and the Islamic Republic of Iran, are interested in promoting their trade with the Central Asian subregion, but also in transmitting their goods via the subregion to the Russian Federation, Ukraine, the Baltic States and Western Europe. Turkmenistan, in particular, could emerge as an important corridor for European and Russian trade with South and South-East Asia.

Infrastructure facilities

In the former Soviet Union, rail was the most widely used mode for goods traffic. With the end of the Soviet Union, the rail network was formally broken up, administration decentralized and the rolling stock divided among the republics. The lengths of routes which connect



Map 7. Central Asia



International boundary
 Railway

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Map No. 4197 Rev.2 UNITED NATIONS
 May 2005

Department of Peacekeeping Operations
 Cartographic Section



Map 8. Central Asia



	International boundary
	Railway
	Proposed rail lines
	Port

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

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Map No. 4198 Rev.2 UNITED NATIONS
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 Cartographic Section

Central Asian countries with major seaports on the Persian Gulf, the Mediterranean Sea, the Baltic Sea and the Pacific range from 3,000 to 6,000 km depending on origin and destination. There are a number of important corridors: (i) to Western Europe via the Russian Federation; (ii) to Western Europe via TRACECA (Transport Corridor Europe-Caucasus-Asia) routes; (iii) to Baltic ports through Kazakhstan, Russia and the Baltic States; (iv) to Turkey and other Mediterranean and European ports through Kazakhstan and Russia via the port of Novorossiysk on the Black Sea; (v) to Pacific ports in the Russian Far East; (vi) to Pacific ports in China; and (vii) to the Persian Gulf, which became possible with the completion of a rail link between Iran and Turkmenistan in May 1996.

The building of a new 545 km connection between Zahedan and Kerman within Iran to close a gap in the system has already begun. Other railway construction projects under way or completed in 2003 were Almaty-Karaganda-Astana, Astara-Rasht-Kazvin, Turkmenabad-Kerki-Kerkichi, Gubar-Kumkurgan and Tashkent-Bukhara.⁷¹ When they are completed, rail services will be available from Central Asia to Karachi, via Iran. A much shorter rail connection still to Karachi would be possible if either of two proposed routes through Afghanistan could be built.

Not surprisingly over such a vast geographical area, there are problems of varying rail gauges, specifically between Central Asia (1,520 mm) and China, Turkey and Iran (1,435 mm), affecting, for example, both the new rail links, Kazakhstan-China and Turkmenistan-Iran; and Pakistan (1,675 mm), affecting eventual links to Karachi. There are also problems of inadequate capacity at gauge change stations and of incompatibility of the CIS (Commonwealth of Independent States) brake system and automatic coupling with wagons and trains of non-CIS countries.

Road transport is primarily used for connecting Central Asia with markets in Western Europe. There are number of transit routes: (i) the northern route via Kazakhstan, the Russian Federation, Belarus, Poland and Germany; (ii) the southern route via Uzbekistan, Turkmenistan, Iran and Germany; (iii) the TRACECA route Aktau-Baku, Poti-Ilichevsk, Ukraine and Germany; (iv) the TRACECA route Turkmenbashi-Baku, Poti-Ilichevsk, Ukraine, Poland and Germany; and (v) the Pan European Corridor III route via Kazakhstan, Russian Federation, Ukraine, Poland and Germany. In addition, a number of road links exist between Central Asia and adjacent countries which have been identified by the Economic Cooperation Organization (ECO) in the region as capable of supporting international traffic. The most strategic is the Almaty-Istanbul highway, which could eventually be the backbone of an east-west highway between China and Turkey through Central Asia. This potential has been recognized and identified in a 1992 agreement among the 10 ECO member countries.

⁷¹ UNCTAD/LDC/2003/5, 2003.

Although Kazakhstan's road system is well linked with the Russian road system, its roads are less important for transit trade than those of most landlocked countries, as the rail system is the primary mode of transit. Due to underinvestment in infrastructure in Russia and other former Soviet republics, however, the condition of the transit roads is relatively poor. Exacerbating the challenges of relatively poor transit roads is the poor condition of Kazakhstan's domestic roads.

Kazakhstan's international transit trade depends heavily on its ageing and badly maintained rail system. This includes 13,600 km of rail lines, of which 5,500 km are double-track and some 4,000 km are electrified. Rolling stock and spare parts need to be imported from the Russian Federation and Ukraine and are in short supply.⁷²

The country recognizes the importance of international rail connections and has been actively expanding its network. With the opening of the Druzhba-Alashankou and Tedjen-Sarakhs-Meshed transit routes, Beijing is now connected via Almaty to Istanbul as well as Western Europe. This transport corridor could potentially rival the trans-Siberian railway. Rail traffic to China, however, is complicated by different track gauges. This requires border terminals for changing the wheels on carriages. To that end, the Kazakh government opened a new terminal at Druzhba in 1998 to facilitate trans-shipments to China. Also, "to help alleviate these problems, in 2000 Kazakhstan launched a national transport development programme for the period 2001-2008 that includes construction of new infrastructure sections and rehabilitation and upgrading of existing ones".⁷³

Kazakhstan still relies heavily on the pipeline system that was designed during the Soviet period to ship Kazakh oil from the western part of the republic to Russia and to bring Russia's Siberian oil to Kazakh refineries. Efforts are under way to reduce this reliance. The first is the new Caspian Pipeline Consortium pipeline built in 2001 to transport oil from the west of the country to the Black Sea. However, most Black Sea traffic needs to pass through the Bosphorus. This narrow waterway may impose constraints on the overall amount of oil that can be shipped to the Mediterranean. To date it is not clear how much of a constraint the Bosphorus may be on scaling up Kazakh oil production.

The length of water routes in Kazakhstan is significant, at around 6,000 km. The Irtysh is the main navigable river in the country, accounting for about 80 per cent of cargo transported by river. The Caspian is increasingly used for international shipment of dry cargo, crude oil and oil products. Today it provides connections with Iran, Transcaucasia and, via the rivers and canals of the Russian Federation, with the Black and Baltic seas. Barges can use only

⁷² EIU, 2002.

⁷³ A/58/209, 2003.

the latter routes. The closest ports on the high seas are on the Russian and Georgian Black Sea coasts. Kazakh barges can enter the Black Sea through the Volga-Don canal, but that is also a Russian sovereign waterway.

Although the Asian Highway connects Kyrgyzstan to neighbouring Tajikistan, Uzbekistan, Kazakhstan and China, most of these international corridors have presented significant challenges. First, the primary road to Tajikistan is not an all-weather route, and is often rendered impassable during the harsh winter months of November-February. Internal transport in Kyrgyzstan faces the same difficulties as international transport: poor infrastructure and geographical difficulties. The 600 km journey between the countries' two main cities, Bishkek and Osh, for example, is reported to take 16 hours. Mountains divide the country into distinct north-south regions, severely limiting transport between the two. Moreover, the presence of surrounding countries' enclaves in Kyrgyzstan often requires internal transport to pass through international borders subject to the same strict control as the other borders.

Kyrgyzstan has begun road rehabilitation projects with assistance from international donor agencies. Attempts to streamline regional border crossings have faltered as a result of ongoing geopolitical tensions and corruption. The TIR carnet, for example, which allows freight to journey to its final destination (often the Russian Federation) without undergoing intermediate customs procedures, was suspended in the Russian Federation on 24 December 2002. The suspension was levied by the International Road Transport Union in response to Russian customs officials' use of the system "as an effective tool for protecting organised crime".⁷⁴

Kyrgyzstan's mountainous terrain makes rail transport particularly difficult. Moreover, the rail network was constructed during the Soviet era and presents two problems. First, the international rail corridors only provide links north through Uzbekistan and Kazakhstan to Russia, not to China. Second, the rail network is not appropriate for the current political boundaries, as domestic transport through Kyrgyzstan now often requires passage through parts of Uzbekistan and Kazakhstan, complicating internal transport. However, "a project financed in part by the European Union to build an international railroad to link Uzbekistan and Kazakhstan to China via Kyrgyzstan is under way".⁷⁵ Kyrgyzstan's freight is mainly shipped from eastern Black Sea ports. Trade also passes through Baltic Sea ports. These ports do not represent any serious constraints to Kyrgyzstan's freight transit.

Given its rugged terrain, road is the main means of transport for Tajikistan. The declining trade with Russia will shift even more freight transport to the road system. And while Tajikistan's road network, constructed under the Soviet Union, is extensive and relatively well developed, it suffers

⁷⁴ *Financial Times*, 2002.

⁷⁵ A/58/209, 2003.

from harsh geographic conditions. Roads are regularly closed due to snow, mudslides, landslides and floods. The country's two major highways, from Dushanbe to Aini and Kalaikhum to Khorog, are normally closed for five to six months each winter. In order to access this region during the winter, freight must be routed through Uzbekistan, which presents the problem of border closures.

Tajikistan has also suffered from its lack of a road corridor linking to the Chinese road network. Despite facing severely constrained budgets, since March 2000 Tajikistan has been constructing a road link to China and the Karakorum highway, as well as a tunnel that will directly link the northern and southern parts of the country.

For transit trade, the three primarily rail lines are: (i) crossing the northern Fergana Valley from Andijan (Uzbekistan) through Khojand (Tajikistan) to Samarkand (Uzbekistan); (ii) passing south from Dushanbe through Uzbekistan to Termez at the Afghan border; and (iii) directly south from Dushanbe to Tugul on the Afghan border. Afghanistan's lack of railways and Uzbekistan's aforementioned restrictions have hampered all three of these corridors. Tajikistan uses the Baltic Sea ports (primarily Riga), Russian ports (e.g., Novorossiysk) and European ports (including Bremerhaven). These ports do not pose any significant constraints to Tajikistan's trade flows.

Although Turkmenistan's domestic road system is extensive and relatively well developed, the main road connecting the north of the country with the east crosses Uzbekistan. Similarly, important transport arteries in the east of the country pass through Uzbekistan. This imposes significant extra cost and visa requirements on all transit traffic.⁷⁶ In an effort to overcome this problem, the government has launched a major highway construction project to link the capital, Ashgabat, with the Caspian Sea and Dashoguz in the north of the country.⁷⁷

Turkmenistan inherited its limited railway system from the Soviet Union. With less than 2,500 km of poorly maintained railway track and a minimal supply of rolling stock and spare parts, the country faces serious constraints in this sector. Moreover, the break-up of the Soviet rail network in 1991 left Turkmenistan with a fragmented network. There are no main rail lines connecting the east or north-west with the rest of the country. To deal with these issues, the government is constructing new rail lines to improve domestic transport and international connections. In 1996, Turkmenistan opened its first connection to Iran.

Turkmenistan's key constraint in exporting its gas is its reliance on Russian and former Soviet gas pipelines. To access world markets, gas must pass by pipeline through Russia, Iran or the Caucasus, each of which is also constrained.

⁷⁶ Mayhew, 2002.

⁷⁷ EIU, 2002.

Turkmenistan has direct access to the Caspian Sea via its port at Turkmenbashi, which requires significant investment before it can be used as a major transit hub. The Caspian Sea then allows access to two main transit routes. The more commonly used is the land route through Azerbaijan and Georgia, using the ports of Baku (Azerbaijan) and Batumi (Georgia). An alternative route is via the Volga-Don canal, which has limited capacity and, as noted earlier, is Russian sovereign territory. It is unclear to what extent Turkmenistan uses this route.

Uzbekistan has one of the most extensive road networks of the former Soviet republics, connecting it to the road systems of all its neighbours. Several major domestic roads pass through neighbouring countries' territory. Due to complex and time-consuming border procedures, trade within the country is significantly hampered. In particular, Turkmenistan charges high transit fees on a number of commodities passing through its territory and continues to require special transit visas for each trip.⁷⁸

Railways play the dominant role in Uzbekistan's international freight traffic, accounting for 86 per cent of all import/export cargo compared to 14 per cent for air and road. Its primary rail corridors pass through the Russian Federation, Ukraine and the Baltic States for extreme distances. Poor maintenance and limited rolling stock further hamper the rail system. It is also hampered by the border delineations discussed above. A number of domestic connections (e.g., Bukhara to Urgench to Nukus) currently pass through Turkmenistan. All train passengers must acquire transit visas for Turkmenistan or risk fines.⁷⁹ To address this problem, Uzbekistan is now building a new rail line bypassing Turkmenistan.

Uzbekistan uses ports of the Baltic Sea (primarily Riga), Russia (e.g., Novorossiysk), Europe, including Bremerhaven, and more recently the ports of Poti (Georgia) and Lianyungang. The only one of these ports that has posed a problem for Uzbekistan's trade is that of Poti, which was severely damaged during Georgia's civil war in the 1990s.

Uzbekistan has an internal port at Termez on the Amu Darya at the Afghan border. The river constitutes an important waterway to the Caspian, but its passage through Turkmenistan requires payments in scarce hard currency.

Trade facilitation measures

As illustrated in the previous section, land transport infrastructure within the Central Asian subregion is relatively well developed. Road and rail connections link all capitals and economically important areas, so there

⁷⁸ Mayhew, 2002.

⁷⁹ Mayhew and others, 2000.

are no major linkage problems within the area. Establishment of an efficient, standardized, predictable, cost-effective and stable border crossing system in Central Asia is the major challenge that these countries must address. The majority of the Central Asian countries are parties to a number of important international conventions, including the Convention on the Harmonization of Frontier Controls of Goods (1982), the European Agreement on Important International Combined Transport Lines and Related Installations of 1991, the Convention on Road Traffic of 1968, the Convention on Road Signs and Signals of 1968, the European Agreement concerning the Work of Crews of Vehicles Engaged in International Road Transport of 1970, the TIR Convention of 1975, and the 1993 Protocol amending the European Agreement concerning the International Carriage of Dangerous Goods by Road of 1957.

A number of subregional agreements have also been concluded. In 1998, for example, the TRACECA countries signed the Basic Multilateral Agreement on International Transport for Development of the TRACECA routes. In the same year, the ECO member States signed the Transit Traffic Framework Agreement, and others have been signed in recent years to facilitate transport of goods among the ECO countries and with China. For example, there are those between Turkmenistan and the Islamic Republic of Iran (1994), Turkmenistan and Turkey (1992), and Kazakhstan and Iran (1993). The Agreement on Customs Procedures among CIS countries provides for a customs union with a coordinated customs policy towards third countries. However, much of the future freight traffic is likely to be container traffic. It is important that the appropriate international framework be created and that national procedures for handling container traffic be streamlined.

The ECO region has a large number of border crossings, which will increase in number as the road and rail networks develop. It will therefore be important for customs and administrative procedures to be streamlined in line with international conventions, specifically the 1982 International Convention on the Harmonization of Frontier Controls of Goods. Lack of standardization of documents and customs procedures has been a major impediment to timely customs clearance. More problems may develop once third-country traffic, which at present is very limited, expands, as the share of road transport increases, as the private sector becomes more important and as national customs services become more established and assertive.

In the road sector, problems include the use of old vehicles in poor condition and generating high levels of pollution (with a potential conflict between these levels and tight Iranian standards and controls); a problem of insecurity en route, often necessitating the use of armed guards; delays; and a host of additional informal or even illegal payments that are typically expected so that cargo moves, all increasing transport costs. Measures to facilitate movement by road should include accession by all countries to the

TIR, introducing TIR carnets for declaration of transit goods, mutual recognition of national drivers' licences and permits, harmonization of road user charges between countries; and international motor vehicle third-party insurance. All these have been proposed but need to be implemented. Furthermore, to achieve a harmonized approach to such matters, an institutional mechanism needs to be established in the region through which a continuous dialogue among all countries concerned can take place and which can provide coordination in the implementation of decisions.

It may be observed here first that, apart from the CIS, the Central Asian countries are members of one major regional grouping, the Economic Cooperation Organization (ECO), and also, since 1992, of ECE and ESCAP. They are also interested in and have given assistance towards regional cooperation in Central Asia as well as Asia generally. ECO is made up of the Central Asian States plus Afghanistan, Azerbaijan, Iran, Turkey and Pakistan, a group which includes seven landlocked countries. This grouping will be important given that, while the landlocked Central Asian countries have their major land transport routes developed mainly to the north, they have an increasing need to gain access to seaports in the south (Iran, Pakistan) and east (China).

With the assistance of UNCTAD, the Central Asian republics and their neighbours negotiated the Transit Transport Framework Agreement to form the basis for regional transit transport cooperation. Its aims include: (i) coordinating transit transport policy; (ii) facilitating transit transport through the coordination of regional transport networks; (iii) harmonization of technical standards; (iv) adoption of basic rules governing transit transport operations; (v) introduction of simplified and harmonized customs procedures to minimize interference with goods in transit, while providing necessary safeguards; and (vi) setting up effective institutional support. However, the backbone of the framework agreement is its annexes of protocols which are supposed to deal with the technical and procedural issues as well as the coordination mechanism that would make the framework agreement operational. But preparation and negotiation of these important protocols have been stalled. A recent, very thorough analysis of Central Asia's transit situation includes among its recommendations: A systematic campaign has to be launched to introduce the multimodal transport system as a standard. In this context, new technology facilitating this mode of transport will have to be introduced and cost determined in a way that the member States could find it possible to introduce it.

Afghanistan

Afghanistan is surrounded by Iran, Pakistan, Uzbekistan, Tajikistan and Turkmenistan in South-Central Asia, three of which are landlocked countries themselves. The major trade and transit corridors available to Afghanistan

are: (i) through the former Soviet Union using the river ports of Hairatan, Sherkhan Bandar and Turghundi, all linked by the former Soviet Union railway network to their western, northern and eastern seaports; (ii) through Iran by railway from the Iranian border to the Persian Gulf ports of Bandar Abbas, Bandar Khomeini and Khorramshahr; (iii) a similar route by road through Turkey overland to Europe; and (iv) through Pakistan to Karachi, linked by railway to the Khyber Pass road to Peshawar and on to the border point of Chaman, where the goods are transported by truck to Afghan border points.

Afghanistan depends primarily on the ports of Karachi (Pakistan) and Bandar Abbas (Iran) for its overseas freight traffic. Bandar Abbas is primarily used for humanitarian aid imports. It offers modern facilities and is considered to be operating relatively efficiently. The port of Karachi is a major regional port, handling 98 per cent of Pakistan's total foreign trade. It is being modernized with US\$ 91.4 million of assistance from the World Bank. According to a 1965 agreement, all Afghan goods may pass through Pakistani ports to or from Afghanistan duty-free. After the war in 2002, however, stricter border controls were introduced and the agreement abandoned. It is estimated that billions of rupees worth of goods lie at Peshawar (near the Afghan-Pakistani border) and Karachi awaiting export and costing PRs 3,000-5,000 per day. Pakistan has recently begun allowing goods destined for Afghanistan to pass duty-free again.

The link to Karachi is potentially part of a regional transport corridor through Afghanistan to the Central Asian States. However, there are problems of inadequate infrastructure and services along the route, congestion at Karachi port and shortage of wagons for the carriage of Afghan imports and exports.

Two decades of war and neglect have destroyed Afghanistan's internal road network. With the creation of the democratic political system in Afghanistan, following the collapse of the Taliban regime, the international community has shown an increased interest in revitalizing Afghanistan's transport infrastructure. Rebuilding the road network is generally considered to be a top priority for the future of the country. Emphasis has been placed on improving the ring network and international links. The Asian Development Bank (ADB) estimates that it will cost \$650 million to repair these trunk roads. The primary donors so far involved include ADB, the World Bank, the United States, the EU and Saudi Arabia.

Together with Japan and Saudi Arabia, the United States will finance reconstruction of 660 miles of highway that arcs west and south from Kabul to Kandahar and Herat. The projects now being planned, including the Kabul-Kandahar-Herat road, involve about 1,100 miles of the country's 13,100 miles of roadway. Other projects under negotiation include 135 miles from Kabul through Jalalabad to the Pakistan border

at Torkham, to be financed by the European Union; 250 miles from Kabul north through the Soviet-built tunnel under the strategic Salang Pass in the Hindu Kush, on through Kunduz to the Amu Darya and across the border into Tajikistan, to be financed by the World Bank; and 65 miles from Kandahar to Spinbaldak, another border point with Pakistan, to be financed by the Asian Development Bank.⁸⁰

In the late nineteenth century Abdurrahman Khan, father of the modern Afghan State, proclaimed, "as long as Afghanistan has not arms enough to fight against any great attacking power, it would be folly to allow railways to be laid throughout the country"; and barred railways there altogether. Over a century later, Afghanistan remains without a rail system, despite several attempts to build one. Neighbouring countries' rails, constructed during the "Great Game" when Russia and Britain were rushing to lay tracks through Central Asia, terminate at or near the Afghan border. In an attempt to take better advantage of these surrounding rail links, the Afghan government has recently proposed a \$120 million project to develop a functional rail system.

The World Bank's Board of Executive Directors approved \$166 million in credits for three projects, including \$31 million for an Emergency Customs Modernization and Trade Facilitation Project for the development of physical infrastructure at border crossing stations, inland customs depots, including the Kabul Inland Customs Depot, transit checkpoints, and customs facilities at Kabul airport. It will also support policy changes and strengthen the government's administration of the customs and transit systems, including improving communications and facilitating trade. These improvements will help Afghanistan increase revenue from trade, reduce corruption and prevent smuggling across its borders. Customs revenues contributed nearly \$50 million to Afghanistan's tax revenues in fiscal year 2002, amounting to 60 per cent of total revenue. However, this amount could be much higher with a more efficient customs and transit regime.

Caucasus

The location of the Caucasian landlocked countries Armenia and Azerbaijan at the bridge of the traditional Silk Route connecting East Asia and Europe, holds large potential benefits for both countries. The planned revival of the Silk Route as a network of major transport corridors could potentially help these countries become vital transit links between East and West.

Until the 1990s Armenia depended heavily on its extensive railway network for trade and the Armenian railway played a significant transport role in the Caucasus. Since the fall of the Soviet Union, however, rail traffic has declined significantly. Freight traffic in Armenia is estimated to be only

⁸⁰ *The New York Times*, 19 September 2002.

5 per cent of the level prior to independence.⁸¹ The closure of the Turkish and Azerbaijan borders, the dissolution of the Soviet command economy, and the dilapidated state of the rail infrastructure have all contributed to this decline. As of 2000, only 350 km out of 796 km (44 per cent) of Armenian railways were in operation.

The launch of the Transport Corridor Europe-Caucasus-Asia (TRACECA) programme, intended to better integrate Europe, the Caucasus and Asia through the development of an interconnected transport network, would place Armenia at the centre of the intercontinental route. Development of close cooperation with Azerbaijan and Turkey is essential here. At present Armenia has relied on the ports of Georgia and Iran. Georgia's primary port, Poti, was established in 1858 and is considered to be outdated. It has traditionally been used to transport cargo in bulk and will require significant improvements if it is to serve as one of the principal ports along the TRACECA route. Recent efforts have been made to improve the efficiency and increase the overall capacity of the port. The primary Iranian port for Armenian freight has been Bandar Abbas. It offers modern facilities and is considered to be competing relatively efficiently.

Since the collapse of the Soviet Union, road transport has become increasingly important for Azerbaijan. The east-west transit corridor from Baku through Alyat (Azerbaijan) to Georgia has now become the most important corridor for Azeri trade. Although the Azerbaijan portion of this route is in poor/bad condition, the Georgian section is considered to be even worse.⁸² In fact, whereas shipment of a container via this highway takes only 3-5 days, the average cost is US\$ 2,200; shipment to Bandar Abbas takes 10-12 days and costs US\$ 700-800.⁸³

Since the fall of the Soviet Union, Azerbaijan's railways have witnessed a precipitous decline in freight traffic. On the positive side, recent efforts associated with TRACECA have already brought about significant improvements in rail efficiency. Most of the improvements have been focused on improving the east-west rail corridor, from Baku to Georgia, which is Azerbaijan's most important. The European Bank for Reconstruction and Development has specifically allotted US\$ 20.2 million for rehabilitation of the railways. Azerbaijan has also benefited from the 1999 construction of a rail line to the Russian Federation that bypasses Chechnya, thereby avoiding the Chechen war. The rail corridor to Iran remains of minimal importance, suffering from limited capacity, disrepair and vandalism.

As part of the new Silk Route, the port of Poti (Georgia) will continue to play the leading role in Azerbaijan's freight traffic. Its own port of Baku

⁸¹ World Bank, 2002.

⁸² World Bank, 2000.

⁸³ World Bank, 2002.

on the Caspian Sea primarily serves as a trans-shipment point for trade with the Central Asian States. Since Azerbaijan's primary trading partners are the Russian Federation and member States of the EU, the port does not handle much Azeri freight traffic.

Republic of Moldova

Moldova's transit trade was broadly integrated into the old system during the Soviet period. After the collapse of the Soviet Union, the Republic of Moldova encountered problems similar to those of the Central Asian newly independent States. The Moldovan road network reflects its former role: road connections between Chisinau and Ukraine (in particular Kiev, Odessa and western Ukraine) are reasonably extensive. In contrast, there is only one major road that crosses into neighbouring Romania. Therefore, road-based exports to Western Europe generally pass via Ukraine and Poland.

The Republic of Moldova's road network has suffered from a decade of neglect, and has rapidly deteriorated. It has been further hampered by the Transdniestr conflict, which has led to the closure of the main road linking Chisinau with Kiev. Consequently, all road traffic must now make a significant detour via Tiraspol on small and poorly maintained roads.⁸⁴

The rail network includes 1,140 km of tracks and forms the principal means of transporting cargo, accounting for 95 per cent of transborder shipments.⁸⁵ Like the roads, the rail network suffers from dilapidated infrastructure. Links with Romania are made difficult by the fact that the Moldovan railway network uses the broad gauge, so every carriage needs to be transferred onto a different rolling stock, which leads to delays in transit.

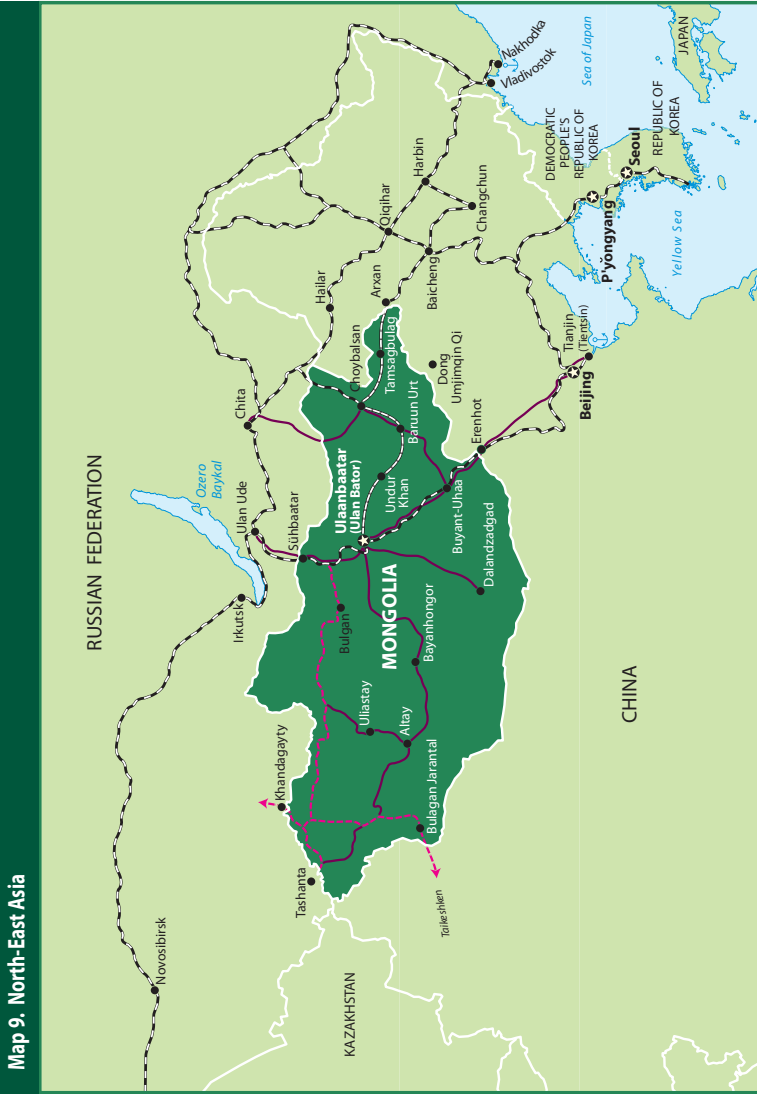
Since the primary trading partners of the Republic of Moldova are still the Russian Federation and the other CIS countries, seaports play a somewhat limited role in trade. With the recent development of inland waterways, including the construction of facilities at Giurgiulesti on the Danube, however, the importance of the Romanian ports will increase significantly.

VII. Transit transport corridors in North-East Asia

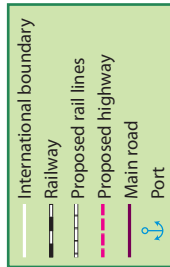
In North-East Asia, there is one landlocked country, Mongolia, one of the largest landlocked countries in the world with a territory extending over 1.6 million square kilometres on a plateau 1,580 metres above sea level. It is bordered by China on three sides and by the Russian Federation to

⁸⁴ Williams and Wildman, 2001.

⁸⁵ United States embassy, Chisinau, 2001.



Map 9. North-East Asia



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the north. Mongolia is sparsely populated, with a population of around 2.6 million, giving it a population density of less than 2 persons per square kilometre. However, around 63 per cent of the population live in urban areas. Any transport infrastructure will necessarily be extremely expensive in relation to the serviced population. Substantial external assistance is likely to be required if extensive development of the transport infrastructure needed is to be achieved.

The nearest seaport to Mongolia is Tianjin, China, which is as much as 2,000 km from Ulaanbaatar, the capital. Its transit cargo is also moved by rail through the ports of Nakhodka, Vladivostok and Vostochny on the Pacific and St. Petersburg on the Baltic in the Russian Federation. The route via the trans-Siberian railway to Nakhodka maintains a regular schedule and the transport infrastructure in the Russian Federation and China is relatively good. The distance from the Mongolian border to Nakhodka, though, is 5,600 km. Cargo going to European countries is moved all the way by rail, with a change of rail gauge between East and West European countries. Mongolia and the Russian Federation have the same broad-gauge tracks, while the southern route through China requires changes of gauge at Zamyun-Uud. The railway serves the three largest industrial areas of Mongolia: Ulaanbaatar, Darkhan and Erdenet.

Changes in the geopolitical situation offer new opportunities for the expansion of Mongolia's international trade, diversifying its sources of imports as well as expanding exports, and also for developing and diversifying its external transport corridors. The importance of the transit corridor to Tianjin is increasing with the rapid expansion of Mongolian trade with China and other East Asian countries.

Infrastructure

Transport infrastructure is poor. Roads are largely unpaved and of poor quality and badly maintained, and Mongolians remain heavily dependent on the railway for transportation. On the positive side, the government is making efforts to upgrade roads, largely through external aid. Construction of an east-west arterial road began in 2001, "a road is currently under construction between Ulaanbaatar and the Chinese border, and there are proposals to develop a north-south corridor along Asian Highway route AH4 in the western part of Mongolia".⁸⁶

Although roads are not used for transit through China or the Russian Federation, there is potential for road transit through Tianjin. Currently the main obstacle to using such a road route is regulatory barriers: Mongolian, Russian and Chinese trucks have not been able to operate within each other's territory. Such regulations, however, are showing signs of easing.

⁸⁶ E/ESCAP/SB/LDC(6)/1, 2 April 2003.

A protocol was signed with Russia to enable the transport of passengers by road in either territory without taxes or fees. Negotiations are currently under way to allow the right of transit for Mongolian, Russian and Chinese trucks, and include an obligation to provide transit facilities. Mongolia is likely to become a significant transit country for traffic between the Russian Federation and China. Already in 2002, "the demand for through transport from the Russian Federation to China was 12 million tonnes while capacity was limited to 4 million tonnes".⁸⁷

The Ulaanbaatar Railway is Mongolia's primary transportation infrastructure, linking freight and passengers with the Russian Federation and China. It serves the three largest industrial areas of Mongolia: Ulaanbaatar, Darkhan and Erdenet. There is little competition to the rail network from the road network. The three principal rail routes are via China to Tianjin (Xingang), via the Russian Federation to Vladivostok, Nakhodka or Vostochny, and via the Russian Federation to St. Petersburg. Rail cargo to and from the Russian Federation and Europe is transported via a broad-gauge line with no interruption. Cargo to and from China, however, must be trans-shipped at Zamyun Uud because of two different rail gauges. Slow trans-shipment during peak harvest period in China remains a major concern.

Trade facilitation measures

Mongolia's existing transit transport arrangements are bilateral, it having signed treaties with China in 1991 and the Russian Federation in 1992. Although the treaties are based on international conventions, such as the 1965 United Nations Convention on Transit Trade of Landlocked States, there have been major deficiencies in implementation. In fact, although Mongolian trade is affected by some serious transport infrastructure problems, it has been suggested that the greatest impediments to trade derive from non-physical factors related to administrative procedures, restrictions and fees in transit.⁸⁸

Long delays are commonplace at both Russian and Chinese borders, affecting movement of cargo both in and out of Mongolia, due to a number of factors. Red tape and other difficulties of a bureaucratic nature arise from local regulations and rules that differ from international standards, and from poor communication, especially on the Russian side, among exporters, importers, forwarding agents and railways.

Documentation requirements are a problem. Large numbers of border crossing documents and specific local certificates and permissions are still required. Russian customs authorities require guarantees of 200 per cent of the value of some goods in transit, such as alcohol, returnable after

⁸⁷ Ibid.

⁸⁸ UNCTAD, UNDP/UNCTAD Project INT/92/901, Martin Glassner, 1997, pp. 15-17.

the goods reach their destination outside the Russian Federation. Railway wagons frequently are unable to return to their country of origin because documents needed at the border or port are delayed. On the Russian border, especially, customs officers have the right to open even sealed containers on the basis of any information received from organizations or individuals.⁸⁹ Shipments, even in containers, may on occasion disappear. Various charges and fees are also levied by customs authorities on transit goods.

A major constraint affecting transit trade to and from China relates to railway wagons. The total stock of wagons which China has available for its own needs is insufficient, especially at peak harvest periods, when Mongolian exports may be stuck at the border for long periods. On the other side, the Russian Federation does not allow Mongolian Railways to use its own wagons for Mongolian transit cargo within the Russian Federation, except to a limited extent. Since the interchange of wagons is not yet organized on a commercial basis, Mongolian Railways is forced to use Russian wagons, paying hire charges in convertible currency.⁹⁰

Mongolian Railways itself has rolling stock that in 1997 included some 1,600 wagons and 200 passenger carriages. However, all locomotive, wagon and carriage repairs used to be carried out in the former Soviet Union. Since this was stopped, repairs are carried out in Mongolia, but the almost complete dependence on the Russian Federation for spare parts, which is increasingly difficult to secure, is proving a serious obstacle.

Both road and rail transport systems are in urgent need of improvement. Infrastructural priorities include: (i) construction of missing links in the Asian Highway within Mongolia; (ii) construction of a highway through western Mongolia connecting to Taikeshken in China and Khandgait in the Russian Federation; (iii) construction of both a railway line and a highway linking Ulaanbaatar to Rashaart Station in China, via Ondor Khaan, Choybalsan and Tamsag Bulag; (iv) provision of more rolling stock; and (v) expansion of handling capacities along the route between Erlian Station and Tianjin port, including that of Erlian terminal itself.

It may be concluded that the transit trade arrangements in the region, partly for historical reasons, are in a particularly weak state and in need of reform, chiefly in the areas of administration, streamlining of documentation and customs procedures, computerization of cargo movement, cooperation in the use of rolling stock, etc. Neglect may not be unconnected with the very small size of Mongolia in terms of GDP.

The Russian Federation and China have a major interest in developing east-west transit trade through Mongolia. However, given the

⁸⁹ UNCTAD, CGM 5, by B. Dorjegotov, S. Jamts and B. Otgondemberel, "Transit Transport Systems in North-East Asia", 15 May 1997, p. 9.

⁹⁰ *Ibid.*, p. 8.

range of problems to be tackled, and for the implementation of facilitation measures on a continuing basis, cooperation should be formalized using the “transport corridor” concept, which has worked well elsewhere, with a transport corridor authority charged with dealing with day-to-day problems as they arise and with the introduction of more fundamental and technological improvements.

Under a memorandum of understanding, the governments of China, Mongolia and the Russian Federation adopted an action plan incorporating the following main elements: (i) broadening the scope and content of existing bilateral transit agreements and adapting these to changing transit needs and situations; (ii) promoting a comprehensive subregional legal agreement designed to harmonize transport regulations, procedures and documentation; (iii) promotion of adherence to recognized international transit conventions and agreements (including transport of goods under TIR carnets, harmonization of frontier control of goods, rules relating to bills of lading, etc.); (iv) development of the institutional mechanisms necessary for monitoring implementation of arrangements; and (v) development of alternative routes in order to give Mongolia flexibility in movement of its cargo to different ocean ports, taking into account costs and benefits of investments for both Mongolia and the transit countries involved.

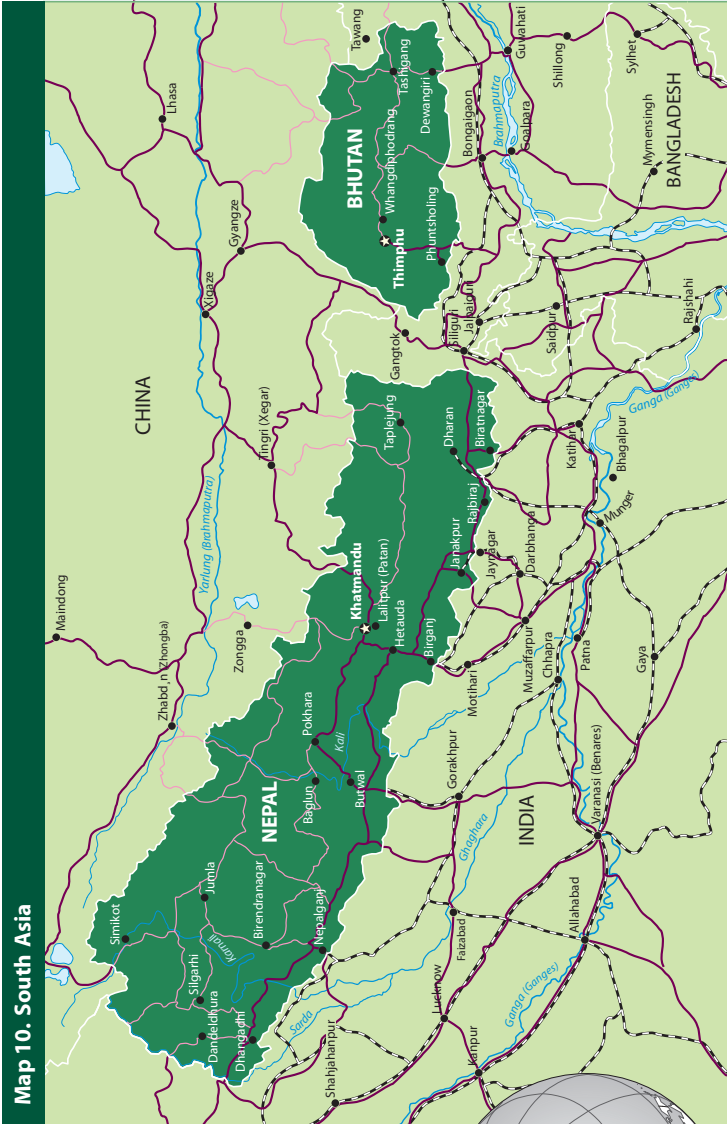
VIII. Transit transport corridors in South Asia

The landlocked developing countries of South Asia comprise Nepal and Bhutan. Bilateral transit agreements, particularly between India and Nepal and Bhutan, have provided a framework for transport facilitation initiatives.

Nepal’s main trading partner is India and its main port is Kolkata, formerly Calcutta, 890 km from Kathmandu. Alternative routes exist through China and Bangladesh, using Chittagong and Mongla ports in the latter case. However, the distances involved rule out the use of Chinese ports, while the Bangladesh route passes through India, involving an additional set of border formalities, as well as adding to distance, making that route less attractive. Nepal is in need of transit access through India via Bombay, however, in order to reduce its costs of transit to West Asian markets. In 1995 India agreed for the first time that Nepal could use Bombay (now called Mumbai), and Kandla to the north-west, but as of 2002 there was still no agreement on operational modalities.⁹¹

Domestically, Nepal has a 5,500 km road network, less than one third of which is paved. The majority of roads are gravelled or dirt roads, and wash out frequently during the June-September rainy season. Most

⁹¹ Glassner, Martin, “Negotiating Nepal’s Access to the Sea”, CEMOTI No. 35, January-June 2003, p. 56.

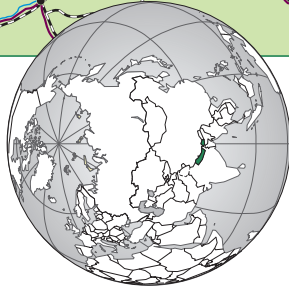


Map 10. South Asia

	International boundary
	Railway
	Main roads
	Other roads

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hill and mountain trails are only suitable for pedestrians and pack animals. Construction and maintenance of paved highways is heavily reliant on foreign aid. Development assistance to the transport sector totalled US\$ 450 million between 1990 and 1999.⁹²

Despite having only 59 km of rails, the Nepalese rail system provides direct and adequate transport of cargo to Kolkata. The completion in March 2000 of a 5.2 km railway connecting the new inland container depot (ICD) of Birgunj directly to India's rail network has further improved this system and is predicted to increase rail traffic significantly. The dry port offers an improvement in cost, speed (up to 10 days faster) and reliability of transit.⁹³ Moreover, the Indian rail network, to which this railway connects, is of good quality. Shipping costs on the rail system, however, are alleged to be high since freight transport is used to subsidize passenger transport. Transit trade passes mainly through Kolkata (425,000 tons per year) and Haldia port (160,000 tons per year, mainly imports), both of which have been described as being inefficient and operating at excess capacity, and can have turnaround times of several days, with the average at Indian ports being 4.7 days.⁹⁴

The arrangements governing bilateral trade between India and Nepal are governed by a Treaty of Trade, signed in 1991 and updated in 1999, together with a Treaty of Transit. These provide that: (i) India allows freedom of transit for Nepalese third-country trade across its territories, through routes mutually agreed upon; (ii) permission is granted for the movement of Nepalese trucks to and from the nearest railway stations to pick up transit cargo; (iii) traffic in transit is exempted from customs duty and all charges excluding transportation and service charges; and (iv) warehousing/storage facilities are provided for goods awaiting customs clearance before transport to Nepal.

Other features favourable to Nepal include: (i) provision of seven days' free time, helping to reduce demurrage charges and landing risks and expenses; (ii) provision of port clearing and forwarding by Nepalese companies registered in India; (iii) provision of land in the port of Haldia on long-term lease for construction of storage facilities; (iv) provision for ownership of trucks and barges in the port area for assistance in storage operations; (v) assignment of berths on a preferential basis for vessels carrying Nepalese cargo, and relaxed control procedures for their goods; and (vi) permission for intermodal traffic to combine air with ship transport through Kolkata air- and seaports (e.g., for imports of liquor, beer, cigarettes).

Under the terms of the transit treaty, there are more than 20 land border points specified as agreed routes for mutual trade. The Kolkata/

⁹² UNCTAD/LDC/112, 28 June 2001, by Jack Stone.

⁹³ Chakra Infrastructure Consultants, 2001.

⁹⁴ EIU, 2002.

Haldia port complex is specified under the treaty as the port of entry for Nepal's third-country trade by sea, but 15 land border points are also specified. Kolkata/Haldia port has the advantage of being inland from the sea, but this brings with it the disadvantage of not being able to accept vessels with a draught in excess of about 8 metres, depending on the tide. This effectively means that Kolkata mainly receives smaller container vessels from large trans-shipment ports at Colombo, Singapore and, to some extent, Hong Kong. It does have a modern, recently constructed and well-run container wharf, however, which handles most of the containers, although containers on vessels are also handled at several other berths in the port.

Nepal has both road and rail links with Kolkata, reaching the border posts of Birgunj in Nepal and Raxaul on the Indian side. Following a programme of gauge conversion completed in 1991, Raxaul has been connected to Kolkata by broad-gauge (1,676 mm) rail. Although Nepalese cargo arriving at Kolkata from overseas is heavily containerized, and a lot of cargo also moves between Kolkata and Nepal in containers, a great deal of stuffing and de-stuffing of containers does take place at the port.

Transit between Kolkata and Nepal takes place mainly by road. Railway transit traffic is very limited. A factor here is the absence of a proper facility to trans-ship and handle containers and dry port facilities generally at Raxaul and Birgunj, but the previous need to trans-ship goods en route between narrow- and broad-gauge rail systems brought delays and pilferage, adding to costs, and discouraged transport by rail.

In addition to the rail-based dry port at Birgunj, two road-based inland customs depots were completed in 2000 at two other border points, Biratnagar and Bhairahawa. When appropriate operating agreements for the three inland customs depots and the rail link to Birgunj are in place, it should be possible to establish block train movements between Kolkata and Birgunj, operating every two days, and substantially reduce transport costs by rail. A dry port with proper container handling facilities does not yet exist at Kathmandu, though this is the major cargo generating and distribution centre in Nepal. A feasibility study has, however, been carried out.

Looking at Nepalese transit trade as a whole, the extent of containerization is encouraging and the facilities for the receipt of containerized cargo at Kolkata excellent. Limitations are associated with the extent of stuffing and de-stuffing of containers after they are at port for onward conveyance. This process involves losses and breakages, as well as delays, all adding to insurance, storage and other transport costs. A general feature of LLDC trade is, in fact, a need to dispatch and receive goods break bulk, due to incomplete transit chains for containers. Establishment of inland customs depots or dry ports within the LLDCs themselves is an important requirement, therefore, as soon as feasible.

A problem which has existed in the past in relation to transit trade has been the perception by India that a great deal of Nepalese import cargo was leaking back into the Indian economy, which led to the imposition of considerable restrictions and customs procedural requirements. The situation has improved since 1991, however, partly because Indian tariffs and quantitative restrictions on imports into India, which covered a wide range of consumer goods, were reduced in 1991, reducing the incentive to divert, while the total volume of Indian imports expanded substantially, reducing the percentage of Nepalese trade and thus the relative importance of leakage. This has translated into an easing of regulations for transit traffic at both Kolkata port and Raxaul. In particular, it has been agreed in principle that for containerized cargoes, even a percentage of verification checks need not be undertaken where customs seals are intact.

A number of measures are needed to facilitate movement along the transit transport route. The most serious constraint is the lack of equipment to handle transit cargo at trans-shipment points at the border and at Kathmandu. Customs procedures at the Nepal border also need to be streamlined. Transit documentation between the two countries needs to be aligned. Kolkata port is evolving a comprehensive data-processing system, which will eventually provide better management information and exchange of digitized information with clients and ships. At present, however, communications between border towns and Kolkata are weak.

Bhutan's northern border is with China and the rest of the country is surrounded by India. Three north-south links connect Bhutan to its border with India, connected by a lateral road running roughly east to west in the middle of the country. Roads are in good condition, but their narrowness and winding nature do not allow high speeds or axle loads. As a result, goods are normally transported within the country by trucks with capacities below 10 tonnes.

An overwhelming proportion of exports, 94 per cent in 2001, are to India and 4 per cent to Bangladesh, while 75 per cent of Bhutan's imports come from India.⁹⁵ Overseas transit trade is statistically insignificant for Bhutan. This explains the relatively low transport costs for Bhutan compared to other landlocked developing countries. In addition, Bhutan, like Nepal, has an important advantage for a landlocked country: the export of electricity, which involves very low transport costs, especially as all that is required is a link to the neighbouring country's electricity grid at the border. Planned hydroelectric power developments in Bhutan will produce a major expansion in electricity exports to India over the next 10 years.

Bhutan's third-party trade is sent almost entirely through Kolkata, which is 800 km from Thimpu. Bhutanese trucks also transport goods

⁹⁵ UN, *World Statistics Pocketbook: Landlocked Developing Countries*, 2003.

to and from the Bangladesh border, a distance of 150 km, for transfer to Chittagong or Mongla port. This route, however, involves transiting Indian territory and, since most trade is with India, many believe that economies of scale in transportation would reduce the need for the development of an effective alternative transit route.

Bhutan's transit arrangements with India are based on a treaty signed by the two governments in 1949 and periodically updated since then, most recently in 1995. All transit activities at Kolkata take place under the control of a representative of the Royal Bhutan Customs. Bhutanese transit cargo is largely dealt with without interference by Indian customs and only a small percentage is subject to checks. Containers arriving at Kolkata port are normally de-stuffed there, with cargoes in large part moving break bulk, with a transit pass, by road to Bhutan. There is no relevant railway. The entry point is the border post of Phuntsholing, contiguous with the Indian town of Jaigaon. Due to the constraints of truck size on roads in Bhutan, trucks from Kolkata are normally unloaded at Phuntsholing and transferred to Bhutanese trucks of smaller capacity.

Establishment of South Asian Free Trade Arrangements (SAFTA) is expected to go a long way towards facilitating transit transport of the two landlocked countries of the subregion.

IX. Transit transport corridors in South-East Asia

The Lao People's Democratic Republic (the Lao PDR) is surrounded by China, Viet Nam, Cambodia, Thailand and Myanmar. Its major trading partners are Thailand (39 per cent of exports, 69 per cent of imports), France (15 per cent of exports) and Germany (11 per cent of exports). Road transport is used almost exclusively for Lao transit trade, although railways exist from Bangkok up to the Thai border town of Nong Khai, just south of Vientiane, as well as to Ubon Ratchathani near southern Lao PDR. The two principal ports used are Bangkok, Thailand, and Da Nang in Viet Nam. Apart from unrecorded trade across borders within the subregion, some 95 per cent of Lao external trade uses the ports of Bangkok, 670 km from Vientiane, and Laem Chabang, and the remainder passes through Da Nang, Hai Phong and Ho Chi Minh City. The Lao PDR "also has access to the new port of Vung Ang, near the town of Ving, specifically built by Viet Nam for [Lao] transit cargo".⁹⁶

Although two thirds of Lao domestic traffic is transported by road, the country's 23,300 km of roads are considered to be of poor quality.

⁹⁶ E/ESCAP/SB/LDC(6)/1, 2 April 2003.

Map 11. South-East Asia



Less than half of the roads' surface was paved, and of those highways that were paved, most were single-carriage. Approximately 41 per cent of the population live more than 6 km from a main road and many dirt roads are unusable in the rainy season, which generally lasts for five months.

The Thai road system, however, is of notably high quality. There are three main road transit corridors between Bangkok and the Lao PDR. The first is through Vientiane; the second is through Savannakhet, where a new bridge crosses the Mekong; and the third is through Pakse. Thai-owned freight trucks (which have a monopoly on Lao trade) cannot enter the Lao PDR, and vice versa. Hence, trans-shipment must occur at Nong Khai (at the Thai-Lao border) to transfer between Thai- and Lao-owned trucks. In contrast, Lao and Vietnamese trucks may carry transit goods freely between the two countries. The trans-shipment of goods through Thailand increases the prices of Lao goods greatly, between 60 and 300 per cent depending on the source of data.⁹⁷

The Lao PDR's other main transit neighbour, Viet Nam, carries only a small proportion of its export trade in transit, as the main routes between the two countries pass through steep mountains and are therefore somewhat difficult for truck traffic.

Road links with the other neighbours of the Lao PDR are of minimal importance. Traffic through Myanmar is severely hindered by the mountainous terrain, poor infrastructure and political issues. The road link between China and the Lao PDR involves a 100 km stretch of dirt track passable only during the dry season.

The Lao PDR has no domestic railways. Thus, although Thailand has shown its willingness to support Lao-Thai trade by completing a railway section from Bangkok to the centre of the Friendship Bridge over the Mekong River at Nong Khai, the Lao PDR still must unload the cargo at the border and reload it on trucks. The short link on the Lao side from the Friendship Bridge to Vientiane has not been completed.

The majority of Lao transit traffic passes through the port of Bangkok. Although the port offers modern facilities, Thailand's growth has put increasing pressure on its capacity. To deal with the congestion, Thailand has constructed two new deep-sea ports.

The extensive internal waterways of the Lao PDR have provided an alternative means of transport. The government is encouraging waterway use by upgrading river ports and improving river access. However, the Mekong River is only navigable upstream to China by small craft and passage through Cambodia to the sea is prevented by Phapheng Falls.

⁹⁷ Cabanius and Bouaphanh, 2001.

A treaty signed with Thailand on 1 June 1978 covered the use of Thai transport and transit facilities for the movement of cargo through Thailand. However, a major restriction has been that only Thai transporters are allowed to move Lao cargoes between the border and Thai ports, five such transporters being licensed for this purpose, though the Lao government is trying to increase the number to increase the competition. Lao trucks are permitted to cross the border only to pick up or deliver goods at warehouses adjacent to the border customs posts. The effect of this restriction is to introduce additional costs, arising out of the need to trans-ship cargo, and reduced competition in the fixing of transit tariffs to Bangkok. However, a new transit agreement was negotiated in 1999 and the implementation protocols were signed in 2001. It is likely to result in significantly better transit performance.

In contrast, the existing arrangements with Viet Nam and China permit the movement of road vehicles between adjacent countries to carry cargoes, with arrangements to pay road licensing fees and insurance at the border points. It should be noted that Lao regulations also deny operation of Thai-registered vehicles on Lao roads, with some exceptions, such as tankers or vehicles with special loads.

Along the Bangkok-Vientiane route, the most significant delays occur with imports at the port. It is a requirement of the Thai-Lao treaty that Lao goods are delivered for customs verification first to a special yard and then subsequently to a bonded in-transit warehouse, resulting in substantial storage and demurrage charges. Cargo for the Lao PDR, which arrives at Laem Chabang, or any of the five private ports located on the Chao Praya River within metropolitan Bangkok, via Laem Chabang, must be moved under customs escort to the same transit warehouse, with escort costs chargeable to the consignee. Charges at the transit warehouse are also significantly higher than for domestic cargoes.

Potential benefits which might be negotiated by the Lao PDR are therefore the opening up of transit road operations to Lao transporters; the encouragement of State Railways of Thailand rail transport of Lao goods in containerized form to Nong Khai, with trans-shipment facilities there, complemented by a dry port at Thanaleng, near Vientiane; and non-discriminatory charges at Bangkok port.

The opening of the Friendship Bridge at Thanaleng over the Mekong River between the Lao PDR and Thailand in April 1994 has made a significant difference to transit trade by road into and out of the Lao PDR on the Bangkok route. The bridge has two lanes and has been designed to accept a railway track with 20-tonne axle loads on the superstructure at some future date. A project already negotiated and approved by the Lao government is for a 17 km extension of the existing Thai railway from Nong Khai to Vientiane, across the bridge. This is to be developed as a

joint venture with a private company, the government retaining a 25 per cent equity holding. It would give the Lao PDR direct access to the South-East Asian rail network for the first time.

The government of the Lao PDR is trying to develop its east-west corridor linking Vientiane and the eastern part of the country with a view to improving alternative and competitive access to the sea through Viet Nam. An all-weather road to Da Nang already exists, though a portion near the international border needs strengthening. Distances to the sea are not great, so that eastern Lao PDR, in fact, constitutes a natural hinterland for the ports in question, and vice versa. In due course inland container depots could be considered at Pakse and Savannakhet. A memorandum of cooperation in communications was signed in 1994 between the Lao PDR and Viet Nam, describing priority road connections between the two countries, in particular those allowing the Lao PDR to use the facilities in Vietnamese ports.

The Lao PDR is at the centre of the Greater Mekong subregion, which consists of six countries: the Lao PDR, Viet Nam, Cambodia, Thailand, Myanmar and Yunnan Province of China. Officials of the six members of the subregion have met at annual conferences, starting in October 1992: (i) to identify broad areas where cooperative efforts should be focused; (ii) to conduct sectoral studies to identify impediments to subregional economic cooperation and to formulate joint strategies relating to these; and (iii) to agree on, develop and mobilize financing for priority subregional projects.

As indicated, institutional arrangements are at present quite informal. The approach to economic cooperation is pragmatic and "activity-driven" in that it is aimed at encouraging specific and limited linkages of complementary economic activities across international boundaries to form a subregional economic growth zone. Cooperation is thus project-focused, particularly in the area of infrastructure, with transport and energy sectors pre-eminent. The rationale for cooperation is based on the facts that cross-border trade in goods has been increasing rapidly among the six countries, which infrastructural improvements can facilitate; that sweeping economic reforms in the subregion's countries in transition offer new horizons for economic cooperation; and that the generally poor state of the infrastructure severely limits the growth of trade and commerce.

The cooperating countries have identified priority and possible projects in road, rail and water transport, focusing on major transnational highways, which together would in due course constitute a regional network. Many of the major roads will pass through the Lao PDR, placing it, as the economic development of the region progresses, at the "hub" of the region, with major east-west and north-south transport corridors, in contrast with its present disadvantaged, landlocked status.

X. Transit transport corridors in Latin America

There are two landlocked countries in Latin America, Bolivia and Paraguay. In Latin America there is a long history of cooperation in trade and transport through regional integration schemes, leading up to the present, well-established ones: the Andean Common Market, the Latin American Integration Association (ALADI), the Río de la Plata Basin Treaty, and the Southern Common Market of Argentina, Brazil, Paraguay and Uruguay (MERCOSUR).

The Andean Pact or Cartagena Accord established a common market covering Bolivia, Colombia, Ecuador, Peru and Venezuela, with 98 million people, now a leading market for Bolivia's non-traditional exports. The Río de la Plata Basin Treaty (Cuenca del Plata) was agreed in 1969. Bolivia and Paraguay joined with Argentina, Brazil and Uruguay to establish a framework for the promotion of the harmonious development and physical integration of the Plata River Basin. Under ALADI, Bolivia and Paraguay have signed bilateral trade agreements with other Latin American countries, eliminating or reducing tariffs on limited lists of products. ALADI applies a common external tariff ranging from 0 to 20 per cent for most goods.

Paraguay has been a member of MERCOSUR, together with Argentina, Brazil and Uruguay, since 1991. Together, these countries constitute a market of some 220 million people. A large percentage of the import and export trade of Paraguay is with Brazil and Argentina, this trade being direct trade between neighbours, of course, and not transit trade. Bolivia signed an agreement with the countries of MERCOSUR in December 1996. This should bring important trade benefits and adds to the gains which can be derived from improvements in the transport sector.

In Paraguay's case, the neighbouring countries themselves constitute export markets and sources of imports, due to their more advanced level of economic development. In addition, Paraguay enjoys both free use of the Río de la Plata, and some measure of control over this navigable waterway, a rarity among landlocked developing countries.

Bolivia's most productive and densely populated area is mountainous, thus making it particularly difficult to access and increasing its international transport costs. Its own road system is poorly developed, with only 4 per cent paved. For international trade, therefore, rail transport is important. The bulk of Bolivia's transit cargo to and from countries outside South America passes through six ports: Arica and Antofagasta in Chile, Matarani in Peru, Rosario and Buenos Aires in Argentina, and Santos in Brazil. About 60 per cent of the total passes through the Pacific ports.

The Bolivian rail system is in two sections, the western or Andean component, 2,274 km in length, and the eastern branch, 1,424 km long.

Arica can be reached by rail or road, but only 160 km out of 581 km of road is paved and most traffic goes by rail. The rail service is poor, however, due to the poor state of the track and shortage of wagons. Access to Antofagasta is even more difficult by road from La Paz, over a distance of 1,214 km, but service on the Antofagasta Railway is better. Matarani, Peru, is connected by both rail and road. Rail access, however, involves trans-shipment of cargo across Lake Titicaca to and from the Peruvian rail system.

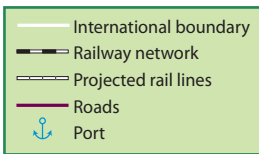
Most traffic to and from Santos and other Brazilian cities uses rail, there being only very poor road access from Santa Cruz to the Brazilian border. There are good rail connections to the Argentine ports of Rosario and Buenos Aires through Villazón and Yacuiba and, though transport by road also takes place, it is more costly. These ports can also be reached using the Paraguay River, and this is a potentially important international cargo route, but the present volume of Bolivian traffic is small. Since 1993 there has been a substantial increase in traffic to Brazil, mainly the export of soya, putting pressure on haulage capacity. This has been relieved by negotiating with Brazilian Railways for the provision of block trains, running between Santa Cruz and Quijarro, since 1995. Haulage capacity problems have also occurred on the Arica–La Paz Railway.

Chile helped Bolivia develop its rail corridors with the inauguration of the Arica–La Paz Railway in 1913 under the 1904 Treaty of Peace, Friendship and Commerce. Unfortunately, the Bolivian rail system is now considered extremely inefficient and largely inadequate, with many of the rails in a state of disuse. Many of the recent difficulties faced by the system can be directly attributed to low levels of investment, the lack of connection between the two rail networks and a lack of forwarders to consolidate cargo, thereby limiting the amount of container traffic.

The weak rail system has had serious consequences for Bolivian traders. The system continues to face difficulties dealing with the peak soya season, which poses a particular problem since it is essential to reach the ports during winter (in the northern hemisphere) when the prices are high. Much of the Bolivian soya does not reach the ports until the prices have begun falling. Bolivia has the poorest road network in South America. Apart from a failure to invest in the road system, reasons include difficult topography, low population density, lack of agricultural and rural development with unequal land holding, export of minerals by rail and weak management systems. Costs of transit by road to ocean ports are high not only because of poor road conditions but because of cargo imbalances with imports greatly exceeding exports by road, delays at border crossings, and costs of loading and unloading. Nevertheless, 95 per cent of Bolivia's exporting firms utilize the roads.⁹⁸ Only 5 per cent of the road system is paved. The road corridors of its transit neighbours are

⁹⁸ UNCTAD/LDC/112 and annex, June 2001.

Map 12. Latin America (Bolivia)



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.



in reasonably good condition and have recently benefited from significant improvements.

Bolivia has traditionally depended on the northern Chilean ports of Arica, Iquique and Antofagasta for its international freight transport. Recent improvements in the Peruvian ports of Ilo and Matarani, however, have increased the importance of these ports and helped foster competition between Chile and Peru for Bolivia's transit traffic.

Although river transport has yet to play a significant role in trade due to inadequate technology and resources, it holds the potential to do so. In 1996 Argentina, Bolivia, Brazil, Paraguay and Uruguay signed the Accord of Fluvial Navigation on the Paraguay and Paraná rivers. It provides for "free navigation, equal treatment, free transit and reciprocity, multilateral treatment of cargo reservations, transport and trade facilitation, and port navigational services". Bolivia is also constructing a road that will connect La Paz with Puerto Suárez on the Paraguay River.

Efforts are being made to improve the situation through a major road rehabilitation programme. As this proceeds, it will be essential to establish an effective road maintenance programme and to deal with the problem of overloaded freight vehicles, which are a major cause of deterioration of the infrastructure. Longer-term ambitions in Bolivia are to develop the country as the "hub" in a regional road network connecting the Pacific and Atlantic sides of the continent. Four transit or export corridors are envisaged:

- (i) The main east-west corridor, including Santa Cruz–Puerto Suárez, which would join Bolivia's main axis of agricultural production centres and promote trade among Bolivia, Brazil and Chile;
- (ii) The corridor towards the north, including Santa Cruz–Villazón, which would link Brazil with the Pacific Ocean, as well as assisting the physical integration of areas of northern Bolivia;
- (iii) The corridor towards the south, including Desaguadero–La Paz–Cobija, which would promote access for Paraguay to the Pacific Ocean, as well as connecting Bolivia with the northern region of Argentina;
- (iv) The Diagonal Jaime Mendoza, including Desaguadero–La Paz–Villazón, which will connect the south-east of the country with the central axis and ultimately provide connections between Peru and Paraguay.

These developments are of potential benefit to all the countries of the region and relate to regional rather than just Bolivian development. In one sense, also, it is Bolivia which is the transit country here between a country on one side of the continent and a seaport or market on the opposite side.

Infrastructure facilities

The only railway in Paraguay is the 135-year-old Ferrocarril Central del Presidente Carlos Antonio López (FCPCAL), which has a main line of 370 km joining Asunción with Encarnación-Posadas in the south and linking these with the Argentine, Uruguayan and Brazilian railway networks. Soya beans and wheat are exported. Originally State-owned, it was taken over by British interests, before reverting to State ownership in 1961 when business was declining. The government has made no investment in the system since. Privatization is again being contemplated, but the high cost involved in modernizing an aged railway does not make this an attractive investment. The condition of the line is precarious and the average locomotive age is 80 years. There may be potential if investments are made to modernize the railway.

Having become the primary mode of freight transport in the 1980s, Paraguay's road system is of critical importance for domestic and international trade. Over 80 per cent of domestic freight is transported via roadways. This network is largely inadequate and of poor quality, with only 3,224 km (6 per cent) of roads paved. (Peña Castellón suggests, however, that there has been a significant improvement over the past 15 years.⁹⁹) Such poor domestic road infrastructure has not allowed Paraguay to benefit from the strong surrounding road networks of Argentina and Brazil.

The important road is from Asunción to Ciudad del Este (formerly Puerto Presidente Stroessner) and the Brazilian port of Paranaguá. This road transports some 60 per cent of soya bean exports. Use of this road has been encouraged by the efficient installations and facilities at Paranaguá, which enable Paraguayan exporters to guarantee importers both quality and prompt delivery of products. There has been a continual effort to expand and develop an efficient road network over several decades. However, the system is now under strain as traffic has increased, leading to congestion near urban centres and deterioration of some segments. Failure to enforce axle-load limits contributes to the problem.

Recently there has been some shift away from river transport to Buenos Aires in favour of highway transportation to Paranaguá. This trend will continue as construction is completed on Highways 5 and 6. There are plans to extend Highway 9 from Asunción as far as General Eugenio A. Garay on the Bolivian border, linking Paraguay to the Bolivian market. Domestic trucking is growing rapidly and is loosely regulated and highly competitive, mostly handled by small local firms.

The inland waterway begins with the Paraguay River, which runs north-south across the country, and the Paraná River, which serves as a border with Brazil and Argentina, continuing past the Argentine ports

⁹⁹ Peña Castellón, UNCTAD/LDC/113, 2001.

Map 13. Latin America (Paraguay)



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Department of Peacekeeping Operations
Cartographic Section

of Rosario and Buenos Aires. Together with the Río de la Plata, the inland waterway constitutes a transport system 3,170 km in length. Paraguay's major port is Asunción, its capital city, the only port with modern berthing facilities and cargo handling equipment. The navigability of the Paraguay and Paraná rivers, however, is affected by depth restrictions and inadequate night signalling facilities. Warehousing is also inadequate. Plans exist to deal with this by constructing new bulk cargo handling facilities 25 km south of Asunción at Villeta, re-routing most of the port's bulk cargo.

Besides Villeta, other, smaller ports exist at Concepción, Valle Mi, Bahía Negra, Encarnación and Ciudad del Este, but these have very limited facilities. An important change will come with the completion of the Itaipú, Yacyretá and Corpus hydroelectric projects, which will raise water levels on the Paraná River, from Encarnación as far as Saltos del Guaira. This will open the Paraná River to ocean-going vessels, providing opportunities for both Encarnación and Ciudad del Este to develop as inland ports.

Trade facilitation measures

Bolivia and Chile signed agreements on an Integrated Transit System (SIT) at Arica port in August 1975, and at Antofagasta port in August 1978. This has been seen as a successful effort to rationalize and streamline procedures in ports of transit. The agreement established a set of procedures and documentation in handling Bolivian exports and imports. Under the SIT, the authorized customs agency of Bolivia clears the consignment with Chilean customs, whose major concern is to ensure that Bolivian goods are not diverted for use within Chile and that port and rail charges are paid. It then invoices the consignee for these charges as well as for its own services.

As a member of the Cartagena Accord and a signatory of the International Agreement on Land Transport of the Latin American Southern Cone, Bolivia applies the norms agreed upon in those documents for all international transport. They and related customs procedures are in common use in all the signatory countries and apply to transit by rail, road and river. Since 1985 the government has employed two international inspection companies, SGS and Inspección, to assess quantity, quality, value and origin of goods. They issue an inspection certificate on the basis of which customs officers make an inspection and assess duties for imports on the CIF value of merchandise.

Paraguay is a party to long-standing international conventions governing the handling of transit cargo. In December 1949, a treaty was signed with Argentina under which the latter agreed to create duty-free zones within the ports of Buenos Aires and Rosario for Paraguayan exports and imports. A similar treaty was signed in 1944 with Brazil,

covering the port of Concepción. A bilateral agreement signed with Brazil in 1956 gave Paraguay the right to use a further duty-free shed in the port of Paranaguá. Paraguay has the right to appoint a customs representative in the Rosario free zone for the control of trade flow and the discharge of administrative duties required by Argentina's customs.

As discussed above, Bolivia and Paraguay are members of ALADI, MERCOSUR and the Plata Basin Treaty. They have also signed the International Agreement on Land Transport of the Latin American Southern Cone, which has provisions for the use of common documents for international transport. All these arrangements provide a useful framework for streamlining cross-border procedures, including border payments for transit services.

Although international agreements for the facilitation of trade involving these two landlocked countries date from the beginning of the twentieth century, there remain significant non-physical constraints on trade in the form of bureaucracies and inefficiencies as well as continuing problems of physical infrastructure, natural and man-made, which remain to be addressed. Significant progress has been made towards regional integration over the years through successive overlapping agreements, however, and these landlocked countries may emerge as "hub" countries at the centre of a developing region, particularly if physical and non-physical impediments to the free movement of goods can be further reduced.

Chapter 3



LEGAL
FRAMEWORK
FOR TRANSIT
COOPERATION

Legal framework for transit cooperation

I. Introduction

In Chapter 1 we laid out the fundamental problems of landlocked developing countries, both those imposed by physical geography and those created by human decisions and activities. In Chapter 2 we examined how transport corridors are used to help overcome these problems and sometimes fail to do so. Now we review the legal framework within which these countries and their transit States deal with transit problems on three levels: global, regional and subregional, and bilateral. However, the purpose of this chapter is to offer brief descriptions of — not to analytically review — these instruments.

All international trade of landlocked countries involves the negotiation of rights of transit as well as other legal instruments that govern transit operations. There are many international conventions that enable landlocked States to implement their right of access to and from the sea and freedom of transit. However, national and subregional circumstances may still require bilateral and multilateral agreements as well as domestic legislation to deal with administrative and practical details within each country. It is at these levels that problems still frequently occur. International conventions may be useful even in a national domestic context. Many of them can provide models for the drafting of internal laws and regulations, thus achieving greater harmonization between domestic and international transactions and thereby helping to reduce hidden costs of operating trade- and transport-related businesses within landlocked developing countries.

II. International conventions on freedom of transit

The four major international conventions that deal with issues related to the freedom of transit of landlocked States are the Convention and Statute on Freedom of Transit (Barcelona Convention), 20 April 1921, the General Agreement on Tariffs and Trade of 1947/1994 (GATT), the United Nations Convention on Transit Trade of Land-Locked States (New York Convention), New York, 8 July 1965, and the United Nations Convention on the Law of the Sea (Law of the Sea Convention), 1982. The 1958 Convention on the High Seas is often considered a fifth major instrument dealing with the issues, but most of its relevant provisions have been incorporated into the Law of the Sea Convention.

Definition of traffic in transit

Article 1 of the 1921 **Convention and Statute on Freedom of Transit (Barcelona Convention)** defines "transit" as including "persons, baggage and goods, and also vessels, coaching and goods stock, and other means of transport". "Transit" is not dependent on the existence of a prior or subsequent sea journey. It must begin and terminate beyond the boundaries of the transit State, but commencement or termination within a landlocked State is unqualified provided that State is a contracting party.

In defining "traffic in transit", paragraph 1 of article V of **GATT 1947** states, "Goods (including baggage), and also vessels and other means of transport, shall be deemed to be in transit across the territory of a contracting party when the passage across such territory, with or without trans-shipment, warehousing, breaking bulk, or change in the mode of transport, is only a portion of a complete journey beginning and terminating beyond the frontier of the contracting party across whose territory the traffic passes."

Article 1 (b) of the 1965 **New York Convention** defines "traffic in transit" to include baggage and goods (but not persons) and means of transport. Article 1 (d) defines "means of transport" to include railway stock, seagoing and river vessels and road vehicles, and, where the local situation so requires, porters and pack animals. Other means of transport and pipelines and gas lines are permitted, but only "if agreed upon by the contracting States concerned". "Traffic in transit" can only occur across the territory of a contracting State and the sea. "Sea transport

must directly precede or follow such transit. The journey must begin or terminate within that landlocked State. Assembly, disassembly or reassembly of machinery and bulky goods solely for the convenience of transport does not make such an operation cease to be traffic in transit.” The term “transit State” is also defined as “any Contracting State with or without a sea-coast, situated between a land-locked State and the sea, through whose territory ‘traffic in transit’ passes”.

Article 124 (1) (c) of the 1982 **UN Convention on the Law of the Sea** defines “traffic in transit” to include persons, baggage, goods and means of transport. “Means of transport” is defined in terms identical to those of the **New York Convention**. The journey must begin or terminate within a landlocked State.

Freedom of transit

Article 2 of the **Barcelona Convention** states that contracting States must “facilitate free transit by rail or waterway on routes in use convenient for international transit”. The obligation applies only to rail and waterway transport because at that time road transport was not widely used for international carriage. Article 2 also provides that in order to ensure application of the facilitation measures, contracting States will allow transit across their territorial waters but “in accordance with the customary conditions and reserves”.

Article 2 of the **New York Convention** says, “Freedom of transit shall be granted under the terms of this Convention for traffic in transit and means of transport.” Measures for regulating and forwarding traffic “shall facilitate traffic in transit on routes in use mutually acceptable for transit to the Contracting States concerned”. Accordingly, “freedom of transit” is pledged: “no discrimination shall be exercised which is based on the place of origin, departure, entry, exit or destination or any circumstances relating to the ownership of the goods or the ownership, place of registration or flag of vessels, land vehicles or other means of transport used”.

Article 125 (1) of the **Law of the Sea Convention** confers rights of access only on landlocked States and only for access to and from the sea: “To this end, land-locked States shall enjoy freedom of transit through the territory of transit States by all means of transport.”

Article V (2) of **GATT** states unequivocally, “There shall be freedom of transit through the territory of each contracting party, via the routes most convenient for international transit, for traffic in transit to or from

the territory of other contracting parties.” This constitutes a very clear and very wide right that applies to transit of goods by all means of transport (save the exclusion of operation of aircraft).

Most favoured nation status/equality of treatment

Article 2 of the **Barcelona Convention** requires that “no distinction shall be made which is based on the nationality of persons, the flag of vessels, the place of origin, departure, entry, exit or destination, or on any circumstances relating to the ownership of goods or vessels, coaching or goods stock or other means of transport”.

Paragraph 2 of article V of the **GATT** stipulates that “there shall be freedom of transit, through the territory of each contracting party, via the routes most convenient for international transit, for traffic in transit to or from the territory of other contracting parties. No distinction shall be made which is based on the flag of vessels, the place of origin, departure, entry, exit or destination, or on any circumstances relating to the ownership of goods, of vessels or of other means of transport.”

Paragraph 6 of article V of **GATT** contains an additional provision in relation only to goods, which reads, “Each contracting party shall accord to products which have been in transit through the territory of any other contracting party treatment no less favourable than that which would have been accorded to such products had they been transported from their place of origin to their destination without going through the territory of such other contracting party.”

Article 126 of the **Law of the Sea Convention** maintains the same exclusion as New York from most-favoured-nation status. Paragraph 2 of article 127 also stipulates, “Means of transport in transit and other facilities provided for and used by land-locked States shall not be subject to taxes or charges higher than those levied for the use of means of transport of the transit State.”

Paragraph 1 of Article 10 of the **New York Convention** states, “The Contracting States agree that the facilities and special rights accorded by this Convention to land-locked States in view of their special geographical position are excluded from the operation of the most-favoured-nation clause.” Paragraph 2 reads further: “If a Contracting State grants to a land-locked State facilities or special rights greater than those provided for in this Convention, such facilities or special rights may be limited to that land-locked State, except in so far as the withholding of such greater facilities or special rights from any other land-locked State contravenes the most-favoured-nation provision of a treaty between such other land-locked State and the Contracting State granting such facilities or special rights.”

Duties, taxes and other charges

Article 3 of the **Barcelona Convention** requires that “traffic in transit shall not be subject to any special dues in respect of transit (including entry and exit). Nevertheless, on such traffic in transit there may be levied dues intended solely to defray expenses of supervision and administration entailed by such transit. The rate of any such dues must correspond as nearly as possible with the expenses which they are intended to cover, and the dues must be imposed under the conditions of equality laid down in [article 2 of the Convention] except that on certain routes such dues may be reduced or even abolished on account of differences in the cost of supervision.”

Article 3 of the **New York Convention** provides: “Traffic in transit shall not be subjected by any authority within the transit State to customs duties or taxes chargeable by reason of importation or exportation nor to any special dues in respect of transit. Nevertheless, on such traffic in transit there may be levied charges intended solely to defray expenses of supervision and administration entailed by such transit. The rate of any such charges must correspond as nearly as possible with the expenses they are intended to cover and ... the charges must be imposed in conformity with the requirement of non-discrimination”

Paragraph 3 of article V of **GATT** provides that “any contracting party may require that traffic in transit through its territory be entered at the proper custom house, but, except in cases of failure to comply with applicable customs laws and regulations, such traffic coming from or going to the territory of other contracting parties shall not be subject to any unnecessary delays or restrictions and shall be exempt from customs duties and from all transit duties or other charges imposed in respect of transit, except charges for transportation or those commensurate with administrative expenses entailed by transit or with the cost of services rendered”. Furthermore, under paragraph 4 of article V: “All charges ... shall be reasonable, having regard to the conditions of the traffic.”

Transit facilitation

Both the **New York Convention** and the **Law of the Sea Convention** provide that free zones *may* be established. Article 5 of the New York Convention expands usefully on the basic freedom of transit provisions by placing some explicit trade facilitation obligations on contracting States. Paragraph 1 of article 5 requires that contracting States “shall apply administrative and customs measures permitting the carrying out of free, uninterrupted and continuous traffic in transit. When necessary, they should undertake negotiations to agree on measures that ensure and facilitate the said transit.” Paragraph 2 of the same article further

requires contracting States to “undertake to use simplified documentation and expeditious methods in regard to customs, transport and other administrative procedures relating to traffic in transit ...”.

Article 7, paragraph 2, of the **New York Convention** further elaborates that “should delays or other difficulties occur in traffic in transit, the competent authorities of the transit State or States and of the landlocked State shall cooperate towards their expeditious elimination”. Paragraph 1 of article 4 of the same Convention requires contracting States “to provide, subject to availability, at the points of entry and exit, and as required at points of trans-shipment, adequate means of transport and handling equipment for the movement of traffic in transit without unnecessary delay”.

Article 129 of the **Law of the Sea Convention** contains an important agreement in relation to infrastructure development. It says, “Where there are no means of transport in transit States to give effect to the freedom of transit or where the existing means, including the port installations and equipment, are inadequate in any respect, the transit States and landlocked States concerned may cooperate in constructing or improving them.” More specifically, article 130 states: “Transit States shall take all appropriate measures to avoid delays or other difficulties of a technical nature in traffic in transit. Should delays or difficulties occur, the competent authorities ... shall cooperate towards their expeditious elimination.”

III. International conventions governing transit and transport operations

There are scores of international conventions and other agreements — including 55 prepared under the auspices of the UN Economic Commission for Europe — that contribute to an international framework for the expediting of international transport in order to facilitate international trade.¹⁰⁰ The purpose of facilitation is to increase efficiency by performing complex operations as rationally as possible. This often requires maintenance of a delicate balance between the requirements of the transport industry and the national economy on the one hand and the necessity to conform to indispensable governmental regulations relating to national health and security, customs duties and taxes etc. on the other. The major agreements and conventions are multilateral legal instruments of the United Nations and can therefore be applied by all States Members of the United Nations.

Although the major global agreements described above represent real progress in the liberalization of transport, they alone are not sufficient

¹⁰⁰ ECE, *International Agreements and Conventions in the Field of Transport*, 2003.

to deal with actual transport operations on the ground every day. For this, more detailed agreements covering more narrow or specialized activities, procedures and documents are needed. A sampling of them is offered below. They have been sponsored by the UN Economic Commission for Europe and other UN organs. Most of these conventions are global in scope, with many countries having acceded to them.

The International Convention to Facilitate the Crossing of Frontiers for Goods Carried by Rail of 10 January 1952 harmonized, and ensured efficiency in, the control of goods carried on a railway line at borders between two adjoining countries. The Convention envisages the controls required under the legislation of two countries in respect of the entry and exit of goods traffic being performed at one joint station or several joint stations close to the border, at locations agreed by the adjacent countries. The Convention also provides prescriptions concerning the organization of joint control at joint stations and control facilities as well as providing for transit procedures. The Convention entered into force on 1 April 1953, and by 30 June 2004 11 States were party to it.

The objective of the ***International Convention to Facilitate the Crossing of Frontiers for Passengers and Baggage Carried by Rail***, also of 1952, is to aid rail passengers and their baggage in crossing borders. The Convention calls for police and customs controls, where possible, to be carried out while trains are in motion. When this is not achievable, provisions are made for the establishment of joint stations to facilitate joint controls between two adjacent States. As of 30 June 2004, the Convention had 10 contracting parties.

The Customs Conventions on the Temporary Importation of Private (4 June 1954) and ***Commercial Road Vehicles*** of 18 May 1956 are designed to facilitate international transport while safeguarding the fiscal interests of the participating countries. These conventions established the principle of temporary importation under the cover of a *carnet de passage en douane* that allows vehicles and trailers to be temporarily imported without paying customs dues when engaged in transport operations internationally. They allow duty-free import of fuel in the ordinary supply tanks of vehicles and component parts for the repair of a vehicle already temporarily imported. The carnet is issued by associations represented worldwide (such as the International Touring Alliance (AIT) and the International Automobile Federation (FIA)) that guarantee payment of import duties and import taxes if the vehicle or boat or aircraft temporarily admitted is not re-exported as intended and within a certain time frame. The conventions on temporary importation are revised regularly to keep them in line with modern requirements and changing customs procedures.

The signatory government is responsible for authorization of a national guaranteeing association and conclusion of a contract of commit-

ment between the customs authorities and the national guaranteeing association; and training of customs officials in the operation of the temporary importation procedures. The local operator association has responsibility for establishing a national guaranteeing association (for example, an association of national automobile clubs); concluding contracts of commitment with the carriers and with AIT and FIA, which manage the only existing international guarantee chain; and distributing *carnets de passage en douane* to approved transport operators. Individual transport operators and AIT and FIA also have responsibilities for the relevant procedures. The Customs Convention on the Temporary Importation of Commercial Road Vehicles, brought into force on 8 April 1959 and amended in 1992, enjoyed the support of 38 States by 30 June 2004. Meanwhile, as of 30 June 2004, 76 States had signed the accompanying Customs Convention on the Temporary Importation of Private Road Vehicles.

Facilitating the development of international touring is the prime aim of the ***Convention concerning Customs Facilities for Touring*** of 1954, which entered into force on 11 September 1957 and boasted 76 contracting parties as of 30 June 2004. The Convention grants tourists temporary admission to a country, free of import duties on goods for personal use.

The Convention on the Contract for the International Carriage of Goods by Road (CMR) (19 May 1956), which entered into force on 2 July 1961 and currently enjoys the support of 46 States, is in operation throughout Western and Eastern Europe and is being increasingly used as the basis for domestic legislation in those countries, and its use is spreading across the Caucasus and Central Asia. The CMR defines the responsibilities of international road carriers towards their customers. It is adapted to the market economy, as it limits the liability of the carrier in a way that can realistically be insured. Although the CMR is of a private-law nature, it does nevertheless have a legal framework imposed by governments. The sender and the carrier are free to negotiate transport contracts, subject to some imperative limits. Whatever is not governed by the CMR remains subject to the jurisdiction of national law. Some of its provisions appear to have been the inspiration for the Inter-American Convention on Contracts for the International Carriage of Goods by Road, 1989, ratified by Paraguay, which has so far not come into force.

With the political and economic changes in the Central and Eastern European countries, the task of facilitating international transport has taken on a new dimension. The very considerable increase in East-West trade and traffic has been hampered to some extent, in spite of considerable efforts, by the existing insufficient transport infrastructure, but also by inadequate transport facilitation procedures. Customs and other administrative procedures need to be constantly reviewed, streamlined and adapted to the requirements of modern transport techniques and

to the large volumes of merchandise that will be transported internationally, not only in the traditional North-South, but increasingly also in the East-West direction within Europe.

The Convention on Road Traffic was signed at Vienna on 8 November 1968. It applies in 61 countries and sets out international standards concerning vehicles and vehicle use. It provides for reciprocity of treatment of vehicles entering the territories of contracting parties. In doing so, it greatly facilitates the movement of vehicles internationally and heightens road safety.

The contracting parties are responsible for modification, if need be, of national laws, regulations and administrative instructions in line with the provisions of the Convention; notification of the United Nations Office of Legal Affairs of the distinguishing sign to be displayed in international traffic on vehicles registered in the country; ensuring that the national rules of the road conform in substance to the provisions of the Convention; ensuring that technical requirements for motor vehicles and trailers conform to the provisions of the Convention; providing for the admission in international traffic of motor vehicles and trailers which fulfil the conditions provided for in the Convention; providing for the admission of drivers in international traffic who fulfil the conditions provided for in the Convention; and, upon request, identifying any person in whose name a vehicle is registered if the vehicle is involved in an accident.

The Convention on Road Signs and Signals, signed on 8 November 1968, also at Vienna, applies worldwide in 52 States and sets out international standards concerning the layout, design and positioning of different types of road signs and signals. Specifically, the Convention classifies three main categories of road signs, danger warning, regulatory and informative; and specifies their dimensions, shapes and colours to ensure visibility and legibility. Uniform road marking conditions are also specified by the Convention, as are pedestrian signs. The Convention makes a major contribution to the improvement of road safety and security. It is suitable for extension to further countries but has major national budget implications, as road signs are largely non-existent in some countries, while others are not in conformity with the Convention requirements. A large investment programme linked to development loans may therefore be necessary to implement the Convention fully.

The contracting parties are responsible for adopting as soon as possible the system of road signs, signals and symbols and road markings described in the Convention, subject to the time limits specified. These are 4 years for replacement where an internationally recognized sign is used with a meaning different from that provided in the Convention, and 15 years for replacing other non-conforming signs.

The Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to Be Used for Such Carriage

of 1 September 1970 aims to facilitate international transport of perishable foodstuffs in a way that ensures high food quality. This lays down technical standards for the thermal efficiency of vehicles and containers and sets down the methods by which vehicles and containers are to be approved. Additionally, it calls for the mutual recognition of approval certificates. A number of countries also use the Agreement as the basis for their national requirements for the transport of perishable foodstuffs. It has undoubtedly had an important impact on harmonizing the rules relating to perishable foodstuffs and on simplifying the procedures for those operators who cross international boundaries. As of 30 June 2004, 39 States were party to this Agreement.

The Customs Convention on Containers was signed on 2 December 1972 at Geneva, entered into force on 6 December 1975, and had attracted 30 contracting parties by 2004. It allows containers, whether loaded with goods or not, together with their accessories and equipment, to be imported into a country on a temporary basis for up to 3 months (which may be extended) while in transit, without payment or deposit of customs duties and normally without production of customs documents.

The contracting parties are responsible for training customs officials in the operation of the procedures; communicating to other States, on request, information necessary for implementing the provisions of the Convention, especially information relating to the approval of containers and to the technical characteristics of their design; and establishing a system for technical approval certificates. Transport operators are responsible for ensuring that containers are marked in line with annex 1 of the Convention and a plate affixed in accordance with annex 5; compliance with the time frame for temporary importation; compliance with imposed restrictions as to use in internal traffic; keeping detailed records, if requested, of the movements of each individual container in the country of temporary importation; and appointing a national representative.

The simplification of the regime created by the Customs Convention on Containers of 1972 and the tax- and duty-free admission of containers belonging to a Pool were central elements of the ***Convention on Customs Treatment of Pool Containers Used in International Transport (Container Pool Convention)*** of 1994. Boasting 12 contracting parties as of June 2004 and having entered into force in January 1998, the Convention aims to encourage the international transport of goods carried by containers that belong to a container Pool. The Container Pool Convention replaces the obligation of keeping records of every single container movement with a requirement for a

contracting party to assign a certain number of its own containers to a Pool and allow an equal number of Pool containers unrestricted travel within its territory.

The International Convention on Safe Containers of 1972/1993 is an IMO (International Maritime Organization) convention that applies in dozens of countries worldwide and allows an ISO (International Organization for Standardization) container that has a valid safety approval plate to move in international transport with a minimum of safety control formalities. It is of significant interest to landlocked States, especially for those States with a high potential level of containerized transport. The requirements of the Convention apply to the great majority of freight containers used internationally, except those designed specifically for carriage by air.

The contracting parties are responsible for implementing generally accepted test procedures and related strength requirements for the transport and handling of containers; implementing uniform international safety regulations, equally applicable to all modes of surface transport; and avoiding divergent national safety regulations. The approval evidence provided by the safety approval plate granted by one contracting State should be recognized by other contracting States on a reciprocal basis.

The United Nations Customs Convention on the International Transport of Goods under Cover of TIR Carnets of 14 November 1975 updates the TIR Convention of 1959. The TIR (*transport international routier*) Convention was drawn up originally for European transport only, but the TIR system has gradually been extended to other areas in the world, including the Middle East, North Africa and Latin America (Uruguay and Chile). The TIR system may now also be applied to goods carried in containers by rail, inland water craft or sea transport, provided that at least one portion of the journey is undertaken by road. It allows goods to move under cover of the TIR carnet (logbook) without intermediate customs inspection from origin point to destination and without payment of a deposit for import or export duties and taxes. It is a key facilitation instrument, as it reduces customs formalities and the risk of loss, damage and pilferage at intermediate points. It should, however, be noted that the TIR carnet allows free passage of the goods only. The passage of the vehicle is not facilitated by TIR and may be subject to requirements for bilateral or multilateral permits and vehicle documentation requirements.

The TIR Convention permits the international carriage of goods by road from a customs office of departure to a customs office of arrival, through as many countries as necessary, without any intermediate border check of the goods carried. This requires a number of precautionary measures, such as customs secure sealing and prescriptions for the design of the load compartment or the container in order to prevent smuggling. To cover duties and taxes at risk throughout the journey,

an international guaranteeing chain has been established under the Convention. The only existing guaranteeing chain, and it functions well, is managed by the International Road Transport Union (IRU) in Geneva. In September 1987, a multimodal TIR carnet was made available to the issuing associations. Although no changes in the Convention were required, since the Convention was already multimodal in nature, the new document simplified its use for this purpose.

Contracting parties are responsible for the authorization of (a) national guaranteeing organization(s); conclusion of a contract of commitment between the customs authorities and the national guaranteeing association; publication of the list of customs offices approved for accomplishing TIR operations; training of customs officials in the operation of TIR customs procedures; and the establishment or designation of an authority responsible for the approval of road vehicles and containers.

The guaranteeing association is responsible for the conclusion of contracts of commitment with the national customs authorities, IRU and transport operators requesting TIR carnets; and the distribution of TIR carnets to approved transport operators. Transport operators (holders of the TIR carnet) conclude a declaration of commitment with the national guaranteeing association; obtain the certificate of approval for road vehicles and containers to be delivered by competent national inspection authorities and provide for its renewal, if necessary, at regular intervals; and mount the TIR plate on road vehicles and containers.

IRU is responsible for procurement of the acceptance of the national guaranteeing association by the international insurance pool; informing all national guaranteeing associations and national customs authorities of the acceptance of the new guaranteeing association; issuance of TIR carnets to national guaranteeing associations; administration of the TIR carnet and guarantee system; and representation and participation in the work of the ECE Working Party on Customs Questions Affecting Transport concerning the TIR transit system. Having entered into force on 20 March 1978, the Convention had 64 contracting parties as of 30 June 2004.

The UNCITRAL Convention on International Carriage of Goods by Sea, 1978 (the Hamburg Rules), was developed by the United Nations Commission on International Trade Law (UNCITRAL) to provide a modern set of rules for the liability of sea carriers and came into force in 1992. The Hamburg Rules provide a better basis for multimodal transport than the Hague Rules and are adapted to the needs of electronic commerce. They are not dependent on the issue of a conventional bill of lading but apply to all contracts of carriage in the same way as the CMR does for road transport. With the Hamburg Rules there is no liability gap in the port after the sea carrier has taken possession of the goods, which is possible with the Hague Rules.

The Hamburg Rules have been adopted by most States on the Eastern Europe–Caucasus corridor. Using the Hamburg Rules along the TRACECA corridor of the Black Sea and the Caspian Sea through to Central Asia would ensure a harmonized and modern system of sea carriers' liability on a route that will be largely multimodal.

The period of responsibility of the sea carrier covers the period during which the carrier is in charge of the goods at the port of loading, during the carriage and at the port of discharge. The carrier is liable for loss, damage and delay unless the carrier proves that he/she, or his/her servants or agents, took all measures that could reasonably be required to avoid the occurrence and its consequences. The sea carrier normally remains responsible even if part of the sea transport has been subcontracted to another sea carrier.

The Convention concerning International Transport by Rail (COTIF) was signed at Berne, Switzerland, on 9 May 1980. It includes the CIM Convention, on international carriage of goods by rail, and the CIV Convention, on international carriage of passengers and their luggage by rail, and has been substantially modernized by the Protocol of Vilnius, 1999.

The attraction of accession to the COTIF or its use as a potential model for transit transport framework agreements has increased, as the 1999 changes bring the COTIF broadly in line with the policies and provisions advocated for rail transport in developing countries during the 1990s by the multilateral development banks. The purposes of the COTIF are to cater for the increasing independence of railways from the State and separation of infrastructure and operations; to introduce more streamlined border crossing procedures; to apply to the whole of a national rail network rather than, as formerly, to designated routes only; to provide for technical interoperability between railways through two new technical annexes on validation of technical standards (APTU) and technical admission of railway equipment (ATMF); to provide for the liability of carrying railways to pay compensation to goods owners for loss and damage; and to deal, where applicable, with the respective liability of infrastructure managers and railway carriers in relation to one another.

The Vienna Convention on the International Sale of Goods, 1980, is currently being applied worldwide by some 61 States, including, among the LLDCs, Burundi, Kyrgyzstan, Lesotho, Mongolia, Uganda, Uzbekistan and Zambia. It is suitable for the LLDCs, as its provisions are mandatory but can be contracted out of if the private parties to a contract decide on different terms. Many parties are insufficiently aware of contract law and will be well protected by the basic fabric of the Convention. More sophisticated traders will remain free to vary its obligations provided they do so clearly by written clauses. The Convention

refers to goods in transit, particularly with regard to passing of risk, in its articles 66-70. It is private international law and will not normally affect States as such.

Box 7:
**An illustration: the TIR Convention and schemes
based on its principles**

It has not so far been possible properly to implement in West Africa a regional customs transit system based on the TIR Convention. The Convention relating to Inter-States Road Transit of Goods (ISRT Convention), adopted by ECOWAS in 1982, sought to establish standards that may have been too onerous. The ISRT Convention is based on the following principles:

- (i) Goods must travel in secure vehicles or containers;
- (ii) Duties and taxes at risk throughout the journey are covered by an internationally valid guarantee;
- (iii) The goods are accompanied by an internationally accepted carnet issued in the country of departure and accepted in the countries of transit and destination;
- (iv) Customs control measures taken in the country of departure are accepted by transit and destination countries;
- (v) Load compartments of transit vehicles must be constructed in such a way that access to the interior is not possible once vehicles have been secured by customs seal;
- (vi) Road transport associations exist at both the regional and the national levels to secure and administer guarantees;
- (vii) Financial mechanisms are in place to back guarantees.

Apparently, none of these requirements can be met in all the States concerned. Thus, as an example, it is claimed that 70 per cent of vehicles available for transit operations are ordinary open-top lorries which could not satisfy the technical requirements set out in the annex to the Convention, so vehicles are still subject to very strict and cumbersome customs controls, including customs escorts. Some lateral thinking seems to be called for here. Conversion of such vehicles to vehicles equipped with TILT tarpaulin covers and TILT cords allowing the affixing of a customs seal would be a relatively inexpensive procedure, suitable for donor intervention as an "infrastructure" project. It is by no means clear that technical problems raised are actually incapable of solution. Given the high level of deposit guarantees required, it is also not clear why funds would not be available for establishing a workable system of insurance or bank guarantees if the political and institutional will would be made manifest.

The International Convention on the Harmonization of Frontier Controls of Goods was signed on 21 October 1982, entered into force on 15 October 1985 and enjoyed the cooperation of 43 States by 30 June 2004. It aims at the harmonization and reduction of the requirements for completing formalities and a reduction in the number and duration of all types of controls, be they for health reasons or for quality inspections; and applies to all goods being imported, exported or in transit. It covers, inter alia, customs procedures and other controls; medico-sanitary inspection; veterinary inspection; phytosanitary inspection; compliance with technical standards; and quality control measures.

The contracting parties are responsible for the training of officials at border stations to streamline import, export and transit procedures in order to facilitate the transit of goods, and for the establishment of coordinated procedures at the national and international levels covering all relevant border control authorities. In particular, States should endeavour to provide for: joint customs control of goods and documents through the operation of shared facilities and common opening hours; adequate qualified officers, equipment and facilities at border crossing stations; relevant information to other contracting parties, at their request; and furthering the use of documents aligned to the UN layout key, including the acceptance of documents “produced by any appropriate technical process”. In the case of all goods, but especially those travelling under an international customs transit procedure such as TIR, inspections are to be limited to cases where they are warranted by the actual circumstances.

The United Nations Convention on the Liability of Operators of Transport Terminals in International Trade was agreed in 1991. There is frequently a gap in liability when goods are temporarily in the charge of operators who provide services ancillary to transport, but are not subject to any international mandatory regime of liability. This Convention seeks to bridge that gap by applying a liability regime to such transport-related services as storage, warehousing, loading, unloading, stowage, trimming, dunnaging and lashing performed in relation to goods involved in international carriage. The terminal operator would be liable for itself and the actions of its employees, agents and subcontractors unless it showed that it or they took all measures that could reasonably be required to avoid the occurrence and its consequences.

The revised ***International Convention on the Simplification and Harmonization of Customs Procedures (Kyoto Convention)*** was agreed in 1999. The World Customs Organization (WCO) was founded in 1953 as the Customs Cooperation Council, and in its contribution to the review of the article V provisions of GATT, it suggested that “the WCO instruments are compatible with and complementary to the ... GATT Articles. The GATT Articles set out the rules for trade facilitation,

while instruments of the WCO, including the revised Kyoto Convention, provide the basis and practical guidance and information for the implementation of those rules" so far as customs questions are concerned.¹⁰¹

The goal of the **1999 Kyoto Convention** revision was to provide customs administrations with a modern set of uniform principles for simple, effective and predictable customs procedures that also achieved effective customs control. WCO also wished to ensure that far greater harmonization of national customs laws took place. The 1973 Kyoto Convention faced the same problems of practical applicability at the local level that were raised at the beginning of this chapter in relation to the Barcelona and New York transit conventions. Many parties to the 1973 Convention accepted very few of the vitally important annexes or entered reservations as to the applicability of those that they did accept.

The key feature of the revised Convention is a new structure consisting of a general annex and 10 specific annexes. The general annex contains the core provisions for clearance of goods that are common to all customs procedures. The general annex is obligatory for accession and implementation by contracting parties. It contains 10 chapters, on general principles; definitions; clearance and other customs formalities; duties and taxes; security; customs control, including risk management and audit-based controls; application of information technology; relationship between customs and third parties; information; and decisions and rulings by customs and appeals.

The revised Convention has 10 specific annexes containing a total of 25 chapters, each dealing with a different customs procedure. Contracting parties are required to accede only to those specific annexes and/or chapters applied by their administration. As in the general annex, the standards are obligatory and binding on contracting parties accepting an annex or chapter.

The revised Convention will be brought into force by a protocol of amendment once 40 of the current contracting parties have ratified or acceded to the protocol. As at July 2002 some 11 States, including Lesotho and Uganda, had ratified or acceded, while Zambia and Zimbabwe had signed, subject to ratification, indicating that LLDCs already perceive worthwhile future benefits from being party to the new system.

The revised Kyoto Convention is indeed compatible with the freedom of transit rights stipulated in article V of GATT. Provisions relating to customs transit of goods under the Kyoto Convention meet the non-discrimination and avoidance of delay requirements of GATT, notably by establishing simplified procedures for authorized consignors and consignees involved in the transit procedure, and establishing simple

¹⁰¹ WTO document G/C/W/426, 8 October 2002.

and clear procedures for the sealing and identification of consignments, thus reducing delays in transit procedures. Finally, with regard to paragraph 4 of article V, on charges, the general annex complies with GATT by limiting any expenses chargeable by customs to no more than the approximate cost of the services actually rendered.

The Convention on the Contract for the Carriage of Goods by Inland Waterways (CMNI) of 22 June 2001 was adopted at a diplomatic conference in Budapest of the Central Commission for the Navigation of the Rhine, the Danube Commission and ECE. It is an ingenious adaptation to the circumstances of inland waterway transport of the ECE road carriage convention (CMR) with broadly the same scope, structure and terms. It will come into force following ratification by at least five States. It will regulate the contractual relationship between carrier and goods shipper and will apply not only to waterway journeys but to hybrid journeys by waterway *and* waters where maritime regulations apply, unless a maritime bill of lading has been issued or the maritime part of the journey is longer than the waterway part. There are consignor and documentation requirements similar to those in the CMR and similar successive carrier obligations where carriage is subcontracted. This Convention may well be of future interest for the waterway trade of Africa and South America either through direct accession or as a model for regional agreements.

In spite of the interest expressed by many LLDCs, relatively few of them have so far achieved accession to these transport conventions which have been endorsed by many international organizations. It is notable that where accession has occurred it has often followed receipt of technical assistance from donor institutions. Examples include the implementation of the TIR customs carnet system across Central Asia and the Caucasus following a number of technical assistance projects funded by the European Union between 1995 and 2001, and the ratification and entry into force of the Hamburg Rules in 1992, achieved largely following familiarization workshops and other initiatives of the United Nations Conference on Trade and Development (UNCTAD). The take-up by the African LLDCs of this latter Convention was impressive, and it must be very disappointing to them that discouragement of the process of worldwide ratification by a number of the most powerful maritime States has left the more restrictive Hague or Hague-Visby Rules in force in many parts of the world.

Some systems developed for application in industrialized countries and incorporated into existing international conventions may be inappropriate in the developing country context at present.¹⁰² However,

¹⁰² UNCTAD/LDC/MISC.84, Freedom of Transit: Obligations and Implications of Article V of GATT.

such systems may be capable of being adapted for use in LLDCs, or an acceleration of technological development in those countries may allow fuller implementation of the unamended instruments.

IV. Regional and subregional agreements

There has been an increasing trend towards regional and subregional agreements which attempt to produce comprehensive and multimodal facilitation solutions. Some examples follow.

The governments of Burundi, Kenya, Rwanda, Uganda and Zaire signed the **Northern Corridor Transit Agreement** on 19 February 1985 (renewed in 1996) covering right of transit; maritime port facilities; transit routes and facilities; customs control; documentation and procedures; means of transport; rates, charges and payment arrangements; facilities for transit employees; and establishment of the Transit Transport Co-ordination Authority of the Northern Corridor to assist implementation. Separate protocols set out more detailed provisions concerning maritime port facilities; transit routes and facilities; customs control; documentation and procedures; transport of goods by rail; transport of goods by road; handling of dangerous goods; facilities for transit agencies and employees; and third-party motor vehicle insurance.

A number of initiatives have been developed by COMESA and SADC. In particular, the **SADC Protocol on Transport, Communications and Meteorology** of 1996 contains provisions on freedom of transit for persons and goods; rights of unimpeded access to the sea for landlocked member States; obligations to cooperate in provision of transit infrastructure; and obligations to develop regulatory and institutional structures to support these provisions.

Members of the Association of Southeast Asian Nations (ASEAN) (Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam) signed a **Transit Framework Agreement** at Hanoi, Viet Nam, on 16 December 1998. Part I, article 3, contains a definition of transit transport essentially identical to that found in article 124, paragraph 1 (c), of the 1982 United Nations Convention on the Law of the Sea. Under article 5, the right of transit transport and the right to load and discharge third countries' goods destined for or coming from contracting parties is granted reciprocally. The agreement applies to goods and means of transport only, not to persons. Part II deals with designation of transit transport routes, part III with general conditions for road transport, part IV with general conditions for rail transport and part V with customs control and sanitary and phytosanitary measures.

The agreement provides for the establishment of working groups to conclude subsequent protocols on designation of transit routes and corridors; designation of border posts; types and numbers of road vehicles; technical requirements of vehicles; compulsory third-party motor vehicle insurance; railway border and interchange stations; a customs transit system; sanitary and phytosanitary measures; and dangerous goods. For example, an Agreement on mutual recognition of vehicle inspection certificates was concluded during 1998, under which the parties “agree to recognise the valid commercial vehicle inspection certificate with respect to goods vehicles and passenger service vehicles issued by the designated authorities of the Contracting Parties”.

On 15 September 1999, the Protocol on Technical Requirements of Vehicles was adopted for vehicles engaging in transit transport. Under article 3, contracting parties must ensure that such vehicles are registered with the respective National Transit Transport Coordinating Committees (NTTCC) and that they comply with the technical requirements regarding vehicle dimensions, maximum weights and loads, emission standards and related matters as detailed in the protocol. Also on 15 September 1999, the Protocol on Types and Quantity of Road Vehicles was agreed upon. Only the types of vehicles mentioned in annex 1 of the protocol may be used in transit transport. They must also meet the standards of the protocol on technical requirements. Remaining protocols under the Framework Agreement are in the process of finalization or entry into force. The agreement and its protocols have been systematically implemented by the ASEAN secretariat in a relatively short time, and this experience deserves to be carefully studied to establish how it could be replicated elsewhere.

The ***Basic Multilateral Agreement on International Transport for Development of the Europe-Caucasus-Asia Corridor***, signed by 12 States in September 1998, including the seven landlocked States of the region, is a significant bridge-building exercise. It includes not only parties from the former Soviet Union, but also Turkey and Bulgaria and Romania, having very different regulatory traditions. It is a framework agreement providing for detailed implementation through technical annexes. It also provides for the establishment of an intergovernmental commission and a permanent secretariat (established in Baku, Azerbaijan) to administer the agreement and promote further development of its provisions and its technical annexes.

Although its title refers to a transport corridor, its objectives are much broader and include: developing economic relations, trade, transport and communications in the region; facilitation of international transport of goods and passengers; ensuring traffic safety, security of goods and environmental protection; harmonization of transport policy and the legal framework in the field of transport; and creation of equal conditions of competition between different types of transport.

The political commitment to implementing the agreement through practical institutions has had a significant impact in increasing traffic flows, which had all but ceased across the Caspian Sea and fallen dramatically at the eastern end of the Black Sea, following the break-up of the Soviet Union.

In Latin America, an early multilateral harmonization instrument was the **Convention on Surface Transport** signed on 19 October 1966 by the governments of Argentina, Brazil and Uruguay, soon followed by Chile and Paraguay. Many elements of this agreement survive, though it was amended by the **1977 International Surface Transport Agreement**, signed in Mar del Plata, Argentina, by the Southern Cone countries (Argentina, Bolivia, Brazil, Chile, Paraguay, Peru and Uruguay). A revised **International Surface Transport Agreement (ATIT) of the Southern Cone Countries** was agreed in 1990 under the 1980 Montevideo Treaty. This added a modern customs clearance system and a new annex on insurance. The MERCOSUR countries (Argentina, Brazil, Paraguay and Uruguay) have used the ATIT as the basis for implementing regulations regarding carriers, multimodal transport, dangerous goods and axle load limits.

The countries of the Andean Community (Bolivia, Colombia, Ecuador, Peru and Venezuela) have also harmonized their surface transport standards as a first step to linking up with the Southern Cone through **decision 399 on Freight** and **decision 467 on International Customs Clearance**. Argentina, Bolivia, Brazil, Paraguay and Uruguay signed the **Treaty of the Río de La Plata** in Brasília on 23 April 1969. They agreed to promote the harmonious development and integration of the basin. On 26 June 1996, the same countries signed the **Agreement on Fluvial Navigation on the Paraguay-Paraná Rivers**. This provides for freedom of navigation; equal treatment; multilateral treatment of cargo reservation; regulation of navigational and port services; and protocols on navigational safety, environmental protection and customs procedures.

An institutional forum for harmonization has been established in the form of the **Conference of Ministers of Transport, Public Works and Communications of South America**. The Latin American Integration Association (ALADI) acts as technical secretariat for this group and has made significant harmonization efforts.

V. Bilateral agreements

The European Conference of Ministers of Transport (ECMT) has long favoured moving away from a system of numerous bilateral agreements in road transport towards multilateralism, common standards and qualitative criteria instead of quantitative restrictions. It has recognized, however, that for some time to come relations between some States in

Europe, notably the transition economies, were likely to remain on a bilateral basis. To assist these countries, ECMT devised a model bilateral road transport agreement containing definitions, rules, principles, standards and criteria, based primarily on ECMT resolutions, such as the ECMT Consolidated Resolution on Road Goods Transport adopted at Annecy, France, on 26 and 27 May 1994, and on European Union law.¹⁰³ The model agreement consists of 16 articles dealing with scope and definitions; goods transport permit system, procedure and exemptions; tax provisions; weights and dimensions of vehicles; equipment and other characteristics; controls; and obligations of transport operators and penalties.

Malawi and the United Republic of Tanzania signed the **Lake Shipping and Port Services Agreement** in 1995. This regulates shipping operations on Lake Malawi/Nyasa, including cooperation in the operation of lake and port services, adoption of a uniform system of coastal survey, navigational charts and aids, and sharing of information on pollution.

Kazakhstan signed a **treaty in 1992 with the Russian Federation** on principles of cooperation and conditions for transit transport, together with a specific agreement on railways. The treaty requires each party to provide “beneficial conditions” to the other for all modes of transport on the basis of reciprocity. Under article 3, means of transport of each party undertaking transit are exempted from taxes. Under article 10, “questions which are not settled by this Agreement and by international agreements to which Contracting Parties are members, shall be resolved according to the domestic laws of each Contracting Party”. The separate railway agreement seeks to maintain technological uniformity through uniform norms on manufacturing and maintenance, labour conditions, organization of works and safety, and interrelationships with users and other modes. Tariffs are to be mutually agreed upon for inter-State traffic.

The Lao People’s Democratic Republic entered into a **revised bilateral transit treaty with Thailand** in 1978 with greater emphasis on freedom of transit as a right. Under the revised agreement, slightly more bargaining power was granted to the Lao People’s Democratic Republic in negotiations with the Express Transport Organization of Thailand (ETO), which previously could unilaterally set and enforce transport and forwarding charges. Thailand guaranteed to provide 71 trucks per day to expedite the movement of transit traffic, and to continue the Lao transit warehouse presence in the Port of Klong Toey, Bangkok.¹⁰⁴ Also,

¹⁰³ European Conference of Ministers of Transport, document CEMT/CM (97) 21, 18 March 1997.

¹⁰⁴ ESCAP document: Transport planning for land-locked countries: transit and border-crossing issues, 1994.

a Transit Commission was established to review treaty implementation and solve transit problems.

Mongolia entered into ***bilateral transit agreements with China and the Russian Federation in 1991 and 1992***. The treaty with the Russian Federation permits freedom of transit broadly in line with the New York Transit Convention. In the case of China, transit is viewed as a freedom granted by the transit State. There is a commitment by both China and the Russian Federation to expedite the movement of goods, but without any guarantee. Non-discrimination is more apparent in the Russian than in the Chinese agreement. There is more extensive freedom of transit for means of transport in the Russian agreement. Both agreements are likely to be superseded in the near future by a more comprehensive multilateral framework agreement among China, Mongolia and the Russian Federation.

Nepal renewed its ***1991 transit treaty with India in 1999***, gaining a number of important concessions. The treaty accords freedom of transit through routes mutually agreed upon to “traffic in transit” between the two States. Under article IV, “traffic in transit shall be exempt from customs duties and from all transit duties or other charges except reasonable charges for transportation and such other charges as are commensurate with the costs of services rendered in respect of such transit”. Storage facilities are provided for Nepal, in accordance with article V, at the ports of Kolkata and Haldia. Details concerning supervision and control of traffic in transit are laid down in a separate memorandum, which defines import and export procedures.

Bolivia signed a ***treaty with Chile*** in 1904 that gave Chile permanent possession of the Bolivian littoral but in return granted to Bolivia in perpetuity “the broadest and freest right of commercial transit through her territory and ports of the Pacific”. Bolivia was also granted the right to maintain customs agencies in Chilean ports. These rights were confirmed and updated in further agreements signed in 1912 and 1937. A bilateral integrated transit system (SIT) was introduced in the port of Arica in 1975, and in 1978 was extended to the port of Antofagasta. The SIT is a set of procedures for handling the documentation associated with the unloading, temporary storage, reloading and dispatch of goods in transit to and from Bolivia. Administration of this system by two successive State-controlled agencies has unfortunately led to criticism on account of the distortion of port charges, said to make the Chilean ports uncompetitive.¹⁰⁵

Paraguay has signed a number of bilateral agreements with transit States. In 1956, it acquired the right to use a duty-free shed in

¹⁰⁵ UNCTAD/LDC/113, Review of recent progress in the development of transit transport systems in Latin America, 16 July 2001.

the Brazilian port of Paranaguá. In 1959, a treaty with Spain created a duty-free shed in the port of Asunción and a free zone for goods originating in Spain. In 1976, agreements were reached with Uruguay for use of grain silos, a transit shed and creation of a free zone in Nueva Palmira and for use of a transit shed in the port of Montevideo. In 1979, agreement was reached with Argentina for installation of a dock and free zone with customs representation in the port of Rosario. As a result of these bilateral agreements, the Paraguayan Port Administration manages a number of foreign warehouses and duty-free zones which facilitate transit trade.

VI. Conclusion

Existing freedom of transit for LLDCs as embodied in the Barcelona Convention, the New York Convention and the UN Law of the Sea Convention has for too long tended to be notional rather than real. LLDCs have had to rely on the political good will of transit States in multilateral and bilateral negotiations for agreements to give practical effect to those rights. Article V of GATT contains similar rights and is legally binding in a large and increasing number of States, including transit as well as landlocked ones. Embodying rights broadly similar to those in the most favourable of the transit treaties, article V is also part of a broad non-mode-specific trade agreement that contains an established and updated dispute resolution mechanism to which recourse may be had. Institutionally, article V may be considered to offer real prospects of at last working out realistic mechanisms for making freedom of transit a day-to-day reality for landlocked developing countries.

LLDCs now have an important “window of opportunity” in which to seek more effective implementation of workable transit rights by harnessing the momentum raised by both the Doha Declaration of WTO in 2001 and the Geneva Package agreed by WTO member States on 7 August 2004. Note should also be taken of the apparent interest of numerous sponsors of international regulatory harmonization, such as WCO, ECE, UNCTAD and the European Union, in using WTO as a realistic forum in which to develop such rights in an enforceable manner.

Particularly for the LLDCs, bilateral agreements have been a mixed blessing. Negotiation and maintenance of such agreements require a considerable commitment of official time and travel budgets. Thus Kazakhstan, for example, has bilateral transport agreements with over 30 countries. Bilateral agreements of LLDCs have often been unbalanced, as the corresponding transit State appeared to be, and frequently was, in a dominating position, with “negotiations” being a rather one-sided process of accepting the terms which the transit State was prepared to

offer. Changing economic conditions and a realization that transit offers potential benefits and synergies for the transit country as well as for the landlocked State are beginning to change the picture. The need to cross more than one international boundary, as land-based transit grows in importance relative to sea transport, is also focusing attention on multi-lateral solutions.

An interesting example of the changing perspective is the situation of Mongolia, which has bilateral transit agreements with the Russian Federation and China, neither of which is particularly favourable to Mongolia as a landlocked State. Viewed bilaterally, neither the Russian Federation nor China perceived much gain from its relationship with Mongolia, and this is reflected in the terms of the respective bilateral agreements. The possibility of establishing a new transit corridor between Europe and East Asia via Mongolia has recently provided the impetus for ongoing negotiations for a multilateral transit agreement that looks set to offer new, positive economic opportunities to all three countries.

The experience of recent multilateral transit agreements elsewhere in the Asia-Pacific region and in South America is equally positive. With regard to prospects for facilitation of customs transit, multilateral solutions appear to offer the best prospects for long-term viability. In future facilitation work in the LLDCs, priority should be given to enhancement of multilateral solutions. Bilateral agreements should progressively diminish in importance except where no more than two parties have any serious interest in certain transit traffic, which is still sometimes the case as in some of the South American bilateral agreements.

Chapter 4



HOW CAN THE
INTERNATIONAL
COMMUNITY HELP
LANDLOCKED
DEVELOPING COUNTRIES?

How can the international community help landlocked developing countries?

I. Why should the international community help LLDCs?

Today's reality of interdependence between States means that the disadvantages of landlockedness can only be mitigated through the efforts of the international community as a whole. The impact of post-11 September security measures on world trade illustrates one crucial implication of this interdependence. The awareness that terrorist groups can unleash havoc in one part of the world and have a devastating impact on another region has led to tightened transport security worldwide. Transport, insurance and customs costs have consequently increased. These might lead to higher transaction costs, particularly in developing countries with a greater reliance on foreign trade. However, as well as presenting difficult challenges to the poor countries, interdependence can present opportunities: for instance, the international community can agree on common rules, procedures and regulations to cut transaction costs and facilitate trade.

So LLDCs do not merely prefer the active support of the international community in order to participate effectively in the international trading system; they depend on it. The international community has increasingly recognized the special problems faced by these countries related to the high trade transaction costs that make it difficult for them to benefit from international trade and use their comparative advantage effectively in the international division of labour. As stakeholders, the international community has also realized the importance of its own contribution

towards facilitating transit transport cooperation. In 2000, in the United Nations Millennium Declaration, the Heads of State and Government recognized the distinctive handicaps confronting LLDCs and called for their special needs and problems to be addressed. This call represented the continued will of the international community to place assistance for these countries at the top of the global policy agenda.

Context is the key to understanding. In this vein, these landmark developments must be seen against the backdrop of lengthy efforts made by the world body to mobilize international attention and support for LLDCs. In 1957, when the General Assembly in its resolution 1028 (XI), relating to the agenda item entitled "Expansion of international trade", considered for the first time the particular needs and problems of LLDCs, there were only five independent countries of this type in the world: Afghanistan, Bolivia, the Lao People's Democratic Republic, Nepal and Paraguay. Today, there are 31 in Africa, Asia, Europe and South America. The General Assembly has regularly assessed the situation in landlocked developing countries and has adopted resolutions on the specific actions needed to assist them. The greatly increased number of LLDCs, coupled with their wide geographical distribution, means that their particular needs and problems have become a matter of concern to a much wider range of countries. Indeed, assistance has become even more urgent because today the penetration or retention of export markets greatly depends on the ability of exporters to guarantee the delivery of goods under tight schedules. Landlocked developing countries thus risk being further marginalized unless urgent action is taken. To this end, international assistance is being channelled in a number of ways.

This encouraging sentiment was further invoked through the United Nations Ministerial Conference on Transit Transport Cooperation in Almaty, Kazakhstan, in 2003. In Almaty, the international community recognized the unique challenges facing LLDCs and resolved to coordinate international efforts towards their mitigation. The Almaty Programme of Action emphasized that efficient transit transport systems can be established through genuine partnerships between landlocked and transit developing countries and their development partners at the national, subregional, regional and global levels. It also stressed the partnership between the public and private sectors. Therefore, the overarching goal of this UN General Assembly-endorsed Programme of Action is to forge partnerships to address the special needs of landlocked developing countries and to establish a new global framework for action for establishing efficient transit transport systems in landlocked and transit developing countries.

The Programme of Action thus aims: (a) to secure access to and from the sea by all means of transport; (b) to reduce costs and improve services

so as to increase competitiveness of their exports; (c) to reduce the delivered costs of imports; (d) to address problems, delays and uncertainties in trade routes; (e) to develop adequate national networks; (f) to reduce loss, damage and deterioration en route; (g) to open the way for export expansion; and (h) to improve the safety of road transport and the security of people along the corridors. The United Nations General Assembly endorsed the Almaty Programme of Action and invited the UN system and other international organizations, including the UN regional commissions, UNCTAD, the World Bank, the World Customs Organization, the World Trade Organization and the International Maritime Organization, to integrate the Almaty Programme of Action into their relevant programme of work. Therefore, the Almaty Programme of Action is the blueprint for the international community to address the special developmental needs of landlocked developing countries, which takes into account their right to access to and from the sea by all means of transport in a holistic and integrated manner.

To achieve these goals, the Almaty Programme of Action identifies specific actions in five priority areas: fundamental transit policy issues; infrastructure development and maintenance, including rail, road, air transport, inland waterways, ports, pipelines and communications; international trade and trade facilitation; international support measures; and implementation and review of the Programme itself.¹⁰⁶

Under priority 1, on fundamental transit policy issues, the landlocked and transit developing countries, with the support of their development partners, should undertake specific measures to review and revise their regulatory frameworks in order to allow a greater participation of the private sector; to introduce reform measures to make providers of transport services more responsive to user needs; to increase transparency of transit and border control and procedures; and to promote the use of information technology.

Under priority 2, on infrastructure development and maintenance, the Programme of Action emphasized that inadequate infrastructure is a major obstacle to establishing efficient transit transport systems. The deterioration of transport infrastructure is a general problem. Also, communications facilities are required to facilitate advance knowledge of transport service availabilities in order to ensure smooth and speedy transit. Addressing these needs will involve considerable investment, the setting up of public-private partnerships, capacity-building, and new policies and institutional reform. Furthermore, the Programme of Action spelled out specific actions related to infrastructure development and maintenance,

¹⁰⁶ United Nations document A/58/388, report of the Secretary-General on outcome of the International Ministerial Conference of Landlocked and Transit Developing Countries and Donor Countries and International Financial and Development Institutions on Transit Transport Cooperation.

including greater national resources, international financial and technical assistance, establishing a conducive environment for private sector involvement, and encouraging the competition of different transport modes.

Under priority 3, on trade and trade facilitation, the Programme of Action established the close links between trade and development and trade and transport. Transport is a key sector for international trade, for regional integration and for ensuring balanced national development. The Programme of Action recognized that one of the main causes of the marginalization of landlocked developing countries from the international trading system is high trade transaction costs. In this context, it noted that the current negotiations on market access for agricultural and non-agricultural goods should consider giving particular attention to products of special interest to landlocked developing countries. In terms of trade facilitation, the document called for concerted action to address additional and avoidable costs caused by cumbersome procedures, excessive documentation requirements, inadequate infrastructure facilities and the costliness of bank transactions. A number of actions will be undertaken to address these issues, including easing accession to the WTO process for landlocked and transit developing countries, as many of them remain outside WTO, ensuring enhanced and predictable access to all markets for their exports, providing greater technical assistance for negotiations on trade facilitation and using information technology to a far greater extent.

Under priority 4, on international support measures, the Programme of Action emphasized that the development partners should play an important role in supporting transit transport development programmes, including a substantial increase in official development assistance, increased foreign direct investment, and access to and transfer of technologies related to transport. Also, priority areas for financial assistance are identified in this section: investments designed to complete missing links in the transit transport chain by extending railways and roads to landlocked developing countries; maintenance of existing physical transit transport infrastructure; development of cost-effective routes; development of dry ports; and establishment of adjacent border points. Technical assistance will be provided for promoting the implementation of bilateral, subregional, regional and international agreements; promoting social and market-oriented transit transport policies; promoting privatization programmes; establishing training programmes in the areas of customs, freight forwarding and clearing transit cargo, road safety, environmental protection and transit insurance; expanding regional databases; initiating trade-facilitating measures; and elaborating the implications of acceding to international relevant conventions.

Under priority 5, on implementation and review, there is a built-in mechanism to follow up on the Almaty Programme of Action. It is empha-

sized that the establishment of efficient transit transport systems would require individual and concerted efforts by the landlocked and transit developing countries, their development partners, the United Nations organizations and relevant international development institutions. Upon endorsing this Programme, the United Nations General Assembly provided the UN system organization with a clear set of mandates for its implementation. Recent developments after the Conference showed that the major stakeholders are committed to cooperating in the implementation of the Almaty Programme of Action. Progress in the implementation of this Programme will be reviewed by the General Assembly of the United Nations. Bilateral, subregional and regional cooperation is emphasized as the most important element in establishing efficient transit transport systems. In this context, opportunities offered by the South-South cooperation should be fully utilized.

II. Trade facilitation

The international community has taken significant steps to address the constraints of landlockedness through trade facilitation, defined as “the harmonization, simplification and automation of procedures for importers, exporters and customs through the systematic rationalization of controls and documentation for international traders and administrative agencies in order to facilitate the international transaction process”.¹⁰⁷ Trade facilitation can be seen more generally as the circumvention of obstacles to trade, ranging from streamlining border and customs procedures, to standardizing transport regulations between countries, to ensuring effective and transparent regulation. Documentation requirements present one such major obstacle to trade that trade facilitation measures seek to address: they often lack transparency and are vastly duplicative, a problem often compounded by a lack of cooperation between traders and official agencies. Despite advances in information technology, automatic data submission, as highlighted in Chapter 1, is still not commonplace. In considering trade facilitation, the world is taking one step on from trade liberalization. Markets can be theoretically open but in practicality closed; the latter is the focus of this section.

Trade facilitation measures are crucial in reducing trade transaction costs relatively quickly and inexpensively by simplifying requirements, harmonizing procedures and documentation, standardizing commercial practices, and regulating the presentation of information. The benefits from trade facilitation can be particularly important for landlocked countries because their goods have to move across addi-

¹⁰⁷ United Kingdom Department of Trade and Industry, Europe and World Trade, <<http://www.dti.gov.uk/ewt/facilitation.htm>>.

tional borders. Trade facilitation is effective, however, if targeted towards both LLDCs and their transit neighbours. Burundi, for example, enjoys a relatively strong road network, but trade is hindered by poor infrastructure in the United Republic of Tanzania. Conditions on the Central Corridor in Eastern Africa that extends to Dar es Salaam are so difficult, and political instability on the Northern Corridor to Mombasa can be so rife, that a 4,500 km route to Durban is often the preferred option.¹⁰⁸ Given international recognition of the importance of trade facilitation, the international community knows of its duty to encourage steps to support landlocked and transit developing countries. Progress is being made on several fronts.

There is strong evidence to show that organization-driven trade facilitation frameworks lead to practical initiatives that make a difference. A few examples of efforts undertaken by international organizations are listed below.

The World Customs Organization (WCO) plays a major role in developing the smooth movement of traffic in transit by ensuring honest, transparent, predictable and efficient customs administration. To this end, it establishes and promotes uniform international customs arrangements; examines the technical aspects of customs systems and applies those findings; and promotes cooperation between customs administrations and the trading community. The most important work of WCO, however, lies in its promotion of the International Convention on the Simplification and Harmonization of Customs Procedures (Kyoto Convention), discussed at greater length in Chapter 3. In June 1999, the revised Kyoto Convention was approved by the Council of WCO. Generally, it standardized and simplified customs procedures; sought partnership between customs and trade; coordinated intervention with other agencies; and promoted transparency in customs requirements, laws, rules and regulations. More specifically, it promoted the use of information technology, including automation and the electronic transfer of funds.

The UN regional commissions play an increasingly important role in relation to LLDCs. The Second United Nations Transport and Communications Decade for Africa II (UNCTACDA II) attached particular importance to the facilitation of international road traffic aimed at abolishing intra-African trade barriers and obstacles by improving the efficiency of road transport services. Particular attention was given to harmonizing transit charges, preparing guidelines on harmonized charges and standardizing axle load control.

The Economic Commission for Africa (ECA) is also preparing performance indicators to monitor road transport operations along the

¹⁰⁸ Faye, Michael L., and others "The Challenges Facing Landlocked Developing Countries", *Journal of Human Development*, 5 (1), March 2004, p. 44.

road corridors, and making efforts to streamline and simplify border crossing points and checkpoints for transit transport. In this context, efforts were made to establish adjacent border posts to reduce transit formalities and waiting times for truck drivers.

The United Nations Economic Commission for Europe (ECE) has promoted international conventions and agreements that regulate international rail and road traffic. Procedures for temporary importation, transport of dangerous goods, and the range and regulation of international transport operations have also been developed. ECE is promoting the accession to, and implementation of, this set of legal instruments by all countries, including LLDCs. ECE is also contributing significantly to the facilitation of international commerce by undertaking measures to reduce the amount of paperwork in trade transactions. Electronic Data Interchange (EDI) and the United Nations Rules for Electronic Data Interchange for Administration, Commerce and Transport (UN/EDIFACT) are among the cornerstones of electronic commerce. UN/EDIFACT is an international standard for the formatting and sequencing of data for EDI, invented by ECE as an international standard to replace the two national standards that had emerged in the United States and in Europe and were creating difficulties for international trade.

Electronic commerce has also been actively promoted by ESCAP, which has brought together national trade facilitation bodies and national focal points from the Asia and Pacific region to contribute to the development of trade facilitation issues. Working with ECE, ESCAP has developed two training modules: “EDI — A Management Overview” and “EDI and UN/EDIFACT — A Technical Overview”. Through the World Wide Web, ESCAP has access to the ECE Trade Facilitation Information Exchange (TraFix), which integrates procedures and documentation work to simplify international trade through the vast array of electronic commerce technologies and services. In addition to these IT projects, ESCAP produced analytical studies on trade-related issues from which LLDCs and their transit neighbours can benefit. The multilateral trading system, regional trading arrangements, small and medium-sized enterprises (SMEs) and FDI have all been subjects of such studies. Training courses and seminars — on private sector development, investment and trade facilitation — organized by ESCAP/WTO helped LLDCs and transit developing countries to up-skill 3,000 civil servants between 2000 and 2003.¹⁰⁹ With regard to cross-border cooperation, ESCAP established the Greater Mekong Subregion Business Forum, the Asian Clearing Union, the Asian Reinsurance Corporation, and the Asian and Pacific Centre for Agricultural Engineering and Machinery in Beijing, China. ESCAP has

¹⁰⁹ ESCAP, *Making Trade and Investment Work for All*, 2004, p. 6.

also supported the Bangkok Agreement and the Bangladesh–India–Myanmar–Sri Lanka–Thailand Economic Cooperation Initiative.

The United Nations Commission on International Trade Law (UNCITRAL) aims to confront obstacles to the flow of trade caused by disparities in national laws governing international trade through furthering the progressive harmonization and unification of the law of international trade. It works mainly through the drafting of UN conventions and other legal instruments. In the area of trade facilitation, the Commission is dealing with the international sale of goods and related transactions; international transport of goods; international commercial arbitration and conciliation; and international payments and electronic commerce.

UNCTAD has a special competence in relation to transit transport, and its major technical assistance initiative in the area of trade facilitation is the Automated System for Customs Data (ASYCUDA). The core of the programme is a computer-based software program to streamline and reduce customs forms and procedures. It is based on and incorporates ECE and WCO recommendations and standards, including those related to the UN Document Layout Key, codes and other standards. The basic idea is to rid the customs system of outdated procedures and practices and to incorporate international practices and standards in order to increase a country's customs revenue through reduced costs and faster clearance. Since its inception, the program has been updated and revised numerous times to improve capacity and performance. UNCTAD has also developed a transport management tool called the Advance Cargo Information System (ACIS). ACIS is a set of computer applications designed to produce management information to address multimodal cargo transit and transport problems. ACIS provides improved information to help control the operations of individual transport operators and facilitate rational corporate planning. It also serves as a database on the latest reported location and status of goods and transport equipment. Therefore, it permits governments and institutions to analyse national, subregional and regional problems and investigate alternative investment opportunities in the transport sector.

World Trade Organization (WTO) rules comprise a variety of provisions that aim to enhance transparency and to set minimum procedural standards, the subject of several WTO agreements. The Ministerial Declaration of the Doha Ministerial Meeting of WTO in November 2001 "recognized the case for further expediting the movement, release and clearance of goods, including goods in transit, and the need for enhanced technical assistance and capacity building in this area".

The Doha Declaration builds on the General Agreement on Tariffs and Trade. There are five core principles behind the recommendations made by WTO members for improving GATT articles V, VIII and X: trans-

parency; consistency and predictability; non-discrimination; simplification and avoidance of unnecessary restrictiveness; and due process.¹¹⁰ Transparency is required for trade facilitation because it ensures the availability of precise information concerning border crossing requirements and procedures. Consistency and predictability in the application of rules create the kind of certainty required for trade; they not only allow for an accurate measurement of transaction costs but also minimize them by reducing the value of and need for additional insurance policies to cover the undesirable eventualities commonly experienced in an inconsistent and unpredictable framework. The principle of non-discrimination is concerned with ensuring uniform treatment between trading partners and equal treatment of all individual traders where the same circumstances apply. Through harmonization and avoidance of unnecessary restrictiveness, border crossing requirements are simplified and made more efficient in order to reduce transaction costs. Finally, border regulations should comply with due process: border rules should be considered to be fair and a legal framework should exist to allow for redress in the case of injustice.

WTO members have proposed a number of tools with which to implement the necessary reforms pertaining to these five principles behind trade facilitation. Transparency can be heightened through the creation of dedicated enquiry points to facilitate the transfer of information to affected parties, and the provision of information in English or another widely understood language.¹¹¹ The publication of typical border processing times, the establishment of codes of ethics and the introduction of consultation mechanisms can help to achieve predictability. Simplification can be achieved through periodic regulatory reviews, while international mediators should be embraced to ensure review mechanisms where they do not already exist in a satisfactory form. To ensure efficient border controls, WTO members have suggested that customs intervene minimally in the case of “low risk” shipments to allow for greater intervention in the case of “high risk” traders and establish “fast track” and “automated” systems to ensure the rapid processing of regular and authorized traders.

In addition to suggesting these national and regional reforms, WTO members evaluating GATT articles V, VIII and X have recognized the need for a multilateral approach to trade facilitation that encourages technical assistance, capacity-building, and the standardization of trade rules. In this vein, on 1 August 2004 the General Council of the World Trade Organization agreed to include trade facilitation in the next round of

¹¹⁰ TD/TC/WP(2003)12/FINAL, JT00145322, 02-Jun-2003, Working Party of the Trade Committee, OECD, Trade Facilitation Principles in GATT Articles V, VIII and X: Reflections on Possible Implementation Approaches, p. 4.

¹¹¹ *Ibid.*, p. 10.

negotiations, having reached a breakthrough on agricultural subsidies and so-called Singapore issues that had previously hindered progress in this regard. The Council for Trade in Goods is to review and, as appropriate, clarify and improve relevant aspects of articles V (freedom of transit), VIII (fees and formalities connected with importation and exportation) and X (publication and administration of trade regulations) of GATT 1994 and identify the trade facilitation needs and priorities of members, in particular developing and least developed countries.

It is in this context that landlocked developing countries have the potential to work together to secure favourable international agreements on trade. Recognizing Africa as “the scar on the conscience of the world”, British Prime Minister Tony Blair has established the Commission for Africa in partnership with African and other international thinkers such as Prime Minister Meles of Ethiopia and Trevor Manuel, the South African Minister for Finance. Although the Commission, which was to present its report in March 2005, has adopted a wide remit that includes conflict resolution and debt, a significant part of its role will be to develop trade facilitation plans that have Africa-wide support. These proposals were expected to be considered at the G8 summit in Gleneagles in June 2005. The formulation of a common position can only assist African countries, especially those that are landlocked together with their transit neighbours, in pushing the case in the international arena for development assistance generally and trade facilitation measures specifically. The benefit of such a coherent approach was evident in the Cotonou Agreement, signed between the European Community Member States and African, Caribbean and Pacific States in 2000 to promote trade-led development in return for good governance.

The World Bank works with WCO to improve and reform customs procedures that hinder the efficient movement of traffic. To aid customs reform projects, the World Bank has prepared the *Customs Modernization Handbook*, which includes a specific chapter on transit and the special case of landlocked countries.

To facilitate trade, governments of landlocked and transit developing countries must seek to make their existing transport infrastructures more effective. Thus, facilities must be well maintained and intensively used. Rules and regulations need to be changed to encourage private sector participation. This means deregulation, decentralization and liberalization. Both landlocked and transit developing countries also require assistance in revising their regulatory framework, in human resource development and in implementing reform processes. In particular, the World Bank emphasizes the expected efficiency and investment gains associated with using the private sector in infrastructure development, but recognizes that making a private sector transac-

tion “pro-poor” requires carefully designed regulation. Such regulation must ensure a level playing field between large and small private utilities, and allow flexible contract and subsidy design through differentiated quality standards. The Asian Development Bank has called for short-term contracts to be built into long-term partnership arrangements to curb monopoly power, and the establishment of independent and transparent regulatory frameworks.¹¹²

III. Infrastructure development

The existence of a well-functioning transport system is a prerequisite not only for trade to take place but also for foreign direct investment to be channelled to a specific country. Indeed, some of the main specific economic factors for selecting a host country for FDI are physical infrastructure and the availability of reliable and efficient transport and communication services. However, the dilemma is that infrastructure cannot be developed without adequate finance. It is often down to official development assistance (ODA), pledged through bilateral agreements, to finance infrastructure development. The regional development banks, the World Bank, the European Union and Japan are among the lead contributors in this area.

Another financial concern is the level of investment in projects involving private participants in the ownership or control of previously publicly owned infrastructure in landlocked developing countries. Such infrastructure privatization has been extensive in Latin America, but has developed at a slower pace in Africa and Central Asia.

International financial assistance is the major source for infrastructure development in landlocked developing countries. In this regard, it is emphasized in the Millennium Project report to the Secretary-General on the Millennium Development Goals that even though infrastructure investments are preconditions for long-term growth, the rate of return on these investments is very low. In this case, foreign aid rather than private capital is essential to break the deadlock. For the landlocked developing countries as a whole, the 1990s saw transport sector commitments reach US\$ 8.6 billion and constitute 11.8 per cent of total commitments, as compared with US\$ 50.2 billion and 13.4 per cent for 34 transit developing countries. Physical infrastructure of all types constituted 26.5 per cent of all commitments for the landlocked countries and 33.5 per cent for the transit countries.¹¹³ The main reason is

¹¹² Asian Development Bank (2000), “Developing Best Practices for Promoting Private Sector Investment in Infrastructure — Roads”, Manila.

¹¹³ UNCTAD/LDC/112, 28 June 2001, p. 5.

that most investment in LLDCs takes the form of emergency assistance. Allocation of development assistance to the transport and communications sectors varies greatly from country to country, with Afghanistan investing the least, along with the Niger, Rwanda, Azerbaijan, Burundi, Tajikistan, Turkmenistan, Armenia, the former Yugoslav Republic of Macedonia and Bhutan. In contrast, Uganda, Kazakhstan, Zimbabwe, Zambia, Bolivia, Paraguay, the Lao People's Democratic Republic, the Central African Republic and Mongolia allocate relatively larger shares of ODA to infrastructure development. Transport sector commitment as a percentage of GNP, as pointed out in Chapter 1, ranges from a high of 4.9 per cent for the Lao People's Democratic Republic, 3.5 per cent for Mongolia and 2.7 per cent for the Central African Republic, to 13 other landlocked countries with between 1 per cent and 2 per cent, and 14 countries with less than 1 per cent.¹¹⁴

With finance assured, initiatives can be launched to provide for a second measure to mitigate the disadvantages of landlockedness: the establishment and regulation of efficient transit networks. The international community administers a cornucopia of initiatives in this vein. These include investment in roads, air transport and dry ports; the use of information technology; and efficient regulatory practices. Each of these will be outlined in turn.

Numerous road projects are administered by the international community. On the subregional level, the World Bank implements the Northern Corridor Transport Improvement Project aimed at facilitating international transport operation in the Kenyan section of the corridor, which provides access to Uganda, Rwanda, Burundi and the eastern Democratic Republic of the Congo. The project includes infrastructure rehabilitation as well as support to streamline transit procedures and transport regulations, and a component to address HIV/AIDS transmission along the corridor. Most recently, on 2 March 2004 the three member States of the East African Community signed a customs union protocol and are now working with the World Bank to implement the agreement. The EU and several individual countries are also assisting.

In West Africa, the World Bank is working closely with the Economic Community of West African States (ECOWAS) and the West African Economic and Monetary Union (WAEMU) in preparing a regional West Africa Transport Project, which explicitly refers to the Almaty Programme of Action in its design. This project may involve up to 15 countries at its final stage, all members of ECOWAS, to ensure improvement of road conditions, facilitation of border crossing operations and implementation of interregional transit agreements. The project will address infra-

¹¹⁴ United Nations document A/57/1, report of the Secretary-General on the work of the Organization, fifty-seventh session.

structure rehabilitation and development, issues of transit regulations, implementation of existing agreements and broader application of information technology in transport operations.

Within the framework of the Asian Land Transport Infrastructure Development project, comprising the Asian Highway and Trans-Asian Railway networks and land transport facilitation measures, special attention has been given to LLDCs in order to link them with the regional land transport network. In April 2004, developing countries from Asia congregated in Shanghai to sign the Asian Highway Agreement, the first of its kind to be developed under the auspices of ESCAP. It establishes the alignment, standards and signage for the 140,000 km of highways extending through 32 countries, including all of the landlocked States of the region. The signing of this agreement will boost the coordination and standardization of the region's transport network.

Affordable air transport services are a valuable part of an LLDC's infrastructure. That John F. Kennedy International Airport, when measured by cargo value, is the single largest port in the United States suggests that air transport is a vital element in facilitating international trade.¹¹⁵ When one considers that air transport negates the difficulties associated with landlockedness, its value to LLDCs becomes ever more apparent. However, despite its advantages, the landlocked developing countries have been slow to develop trade through air transport: of the 19 LLDCs for which airport export data are available, only five exceed 4,000 tonnes of exports per year, with just eight exceeding 1,000.¹¹⁶ That many LLDCs export commodities for which air transport is of limited use — like petroleum, ores and cotton — is a partial explanation of this fact. But the export of perishable commodities like fruit and light, high-profit goods like precious stones would benefit from improved air transport infrastructure, as would the overall commercial infrastructure on which the petroleum industry in particular relies.

Cost is the main driver behind the lack of air transport provision to landlocked developing countries. Air transport costs are usually high because of the protection of international air transport from international competition through bilateral air service agreements (ASAs) and international airline alliances that effectively prohibit efficient outside carriers from competing. So far, however, few measures have been taken to tackle this problem through liberalization through the General Agreement on Trade in Services although the potential to do so

¹¹⁵ Public-Private Infrastructure Advisory Facility (PPIAF), draft working document, "Private Investment in Infrastructure: How Can It Facilitate Landlocked Developing Countries' Access to World Markets", p. 22.

¹¹⁶ *Ibid.*

still remains.¹¹⁷ Elsewhere, some progress has been made. In Africa, the NEPAD-backed Yamoussoukro Declaration provided for the liberalization of air transport, while on a bilateral basis the so-called Bermuda-type agreements give airlines the freedom to negotiate the frequency of flights and “open skies” agreements give airlines flexibility over routes used between two countries.¹¹⁸

Calls have been made for international efforts to promote the creation of dry ports, facilities that accept containers from ocean ports that are sealed and therefore are not subject to custom controls. In cutting transaction costs, dry ports comprise a valuable element of a country’s infrastructure.

From 1997 to 2002, private infrastructure investment in the developing world declined from US\$ 128 billion to US\$ 58 billion. Therefore, the World Bank has adopted the approach of emphasizing public-private sector investment in infrastructure development.¹¹⁹ Nevertheless, loans will be granted only to well-performing public utilities with a clear and agreeable reform agenda.

The effort to continue the shift towards the service delivery model is maintained through the World Bank’s development of an Infrastructure Action Plan to heighten its capacity to improve infrastructure service delivery. The Infrastructure Action Plan highlights three key areas. First, the World Bank pledges to respond to client country demand for infrastructure by increasing loan opportunities and issuing guidance notes to facilitate the development of additional projects of this kind. The second key element is for the World Bank’s knowledge base to be strengthened through country-specific analysis incorporating investment opportunities through the Recent Economic Developments in Infrastructure (REDI) model. And third, the World Bank actively seeks to encourage new and existing instruments and mechanisms with which to maximize infrastructure funding.

In April 2004, the World Bank published an assessment of its progress in implementing the Infrastructure Action Plan, which it praised as “significant”.¹²⁰ Among its specific achievements, the World Bank issued guidance on the respective roles of the public and private sectors, carried out analytical work in partnership with other multilateral as well as bilateral donors, successfully introduced the Recent Economic Developments in Infrastructure (REDI) model, and established the Infrastructure Economics and Finance Department to assist

¹¹⁷ World Bank, *Global Economic Prospects and the Developing Countries: Making Trade Work for the World’s Poor*, 2002, p. 98.

¹¹⁸ *Ibid.*, p. 118.

¹¹⁹ Infrastructure Action Plan, informal board meeting, 8 July 2003, p. 2.

¹²⁰ Infrastructure Action Plan update, informal board meeting, 9 April 2004, p. 2.

Box 8:
**LLDCs and intraregional FDI: Bolivia, Paraguay and the
benefits of regional integration in Latin America**

Paraguay and Bolivia — the two Latin American LLDCs — appear to perform far better than many other LLDCs as hosts for foreign direct investment (FDI), presumably at least partly due to their membership in a number of thriving regional trade agreements. The annual average per capita FDI inflows during the 1990s were US\$ 55 and US\$ 29 for Bolivia and Paraguay, respectively, compared with an average of US\$ 11 for all LLDCs.

Bolivia belongs to the Latin American Integration Association (ALADI) and the Andean Community. It also has a free trade agreement with Mexico, an Agreement of Economic Complementarity with Chile, and a special agreement with MERCOSUR, and benefits from the generalized system of preferences (GSP) of the European Union and from the Andean Trade Preferential Act (ATPA) of the United States. Bolivia is therefore able to benefit from significant tariff preferences in those markets.

Although Paraguay is landlocked, its central location in South America and its membership of MERCOSUR were recently highlighted as its major attractions for FDI. The country also has a special status with the Andean Community.

Moreover, these regional blocs have some negotiating power with other trading blocs, notably with the Free Trade Area of the Americas (FTAA). In 2000, most FDI in Paraguay originated from Latin American countries, particularly Argentina, Brazil, Chile, Colombia, Mexico and Uruguay. Bolivia is in a similar situation.

The success of MERCOSUR in attracting FDI in the 1990s was attributed largely to the abolition of all trade barriers between the member countries. This enabled transnational corporations (TNCs) to form regional production networks. The significant growth of export-oriented investment, integrating as it does the Latin American affiliates into regional production networks, suggests yet another strategy adopted by major TNCs in the region. During the 1990s, regional trade within MERCOSUR accounted for about one quarter of total trade of the member countries. A significant proportion of this trade is intra-firm trade controlled by TNCs, signifying the extent to which TNCs establish integrated production networks in the region.

The lesson for other LLDCs is that efforts to strengthen economic relationships with neighbouring countries may well compensate for at least some of the disadvantages of being landlocked. This appears to be a particularly attractive policy route in Africa, given the large number of LLDCs in this region, some of which are neighbouring each other. African LLDCs are members of a number of regional and subregional integration organizations (for example, the Economic Community of Central African States (ECCAS); the Economic Community of West African States (ECOWAS); and the Intergovernmental Authority on

Development (IGAD)), but none of these has so far brought economic benefits similar to those of the Latin American agreements (in the early 1990s, intraregional trade accounted for only 4 per cent of total trade in Africa, compared with 44 per cent in East Asia and 30 per cent in Latin America). As the experience of Latin America suggests, establishing a real regional integration arrangement is a long and arduous process, the benefits of which often take decades to materialize.

Bolivia and Paraguay: members of various regional arrangements



Source: "FDI In Landlocked Developing Countries at a Glance", UNCTAD.

regions in the economics of infrastructure development, public-private partnerships and project finance.

To build on these accomplishments, the World Bank is developing solutions to additional challenges concerning the fiscal capacity of borrowing countries to invest in infrastructure, services to middle-income countries, collaboration across the World Bank, and sustained infrastructure support through finance and staff training. The World Bank has also been actively supporting landlocked and transit developing countries by improving the transport infrastructure, and ensuring the efficient management, of existing facilities. Recently, the transport programme emerged as the single largest programme of the World Bank. Examples of financial assistance for cooperative projects between landlocked and transit developing countries include the joint World Bank/Inter-American Development Bank project for a pipeline to export gas from Bolivia to Argentina and the World Bank loans to the East African Railways and Harbours, which are jointly owned by Uganda, Kenya and the United Republic of Tanzania.

IV. Regional cooperation

As desirable as worldwide agreement on trade facilitation and infrastructure development may be, in reality it is very difficult to achieve. For this reason, any consideration of the role of the international community in mitigating the disadvantages of landlockedness must take into consideration regional integration.

The rationale for regional integration is well-versed: the dismantling of barriers of trade cuts transaction costs, integrates economic cycles to combat exchange rate fluctuations between States, and encourages economies of scale, leading to mutual economic growth. This rationale has been put into practice — albeit to differing degrees — by a host of regional economic groups, including ASEAN, CEEAC, CEMAC, CEPLG, COMESA, EAC, ECOWAS, IGAD, IOC, MERCOSUR, SAARC, SACU, SADC and UEMOA.

Special consideration should be given, however, to the value of regional integration to landlocked developing countries for which reliance on regional partners is an essential key to development. Two points require particular attention. First, through regional integration, the handicap of border crossings is eased to facilitate access to neighbouring States and ports. Second, the development of infrastructure increasingly proceeds on a regional basis, to reduce transit time and costs and move landlocked States further away from isolation.¹²¹ In short, States are freed from their landlockedness through regional integration.

¹²¹ Carcamo-Diaz, R. (2004), "Towards Development In Landlocked Economies", Santiago: ECLAC, p. 25.

The establishment of regional transport corridors and the adoption of common rules and standards have played major roles in transit transport facilitation. Regional integration efforts and subregional organizations play an important role in developing regional cooperation and expansion of regional trade.

A number of initiatives warrant attention in this regard. The Southern Africa Transport and Communications Commission, instituted through SADC, integrates infrastructure and transport policy.¹²² Through COMESA's Yellow Card initiative, a single insurance policy is valid across all signatory States, cutting insurance and bureaucracy costs.¹²³ The New Partnership for Africa's Development (NEPAD) promotes regional cooperation in the pursuit of infrastructure improvements to secure regional integration and increase the size of the African market. It aims to develop reliable, affordable and interconnected regional infrastructure and harmonize transport procedures across regions. In pursuit of these ends, NEPAD has developed both short- and medium-term action plans for infrastructure development. The latter focuses on policies, regulations and institutional structures; investment requirements and financing; and capacity development and utilization. Projects that embrace a regional approach to infrastructure development are fast-tracked. NEPAD's action plans cover regional cooperation in the fields of political governance, economic and corporate governance, agriculture and market access, human resource development, infrastructure and environment.

Regional integration is developing in Latin America too. The Economic Commission for Latin America and the Caribbean (ECLAC) works towards regional solutions for development. The Inter-American Development Bank (IDB) works alongside ECLAC and the Organization of American States (OAS) in the Tripartite Committee that provides technical assistance to groups of the free trade area of the Americas (FTAA). IDB supports the Initiative for the Integration of Regional Infrastructure in South America (IIRSA), which seeks to promote closer trade ties and joint infrastructure development projects. Launched in 2000, it seeks to coordinate the infrastructure development plans of participating countries and harmonize their policies across the transport, energy and telecommunications sectors. One of IIRSA's most exciting projects is its effort to promote regional electricity markets as a step towards regional power integration.

¹²² Faye and others, p. 56.

¹²³ Ibid.

V. Conclusion

In sum, the international community has a duty to help landlocked developing countries and their transit neighbours, just as they have a duty to help themselves. Landlockedness and associated high transaction costs and isolation from world markets severely restrict a country's ability to trade and thus generate wealth. LLDCs rely on their transit neighbours and the international community to help mitigate these disadvantages, and there is evidence to show that such support is not insignificant. Trade facilitation, infrastructure development and regional integration are especially important concerns in this regard. LLDCs cannot resolve these challenges just by developing efficient transport systems. International cooperation should take their different situations into account in trade negotiations. LLDCs should also be given preferential market access to offset high trade transaction costs. However, despite progress, such efforts must not only continue but also adapt to the changing world situation as different challenges are presented to the international community. For instance, in the face of the security threats posed by terrorist groups around the world, an especially important concern for the trade facilitation drive is that the international community work in unison to formulate effective, efficient, affordable and common security arrangements for trade, in which confidence is enjoyed by all. This reflects the fundamental maxim of the twenty-first century that in an interdependent world we are all stakeholders in one another's fate.

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Landlocked countries, by definition, are those that do not possess any seacoast. They are also among the most disadvantaged and underachieving countries in the world. As even a cursory examination of global economic activities during the past decade will reveal, being divorced from the sea has imposed tremendous negativities on the socio-economic development of these countries. Landlocked developing countries (LLDCs) have found themselves increasingly marginalized in a Darwinian world economy. For LLDCs, the “death of distance”, so ubiquitously and optimistically touted in recent times, is more fiction than fact.

In *Geography Against Development*, the authors attempt to analyse the impact of geographical handicaps on external trade and economic development of landlocked developing countries and identify practical solutions to address them. The book is divided into four chapters. Chapter 1 analyses factors that hamper the effective participation of landlocked developing countries in international trade and economic development. Chapter 2 examines the corridor approach for establishing efficient transit systems and outlines the challenges faced and efforts made in different landlocked subregions. Chapter 3 describes major international conventions that are essential for securing freedom of transit and day-to-day transit operations. Chapter 4 outlines international support measures for establishing efficient transit transport systems.



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