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### Progress in the implementation of the Programme of Action for the Sustainable Development of Small Island Developing States

#### Report of the Secretary-General

#### Addendum

#### Maritime transport in small island developing States\*

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## I. Role of shipping in sustainable development for small island developing States

1. Economic development, trade and maritime transport are inextricably linked. This is particularly evident with developing countries because exports are growing faster than gross domestic product (GDP). For example, exports of goods and services expressed as a share of GDP increased from 13 per cent in 1970 to 28 per cent in 1995. Accompanying this expansion of exports was a corresponding annual average growth in real GDP. Between 1970 and 1995, economies of developing countries as a group grew at an average annual rate of 4.3 per cent. For the low-income group, the annual average growth in real GDP was 5.5 per cent, and that of the high-income group 4.1 per cent.<sup>1</sup>

2. Efficient maritime transport and port infrastructure are essential for the expansion of foreign trade. This is particularly important for those small island developing States that are geographically and economically disadvantaged. Such handicaps are manifested in high distribution costs, lack of reliable shipping services, expensive trans-shipment charges, inadequate port facilities, limited maritime administration and diseconomies of scale when freight rates are negotiated with shipping conferences. For example, estimates of total freight costs for small island developing States in 1993 were more than 55 per cent higher than those for developed market-economy countries in the same year and more than 66 per cent higher in 1996. Table 1 provides a comparison of small island developing States with other country groups and indicates the large disparities among small island developing States. Moreover, most small, remote islands incur even higher freight costs as a percentage of import value; the proportions range from 12 to 18 per cent, and are almost double those of other developing countries as a group and nearly three times those of developed countries.

3. The work of the United Nations Conference on Trade and Development (UNCTAD) in the field of transportation, including maritime transport, is based on the Midrand Declaration,<sup>2</sup> adopted at the ninth session of UNCTAD, held in South Africa in 1996. Research and technical cooperation are geared towards trade-related aspects of maritime transport thus improving the quality of trade-related services and the ability of small island developing States to participate effectively in world trade. Research, technical cooperation and human resource development activities are complementary parts of an integrated approach to transport problem-solving. Research provides new insights into methods of tackling development problems. Of particular significance in this context is the *Review of Maritime Transport*, an annual publication of UNCTAD analysing short- and medium-term trends in world seaborne trade and shipping. The 1997 issue of the *Review*<sup>3</sup> specifically dealt with maritime transport problems of small island developing States, their participation in world shipping and their position as consumers of maritime transport services. The results of this research can be disseminated through training programmes to policy makers, administrators and the private sector in developing countries. Technical cooperation provides the means for follow-up assistance, to be made available to developing countries at their request. At the same time, the information and ideas that technical cooperation experts communicate from the field enable members of the secretariat to better understand the needs of developing countries and how the work of the secretariat can be oriented to help meet such needs; thus technical cooperation becomes an important source of ideas for research and policy development.

Table 1

Estimates of total freight costs of total import value, 1993 and 1996 a/  
(Millions of US dollars)

Country	Estimate of total freight costs of imports		Value of imports (cif)		Freight costs as percentage of import value	
	1993	1996	1993	1996	1993	1996
<b>Africa</b>						
Sao Tome and Principe	3.90	7.28	22	41	17.76	17.76
Cape Verde	24.54	44.20	191	344	12.85	12.85
Comoros	7.20	21.58	56	168	12.84	12.85
Mauritius	217.80	278.48	1 715	2 193	12.70	12.70
Réunion	383.41	284.95	3 633	2 700	10.55	10.55
Seychelles	24.30	43.55	189	339	12.84	12.85
	<b>661.15</b>	<b>680.04</b>	<b>5 806</b>	<b>5 785</b>	<b>11.39</b>	<b>11.76</b>
<b>Asia</b>						
Maldives	16.60	37.79	185	422	8.95	8.95
Singapore	4 751.90	7 332.08	85 234	131 506	5.58	5.58
Bahrain	376.40	434.47	3 825	4 451	9.84	9.76
Cyprus	236.20	363.22	2 590	3 984	9.12	9.12
	<b>5 381.10</b>	<b>8 167.56</b>	<b>91 834</b>	<b>140 363</b>	<b>5.86</b>	<b>5.82</b>
<b>Europe</b>						
Malta	213.80	275.85	2 173	2 803	9.84	9.84
<b>Caribbean and North America</b>						
Antigua and Barbuda	21.90	28.74	245	321	8.95	8.95
Bahamas	207.50	220.40	3 500	3 720	5.93	5.92
Barbados	51.40	63.58	574	710	8.95	8.95
Bermuda	52.74	57.22	589	639	8.95	8.95
Dominica	10.30	20.69	115	231	8.95	8.95
Dominican Republic	312.90	809.41	2 436	6 300	12.84	12.85
Grenada	12.40	10.83	120	105	10.31	10.32
Guadeloupe	309.63	489.25	2 410	3 808	12.85	12.85
Haiti	52.70	112.16	410	873	12.84	12.85
Jamaica	252.00	327.68	2 097	2 726	12.02	12.02
Martinique	209.55	258.37	1 631	2 011	12.85	12.85
Saint Kitts and Nevis	8.90	14.95	100	167	8.95	8.95
Saint Lucia	28.60	19.79	320	221	8.95	8.95
St. Pierre and Miquelon	4.20	5.17	43	53	9.76	9.76
Saint Vincent and the Grenadines	8.24	15.94	92	178	8.95	8.95
Trinidad and Tobago	142.50	177.83	1 448	1 807	9.84	9.84
	<b>1685.46</b>	<b>2632.01</b>	<b>16 130</b>	<b>23 870</b>	<b>10.45</b>	<b>11.03</b>

Country	Estimate of total freight costs of imports		Value of imports (cif)		Freight costs as percentage of import value	
<b>Oceania</b>						
American Samoa	6.54	5.19	73	58	8.95	8.95
Fiji	66.23	113.04	720	885	9.20	12.77
French Polynesia	88.43	98.10	731	811	12.10	12.10
Guam	46.57	56.01	385	463	12.10	12.10
Kiribati	1.50	9.66	15	99	9.76	9.76
Nauru	12.00	2.33	134	26	8.95	8.95
New Caledonia	111.77	120.72	924	998	12.10	12.10
Papua New Guinea	166.80	215.33	1 299	1 676	12.84	12.85
Solomon Islands	16.60	26.43	101	161	16.42	16.42
Tonga	4.96	5.94	61	73	8.14	8.13
Vanuatu	9.70	19.48	80	161	12.10	12.10
Western Samoa	9.30	15.44	105	174	8.87	8.87
	<b>540.40</b>	<b>687.67</b>	<b>4 628</b>	<b>5 585</b>	<b>11.68</b>	<b>12.31</b>
<b>Subtotal SIDS</b>	<b>8 481.9</b>	<b>12 443.1</b>	<b>120 571</b>	<b>178 406</b>	<b>7.03</b>	<b>6.97</b>
<b>World total</b>	<b>201 385</b>	<b>259 940</b>	<b>3 601 481</b>	<b>4 954 040</b>	<b>5.59</b>	<b>5.25</b>
<b>Developed market-economy countries</b>	<b>118 043</b>	<b>151 145</b>	<b>2 600 770</b>	<b>3 604 494</b>	<b>4.54</b>	<b>4.19</b>
<b>Developing countries - total</b>	<b>83 342</b>	<b>108 795</b>	<b>1 000 711</b>	<b>1 349 546</b>	<b>8.33</b>	<b>8.06</b>
<b>of which in:</b>						
<b>Africa</b>	<b>9 837</b>	<b>12 073</b>	<b>88 979</b>	<b>105 821</b>	<b>11.06</b>	<b>11.41</b>
<b>America</b>	<b>15 098</b>	<b>21 929</b>	<b>189 094</b>	<b>309 560</b>	<b>7.98</b>	<b>7.08</b>
<b>Asia <sup>b/</sup></b>	<b>56 951</b>	<b>72 263</b>	<b>707 430</b>	<b>906 714</b>	<b>8.05</b>	<b>7.97</b>
<b>Europe</b>	<b>934</b>	<b>1 842</b>	<b>10 940</b>	<b>21 866</b>	<b>8.54</b>	<b>8.42</b>
<b>Oceania</b>	<b>522</b>	<b>688</b>	<b>4 268</b>	<b>5 585</b>	<b>12.23</b>	<b>12.32</b>

*Source:* Compiled by the UNCTAD secretariat on the basis of International Monetary Fund (IMF) cost, insurance and freight/free on board (cif/fob) factors and UNCTAD *Handbook of International Trade and Development Statistics*.

<sup>a</sup> Estimates for the world and country groups are not complete, since data only for countries members of IMF are included.

<sup>b</sup> 1993 figures including those of some countries in Oceania.

4. An example of a technical assistance programme that combines elements of assistance in both policy formulation and training is a recently concluded pilot project on assisting private participation. After a first implementation in Thailand, a project of this nature has now begun in Indonesia; the intention is to extend similar activities at a later stage to small island developing States. In fact, even though Indonesia does not figure among the small island developing States, a number of maritime transport problems encountered by this country, particularly in inter-island transport, are similar to those experienced by small island countries of the region. In the course of these projects, UNCTAD assists the beneficiaries in designing policy frameworks conducive to the development of the maritime sector and conducts training seminars for transport operators to assist them in providing efficient transport services, and for transport users to enable them to make the best use of the available low-cost transport services.

## **II. Overview of the current situation in shipping**

5. The present section of the present report includes an update of small island developing States international trade and the characteristics of the small island developing States merchant fleet. The maritime transportation issues continue to be quite different, however, for the various small island developing States. The group is significantly diverse in geographical location, natural endowments and stages of economic development. It is evident that maritime markets and maritime issues in a country such as Singapore, with its excellent geographical location, the second largest container throughput in the world,<sup>3</sup> a highly competitive shipping industry and a per capita GDP of almost \$25,000,<sup>4</sup> are very different from those of most other small island developing States. For example, per capita income for developing countries in Oceania ranges from a low of \$543 (Kiribati) to a high of \$2,640 (Fiji),<sup>4</sup> and a noticeable involvement is lacking in the ocean carriage of their foreign trade.

### **A. International trade of small island developing States**

6. During the period 1985–1995 the growth of exports of small island developing States with a population of under 5 million remained globally stable in nominal terms (about 5 per cent per annum). Meanwhile, the growth of imports of the same group of small island developing States slowed down significantly in nominal terms (from an average 8.3 per cent per annum in 1985–1990 to 3.8 per cent in 1990–1995) as a result of the slightly slower GDP growth performance of these countries in the first half of the 1990s.

7. Developed country destinations account on average for two thirds of the total value of small island developing States exports, while developing countries account for the balance. Only in very few small island developing States (for example, Seychelles and Tuvalu) did merchandise exports to other developing countries exceed exports to developed countries in 1995. In that year, an estimated two thirds of small island developing States exported more merchandise to countries of the European Union (EU) than to any other region of developed countries, while the remaining third comprised in equal parts small island developing States exporting more merchandise to Northern and Central America, and those exporting more to Japan. Island countries that have demonstrated a particularly strong increase in the European share of their merchandise export destinations include Barbados, Cape Verde, the Comoros and Maldives, while Dominica and Sao Tome and Principe are

among the small island developing States that have recorded noticeable increases in the Northern American and Central American shares of their total merchandise exports.

8. The origin of small island developing States imports is predominantly the developed countries, with an overall proportion slightly greater in 1995 (68.5 per cent) than 10 years earlier (64.8 per cent). For almost half of small island developing States, EU was in 1995 a larger source of merchandise imports than any other region of developed countries, while the other small island developing States, in equal parts, were importing more from either Northern and Central America, or Japan. Small island developing States for which the Northern and Central American source of imports increased significantly between 1985 and 1995 include Jamaica and Trinidad and Tobago, while Barbados is among countries that increased their imports from Europe during the same period.

## **B. Small island developing States merchant fleet**

9. The impact of open-registry fleets creates a statistical bias in the analysis of the fleet capabilities of the small island developing States group. Open registries are legal mechanisms used to draw merchant tonnage from countries with more stringent safety regulations and higher operating costs to countries offering more flexibility in operation and taxation and lower registration fees. The benefits for the open-registry countries are additional tax revenues and employment opportunities when ship management companies are established within the country. The main benefits, however, remain with the nationals of the true owners because the share of tonnage owned by open-registry nationals continues to be minimal.

10. Within the small island developing States group, open-registry tonnage represents 82.1 per cent of the total. Thus, a more accurate analysis of the small island developing States fleets should focus on the remaining — beneficially owned — tonnage of 30.5 million deadweight tons. The composition of this fleet is summarized in table 2 and indicates a concentration of registered tonnage in Singapore, Antigua and Barbuda, Saint Vincent and the Grenadines, and Barbados. These four represent 96 per cent of the total small island developing States fleet, excluding the main open-registry countries. This high percentage is partly explained by the recording system<sup>5</sup> which includes vessels of 100 gross registered tons and over. Thus, many of the smaller ships are not included in the global data bank maintained by Lloyd's Maritime Information Services (London). Nevertheless, a large number of vessels of less than 100 gross registered tons continue to be operated in many small island developing States.

11. The age of the small island developing States fleets is the second qualitative factor. Table 3 gives an indication of the unfavourable age distribution of fleets of small island developing States as compared with other country groups. The apparent economic and technical obsolescence of a major part of the fleet is necessarily reflected in higher operating costs, as repair and maintenance rapidly increase with age, schedule delays and unreliability, and greater environmental risks associated with obsolete vessels. In brief, the small island developing States fleet is ageing and needs to be replaced.

Table 2

Merchant fleets of small island developing States by flag of registration, <sup>a</sup> groups of countries and types of ship <sup>b</sup> as at 31 December 1997  
(In deadweight tons)

	Total fleet	Oil tankers	Bulk carriers	General cargo <sup>c</sup>	Container ships	Other types
<b>Africa</b>						
Sao Tome and Principe	2 492	..	..	1 285	..	1 207
Capé Verde	26689	1525	..	13 019	7 954	4 191
Comoros	2 138	..	..	1 474	..	664
Mauritius	363 251	84 464	5 137	133 388	130 915	9 347
Réunion	-	-	-	-	-	-
Seychelles	4 079	..	..	3 278	..	801
Subtotal Africa	398 649	85 989	5 137	152 444	138 869	16 210
<b>Asia</b>						
Maldives	145 236	12 679	..	124 882	..	7 675
Singapore	29 537 419	13 894 128	8 012 579	2 699 573	3 379 025	1 552 114
Bahrain	276 725	98 512	44 110	98 348	..	35 755
Cyprus	36 994 017	6 685 656	20 232 826	6 638 150	2 462 572	974 813
Subtotal Asia	66 953 397	20 690 975	28 289 515	9 560 953	5 841 597	2 570 357
<b>Europe</b>						
Malta	38 006 551	16 665 836	14 818 464	4 873 379	735 435	913 437
<b>Caribbean and North America</b>						
Antigua and Barbuda	2 916 330	6 253	294 531	1 490 545	1 088 884	36 117
Bahamas	39 287 545	20 449 958	8 266 669	7 356 651	959 292	2 254 975
Barbados	1 427 315	639 650	402 493	321 660	..	63 512
Bermuda	7 392 210	4 142 034	1 943 287	226 279	547 695	532 915
Dominica	3 076	..	..	2 531	..	545
Dominican Republic	10 243	1 635	..	7 549	..	1 059
Grenada	950	..	..	950	..	..
Guadeloupe	-	-	-	-	-	-
Haiti	963	..	..	793	..	170
Jamaica	6 112	3 065	..	2 813	..	234
Martinique	-	-	-	-	-	-
Saint Kitts and Nevis	550	..	..	550	..	..
Saint Lucia	..	..	..	..	..	..
St Pierre and Miquelon	-	-	-	-	-	-
Saint Vincent and the Grenadines	12 385 105	1 959 336	5 542 384	4 109 794	149 292	624 299
Trinidad and Tobago	8 780	..	..	3 731	..	5 049
Subtotal Caribbean and North America	63 439 179	27 201 931	16 449 364	13 523 846	2 745 163	3 518 875

	Total fleet	Oil tankers	Bulk carriers	General cargo <sup>c</sup>	Container ships	Other types
<b>Oceania</b>						
American Samoa	-	-	-	-	-	-
Fiji	29 542	3 605	..	10 940	..	14 997
French Polynesia	-	-	-	-	-	-
Guam	-	-	-	-	-	-
Kiribati	7 054	3 048	..	3 352	..	654
Nauru	..	..	..	..	..	..
New Caledonia	-	-	-	-	-	-
Papua New Guinea	66 221	4 380	..	50 878	..	10 963
Solomon Islands	6 775	..	..	3 155	..	3 620
Tonga	15 471	..	..	11 319	..	4 152
Vanuatu	1 846 875	21 502	1 034 371	386 846	..	404 156
Western Samoa	6 441	..	..	6 066	..	375
Subtotal Oceania	1 978 379	32 535	1 034 371	472 556	..	438 917
TOTAL SIDS	170 776 155	64 677 266	60 596 851	28 583 178	9 461 064	7 457 796
Percentage of total	100.0	37.9	35.5	16.7	5.5	4.4

Source: Lloyd's Maritime Information Services (London).

Note: Two dots (..) indicate that the number is nil or negligible. A hyphen (-) indicates that data are not available.

<sup>a</sup> The designations employed and the presentation of material in this table refer to flags of registration and do not imply the expression of any opinion by the Secretariat of the United Nations concerning the legal status of any country or territory, or of its authorities, or concerning the delimitation of its frontiers.

<sup>b</sup> Ships of 100 gross registered tons and over.

<sup>c</sup> Including passenger/cargo.



Table 3

**Age distribution of the world merchant fleet by types of vessel,  
as at 31 December 1995**

*(Percentage of total in terms of deadweight tons)*

Country grouping	Types of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) <sup>a/</sup>	Average age (years) 1994 <sup>a/</sup>
World total	All ships	100	15.6	14	18.2	52.2	14.96	15.00
	Tankers	100	20.9	12.6	9.6	56.9	14.97	15.35
	Bulk carriers	100	12.3	15.5	25.9	46.3	14.63	14.58
	General cargo	100	7.4	10.2	19.8	62.6	17.01	16.61
	Containerships	100	26	19	17.5	37.5	12.20	12.03
	All others	100	13.2	16.4	21	49.4	14.80	14.41
Developed market-economy countries	All ships	100	15.5	14.7	20.1	49.7	14.69	14.75
	Tankers	100	16.8	10.4	11.6	61.2	15.92	16.29
	Bulk carriers	100	11.8	17.3	29.6	41.3	14.09	14.04
	General cargo	100	12.9	14.8	23.2	49.1	14.88	14.42
	Containerships	100	25.9	19.1	15.7	39.3	12.39	11.71
	All others	100	16.4	18.9	21.4	43.3	13.75	13.38
Major open-registry countries	All ships	100	16.7	11.7	14.5	57.1	15.46	15.81
	Tankers	100	26.5	11.2	6.5	55.8	14.37	15.28
	Bulk carriers	100	7.1	10.8	21.9	60.2	16.77	16.76
	General cargo	100	5.7	12.2	19.8	62.3	17.05	16.84
	Containerships	100	32.1	15.2	19.6	33.1	11.34	11.78
	All others	100	12.1	20.00	15.10	52.80	15.07	14.46
Developing countries (excluding open-registry countries)	All ships	100	13.8	18.00	23.20	45.00	14.22	14.31
	Tankers	100	17.1	16.1	14.5	52.3	14.72	15.50
	Bulk carriers	100	15.8	25.3	33.2	25.7	11.73	11.78
	General cargo	100	2.8	6.4	16.4	74.4	18.84	18.20
	Containerships	100	21.4	21.5	14.7	42.4	13.03	11.18
	All others	100	11.6	11.9	26.9	49.6	15.21	15.06
Small island developing States	All ships	100	4.45	5.44	19.62	70.50	18.33	
	Tankers	100	7.63	4.44	18.88	69.05	17.92	
	Bulk carriers	100	3.70	2.46	37.55	56.29	17.14	
	General cargo	100	3.08	6.89	13.60	76.43	18.99	
	Containerships	100	17.43	23.46	14.50	44.61	13.55	
	All others	100	2.57	3.54	30.92	62.97	17.86	

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

<sup>a</sup> To calculate 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.

12. Another conclusion from the fleet ownership/vessel type data is that the small island developing States need to increase their capabilities for serving their own trade. Most of the existing fleet (82.1 per cent) are registered in small island developing States offering open-registry facilities and are thus not responding to the needs of the foreign trade of the country concerned. While this focus provides foreign exchange earnings, employment for seafarers and diversification, it is not fully complementary to the trading requirements of small island developing States because most manufactured goods move by container or general cargo ships. The former represented only 5.5 per cent and the latter 16.7 per cent of the small island developing States fleet in 1997. If the vessels registered in Antigua and Barbuda, the Bahamas, Bermuda, Cyprus, Malta, Saint Vincent and the Grenadines, Singapore and Vanuatu are excluded, the small island developing States fleet of these two essential ship types (container and general cargo ships) is a minimal one.

### **C. Shipping industry changes**

13. Restructuring trends and in particular the move towards globalization in the international liner shipping industry constitute another factor affecting the transportation capabilities of many small island developing States. Over the last decade, commercial cooperation agreements between large containership operators and a growing number of takeovers have resulted in a concentration of services. This has created economies of scale and encourages the expansion of hub-and-spoke service patterns between major trading areas. For small island developing States, however, the impact has been in terms of increasing the need for trans-shipment services, acquiring vessels with container lifting capabilities, investing in electronic data interchange technology and training management personnel. Without these infrastructure investments (mainly ships and port facilities), the ability of many small island developing States to generate income from shipping services will be marginal.

## **III. Recommendations**

14. **The recommendations contained in document E/CN.17/1996/20/Add.4 continue to be valid and represent minimum conditions that should be fulfilled if small island developing States are to be provided with transport services necessary for balanced structural development as well as improved participation in world trade. More investment is required in infrastructure, ships and manpower. It is also necessary to upgrade legal and political frameworks and to align operational systems with international practice. In order to ensure the creation of the necessary framework conducive to foreign investment and to private sector participation in maritime transport, it is essential to harmonize regulatory instruments at least at the regional level, and to exploit existing opportunities for cooperation which could enable both local and foreign operators to access maritime markets more easily and ensure the competitiveness of small island developing States operators. International organizations should continue to provide assistance to small island developing States in these areas. Particular support should be given to regional efforts aimed at improving regional maritime transportation.**

*Notes*

- <sup>1</sup> UNCTAD, *Handbook of International Trade and Development Statistics*, 1995 (United Nations publication, Sales No. E/F.97.II.D.7), tables 6.2 and 6.3.
  - <sup>2</sup> See *Proceedings of the United Nations Conference on Trade and Development, Ninth Session, Midrand, Republic of South Africa, 27 April–11 May 1996, Report and Annexes* (United Nations publication, Sales No. E.97.II.D.4), part one, sect. A.
  - <sup>3</sup> UNCTAD, *Review of Maritime Transport*, 1997 (United Nations publication, Sales No. E.97.II.D.9).
  - <sup>4</sup> UNCTAD, *Handbook of International Trade and Development Statistics*, 1995 (United Nations publication, Sales No. E/F.97.II.D.7), table 6.1.
  - <sup>5</sup> Lloyd's Maritime Information Services (London).
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