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Chapter VII

Review of Regional Developments: Sub-Saharan Africa



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Chapter VII

REVIEW OF REGIONAL DEVELOPMENTS: SUB-SAHARAN AFRICA

This chapter reviews and analyses the global and intraregional trades in sub-Saharan Africa, along with developments in transport and related services.

A. ECONOMIC BACKGROUND

(a) General situation

186. The economies of sub-Saharan Africa have recently been influenced by three main developments. The first were movements in commodity prices. The persistent weakness of non-oil commodity prices continues to constrain growth in many countries in sub-Saharan Africa. Secondly, pressures for structural reforms have increased, in some cases because of the economic difficulties brought on by depressed commodity prices in recent years. Thus, increased attention has been given by Governments to preparations for the privatization of public utility and transportation companies in many of the sub-Saharan African countries, in order to improve the business and investment environment. Thirdly, the economic outlook is also being shaped by various improvements in trade and political cooperation. Several positive developments have been cited, including the implementation of the common external tariff by the West African Economic and Monetary Union, and plans for establishing free-trade areas in the Common Market for Eastern and Southern Africa and also in the Southern African Development Community in 2000.

187. For sub-Saharan Africa as a whole, growth in economic activities, measured by GDP, has been projected to grow by around 3 per cent in 1999 and 5 per cent in 2000. This aggregate figure masks the fact that some countries such as Cameroon, Côte d'Ivoire, Ghana, Sudan, United Republic of Tanzania and Uganda have been performing relatively well in macroeconomic terms. Growth of 4.0-5.5 per cent was projected for most of these countries in 1999, with further strengthening expected in 2000, and inflation has in general been

held at low-to-moderate single-digit levels. This relatively strong performance can be attributed in part to continued appropriate macroeconomic policies.

(b) Macroeconomic performances

Real GDP

188. The GDP growth of sub-Saharan Africa was stagnant for the period from 1991 through 1994, compared to the average annual growth of 2.3 per cent for the 1981-1990 period. Their overall economic activities regained some momentum in 1995, and sustained this positive development until 1998, when the growth rate fell below 3.0 per cent, and was also less than 3.0 per cent in 1999. A similar trend is observed in the GDP growth rate fluctuation of developed market-economy countries. This reflects how sub-Saharan African countries' economic performance as a whole has been closely related to those of the advanced economies. However, the trend in sub-Saharan Africa was in sharp contrast with that of all developing countries, specifically Asian developing countries, until the end of 1997. In 1998, the Asian economic and financial crisis adversely affected the overall economic performance of all country groups, including sub-Saharan developing countries. In 1999 all groups, including the sub-Saharan group, seem to be recovering gradually from the economic and financial slowdown (see table 50).

189. In West Africa, the economies of this subregion have continued to develop favourably since 1995, after a number of countries went through a phase of negative growth in previous years. In 1998, despite the Asian crisis, countries in this subregion generally performed well, recording positive growth rates which had been above the average rate of sub-Saharan Africa, with the

Table 50
Real GDP of the developing countries of sub-Saharan Africa
(annual percentage change, 1981-1998)

	Average 1981-1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
World	3.4	1.8	2.5	2.7	4.0	3.8	4.3	4.2	2.5	3.0
Developed market- economy countries	3.1	1.2	2.0	1.3	3.2	2.6	3.2	3.2	2.2	2.8
Developing countries	4.2	4.9	6.7	6.5	6.8	6.1	6.6	5.8	3.2	3.5
Africa	2.5	1.8	0.2	0.7	2.4	3.0	5.9	3.1	3.4	3.1
Sub-Saharan Africa	2.3	1.7	0	1.5	2.0	4.0	5.5	3.9	2.7	2.9
West Africa										
Benin	1.1	4.7	4.0	3.5	4.4	4.6	5.5	5.7	4.5	
Burkina Faso	2.8	10.0	2.5	-0.8	1.2	4.0	6.0	4.8	6.2	
Cape Verde	2.6	-34.1	-18.4	87.9	12.7	2.2	2.6	2.2	3.6	
Côte d'Ivoire	1.0	0	-0.2	-0.2	2.0	7.1	6.8	6.0	5.4	
Gambia	3.4	2.2	4.4	6.1	3.8	-3.4	5.3	0.8	9.9	
Ghana	2.1	5.3	3.9	5.0	3.8	4.5	3.5	4.2	4.6	
Guinea	3.1	2.4	3.5	4.9	4.0	4.4	4.6	4.8	4.6	
Guinea-Bissau	2.4	5.1	1.1	2.1	3.2	4.4	4.6	5.4	-28.1	
Liberia	-	-	-	-	-	-	-	-	-	
Mauritania	4.5	2.6	1.7	5.5	4.6	4.5	4.7	4.8	3.5	
Mali	2.0	-0.9	8.4	-2.4	2.2	6.4	4.0	6.7	3.6	
Niger	0	2.5	-6.5	1.4	4.0	2.6	3.4	3.3	8.4	
Nigeria	2.0	6.0	2.6	2.2	-0.6	2.6	6.4	3.1	1.9	
Senegal	2.5	-0.4	2.2	-2.2	2.9	5.5	5.2	5.0	5.7	
Sierra Leone	0.8	-8.0	-9.6	0.1	3.5	-10.0	5.0	-20.2	0.7	
Togo	1.1	-0.7	-4.0	-16.4	16.8	6.8	9.7	4.3	-1.0	
Central Africa										
Burundi	4.5	5.0	0.7	-5.9	-3.7	-7.3	-8.4	0.4	4.5	
Cameroon	3.3	-3.8	-3.1	-3.2	-2.5	3.3	5.0	5.1	5.0	
Central African Republic	2.0	-0.6	-6.4	0.3	4.9	6.0	-3.3	5.7	4.8	
Chad	5.0	10.4	2.4	-1.8	5.7	0.9	3.7	4.1	6.8	
Congo, Democratic Republic of the	0.7	-8.4	-10.5	-13.5	-3.9	0.7	0.9	-5.7	-5.0	

	Average 1981-1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Congo, Republic of	5.2	2.4	2.6	-1.0	-5.5	4.0	6.3	-1.9	3.5	
Equatorial Guinea	2.2	-3.6	17.0	7.1	6.8	16.2	27.8	71.2	22.0	
Gabon	1.6	6.1	-3.3	2.4	3.4	7.0	5.1	5.3	2.1	
Rwanda	2.2	-4.3	6.6	-8.3	-49.5	32.8	15.8	12.8	9.5	
Sao Tomé and Príncipe	-1.5	1.2	0.7	1.1	2.2	2.0	1.5	1.0	2.7	
Southern Africa										
Angola	2.1	0.7	-1.0	-27.0	1.4	11.3	11.7	6.6	-0.2	
Botswana	10.9	7.4	3.0	2.0	3.4	4.7	6.9	7.8	6.0	
Lesotho	4.6	4.1	4.6	3.7	3.7	6.0	9.7	4.1	-5.4	
Malawi	2.2	8.7	-7.3	9.7	-10.2	15.4	9.0	4.9	3.1	
Mozambique	0.1	4.9	-8.1	8.7	7.5	4.3	7.1	11.3	12.0	
Namibia	-0.6	5.7	9.5	-2.0	6.7	3.4	2.9	1.8	1.7	
Swaziland	6.6	2.5	1.3	3.3	3.5	3.0	3.6	3.7	2.0	
Zambia	1.0	0	-1.7	6.8	-8.6	-4.3	6.4	3.5	-2.0	
Zimbabwe	4.4	5.5	-9.0	1.3	6.8	-0.6	7.3	3.2	1.6	
East Africa										
Djibouti	0.3	0.5	-0.2	-3.9	-2.9	-3.6	-3.7	0.7	0.8	
Eritrea	-	-	-	-2.5	9.8	2.9	6.8	7.9	3.0	
Ethiopia	1.9	-4.7	-5.1	13.4	3.5	6.1	10.9	5.9	-1.0	
Kenya	4.3	1.4	-0.8	0.4	2.6	4.4	4.1	2.1	1.5	
Somalia	-	-	-	-	-	-	-	-	-	
Sudan	2.5	7.0	5.2	2.8	5.3	4.4	4.7	6.7	5.0	
Uganda	3.6	1.0	3.1	8.4	5.3	10.5	8.1	5.2	5.5	
United Republic of Tanzania	3.3	2.1	0.6	1.2	1.6	3.6	4.5	3.5	3.3	
Indian Ocean										
Comoros	2.4	-5.4	8.5	3.0	-5.3	-3.9	-0.4	0	1.0	
Madagascar	0.5	-6.3	1.2	2.1	0	1.7	2.1	3.7	3.9	
Mauritius	4.9	6.4	4.8	6.7	4.3	3.5	5.1	5.5	5.6	
Seychelles	3.6	2.7	6.9	6.5	-0.8	-0.6	4.7	4.3	2.3	

Source: Compiled by the UNCTAD secretariat on the basis of data in IMF, *World Economic Outlook*, October 1999.

exception of Guinea-Bissau, Sierra Leone and Togo. The economy of Sierra Leone had fluctuated drastically since 1990. Nigeria, the most influential economy in this subregion, saw its economic growth fall below 2.0 per cent in 1998, adversely affected by the drop in oil exports mainly as a result of the Asian crisis.

190. In the Central African subregion, most countries have maintained a relatively reasonable course of growth since 1995, with an exception of the Democratic Republic of the Congo, which continued to contribute negatively to the overall GDP growth of the subregion. The performance of the three oil exporters in the subregion has been generally stable since 1995. Cameroon recovered in 1995 from a prolonged depression in the oil sector as well as in the agricultural sector. The economic performance of both the Republic of the Congo and Gabon has been strong since 1995 thanks to higher oil production until 1997, which declined by 3-5 per cent in both countries in 1998. This has resulted in lower rates of growth.

191. In Eastern and Southern Africa, Zambia's GDP continued to experience wide fluctuations between negative and positive growth rates since 1990, despite the Government's wide-ranging reform programme. Angola, the largest oil-producer in the subregion, recovered,

after a sharp decline in 1993 in economic activities, until 1998 when it had a small negative growth rate mainly due to the slowdown in the non-oil industry. Zimbabwe has been experiencing fluctuations of positive GDP growth except in 1992 and 1995. Kenya registered higher growth in 1995 and 1996 as strict budgetary management resulted in improvements in the financial situation, although since 1997 a decline in the growth rate has been observed. GDP growth in the United Republic of Tanzania has been relatively stable since the early 1990s. Mozambique has had very positive results since 1992.

(c) Total trade in goods

192. Table 51 compares developments of annual trades in goods of sub-Saharan Africa with those of all developing countries. In the sub-Saharan African developing countries, the unfavourable developments of both exports and imports in value and volume respectively over the period from 1991 through 1993 corresponded to the low growth in GDP of developed market-economy countries. On the other hand, favourable trade expansion of all developing countries for the same period was largely attributed to the increased intraregional trades of East and South-East Asia.

Table 51

Total trade in goods of sub-Saharan Africa and developing countries (annual percentage change 1981-1999)

			Average 1981-1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Sub-Saharan Africa	Value	Export	-1.2	-4.3	-0.1	-5.0	4.6	18.5	10.8	1.5	-13.9	3.0
		Import	-1.1	1.4	5.2	-3.2	2.9	21.5	4.3	5.4	-3.3	3.7
	Volume	Export	0.5	2.2	0.9	0.9	3.1	9.2	9.2	5.4	-0.7	2.5
		Import	-0.5	1.9	3.3	0.8	2.9	12.8	8.4	8.1	1.7	3.3
Developing countries	Value	Export	0.8	0.8	7.7	4.6	15.3	23.1	9.5	8.2	-7.2	3.9
		Import	2.7	9.6	13.9	9.4	9.8	20.6	8.1	6.7	-5.3	2.6
	Volume	Export	2.5	6.3	10.1	8.5	12.9	14.7	5.8	12.4	4.6	2.4
		Import	1.9	7.7	14.5	10.5	8.3	14.4	7.0	10.4	-1.3	2.0

Source: IMF, *World Economic Outlook*, October 1999

193. Over the period from 1995 through 1999, the exports of sub-Saharan African countries increased at an average annual rate of 4.0 per cent in value and 5.1 per cent in volume, with imports increasing at 6.3 per cent per year in value and 6.9 per cent in volume. Over the same period, the exports of all developing countries expanded at an average annual growth rate of 7.5 per cent in value and 8.0 per cent in volume, while imports also increased at 6.5 per cent in value as well as in volume. In 1998, growth of trades (exports and imports) of sub-Saharan African countries as well as all developing countries fell drastically to a negative level, while those of the previous three years (1995-1997) represented an average growth rate of 10-14 per cent per year. This particular decline in growth is largely attributable to the adverse effects of the Asian crisis.

B. GENERAL SITUATION OF MERCHANT FLEETS OF AFRICA

Merchant fleets in sub-Saharan African countries

194. Table 52 provides data on the overall development of the merchant fleets of the world and sub-Saharan African countries by principal types of ship. Total tonnage of all the sub-Saharan African countries decreased from 0.29 per cent of the world total in 1980 to 0.23 per cent in 1990 and reached 0.15 per cent in 1999.

Tankers and general cargo ships account for 46.4 per cent and 29.1 per cent respectively of the total sub-Saharan fleets. Tanker tonnage increased very slowly but steadily from 459,000 dwt in 1980 to 561,000 dwt in 1999, whilst total tonnage of general cargo ships has been shrinking constantly from 1.4 million dwt in 1980 to 0.8 million dwt in 1990, and further down to 0.35 million dwt in 1999. Dry bulker tonnage increased to 74,000 dwt in 1999 from 20,000 dwt in the previous year, which only accounted for a minimal portion of the world dry bulker fleet. No containerships were registered in this subregion.

West Africa shares 75.6 per cent of the total tonnage of this subregion, standing at 0.9 million dwt in 1999 as compared with 1.3 million dwt in 1980 and 1.1 million dwt in 1990. While West Africa's tankers almost doubled the tonnage in 1980 to 535,000 dwt in 1999, general cargo ships in deadweight tons have plummeted from 966,000 dwt in 1980 to only 137,000 dwt in 1999. The merchant fleet of East Africa makes up 15.0 per cent of the total sub-Saharan fleet, representing 182,000 dwt, which remain unchanged from the tonnage in 1980, albeit with large year-to-year fluctuations since then. The majority of this area's fleet is made up of general cargo ships, the tonnage of which remained unchanged since the early 1990s representing 147,000 dwt in 1999 (148,000 dwt in 1980 and 91,000 dwt in 1985). Total tonnage of Central Africa and Southern Africa has been steadily declining, reaching 18,000 dwt and 95,000 dwt respectively in 1999.

Table 52

Merchant fleets of the world and those registered in sub-Saharan African countries, selected years (in thousand dwt)

	Year	Total	Tanker	Dry bulker	General cargo	Container	Others
World total	1980	682 768	339 324	185 652	115 824	11 243	30 725
	1985	664 800	261 439	232 107	105 846	19 939	45 469
	1990	658 377	245 936	234 659	102 676	25 955	49 151
	1995	734 917	267 650	261 628	104 129	43 849	57 660
	1998	788 725	280 668	275 514	103 388	61 183	67 972
	1999	798 995	283 617	276 072	103 862	63 669	71 776

	Year	Total	Tanker	Dry bulker	General cargo	Container	Others
Sub-Saharan Africa - total	1980	1 985	459	-	1 416	-	110
	1985	1 647	448	-	1 032	-	167
	1990	1 554	453	-	819	-	282
	1995	1 373	526	39	570	-	238
	1998	1 169	533	19	386	-	231
	1999	1 210	561	74	352	-	223
West Africa	1980	1 309	277	-	966	-	66
	1985	1 106	298	-	691	-	117
	1990	1 102	439	-	451	-	212
	1995	785	501	-	268	-	16
	1998	860	508	-	176	-	176
	1999	915	535	74	137	-	169
Central Africa	1980	362	141	-	191	-	30
	1985	269	141	-	110	-	18
	1990	155	-	-	121	-	34
	1995	115	1	38	41	-	35
	1998	36	1	19	6	-	10
	1999	18	1	-	7	-	10
Southern Africa	1980	133	15	-	111	-	7
	1985	164	4	-	140	-	20
	1990	151	4	-	127	-	20
	1995	143	3	-	116	-	24
	1998	106	3	-	76	-	27
	1999	95	4	-	61	-	30
East Africa	1980	181	26	-	148	-	7
	1985	108	5	-	91	-	12
	1990	146	10	-	120	-	16
	1995	184	22	-	145	-	17
	1998	167	21	-	128	-	18
	1999	182	21	-	147	-	14

Source: UNCTAD, *Review of Maritime Transport*, various issues.

Note: Tonnages registered in the Liberia, South Africa and African island countries are not included.

C. MOVEMENTS OF NON-LINER DRY CARGO AND MAJOR DRY BULK CARGO

195. Table 53 indicates movements of all non-liner dry cargo and major dry bulk cargo (coal, iron ore and grain) to and from the subregions of sub-Saharan Africa. Subregional analysis of exports shows that all non-liner dry cargoes have been expanding at the average annual growth rate of 3-4 per cent over the past several years. About 75 per cent of the total is exported from the southern coast. Imports have increased at the rate of 2-3 per cent yearly. Nearly 60 per cent of total imports were moved through the West coast of sub-Saharan Africa. The southern coast followed with about 30 per cent of total imports. For the major commodities, the iron ore export shipments originated from the southern and western coasts. South Africa exported about two-thirds of the total iron ore exports, and Liberia exported the majority of the western coast shipments. The coal exports from the southern coast, which were dominated by South Africa, continued to show an upward trend, representing about 55 million tons in 1999. For grain imports, the trade is shared by the western coast, the eastern coast and the southern coast at 50, 20 and 30 per cent respectively. The United States has been the biggest grain supplier to all the sub-Saharan African subregions, accounting for more than half of the total imports of the region, followed by Northern Europe.

Age distribution of the merchant fleet

196. Table 54 provides data on the age distribution of the merchant fleet of developing countries

of Africa by types of vessel as at the beginning of 2000. The average age of African developing countries' fleets (19.47 years) continued to be older than the world average (14.09 years) or the developing countries' average (13.75 years). The share of vessels aged 15 years and over stands at 82.7 per cent as compared with 49.3 per cent for the world total and 46.9 per cent for the developing countries' total. Similar large differences in age distribution are observed in individual ship types, except for the average age of containerships, which was 10.79 years as compared with 9.72 years and 9.16 years for the world total and the developing countries, respectively. The combined tonnage of tankers and general cargo ships registered in African countries accounted for 53 per cent of the total African fleet. The average age of tankers and general cargo ships stood at 21.80 years and 20.71 years. The tonnage aged 15 years and over represents 98.8 per cent for tankers and 90.2 per cent for general cargo ships. The tanker tonnage of the Libyan Arab Jamahiriya, Nigeria and Egypt make up 34, 33 and 23 per cent (90 per cent in total) of the African tanker fleet. The average age of these three countries' tanker tonnage reached nearly 22 years. The tanker tonnage aged 15 years and over of these countries represents over 98 per cent. Egypt and Algeria share 34 per cent and 18 per cent respectively of the total African general cargo ship fleet. The average age of general cargo ships registered in these two countries are 20.17 years and 21.63 years respectively. The tonnage aged 15 years and over is 87 per cent for Egypt and 96 per cent for Algeria.

Table 53

Exports and imports of all dry cargo, ^a iron ore, coal and grain of sub-Saharan African subregions, 1998-2000
(thousands of tons)

		West coast			East coast			Southern coast			Total		
		1998	1999	2000	1998	1999	2000	1998	1999	2000	1998	1999	2000
All dry cargo ^a	Export	34 519	34 248	34 671	782	812	860	92 887	97 597	104 368	128 188	132 657	139 899
	Import	14 793	15 139	15 239	2 437	2 626	2 740	6 973	7 176	7 288	24 203	24 941	25 267
Iron ore	Export	12 065	12 159	12 516	0	0	0	23 648	24 235	26 186	35 713	36 394	38 702
	Import	0	0	0	0	0	0	19	20	20	19	20	20
Coal	Export	83	96	108	1	1	1	50 919	54 776	59 073	51 003	54 873	59 182
	Import	5	6	6	3	4	4	1 815	1 799	1 824	1 823	1 809	1 834
Grain	Export	447	461	481	158	166	173	723	757	764	1 328	1 384	1 418
	Import	3 226	3 521	3 561	1 182	1 356	1 443	1 898	2 108	2 162	6 306	6 985	7 166

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by DRI/McGraw-Hill, *World Sea Trade Service Review*, 1999; and other specialized sources.

^a Non-liner dry cargo

Table 54

Age distribution of the merchant fleet of developing countries of Africa by types of vessel, as at 1 January 2000 (percentage of total dwt)

Country grouping	Types of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) ^a
World total	All ships	100	19.1	18.7	12.9	49.3	14.09
	Tankers	100	16.6	23.6	12.1	47.6	13.91
	Bulk carriers	100	20.8	17.0	14.6	47.6	13.83
	General cargo	100	10.9	9.9	10.2	69.0	17.32
	Container ships	100	36.1	24.9	13.3	25.7	9.72
	All others	100	18.9	13.4	13.1	54.7	14.92
Developing countries (excluding open-registry countries)	All ships	100	20.3	18.5	14.4	46.9	13.75
	Tankers	100	18.6	19.4	12.1	49.9	14.16
	Bulk carriers	100	15.8	17.3	16.7	50.2	14.58
	General cargo	100	17.6	17.1	13.4	51.9	14.58
	Container ships	100	40.8	21.3	14.9	23.0	9.16
	All others	100	19.4	16.4	17.4	46.8	13.92
Developing countries in Africa	All ships	100	5.5	5.3	6.6	82.7	19.47
	Tankers	100	0.6	0.4	0.2	98.8	21.80
	Bulk carriers	100	15.3	14.7	2.7	67.3	16.47
	General cargo	100	1.9	2.5	5.4	90.2	20.71
	Container ships	100	18.8	0.0	74.7	6.6	10.79
	All others	100	3.3	4.9	11.1	80.7	19.50
of which:							
Algeria	Tankers	100	0.0	0.0	0.0	100.0	22.00
	Bulk carriers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	3.7	96.3	21.63
	All others	100	1.2	0.0	1.7	97.1	21.59
Angola	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	3.4	96.6	21.66
Benin	All others	100	0.0	0.0	0.0	100.0	22.00
Cameroon	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	12.4	6.9	3.3	77.5	18.18
Cape Verde	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	27.6	3.4	0.3	68.8	15.96
	All others	100	1.6	0.0	16.8	81.6	20.00
Comoros	All others	0	0.0	0.0	0.0	0.0	0.00
Congo	All others	100	0.0	0.0	0.0	100.0	22.00
Côte d'Ivoire	Tankers	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	0.0	100.0	22.00
Democratic Rep. of the Congo	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	0.0	100.0	22.00
Djibouti	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	0.0	100.0	22.00

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Table 54 (continued)

Country grouping	Types of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) ^a
Egypt	Tankers	100	0.0	0.1	0.5	99.4	21.94
	Bulk carriers	100	27.4	13.5	31.0	28.1	11.40
	General cargo	100	3.0	4.7	5.5	86.9	20.17
	Container ships	100	100.0	0.0	0.0	0.0	2.00
	All others	100	5.0	15.8	12.1	67.1	17.42
Equatorial Guinea	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	4.4	95.6	21.56
Ethiopia	Tankers	100	0.0	0.0	100.0	0.0	12.00
	General cargo	100	0.0	15.6	56.0	28.4	14.06
Gabon	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	15.0	85.0	20.50
	All others	100	0.0	9.3	18.4	72.3	18.77
Gambia	All others	100	28.4	0.0	10.1	61.4	15.29
Ghana	Tankers	100	0.0	0.0	0.0	100.0	22.00
	Bulk carriers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.8	1.0	3.0	95.1	21.37
Guinea	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	0.0	100.0	22.00
Guinea-Bissau	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	9.1	90.9	21.09
Kenya	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	76.9	0.0	23.1	10.47
	All others	100	3.0	19.7	2.1	75.1	18.21
Libyan Arab Jamahiriya	Tankers	100	1.7	0.0	0.0	98.3	21.66
	General cargo	100	0.0	0.0	21.0	79.0	19.90
	All others	100	10.5	27.5	0.8	61.3	15.72
Madagascar	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	6.2	18.3	10.3	65.2	16.99
Mauritania	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	1.0	0.9	22.4	75.7	19.43
Mauritius	General cargo	100	0.0	11.9	0.0	88.1	20.22
	Container ships	100	0.0	0.0	100.0	0.0	12.00
	All others	100	42.8	0.7	1.4	55.2	13.22
Morocco	Tankers	100	0.0	32.6	0.0	67.4	17.11
	General cargo	100	1.0	4.8	0.0	94.2	21.08
	Container ships	100	60.3	0.0	0.0	39.7	9.94
	All others	100	0.2	9.3	36.3	54.2	16.94
Mozambique	General cargo	100	0.0	6.3	0.0	93.7	21.06
	All others	100	3.6	7.6	31.0	57.9	17.06

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Table 54 (continued)

Country grouping	Types of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) ^a
Nigeria	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	6.0	0.0	0.0	94.0	20.80
	All others	100	8.5	2.2	3.3	86.0	19.64
St. Helena	All others	100	0.0	0.0	0.0	100.0	22.00
Sao Tome and Principe	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	Container ships	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	0.0	100.0	22.00
Senegal	General cargo	100	0.0	0.0	49.2	50.8	17.08
	All others	100	0.0	5.0	8.2	86.8	20.43
Seychelles	General cargo	100	3.9	0.0	0.0	96.1	21.22
	All others	100	33.5	59.3	7.2	0.0	5.69
Sierra Leone	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	13.4	10.5	76.2	18.96
Somalia	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	0.0	100.0	22.00
Sudan	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	6.3	93.7	21.37
Togo	Bulk carriers	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	11.5	88.5	20.85
Tunisia	Tankers	100	0.0	0.0	0.0	100.0	22.00
	Bulk carriers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	14.5	0.6	1.0	83.9	18.91
Uganda	General cargo	100	0.0	0.0	0.0	100.0	22.00
United Republic of Tanzania	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	6.9	3.9	23.7	65.4	17.64

Source: UNCTAD secretariat on the basis of data supplied by Lloyd's Maritime Information Services (London).

^a To calculate the average age, it has been assumed that the ages of vessels are distributed evenly between the lower and upper limit of each age group. For the 15-years-and-over age group, the mid-point has been assumed to be 22 years.

D. MOVEMENTS OF CRUDE OIL AND PETROLEUM PRODUCTS

197 Crude oil and petroleum products movements of sub-Saharan Africa are shown in table 55. Crude oil shipments from the West coast represented more than two-thirds of the total, and were mainly exported by Nigeria in West Africa, and the other smaller producers such as Cameroon, the Democratic Republic of the Congo and Gabon in Central Africa. Angola, the second largest oil producing country in sub-Saharan Africa, exported nearly one-fifth of the region's total, dominating the crude oil shipments from the southern coast. By destination of crude oil shipments, nearly half the total was destined for the United States, followed by Northern Europe (a share of nearly a quarter) and Southern Europe (about 10 per cent). Exports of petroleum products, the majority of which are fuels for the United States, were dominated by the West coast (Nigeria), with more than 90 per cent of the total quantity shipped. Imports of petroleum products, which were mainly supplied equally by Northern and Southern Europe, moved through the West coast, and represented nearly 80 per cent of the total imports.

E. LINER CARGO MOVEMENTS

198. Table 56 shows movements of containerized liner cargo from 1998 to 2000 between the sub-Saharan African countries (including South Africa) and the three major trading partners (North America, Asia and Europe). Total traffic of both imports (54 per cent) and exports (46 per cent) have increased at an average

annual rate of 2.1 per cent (imports at 0.8 per cent and exports at 3.6 per cent) from 2.0 million TEUs in 1998 to nearly 2.1 million TEUs in 2000, of which approximately half are loaded or discharged on the Southern coast. About two-thirds of the volume through the Southern coast are traded by South Africa. The West coast accounts for about one-third of the total trade volume.

199. In terms of trade partners, trades with Europe, the most important trade partner, have increased at an average annual rate of 2.3 per cent, reaching nearly 60 per cent of the total trade in 2000. The average shares of European trade generated by the western, eastern and southern African subregions were at 44 per cent, 13 per cent and 43 per cent respectively and also represented 70 per cent, 60 per cent and 50 per cent of the total trade transacted by each of the three subregions for the period from 1998 to 2000. For Europe, the import and export ratio was 53 to 47. Trades with North America have been growing slowly (2.0 per cent yearly). The total volume traded in 1998 amounted to 227,000 TEUs, and is estimated to reach 236,000 TEUs in 2000 or 11.4 per cent of the total trade. The regional distribution of North American trade among the West, East and Southern coasts was 30, 10 and 60 per cent respectively, and the ratio between imports and exports was 56 to 44. The trade with Japan, the Far Eastern NIEs and South-East Asia was nearly one-fifth of the total trade, but its share has declined since 1998. The ratio between import and export boxes was almost even, and two-thirds of this trade are with southern Africa (mainly South Africa).

Table 55

Exports and imports of all petroleum, crude oil and petroleum products of sub-Saharan African subregions, 1998-2000
(thousands of tons)

		West coast			East coast			Southern coast			Total		
		1998	1999	2000	1998	1999	2000	1998	1999	2000	1998	1999	2000
All petroleum	Export	117 838	119 361	120 088	206	208	218	49 449	52 571	55 472	167 493	172 140	175 778
	Import	4 994	5 345	5 516	578	592	606	1 746	1 798	1 847	7 318	7 735	7 969
Crude oil	Export	106 747	107 733	108 051	0	0	0	46 944	50 082	52 919	153 691	157 815	160 970
	Import	0	0	0	0	0	0	0	0	0	0	0	0
	Export	10 592	11 121	11 515	0	0	0	968	991	1 003	11 560	12 112	12 518
	Import	3 701	4 054	4 227	116	116	112	644	686	706	4 461	4 856	5 045

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by DRI/McGraw-Hill, *World Sea Trade Service Review*, 1999; and other specialized sources.

Table 56

**Liner cargo movements (containerized) between the West, East and Southern coasts of sub-Saharan Africa and country groups of major trading partners,
and all countries of the world, 1998-2000**
(thousands of TEUs)

		West coast of Africa			East coast of Africa			Southern Africa ^a			Total		
		1998	1999	2000	1998	1999	2000	1998	1999	2000	1998	1999	2000
United States	In	17	18	19	6	6	6	54	57	59	77	81	84
	Out	39	39	38	15	14	14	63	64	64	117	117	116
	Subtotal	56	57	57	21	20	20	117	121	123	194	198	200
Canada	In	8	8	9	1	1	1	8	9	9	17	18	19
	Out	5	5	5	3	3	3	8	9	9	16	17	17
	Subtotal	13	13	14	4	4	4	16	18	18	33	35	36
Subtotal	In	25	26	28	7	7	7	62	66	68	94	99	103
	Out	44	44	43	18	17	17	71	73	73	133	134	133
	Subtotal	69	70	71	25	24	24	133	139	141	227	233	236
Japan	In	6	6	5	5	4	4	49	49	48	60	59	57
	Out	7	6	6	4	3	4	25	23	23	36	32	33
	Subtotal	13	12	11	9	7	8	74	72	71	96	91	90
Far Eastern NIEs	In	10	11	11	3	3	3	55	54	55	68	68	69
	Out	18	16	17	9	8	9	46	42	43	73	66	69
	Subtotal	28	27	28	12	11	12	101	96	98	141	134	138

		West coast of Africa			East coast of Africa			Southern Africa ^a			Total		
		1998	1999	2000	1998	1999	2000	1998	1999	2000	1998	1999	2000
South-East Asia	In	18	18	20	7	8	8	35	34	37	60	60	65
	Out	41	39	40	16	16	17	37	37	39	94	92	96
	Subtotal	59	57	60	23	24	25	72	71	76	154	152	161
Subtotal	In	34	35	36	15	15	15	139	137	140	188	187	191
	Out	66	61	63	29	27	30	108	102	105	203	190	198
	Subtotal	100	96	99	44	42	45	247	239	245	391	377	389
Northern Europe	In	162	166	172	54	56	57	179	188	197	395	410	426
	Out	227	227	226	55	55	56	185	187	190	467	469	472
	Subtotal	389	393	398	109	111	113	364	375	387	862	879	898
Southern Europe	In	55	58	60	18	19	20	53	56	58	126	133	138
	Out	66	69	69	21	22	22	67	68	68	154	159	159
	Subtotal	121	127	129	39	41	42	120	124	126	280	292	297
Subtotal	In	217	224	232	72	75	77	232	244	255	521	543	564
	Out	293	296	295	76	77	78	252	255	258	621	628	631
	Subtotal	510	520	527	148	152	155	484	499	513	1 142	1 171	1 195
Total	In	276	285	296	94	97	99	433	447	463	803	829	858
	Out	403	401	401	123	121	125	431	430	436	957	952	962
	Total	679	686	697	217	218	224	864	877	899	1 760	1 781	1 820
	In	296	306	318	103	106	110	494	509	529	893	921	957
	Out	448	449	450	144	145	149	506	508	517	1 098	1 102	1 116
	Total	744	755	768	247	251	259	1 000	1 017	1 046	1 991	2 023	2 073

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by DRI/McGraw-Hill, *World Sea Trade Service Review*, Fourth Quarter, 1999.

^a Including South Africa.

F. COSTS OF TRANSPORT IN AFRICAN DEVELOPING COUNTRIES

(a) Cost factor for import trades

200. Table 57 provides estimates of total freight payments for imports and the freight costs as a percentage of total import value by country groups. For sub-Saharan Africa (excluding South Africa),

freight costs a percentage of total import value were five percentage points higher than the average for all developing countries. Freight costs of landlocked African developing countries were 10 percentage points higher than the total developing countries' average. In 31 out of the 43 countries in sub-Saharan Africa, freight costs on imports were 50 per cent higher than the average for all developing countries, and for 13 of those countries the costs were more than double.

Table 57

Estimates of total freight costs on imports of African countries (excluding South Africa), 1998
(millions of US dollars)

Year	Country group	Estimate of total freight costs of imports	Value of imports (c.i.f.)	Freight costs as percentage of import value
1998	World total	255 829.38	5 051 387	5.06
	Developed market-economy countries	154 542.61	3 794 696	4.07
	Developing countries - total	101 286.77	1 256 691	8.06
	of which in:			
	America	25 274.34	368 251	6.86
	Asia	60 480.00	745 916	8.11
	Africa	12 860.53	113 236	11.36
	Northern Africa	4 881.56	54 220	9.00
	Western Africa	4 851.89	36 208	13.40
	Eastern Africa	1 404.31	10 797	13.01
	Southern Africa	1 028.57	6 261	16.43
	Indian Ocean	694.21	5 750	12.07
	Sub-Saharan Africa	7 978.97	59 016	13.52
	Landlocked African countries	2 222.83	12 296	18.08

Source: UNCTAD secretariat on the basis of data supplied by IMF.

^a

It should be noted that the IMF figures are imperfect estimates, and part of the relatively high international transport costs of sub-Saharan imports is due to their composition, in particular the importance of a few bulky, low-value commodities, particularly petroleum products, cereals and fertilizer.

(b) Comparison of transit and ocean freight costs of imports to selected African land-locked countries

201. A comparison between ocean freight charges paid for containerized imports and inland transit costs shows the relative importance of the inland costs. The difference was very significant with the land-transport rate factor varying between 1 and 4, suggesting that the

biggest potential for reducing total transport costs for imports and exports of landlocked developing countries would be to reduce the level of costs for the inland transit operations (see table 58). These operations, conducted between the port area and the destination/originating area, included other services such as handling at terminals, warehouses and inland depots, storage, security for avoiding loss by pilferage of goods and return of containers on time to avoid demurrage.

Table 58

Comparison of transit and ocean freight costs of imports to selected African landlocked countries from north-western Europe, 1999
(US dollars per TEU)

	Approximate land transit distance and freight rate			Approximate ocean freight rate		
	Distance (km)	Mode	Freight rate (US\$)	Port	Freight rate (US\$)	
Ndola (Zambia)	3 119	Rail	4 174	Durban (South Africa)	1 125	3.7
Ndola (Zambia)	1 424	Road	3 751	Beira (Mozambique)	1 050	3.5
Blantyre (Malawi)	825	Road	3 360	Beira (Mozambique)	1 200	2.8
Kigali (Rwanda)	1 867	Road	4 400	Mombasa (Kenya)	1 350	3.3
Kampala (Uganda)	1 187	Road	1 375	Mombasa (Kenya)	1 200	1.2
Ouagadougou (Burkina Faso)	1 192	Road	1 192 ^a	Abidjan (Côte d'Ivoire)	1 250	0.9
Niamey (Niger)	1 170	Road	2 500	Lomé (Togo)	1 350	1.6

Source: UNCTAD secretariat.

^a Charges for loading/discharging to/from vehicles at port area are not included.

(c) Freight costs in selected landlocked countries in Africa

202. Landlocked developing countries in Africa continued to suffer from excessive transport costs. High import transport costs inflated the consumer prices of imported goods, and high transport costs for exports undermined their competitiveness in foreign markets.

International transport costs are defined as the direct and indirect costs which are incidental to the transportation of goods from their point of loading to their destinations. The major elements accounting for the high freight costs for landlocked developing countries included inefficient transport facilities and their management, imbalanced trades, inadequate overall infrastructure, and inefficient or cumbersome government regulations (see table 59).

Table 59

**Estimates of total freight costs of total import value in world trade
by selected African landlocked countries, 1998**
(millions of US dollars)

	Estimate of total freight costs of imports	Total import value	Freight costs as percentage of import value
West Africa			
Burkina Faso	138.89	641	21.67
Mali	365.79	1 237	29.57
Niger	91.52	630	14.53
East Africa			
Burundi	20.17	157	12.85
Rwanda	85.53	286	29.91
Uganda	86.88	890	9.76
Southern Africa			
Malawi	319.63	811	39.41
Zambia	183.70	1 119	16.42
Zimbabwe	381.71	2 971	12.85

Source: UNCTAD secretariat on the basis of data supplied by IMF.

G. IMPROVING TRANSPORT OPERATIONS AND SERVICES THROUGH ACIS

203. As a response to high transport costs and low operational efficiency on African transport routes, the UNCTAD secretariat has developed the Advance Cargo Information System (ACIS), an IT-based tracking system designed to improve transport operations and services to customers. ACIS gives information on cargo in advance of its arrival across different modes and interfaces. By making appropriate information available, ACIS allows the effective logistics management of a transport chain. It is composed of a railway system called RailTracker, PortTracker for ports, LakeTracker for lakes, and RoadTracker which is still under development.

204. RailTracker is a computerized wagon, locomotive and train reporting system that tracks cargo and wagons throughout their movement. It thus increases the efficiency of freight operations, enabling railways to plan the movement of wagons much more effectively by always knowing where the wagons are, and whether they are fit for running, empty or loaded. This improves the short-term train planning by providing information on when empties will be available. In addition, based on up-to-date records of usage of equipment, it enhances the planning of maintenance of rolling stock and locomotives. RailTracker also enables the railways to satisfy customer's requests for information about the whereabouts of their goods at any given time and generates statistics and performance indicators for decision making.

205. Tanzania Railways Corporation (TRC) is one of the railways on which RailTracker has been successfully installed.¹³ While it has provided customers with current information on the location of their consignments, the system has provided TRC management with useful information enabling them to better serve customers. The successful installation and implementation of the RailTracker computer system has had significant benefits to TRC at both strategic and tactical management levels. The major achievements of the information system have been:

- (a) Reduction of:
 - (i) Wagon turn-around time from an average of 18 days in 1994 to currently 13 days;
 - (ii) Wagon detention at terminals from an average of 8 days to 4 days;

- (iii) Average daily interchange balance from 203 to 108 wagons;
- (iv) Average dwell time of foreign wagons from an average of 28 days to 12 days;
- (v) Locomotive detention at terminal and in transit yards;
- (vi) Transit times from an average of 15 days to 3 days.

(b) Increase of:

- (i) Locomotive and wagon utilization, when in use, from 280 km per day to 380 km for locomotives and from 73 km per day to 120 km for wagons;
- (ii) Wagon productivity from an average of 20 loadings to 28 loadings per annum.

(c) Production of on-time performance statistics which allow the development of strategies for improvement of the business and organization in general.

(d) Commercial benefits:

- (i) The ability to respect delivery times, either agreed with customers or set by TRC, through daily monitoring of wagon movements;
- (ii) The ability to inform customers of the status and position of their cargo while on the TRC network;¹⁴
- (iii) The more reliable supply of wagons to customers through the ability to trace and control wagons;
- (iv) Daily information on payments received and outstanding, assists in the control of cash flow and allocation of equipment;
- (v) Daily freight loading statistics assist in meeting weekly targets.

206. RailTracker has contributed to improving services to TRC customers and utilization of rolling stock. Surveys done by TRC on customer needs have indicated that the second most important requirement was information on the location of cargo. RailTracker has provided a tool to allow TRC to progress from the days of "ask tomorrow" to nearly perfect information on the location of cargo. The improvements in information systems, together with other corporate strategies, has enabled TRC to increase and sustain their market share for services compared to the low demand of the early 1990s.

Box 4

Transit transport services accessing to sea ports in selected landlocked countries in Africa**West Africa****Burkina Faso**

As a landlocked country, with the nearest coastal ports in neighbouring Côte d'Ivoire, Ghana and Togo, Burkina Faso's transport costs are a significant consideration for any business with export or import activities. The Government is undertaking a \$360 million transport sector development programme, funded by the World Bank, which aims to develop a coherent transport policy and regulatory framework, rehabilitate the road and rail networks, and restructure the transport parastatals. There are 12,100 km of road networks, but only 16 per cent are paved. Some 90 per cent of the transport programme's funds have thus been allocated to road maintenance and construction.

Mali

Even by regional standards, transport communications are poor, especially in the isolated western region. This region is only linked to Bamako by the extremely dilapidated railway line between Bamako and Dakar (Senegal), which has been virtually unchanged since its completion in 1924. Road transport in the north has been further disrupted by a conflict. A five-year \$250 million road maintenance programme repair scheme is under way, mostly funded by donors. Total road networks represent 15,100 km, but only 12.1 per cent of which are paved.

Niger

Despite considerable donor-funded expansion work, Niger's transport system remains inadequate. In 1994, for example, less than 8 per cent of the country's road network (10,100 km) was paved, although access to neighbouring countries has improved following work on the 428-km road between Zinder and Agadès, which is scheduled to form part of the trans-Saharan highway. Although there is no railway system as yet, the emphasis in transport development is on diversifying and improving access to seaports: as a landlocked country, Niger has to rely on the ports of Lomé (Togo) and Tema (Ghana) for its maritime transport.

Eastern Africa**Burundi**

Burundi has no railways and 14,500 km of roads, 7 per cent of which are paved. Burundi's main export routes are by road to Mombasa (Kenya) via Rwanda and Uganda, and to Dar es Salaam (United Republic of Tanzania). The road to Mombasa is better, although the Tanzanian route crosses only one border. The Burundi transport parastatal, Otraco, is barely surviving. The once vibrant privately-owned public transport sector has been harmed since 1993 by increased insecurity on most routes, fuel price increases and shortages of spare parts.

Rwanda

Nearly all of Rwanda's imports and exports travel over 1,500 km to Mombasa (Kenya) and Dar es Salaam (United Republic of Tanzania) via the region's road network. This keeps transport costs high, particularly since new weight limits for freight travelling through East Africa were imposed in 1998 and 1999. Rwanda's arterial roads are serviceable and better than their Ugandan and Tanzanian counterparts. Rwanda has about 1,200 km of tarred roads and another 12,000 km of unpaved main and secondary roads, which are vulnerable to damage from heavy rain. After years of State control, commercial transport is now largely in private hands.

Box 4 (*continued*)**Uganda**

The road network was earmarked for priority spending, not only on the major routes, but also on rural feeder roads, because of their importance in agricultural marketing. Landlocked Uganda is heavily dependent on transport links through Kenya and most of its foreign trade passes through Mombasa. The Government wants to reduce this dependence by developing links through the United Republic of Tanzania, via the lake port of Mwanja. Huge progress has been made in the road rehabilitation programme. Major trunk roads, such as the "northern corridor" route, have been completely resurfaced, and the condition of most urban and regional roads is much improved (although funding for upkeep is a problem). The road transport system still suffers from a shortage of vehicles and spares, but the situation is improving rapidly, with about 126,214 vehicles in use in 1996 compared with 31,000 in 1987.

Competition for business between the ocean ports of Mombasa and Dar es Salaam has produced some benefits for Uganda's traders. The Tanzanian port has attracted business from Mombasa by cutting down transit times from 10-14 days to 5-10 days, granting a 60-day moratorium on demurrage and opening shipping offices in Kampala. Goods shipped through Dar es Salaam use the Tanzanian railway link to Mwanza, from where there is a wagon ferry link to Port Bell almost daily. In response, the Kenyan authorities have introduced more trains between Kampala and Mombasa, which now run on a daily basis, subject to cargo availability. Meanwhile, a scheme to open a third route to the Indian Ocean, between Kampala, and Durban in South Africa, is suffering delays.

Southern Africa**Malawi**

As a landlocked country highly dependent on overland movement of exports and imports, Malawi's transport network and its connections to neighbouring countries is of the utmost economic importance. The shortest, cheapest trade routes are to the Mozambican ports of Nacala and Beira. Until 1982 around 95 per cent of Malawi's trade passed through those two ports, but throughout the 1980s and early 1990s the Mozambican civil war severely disrupted these crucial external trade routes, forcing much of the export and import traffic to be routed through distant ports in South Africa and the United Republic of Tanzania. Total transport costs increased by \$50 million to \$75 million per year, with insurance and freight costs rising from around 20 per cent of the cif import value in the early 1980s to 40 per cent by the later 1980s and only falling to 35-40 per cent in the mid-1990s.

The end of the hostilities in Mozambique should benefit Malawi in the form of shorter and cheaper rail and road routes to the ports on the Mozambican coast. Railway routes in Mozambique sustained severe damage during the civil war and comprehensive rehabilitation on both sides of the border has been slow despite World Bank financing. The improved security situation in Mozambique has already led to a rise in traffic through Beira port, although traffic on the railway line between Blantyre and Beira has not increased significantly.

Malawi's domestic road network is inadequate. At the time of independence in 1964 the country had 10,124 km of roads, of which only 431 km were bitumen-paved. By 1985 the road network had increased to only 11,051 km, although the length of bitumen roads had increased to 2,061 km. By 1999 the road system had been expanded to 16,500 km, 19 per cent of which were paved.

Box 4 (*continued*)

Zambia

Zambian post-independence transport policy has primarily been concerned with securing access to regional ports. Beira in Mozambique is the nearest major port and is linked by rail to Lusaka, via Harare in Zimbabwe. Further away, but better equipped and also accessible by rail, is Durban (South Africa). Dar es Salaam (United Republic of Tanzania), which was extensively used for Zambian trade when Beira and Durban were inaccessible for political reasons, has recently experienced a shrinking of its market share, but continues to handle around 70 per cent of Zambia's exports and 40 per cent of its imports.

Zambia has 66,800 km of roads, of which approximately 12,000 km are paved. The road network was in poor condition, but in 1998 the National Roads Board announced a \$1 billion investment programme for the road sector, to run for 10 years. Money for this is derived from donors, a fuel levy and counterpart funding, but some form of user charges are also envisaged.

Zimbabwe

Zimbabwe is a landlocked country with a well-developed road network that includes 15,000 km of tarred roads. Its closest access to the sea which is the port of Beira, lies eastwards through Mozambique. From the mid-1960s until the mid-1980s successive border closures, first by Zambia and then by Mozambique, followed by South Africa's destabilization war in Mozambique, forced Zimbabwe to reroute nearly all its overseas traffic through distant South African ports. With the return of peace, Beira has slowly regained its former importance.

Zimbabwe has a direct rail link with Zambia via the Victoria Falls, which in theory continues to the Tanzanian port of Dar es Salaam; in addition, there are two links with Mozambique, to the ports of Beira and Maputo, and two links with South Africa, one through Botswana, the other via Beitbridge. Another link is planned between Beitbridge and Bulawayo. The National Railways of Zimbabwe (NRZ) has been reformed with the aid of the World Bank. It is now required to operate commercially in preparation for privatization.

Source: EIU (The Economic Intelligence Unit), *Country Profile and Country Report*, various issues, 1999 and 2000; and UNCTAD secretariat report, *The Least Developed Countries 2000 Report*, (UNCTAD/LDC/2000).
