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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

CONTENTS

CONTENTS (continued)

I. METHODOLOGY AND STRUCTURE OF THE REPORT

1. The task managers of the United Nations Conference on Trade and Development (UNCTAD) and the International Maritime Organization (IMO), acting within available resources, contacted a wide range of international, national and regional organizations to request their assistance in updating information. The survey was initiated in September 1995 and covered 25 organizations. The terms of reference included:

(a) Identification of the challenges facing identified small island developing States in the field of transport, communications and quarantine;

(b) Identification of what must be done to give effect to chapter XII of the Programme of Action for the Sustainable Development of Small Island Developing States;

(c) Identification of what is currently being done nationally, regionally and globally to meet those challenges;

(d) Formulation of recommendations on ways and means to overcome the discrepancies between (b) and (c) and to initiate remedial action;

(e) Monitoring the implementation of the recommendations;

(f) Reporting on the work, as required, to the Committee on Sustainable Development.

2. To date, very few responses have been received from the organizations of the United Nations system and other international organizations. Therefore, the information contained in the present report is based on experience and research from UNCTAD’s own internal sources. If additional information is received, an addendum will be issued. The structure of the present report includes an overview of international trade of small island developing States, an analysis of the merchant fleet and recommendations for maritime policy.

II. THE ROLE OF SHIPPING IN SUSTAINABLE DEVELOPMENT FOR SMALL ISLAND DEVELOPING STATES

3. Economic development, trade and maritime transport are inextricably linked. This is particularly evident with developing countries because exports are a growing share of gross domestic product (GDP). For example, exports of goods and services as a share of GDP increased from 17 per cent in 1960 to 30 per cent in 1993. Accompanying this expansion of exports was a corresponding annual average growth in real GDP. During the period 1970-1993, developing countries as a group had an average annual growth rate of 3.7 per cent, and for the low-income group the annual average growth in real GDP was 5.2 per cent. 1/ In brief, exports are an important factor in sustainable development.

4. To participate in and expand trade, efficient maritime transport and port infrastructure are essential. This is particularly important for those small

island developing States that are at geographic and economic disadvantage. These handicaps are manifested by high distribution costs, lack of reliable shipping services, expensive transshipment charges, inadequate port facilities, limited maritime administration and diseconomies of scale when negotiating freight rates with shipping conferences. For example, estimates of total freight costs for small island developing States are more than 45.5 per cent higher than for developed market-economy countries. Table 1 provides a comparison for small island developing States with other country groups and indicates the large disparity between small island developing States. Moreover, most small remote islands incur even higher freight costs as a percentage of import value, ranging from 12 to 18 per cent, which is almost double that of other developing countries as a group.

5. The role of UNCTAD to improve the maritime sector in developing countries focuses on two broad areas. The first area is policy formulation at an international level to promote equitable participation by all country groups in the global shipping industry. The scope of issues includes international shipping legislation, protection of shippers' interests, merchant fleet development, multimodal transport and port development. Tangible results in this policy area have led to a number of international agreements.

6. The maintenance of the marine environment is of particular importance to small island developing States. Marine pollution originating from cargo vessels and, even more important, from passenger and cruise vessels, needs to be controlled and necessary action taken to prevent further degradation of the marine environment. It is particularly urgent that necessary measures be taken to facilitate the establishment of port reception facilities for the collection of oil and chemical residues and garbage from ships as defined by the annexes to the International Convention for the Prevention of Pollution from Ships, 1973, and its Protocol of 1978 (MARPOL 73/78).

7. In order to ensure the implementation of the provisions of MARPOL, cooperation has been initiated between UNCTAD and IMO aimed at designing a financial instrument that would ensure the funding of investments and operations of waste reception facilities in ports. The basis for this cooperation was laid at the meeting of the IMO Council in June 1994 and subsequently taken note of by the UNCTAD Standing Committee on Developing Services Sectors: Shipping, in July 1994.

8. In implementing this agreement, the secretariats of UNCTAD and IMO jointly prepared a document entitled "Reception facilities" (SPI 3/4) which was submitted to the Ship/Port Interface Working Group at its third meeting, held at IMO headquarters from 24 to 28 October 1994. The document recalls the requirements for reception facilities in ports as established under MARPOL and clearly establishes the need to go beyond the physical provision of such facilities by creating an instrument that would give an incentive to ships to actually use existing facilities and to allocate costs of investing in and operating reception facilities in a way that would reflect the "polluter pays" principle.

Table 1

Estimates of total freight costs of total import value, 1993 a/

(Millions of United States dollars)

Country	Estimate of total freight costs of imports	Value of imports (c.i.f.)	Freight costs as percentage of import value
Bahamas	207.5	3 500	5.93
Cyprus	236.2	2 590	9.12
Comoros	7.2	56	12.84
Mauritius	217.8	1 715	12.70
Sao Tome and Principe	3.9	22	17.76
Seychelles	24.3	189	12.84
Antigua and Barbuda	21.9	245	8.95
Barbados	51.4	574	8.95
Dominica	10.3	115	8.95
Dominican Republic	312.9	2 436	12.84
Grenada	12.4	120	10.31
Haiti	52.7	410	12.84
Jamaica	252.0	2 097	12.02
Saint Kitts and Nevis	8.9	100	8.95
Saint Lucia	28.6	320	8.95
Saint Vincent and the Grenadines	8.24	92	8.95
Trinidad and Tobago	142.5	1 448	9.84
Bahrain	376.4	3 825	9.84
Maldives	16.6	185	8.95
Singapore	4 751.9	85 234	5.58
Malta	213.8	2 173	9.84
Fiji	74.8	634	11.79
Kiribati	1.5	15	9.76
Papua New Guinea	166.8	1 299	12.84
Solomon Islands	16.6	101	16.42
Tonga	4.96	61	8.14

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Country	Estimate of total freight costs of imports	Value of imports (c.i.f.)	Freight costs as percentage of import value
Vanuatu	9.7	80	12.10
Samoa	9.3	105	8.87
Subtotal, small island developing States	7 241.1	109 741	6.60
World total	201 385	3 601 481	5.59
Developed market-economy countries	118 043	2 600 770	4.54
Developing countries total,	83 342	1 000 711	8.33
of which in:			
Africa	9 837	88 979	11.06
America	15 098	189 094	7.98
Asia	56 951	707 430	8.05
Europe	934	10 940	8.54
Oceania	522	4 268	12.23

Source: Compiled by the UNCTAD secretariat on the basis of International Monetary Fund (IMF) c.i.f/f.o.b. factors and the UNCTAD *Handbook of International Trade and Development Statistics*.

a/ The estimate for the world and country groups are not complete, since data for member countries of IMF only are included.

9. The second area is technical cooperation and human resources development. These are important complements to the research, policy analysis and intergovernmental deliberations of UNCTAD. Research provides new insights into methods of tackling development problems; through training programmes the results of this research can be disseminated to policy makers and other officials 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. The UNCTAD technical cooperation programme was, in the past, oriented to developing countries because of their special needs. This programme continues to be extended to small island developing States.

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III. OVERVIEW OF THE CURRENT SITUATION IN SHIPPING

10. The present section includes an analysis of international trade of small island developing States and the characteristics of the merchant fleet. The maritime transportation issues, however, are not uniform for all small island developing States. The group is significantly diverse in geographic location, natural endowments and stages of economic development. Therefore, the problems of a country such as Singapore, with its excellent geographic location, the second largest container throughput in the world 2/ and a per capita GDP of almost $20,000, 3/ are very different from those of many other small island developing States. For example, per capita income for developing countries in Oceania ranges from a low of $447 (Kiribati) to a high of $2,222 (Fiji). 4/

A. International trade of small island developing States

11. The demand for shipping services is derived from international trade. The dominance of manufactures (80 per cent) is highly biased by the more developed small island developing States and for many less developed countries raw materials are a large share.

12. A review of international trade of small island developing States by value indicates a shift in both structure and direction of imports and exports. For the former, total exports have increased at about 11.5 per cent annually for the period 1988-1994, with the fastest growth in manufactures (annual average growth rate of 17.2 per cent). 5/ The changing structure of trade reflects the growth in manufactures and a decrease in food exports. The direction of exports has changed over the period 1988-1994. For example, in 1988, developed market-economy countries imported about 56 per cent of small island developing States' exports. However, by 1994, the developed countries' share declined to 44.5 per cent. Conversely, the developing countries' share of small island developing States' exports increased from 39.9 per cent in 1988 to 51.8 per cent in 1994. 6/

13. Total imports have increased at an annual average rate of 8.9 per cent over the period 1988-1994. 7/ Manufactured goods remain the largest share of imports - 81 per cent in 1994 - and increased from 69.0 per cent in 1988. In other commodity groups, imports of food and fuels remained static; however, agricultural raw materials decreased by 34.3 per cent, while ores and metals increased by 30.0 per cent. The direction of imports over the period 1988-1994 shifted away from developed market-economy countries (down 8.3 per cent), with an increase for developing countries (up 15 per cent). Developed market-economy countries, however, are still the major countries of origin, with more than 55 per cent of the 1994 total. The developing countries and socialist Asia expanded their share to 41.0 per cent and 3.2 per cent, respectively.

B. Small island developing States merchant fleet

14. The impact of open-registry fleets creates a statistical bias on the analysis of the fleet capabilities of the small island developing States group. Open registries are legal mechanisms used to attract merchant tonnage from

countries with more stringent safety regulations and higher operating costs to countries offering more flexibility 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 is minimal (see table 2).

15. Within the small island developing States group, open-registry tonnage represents 77.2 per cent of the total. Thus, a more accurate analysis of the small island developing States fleet should focus on the remaining 30.6 million d.w.t. The composition of this fleet is summarized in table 3 and indicates a concentration of registered tonnage in Singapore, Antigua and Barbuda and Saint Vincent and the Grenadines. The latter Caribbean States also extend open-registry facilities. These three represent 95 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, 8/ which includes vessels of 100 GRT and above. Thus many of the smaller ships are not included in the global data bank maintained by Lloyd’s Maritime Information Services Ltd. Nevertheless, a large number of vessels of less than 100 GRT are operating in many small island developing States. For example, in Maldives, inter-atoll cargoes are carried by 250-350 dhonis (small vessels of about 50-75 d.w.t.), 9/ while in the Caribbean, some 400-500 small ships (200-300 d.w.t.) were trading in early 1990. 10/ Similarly, 200-300 privately owned inter-island vessels were operating in Papua New Guinea. 11/

16. The age of the small island developing States fleet is the second qualitative factor. Seventy per cent of the merchant fleet is 15 years old and over. This ageing fleet leads to higher operating costs, as repair and maintenance rapidly increase with age, and schedule delays and unreliability, as well as greater environmental risks, are associated with obsolete vessels. In brief, the small island developing States fleet is ageing and needs replacement. Table 4 summarizes the group age by vessel type; the annex to the present report provides details by country.

17. Another conclusion from the fleet ownership/vessel type data is the need for small island developing States to increase their capabilities for serving their own trade. This is desirable because most of the fleet (77.2 per cent) is owned abroad. 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 since most manufactured goods move by container or general cargo ships. The former represent only 3.6 per cent and the latter 17.5 per cent of the small island developing States fleet (see table 3). If the vessels registered in Singapore and the two Caribbean countries extending open-registry facilities (Antigua and Barbuda and Saint Vincent and the Grenadines) are excluded from these two essential ship types (container ships and general cargo), the small island developing States fleet is minimal.

Table 2

Tonnage owned by the nationals of, and registered in, the country of registry in the total fleet of the most important open and international registers, as at 31 December 1994 a/

(Thousand of d.w.t.)

Country of registry or register	Total tonnage registered in the country of register	Tonnage owned by nationals of, and registered in, the country of registry	Share of tonnage owned by nationals in the total registered fleet (percentage)
Liberia	91 764	0	0.0
Panama	86 460	0	0.0
Cyprus	35 785	2 856	8.0
Bahamas	34 697	187	0.5
Norwegian International Ship Registry	31 533	29 676	94.1
Danish International Ship Registry	6 170	6 039	97.9
Bermuda	4 493	0	0.0

Source: Based on data supplied by Lloyd’s Maritime Information Services Ltd., London.

a/ Ships of 1,000 GRT and above.

Table 3

Merchant fleets of the island developing States by flag of registration, a/ groups of countries and types of ship, b/ as at 31 December 1994

(d.w.t.)

	Total fleet	Oil tankers	Bulk carriers	General cargo c/	Container ships	Other types
Bahamas	35 740 833	19 604 600	7 523 744	5 923 633	905 637	1 783 219
Cyprus	39 325 233	8 876 343	21 791 666	6 562 318	1 274 668	820 238
Cape Verde	32 320	562	..	28 001	..	3 757
Comoros	2 959	..	..	2 295	..	664
Mauritius	301 082	..	203 750	85 043	..	12 289
Sao Tome and Principe	2 277	..	..	1 285	..	992
Seychelles	3 721	..	..	2 825	..	896
Antigua and Barbuda	1 982 504	3 711	154 253	1 326 325	454 119	44 096
Barbados	114 253	76 219	..	20 005	..	18 029
Cuba	542 991	102 249	632	298 463	..	141 647
Dominica	2 833	..	..	2 833	..	..
Dominican Republic	11 852	1 635	..	9 251	..	966
Grenada	555	..	..	555	..	..
Haiti	170	..	..	..	..	170
Jamaica	10 545	3 292	..	7 253	..	..
Saint Kitts and Nevis	550	..	..	550	..	..
Saint Lucia	2 279	..	..	2 279	..	..
Saint Vincent and the Grenadines	8 595 448	1 749 929	3 353 395	2 944 655	223 267	324 202
Trinidad and Tobago	17 037	..	..	7 524	..	9 513
Bahrain	243 347	98 297	13 143	98 759	..	33 148
Maldives	106 808	12 679	19 536	66 937	..	7 656
Singapore	18 520 025	8 893 630	5 626 138	1 889 004	1 494 500	616 753
Malta	26 267 730	10 646 168	10 923 409	3 669 158	450 363	578 632
Fiji	27 385	4 705	..	11 078	..	11 602
Kiribati	4 674	..	..	3 980	..	694
Nauru	:	.	..	..	..	..
Papua New Guinea	51 051	5 044	..	42 313	..	3 694
Solomon Islands	5 746	..	..	3 155	..	2 591
Tonga	12 307	..	..	11 043	..	1 264
Tuvalu	77 164	..	..	18 519	..	58 645
Vanuatu	2 569 838	21 833	1 669 670	498 349	29 890	350 096
Samoa	6 501	..	..	6 066	..	435
Total small island developing States	134 582 018	50 100 896	51 279 336	23 543 454	4 832 444	4 825 888
Percentage of total	100	37.2	38.1	17.5	3.6	3.6

Source: Lloyd's Maritime Information Services Ltd., London.

a/ 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 United Nations Secretariat concerning the legal status of any country or territory, or of its authorities, or concerning the delimitation of its frontiers.

b/ Ships of 100 GRT and over.

c/ Including passenger/cargo.

Table 4

Age distribution of the small island developing States fleet by types of vessel, as at 1 July 1995 a/

(Percentage of total in terms of d.w.t.)

Country grouping	Type of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) b/
Group average	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
	Container ships	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 Ltd., London.

a/ Excluding open-registry countries. The group of open registries as defined in the UNCTAD Review of Maritime Transport comprises the Bahamas, Bermuda, Cyprus, Liberia and Panama.

b/ 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.

C. Shipping industry changes

18. Restructuring trends in the international liner shipping industry are another factor affecting the transportation capabilities of many small island developing States. Over the past decade, consolidation and cooperation commercial agreements between large container operators have resulted in a concentration of services. This has created economies of scale and encouraged the expansion of hub and spoke service patterns between major trading areas. For small island developing States, however, the impact has been to increase the need for transshipment port services, acquire vessels with container-lifting capabilities, invest in electronic data interchange (EDI) technology and train management personnel. Moreover, without these infrastructure investments (mainly ships and port facilities), the ability of many small island developing States to effectively trade and sustain development will be marginal.

19. To conclude, small island developing States are more than ever dependent on trade and efficient shipping services. These capabilities, however, continue to deteriorate because of inappropriate and ageing ships, ever-increasing concentration of liner shipping companies and the expansion of hub ports that require transshipment services.

IV. RECOMMENDATIONS

20. Despite the diversity of the small island developing States, there are several recommendations in the maritime sector that may be selectively considered by each member State.

A. National level

21. It is recommended that countries:

(a) Promote investments in modern ships through fiscal policies that encourage investment. These include, inter alia, rapid depreciation allowances, investment credits and reducing personal income taxes for seafarers;

(b) Upgrade maritime safety and environment administration by advanced training through IMO and by sending government officials to specialized training and academic institutions such as the World Maritime University at Malmö;

(c) Encourage the development of ship repair facilities through favourable fiscal policies and custom exemption for essential equipment and ship components;

(d) Provide and upgrade reception facilities for ship waste;

(e) Strengthen or encourage shippers' councils to act as focal points for the protection of shippers' interests;

(f) Support port infrastructure investments through direct loans or by guaranteeing loans from development agencies;

(g) Consider, in the case of small island developing States with very small island archipelagoes, the need for a licensing scheme and mail subsidies to private ship companies;

(h) Ratify United Nations conventions pertaining to the maritime sector, namely, the Convention on a Code of Conduct for Liner Conferences, the United Nations Convention on Conditions for Registration of Ships, the United Nations Convention on International Multimodal Transport of Goods, the United Nations Convention on the Carriage of Goods by Sea, 1978 (Hamburg Rules) and the International Convention on Maritime Liens and Mortgages, 1993);

(i) Provide additional management training for private and public sector personnel;

(j) Gradually phase out existing over-age vessels and ban imports of ships exceeding 15 years old that cannot meet minimum IMO safety regulations;

(k) Improve managerial skills through a human resources programme for national ports staff;

(l) Actively participate in UNCTAD and IMO meetings pertaining to global shipping policy, port development and maritime safety/pollution;

(m) Upgrade maritime safety and environmental protection procedures:

(i) Consider applying international instruments adopted by the Paris Memorandum of Understanding on Port State Control, 12/ including the International Convention on Load Lines, 1966; the Protocol of 1988

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relating to the International Convention on Load Lines, 1966; the International Convention for the Safety of Life at Sea, 1974; the Protocols of 1978 and 1988 relating to the International Convention for the Safety of Life at Sea, 1974; the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto; the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978; the Convention on the International Regulations for Preventing Collisions at Sea, 1972; and the Convention concerning Minimum Standards in Merchant Ships, 1976 (ILO Convention No. 147).

B. Regional or subregional level

22. The following recommendations are made at the regional or subregional level:

(a) Expand the maritime capabilities of the region or subregion by:

(i) Acceding to the Convention on a Code of Conduct for Liner Conferences;

(ii) Forming an intraregional liner freight conference;

(iii) Preventing the importation of further obsolete ships into the region;

(iv) Updating and harmonizing the maritime legislation of various small island developing States at the subregional and national level with a view to providing a legal framework for more effective maritime transport;

(b) Provide an improved intraregional sea transportation service by:

(i) Establishing a ship finance division within the regional development banks in partnership with a foreign ship mortgage bank;

(ii) Giving berth preference to vessels carrying perishable foodstuffs;

(iii) Giving preferential berth treatment to regular traders;

(iv) Improving ship-to-shore radio communications;

(v) Forming small shipowners’ regional associations;

(c) Reduce overall sea transportation costs by improving shipping infrastructures. Actions should include:

(i) Investigating and remedying port congestion;

(ii) Reviewing and streamlining customs and documentation procedures;

(iii) Investigating and modernizing port labour working practices;

(iv) Critically examining future capital investments for major port development projects;

(d) Protect shippers’ interests by:

(i) Establishing shippers’ councils throughout the region;

(ii) Encouraging the formation of open conferences for liner ships serving the regions;

(iii) Encouraging the shippers’ councils and small shipowners’ associations to use the services of a maritime transportation centre;

(iv) Encouraging shippers to negotiate favourable rates directly with shipowners for indirect services using existing North-North and North-South routes and ensuring adequate services also for commodities with special transport needs;

(v) Promoting slot charter agreements and transshipment services at required frequencies;

(vi) Encouraging cooperation between traders to consolidate LCL (less than container load) shipments for economy and convenience, and to negotiate better rates;

(vii) Promoting the exchange of information and market intelligence between traders to identify opportunities for cooperation in obtaining shipping and other transport services, and developing databases for maintaining information on available shipping services, particularly relating to South-South opportunities;

(viii) Encouraging traders, acting together, to discuss their South-South transport needs with local transport companies, ship operators and entrepreneurs interested in investing in shipping;

(ix) Encouraging traders to enter into agreements on the minimum quantities required to be shipped, to justify the establishment or improvement of services;

(e) Improve maritime managerial skills and knowledge in the region by:

(i) Establishing a maritime transportation centre with two divisions: a maritime safety administration and an economic policy division;

(ii) Providing subregional short training courses in shipping and port management through schemes such as the UNCTAD Trainmar programme;

(iii) Encouraging the regional shipping lines to enter into joint ventures with foreign shipowners with a strong training component in the contract of agreement;

(iv) Participating actively in regional port management associations;

(f) Upgrade maritime safety and environmental protection procedures by:

(i) Undertaking a manpower study to assess the training needs of the region and supplement regional training capabilities, as appropriate;

(ii) Establishing a system for the examination and issuance of certificates of competency;

(iii) Upgrading/strengthening the procedures for inspection of ships registered in the region.

C. International level

23. In view of the large investments involved in the development of infrastructures and acquisition of the means of maritime transport, efforts of small island developing States at the national and regional levels need to be supplemented by international assistance. The international community is urged to:

(a) Provide assistance to help small island developing States invest in port infrastructure, modern ships for intraregional transport, port reception facilities for ship wastes and the development of managerial and functional skills for maritime transport;

(b) Support regional efforts of small island developing States at improving regional maritime transportation, including maritime safety and marine pollution.

V. CONCLUSIONS

24. The improvement in maritime capabilities of small island developing States within the context of sustainable development will require multilateral actions. These include decisions by individual Governments; however, to obtain economic and political leverage, regional and international cooperation by small island developing States is also necessary. Conversely, without coordination, individual States will continue to be marginalized by larger groups that already dominate economic and maritime policy.

Notes

1/ Handbook of International Trade and Development Statistics, 1994 (United Nations publication, Sales No. E/F.95.II.D.15), table 6.2.

2/ Review of Maritime Transport, 1994 (United Nations publication, Sales No. E.95.II.D.17), p. 34.

3/ Handbook of International Trade and Development Statistics, 1994 ..., table 6.1.

4/ Ibid.

5/ UNCTAD secretariat, based on data from the Statistics Division of the United Nations Secretariat.

6/ Handbook of International Trade and Development Statistics, 1994 ..., table 3.2.

7/ Ibid., table 3.3.

8/ Lloyd’s Maritime Information Services Ltd, London.

9/ UNCTAD, Inter-Island Maritime Information System project report (MDV/89/005), 1990.

10/ UNCTAD, consultant’s report, Problems of Inter-Island Transport (UNCTAD/RDP/LDC/32), 1990.

11/ Ibid.

12/ The Memorandum of Understanding on Port State Control, annual report, 1992, p. 39.

Annex

Age distribution of the small island developing States fleet, by type of vessel, as at 1 July 1995

(Percentage of total in terms of d.w.t.)

Country grouping	Type of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) a/
American Samoa	All ships	100	0.0	0.0	100.0	0.0	12.00
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	0.0	0.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	100.0	0.0	12.00
Antigua and Barbuda	All ships	100	30.6	9.3	32.4	27.7	11.25
	Tankers	100	0.0	0.0	0.0	100.0	22.00
	Bulk carriers	100	0.0	0.0	67.5	32.5	15.25
	General cargo	100	23.4	10.4	32.8	33.4	12.48
	Container ships	100	53.9	9.8	22.9	13.4	7.46
	All others	100	18.3	0.0	40.4	41.3	14.30
Aruba	All ships	100	0.0	0.0	100.0	0.0	12.00
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	0.0	0.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	100.0	0.0	12.00
Bahamas	All ships	100	12.7	12.5	15.2	59.6	16.07
	Tankers	100	15.2	15.3	6.0	63.5	16.07
	Bulk carriers	100	7.9	7.1	28.9	56.1	16.47
	General cargo	100	11.2	8.2	26.2	54.4	15.91
	Container ships	100	16.3	8.6	0.5	74.6	17.40
	All others	100	9.2	21.5	26.4	42.9	14.30
Bahrain	All ships	100	39.9	0.0	1.2	58.9	13.90
	Tankers	100	98.7	0.0	0.0	1.3	2.26
	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
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.6	0.0	8.7	90.7	21.01

Country grouping	Type of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) a/
Barbados	All ships	100	2.3	4.3	67.9	25.5	14.11
	Tankers	100	0.0	0.0	100.0	0.0	12.00
	Bulk carriers	100	0.0	0.0	100.0	0.0	12.00
	General cargo	100	3.4	13.4	20.3	62.9	17.28
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	11.0	0.0	39.2	49.8	15.88
Cape Verde	All ships	100	2.6	2.7	8.1	86.6	20.27
	Tankers	100	0.0	0.0	0.0	100.0	22.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	3.2	0.2	0.0	96.6	21.33
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	16.3	52.8	30.9	14.28
Comoros	All ships	100	0.0	16.9	0.0	83.1	19.47
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	21.8	0.0	78.2	18.73
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	0.0	100.0	22.00
Cook Islands	All ships	100	0.0	0.0	0.0	100.0	22.00
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	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	0.0	0.00
Cuba	All ships	100	0.9	5.9	6.7	86.5	20.27
	Tankers	100	0.0	19.9	5.1	75.0	18.51
	Bulk carriers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	1.6	3.3	10.7	84.4	20.12
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	1.8	0.0	98.2	21.73

Country grouping	Type of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) a/
Cyprus	All ships	100	8.5	5.0	17.8	68.7	17.77
	Tankers	100	21.0	7.7	11.0	60.3	15.55
	Bulk carriers	100	3.0	2.0	19.2	75.8	19.18
	General cargo	100	4.0	10.7	18.3	67.0	17.77
	Container ships	100	41.8	7.0	28.0	23.2	9.79
	All others	100	7.2	11.7	24.3	56.8	16.38
Dominica	All ships	100	0.0	0.0	0.0	100.0	22.00
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	0.0	100.0	22.00
Dominican Republic	All ships	100	0.0	0.0	0.0	100.0	22.00
	Tankers	100	0.0	0.0	0.0	100.0	22.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	0.0	100.0	22.00
Fiji	All ships	100	0.7	0.2	30.0	69.1	18.83
	Tankers	100	0.0	0.0	0.0	100.0	22.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	1.6	0.4	66.3	31.7	14.99
Grenada	All ships	100	0.0	0.0	0.0	100.0	22.00
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	0.0	100.0	22.00

Country grouping	Type of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) a/
Haiti	All ships	100	0.0	0.0	0.0	100.0	22.00
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	0.0	100.0	22.00
Jamaica	All ships	100	0.0	0.0	46.1	53.9	17.39
	Tankers	100	0.0	0.0	0.0	100.0	22.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	100.0	0.0	12.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	100.0	0.0	12.00
Kiribati	All ships	100	17.3	0.0	24.2	58.5	16.12
	Tankers	100	0.0	0.0	0.0	100.0	22.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	32.6	0.0	30.5	36.9	12.43
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	5.8	0.0	94.2	0.0	11.42
Maldives	All ships	100	0.4	0.0	3.4	96.2	21.58
	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	0.6	0.0	5.3	94.1	21.35
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	0.0	100.0	22.00
Malta	All ships	100	4.7	8.0	12.4	74.9	18.62
	Tankers	100	7.5	5.9	7.4	79.2	18.88
	Bulk carriers	100	2.0	10.7	18.4	68.9	18.16
	General cargo	100	2.8	3.3	11.3	82.6	19.82
	Container ships	100	22.2	15.8	1.6	60.4	15.03
	All others	100	0.1	19.6	14.6	65.7	17.58

Country grouping	Type of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) a/
Marshall Islands	All ships	100	7.2	0.8	10.5	81.5	19.39
	Tankers	100	9.0	0.0	2.6	88.4	19.94
	Bulk carriers	100	4.9	2.4	20.4	72.3	18.62
	General cargo	100	0.0	12.8	45.2	42.0	15.56
	Container ships	100	0.0	0.0	40.7	59.3	17.93
	All others	100	0.0	2.0	98.0	0.0	11.90
Mauritius	All ships	100	0.0	38.3	43.2	18.5	11.94
	Tankers	100	0.0	0.0	100.0	0.0	12.00
	Bulk carriers	100	0.0	0.0	96.1	3.9	12.39
	General cargo	100	0.0	50.9	4.6	44.5	13.91
	Container ships	100	0.0	100.0	0.0	0.0	7.00
	All others	100	1.4	15.8	0.0	82.8	19.35
Micronesia, Federated States of	All ships	100	0.0	1.4	0.0	98.6	21.79
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	1.6	0.0	98.4	21.76
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	0.0	100.0	22.00
Nauru	All ships	100	..	..	..	..	..
	Tankers	100	..	..	..	..	..
	Bulk carriers	100	..	..	..	..	..
	General cargo	100	..	..	..	..	..
	Container ships	100	..	..	..	..	..
	All others	100	..	..	..	..	..
Netherlands Antilles	All ships	100	3.8	8.6	58.8	28.8	14.07
	Tankers	100	0.0	18.5	59.2	22.3	13.31
	Bulk carriers	100	0.0	0.0	83.1	16.9	13.69
	General cargo	100	7.0	9.1	41.8	42.1	15.06
	Container ships	100	0.0	33.9	0.0	66.1	16.92
	All others	100	2.5	4.8	78.3	14.4	12.95

Country grouping	Type of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) a/
Niue	All ships	100	..	..	..	..	..
	Tankers	100	..	..	..	..	..
	Bulk carriers	100	..	..	..	..	..
	General cargo	100	..	..	..	..	..
	Container ships	100	..	..	..	..	..
	All others	100	..	..	..	..	..
Palau	All ships	100	0.0	0.0	0.0	100.0	22.00
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	0.0	0.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	0.0	100.0	22.00
Papua New Guinea	All ships	100	12.8	50.5	15.0	21.7	10.37
	Tankers	100	0.0	0.0	44.1	55.9	17.59
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	15.3	59.5	10.4	14.8	8.98
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	13.0	30.7	56.3	16.98
Saint Kitts and Nevis	All ships	100	0.0	0.0	0.0	100.0	22.00
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	200	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	100.00	22.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	0.0	0.0	0.00
Saint Lucia	All ships	100	0.0	0.0	0.0	100.0	22.00
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	0.0	100.0	22.00

Country grouping	Type of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) a/
Saint Vincent and the Grenadines	All ships	100	4.5	2.3	10.5	82.7	19.71
	Tankers	100	0.3	0.0	3.8	95.9	21.56
	Bulk carriers	100	7.0	2.9	11.4	78.6	19.00
	General cargo	100	1.9	2.4	11.1	84.6	20.15
	Container ships	100	47.9	0.0	27.9	24.2	9.63
	All others	100	0.1	8.3	24.9	66.7	18.25
Sao Tome and Principe	All ships	100	0.0	0.0	29.9	70.1	19.01
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	14.0	86.0	20.60
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	46.8	53.2	17.32
Seychelles	All ships	100	5.6	0.0	0.0	94.4	20.88
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	24.5	0.0	0.0	75.5	17.10
Singapore	All ships	100	21.5	27.2	17.5	33.8	11.87
	Tankers	100	21.6	37.1	6.2	35.1	11.50
	Bulk carriers	100	28.8	21.7	34.5	15.0	9.54
	General cargo	100	3.5	4.2	19.7	72.6	18.70
	Container ships	100	20.2	20.5	10.0	49.3	13.89
	All others	100	12.1	28.2	30.7	29.0	12.28
Solomon Islands	All ships	100	0.0	3.5	15.9	80.6	19.89
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	2.6	97.4	21.74
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	7.7	32.1	60.2	17.64

Country grouping	Type of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) a/
Tokelau	All ships	100	..	..	..	..	..
	Tankers	100	..	..	..	..	..
	Bulk carriers	100	..	..	..	..	..
	General cargo	100	..	..	..	..	..
	Container ships	100	..	..	..	..	..
	All others	100	..	..	..	..	..
Tonga	All ships	100	1.2	0.0	1.6	97.2	21.60
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	4.3	0.0	5.9	89.8	20.55
Trinidad and Tobago	All ships	100	0.0	6.6	9.0	84.4	20.11
	Tankers	100	0.0	0.0	0.0	100.0	22.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	14.9	20.5	64.6	17.72
Tuvalu	All ships	100	0.0	6.5	34.9	58.6	17.54
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	17.1	59.1	23.8	13.53
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	20.1	79.9	19.99
Vanuatu	All ships	100	5.4	21.6	30.9	42.1	14.59
	Tankers	100	7.9	0.0	0.0	92.1	20.42
	Bulk carriers	100	5.2	23.7	28.0	43.1	14.61
	General cargo	100	7.5	20.4	51.5	20.6	12.29
	Container ships	100	0.0	0.0	100.0	0.0	12.00
	All others	100	3.1	19.7	15.0	62.2	16.93

Country grouping	Type of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) a/
United States Virgin Islands	All ships	100	0.0	0.0	0.0	100.00	22.00
	Tankers	100	0.0	0.0	0.0	0.0	0.00
	Bulk carriers	100	0.0	0.0	0.0	0.0	0.00
	General cargo	100	0.0	0.0	0.0	0.0	0.00
	Container ships	100	0.0	0.0	0.0	0.0	0.00
	All others	100	0.0	0.0	0.0	100.00	22.00
Group average	All ships	100	4.81	6.11	19.56	69.53	18.17
	Tankers	100	8.63	4.97	16.45	69.95	17.88
	Bulk carriers	100	3.92	4.70	33.83	57.54	17.13
	General cargo	100	3.47	7.33	15.16	74.04	18.69
	Container ships	100	18.39	17.78	21.05	42.77	13.55
	All others	100	2.83	5.16	29.72	62.29	17.69

Source: Compiled on the basis of data supplied by Lloyd’s Maritime Information Services Ltd., London.

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