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Chapter 7

Financing sustainable development in small island developing states

Introduction

In this chapter, sustainable development is interpreted in the broad sense of the improvement of the socio-economic circumstances of the poor without compromising the quality of the environmental resources of succeeding generations. Further, the poor must participate integrally in the formulation and implementation of policies directed toward eradicating their poverty while fostering environmental sustainability.

Financial support for developing countries to deal with environmental issues was first mooted in the UN Conference on Human Development in 1972, but much more clearly articulated and adopted on the global policy agenda in 1987 by the Bruntland Report (World Commission on Environment and Development Report). In 1992, UNCED advanced the principle of 'differentiated responsibilities among nations in pursuing sustainable development[1]' in Article 7 of the Rio Declaration on Environment and Development. Chapter 33 of Agenda 21 called on governments to 'identify ways and means of providing new and additional resources, particularly to developing countries, for environmentally sound development programmes and projects ... [2] '.

Two broad approaches to financing sustainable development have been articulated, expanded and refined since the commitment to pursuing sustainable development by world leaders at the UNCED conference in Rio in 1992. Chapter 33 of Agenda 21 estimated targets to meet sustainable development – in the broad sense:

- US$600 billion would be needed annually;
- US$125 billion = 0.7 per cent of the GDP of the developed countries would come from the international community on concessional terms;
- US$475 billion would come from domestic private and public sources.

The commitments of the international community to financing sustainable development were reiterated in Monterrey, at WSSD in 2002 and in Mauritius in 2005.

This chapter reviews the approaches to financing sustainable development with a view to assisting concrete decision-making and practice by government 'officials responsible for national planning in small states, particularly within Ministries of Planning and Finance, and national sustainable development bodies[3]'.

Financing sustainable development – International resources

It has long been recognised that developing countries can benefit from international resources – financial, technological, knowledge, and others – that augment their own resources in their respective struggles for sustainable development. Some have argued persuasively that without proper management, international financial resources can 'underdevelop'[4] countries and reinforce historical tendencies for 'persistent poverty'[5] through exploitative relationships that disrupt and destroy social networks and damage the natural environment. Proper management here refers to dynamic decision-making within the framework of a national development plan that is diligently implemented and carefully monitored.

The range of international resources that flow to developing countries includes Official Development Assistance (ODA), private investment, debt forgiveness and swaps, and special funds and mechanisms for allocating those funds. In addition, there are standing proposals for the levying of international taxes on economic transactions that undermine sustainable development and the redistribution of the proceeds to developing countries to fund sustainable development projects.

Official Development Assistance (ODA)

The literature on financing sustainable development and the annual reports on ODA by the World Bank uniformly recognise the decline in ODA since UNCED, and the failure of the developed countries to honour their commitment to provide 0.7 per cent of their GDP to fund sustainable development.

Table 7.1 shows the ODA of each of the OECD countries as a percentage of their Gross National Income[6] (GNI) for selected years. Notice that it fell from 0.33 per cent in 1991–92 to 0.26 per cent in 1995–96, and as low as 0.23 per cent in 2002. Thereafter, it rose again, peaking at 0.33 per cent in 2005.

Of course, there was considerable variation around the average. In 2002, the USA provided only 0.13 per cent of its GNI as ODA. On the other hand, for the years 2002–06, Denmark, Luxembourg, Norway, and Sweden all averaged over 0.80 per cent, and in 2006 Sweden provided 1.02 per cent of its GNI as ODA.

On a per capita basis, Norway was by far the most generous with US$1.02 per capita of government aid and US$0.24 per capita of private aid. Denmark with US$0.64 and Sweden with $0.61 per capita of government aid were the next most generous. The USA was among the lowest for government aid at $0.13 per capita, but it was the second highest in private aid at $0.05 per capita.

ODA doubled between 2001 and 2005[7], but was still only 0.33 per cent of the GNI of the developed countries, less than had been achieved in 1991, the year before UNCED. Table 7.1 shows the trend of the average for the Development Assistance Committee (DAC) countries, and for the two extreme cases, Sweden and the USA.

Table 7.1. OECD countries – ODA as a percentage of GNI

Net disbursements at current prices and exchange rates

Per cent of GNI	1990–1991 average*	1995–1996 average	2002	2003	2004	2005	2006	2007	2008
Australia	0.36	0.31	0.26	0.25	0.25	0.25	0.30	0.32	0.32
Austria	0.14	0.25	0.26	0.20	0.23	0.52	0.47	0.5	0.43
Belgium	0.43	0.36	0.43	0.60	0.41	0.53	0.50	0.43	0.48
Canada	0.45	0.35	0.28	0.24	0.27	0.34	0.29	0.29	0.032
Denmark	0.95	1.00	0.96	0.84	0.85	0.81	0.80	0.81	0.82
Finland	0.72	0.32	0.35	0.35	0.37	0.46	0.40	0.39	0.44
France	0.61	0.51	0.37	0.40	0.41	0.47	0.47	0.38	0.39
Germany	0.40	0.31	0.27	0.28	0.28	0.36	0.36	0.37	0.38
Greece	..	0.15	0.21	0.21	0.16	0.17	0.17	0.16	0.21
Ireland	0.17	0.30	0.40	0.39	0.39	0.42	0.54	0.55	0.59
Italy	0.30	0.18	0.20	0.17	0.15	0.29	0.20	0.19	0.22
Japan	0.32	0.24	0.23	0.20	0.19	0.28	0.25	0.17	0.19
Luxembourg	0.27	0.40	0.77	0.81	0.83	0.86	0.89	0.92	0.97
Netherlands	0.90	0.81	0.81	0.80	0.73	0.82	0.81	0.81	0.8
New Zealand	0.24	0.22	0.22	0.23	0.23	0.27	0.27	0.27	0.3
Norway	1.15	0.85	0.89	0.92	0.87	0.94	0.89	0.95	0.88
Portugal	0.27	0.23	0.27	0.22	0.63	0.21	0.21	0.22	0.27
Spain	0.22	0.23	0.26	0.23	0.24	0.27	0.32	0.37	0.45
Sweden	0.90	0.80	0.84	0.79	0.78	0.94	1.02	0.93	0.98
Switzerland	0.34	0.34	0.32	0.39	0.41	0.44	0.39	0.38	0.42
United Kingdom	0.30	0.28	0.31	0.34	0.36	0.47	0.51	0.35	0.43
United States	0.20	0.11	0.13	0.15	0.17	0.23	0.18	0.16	0.19
TOTAL DAC	**0.33**	**0.26**	**0.23**	**0.25**	**0.26**	**0.33**	**0.31**	**0.28**	**0.31**

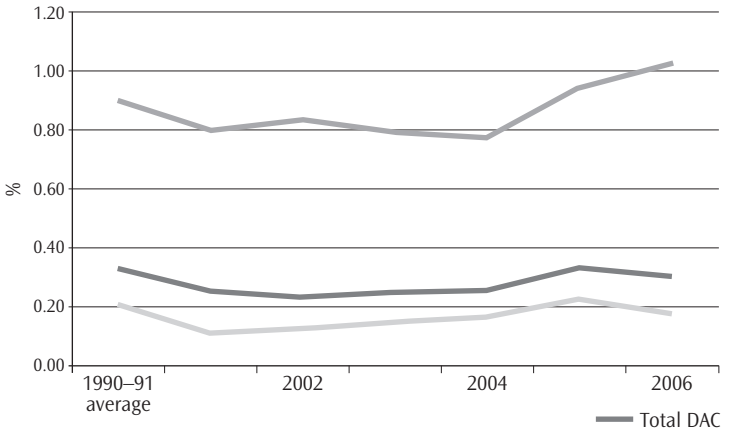
* Including debt forgiveness of non-ODA claims in 1990 and 1991, except for total DAC

Source: http://www.oecd.org/document/9/0,3343,en_2649_34485_1893129_1_1_1_1,00.html

Further, in 2006, ODA accounted for only 34 per cent of the total net flows, whereas private flows on market terms represented 64 per cent. For the years, 2001–04, ODA had been greater than 50 per cent of total net flows, and in 2002 it was as high as 80 per cent of total net resource flows from DAC countries. Figure 7.2 shows the trend in the ODA share of total net flows of resources.

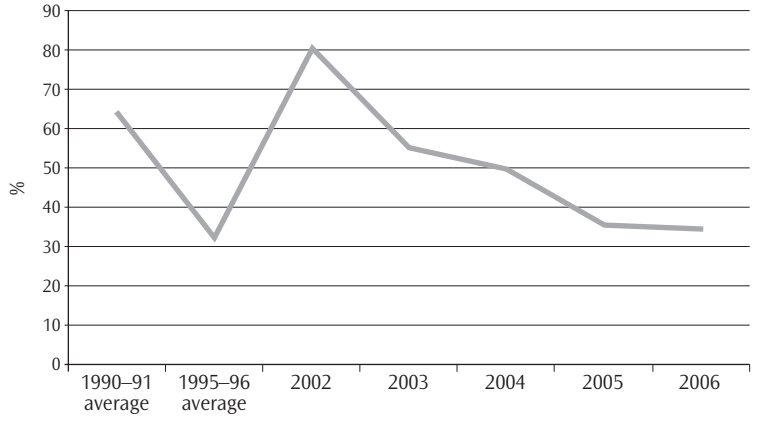
In the CEPAL-UNDP study of 2001, it was noted that ODA was unevenly distributed across regions and countries. In the case of Latin America and the Caribbean, it was highly concentrated among a small group of countries – Nicaragua, Honduras and Guyana in 1999, and Nicaragua, Honduras, Bolivia and Peru in 2000. The last column of Table 7.2 shows the trend for each country as increasing (+), decreasing (-), or constant. Of the 34

Figure 7.1. OECD-DAC countries – total ODA as percentage of GNI



Source: http://www.oecd.org/document/9/0,3343,en_2649_34485_1893129_1_1_1_1,00.html

Figure 7.2. OECD-DAC countries – total ODA as percentage of total flows



Source: http://www.oecd.org/document/9/0,3343,en_2649_34485_1893129_1_1_1_1,00.html

SIDS for which estimates were available, 26 reported that ODA as a percentage of GNI declined between 1990 and 2004. Only five reported increases and three were constant. Two of those showing increases of ODA as a percentage of GNI were Barbados and The Bahamas, and the three that were constant were the Dominican Republic, Singapore and Trinidad and Tobago. All five of these countries received negligible amounts of ODA during the period because of their high per capita incomes. For the period 2001–05, SIDS received an average of 2 per cent of total ODA, which accounted for about 0.5 per cent of their GNI.

Table 7.3 shows the per capita receipts of net ODA for selected SIDS for the period 2002–08. The last column shows whether the trend has been increasing (+) or decreasing (–) for each country.

Table 7.2. ODA received in small island developing states as a proportion of their gross national incomes

Country	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	
Antigua and Barbuda	1.33	0.49	0.78	0.77	1.65	1.71	1.58	1.27	2.00	0.86	0.21	0.94	0.35	0.67	0.72	(–)
Barbados	0.15	–0.06	0.22	0.20	0.68	–0.09	0.01	–0.05	0.14	0.77	1.06	–0.06				(–)
Belize	7.46	3.05	3.34	2.23	2.30	6.67	1.89	2.78	2.61	1.30	0.80	1.22	0.79	1.95	2.11	(–)
Cape Verde	30.92	23.85	23.51	22.24	24.27	23.58	18.02	14.19	15.14	18.85	15.77	16.80	12.60	12.62	14.24	(–)
Comoros	17.98	17.86	16.077	12.84	16.29	9.61	9.25	12.48	12.94	7.57	7.27	5.92	7.59	9.53	7.01	(–)
Dominica	12.17	11.87	19.81	6.41	7.90	4.06	6.55	8.17	13.05	4.74	12.28	7.81	6.49	5.98	6.42	(–)
Dominican Republic	1.50	0.77	0.57	0.38	0.58	0.91	0.24	0.45	0.57	0.35	0.42	0.25	0.16	0.31	0.35	(–)
Fiji	3.84	2.30	2.23	2.16	2.30	1.86	1.70	1.58	1.85	2.21	2.40	2.20	1.83	1.55	1.27	(–)
Grenada	6.61	4.12	4.24	3.08	1.96	2.92	4.17	2.89	2.59	2.51	3.79	9.99	4.99	3.99	5.45	(–)
Guinea-Bissau	54.15	49.84	71.59	48.98	49.82	24.94	39.54	32.76	30.55	67.30	27.92	22.78	26.27	32.94	31.56	(–)
Guyana	61.17	15.17	21.80	39.31	14.34	13.66	17.52	17.60	10.76	13.90	21.48	18.64	21.14	12.32	14.51	(–)
Jamaica	6.51	1.93	0.90	0.97	0.22	–0.26	0.10	0.62	0.27	0.07	0.87	0.38	0.33	0.23	0.57	(–)
Kiribati	41.87	16.78	13.79	14.01	15.12	18.65	16.46	11.47	18.02	13.89	10.99	17.43	16.63	13.55	13.21	(–)
Maldives	10.76	15.24	7.49	5.39	4.88	5.50	3.22	4.22	4.54	3.55	3.92	10.44	4.27	3.75	4.55	(–)
Marshall Islands					45.75	54.01	42.78	53.91	40.86	37.12	31.84	33.53	31.13	28.29	27.26	(–)
Mauritius	3.36	0.57	0.44	1.00	0.97	0.97	0.44	0.46	0.49	–0.25	0.52	0.54	0.29	0.89	1.16	(–)
Micronesia, Fed. States of		31.81	46.46	41.81	35.219	45.97	41.49	57.51	45.49	45.93	35.14	41.07	41.45	42.64	34.50	(+)
Palau		145.12	56.27	32.78	75.79	24.38	31.21	26.40	25.28	20.32	14.01	15.82	23.51	13.42	23.48	(–)
Papua New Guinea	13.32	8.47	8.12	7.51	10.26	6.77	8.33	7.16	7.42	7.04	7.54	5.89	5.65	5.61	3.97	(–)
St Kitts and Nevis	5.26	1.77	3.04	2.83	2.52	1.69	1.32	3.29	8.97	0.05	0.02	0.62	1.13	0.72	9.05	(–)
St Lucia	3.33	9.25	7.27	4.48	0.99	3.94	1.65	2.58	4.97	2.21	–2.91	1.30	2.10	2.17	2.09	(–)
St Vincent and the Grenadines	8.21	18.70	9.71	2.09	6.73	5.25	1.95	2.47	1.32	1.82	2.71	1.04	1.00	12.45	4.71	(–)
Samoa	28.94	22.31	14.25	11.23	15.94	10.00	11.725	18.05	14.37	10.36	8.18	10.59	10.69	7.06	7.78	(–)
Seychelles	10.00	2.63	3.87	3.04	4.08	2.16	3.10	2.19	1.22	1.53	1.56	1.75	1.48	1.04	1.58	(–)
Solomon Islands	22.02	14.87	12.59	7.45	9.18	8.32	15.67	14.65	8.06	18.12	32.03	47.76	44.37	48.83	40.79	(+)
Timor-Leste							71.56	69.22	74.76	56.30	35.80	26.59	21.51	16.10	9.52	(–)
Tonga	25.54	22.94	16.81	14.66	15.40	12.33	12.13	14.98	14.75	15.70	9.44	15.03	8.80	11.63	8.91	(–)
Trinidad and Tobago	0.38	0.51	0.31	0.62	0.24	0.41	–0.02	–0.02	–0.10	–0.03	–0.01	–0.01	0.08	0.10	0.05	0
Vanuatu	30.46	21.02	14.06	11.91	16.67	15.13	19.78	13.77	12.60	12.40	12.45	11.49	12.43	11.89		(–)

Source: World Development Indicators, 2010

Table 7.3. Per capita net ODA receipts, US$, for selected SIDS

	2002	2003	2004	2005	2006	2007	2008	Average 2002–8	Trend 2002–8
Cape Verde	224	349	341	386	329	336	439	344	(+)
Dominica	427	156	417	298	277	261	301	305	(–)
Grenada	108	115	171	586	298	218	313	258	(+)
St Kitts & Nevis	712	–3	–4	63	129	61	935	270	(+)
São Tôme & Principe	153	209	186	168	113	228	292	193	(+)
Seychelles	98	115	129	187	174	106	139	136	(+)
Antigua & Barbuda	199	76	23	111	47	83	94	91	(–)
St Lucia	210	93	–136	62	109	113	112	80	(–)
Guinea-Bissau	45	108	56	56	57	79	84	69	(+)
St Vincent & the Grenadines	40	47	87	37	39	605	247	157	(+)
Belize	85	44	29	43	26	72	81	54	(–)
Comoros	53	39	39	37	44	70	57	48	(+)
Haiti	20	27	32	60	68	73	93	53	(+)
Barbados	12	71	103	–8	–2	71	20	38	(+)
Mauritius	20	–12	26	28	15	55	87	31	(+)
Jamaica	9	2	31	14	13	10	29	15	(+)
Dominican Republic	17	8	9	8	6	13	16	11	(–)
Cuba	5	7	9	8	7	8	11	8	(+)
Trinidad & Tobago	–8	–3	–2	–2	12	16	9	3	(+)

(+) increasing (–) decreasing

Sources: Population data: http://www.census.gov/cgi-bin/ipc/idbsprd
Net ODA: http://www.oecd.org

The picture is mixed, though the trend of decline is probably the dominant one, when one considers that the net (positive) ODA to the last two on the list, Cuba and Trinidad and Tobago, both of which showed increasing trends, was marginal, and that most of the countries on the list showed a declining trend for the five years under review. Certainly, there is no indication from the record of the selected SIDS of an increase in net ODA in line with the commitments to finance sustainable development.

The sectoral composition of ODA receipts had also shifted over the course of the 1990s away from the commercial sectors toward social sectors. The CEPAL-UNDP study acknowledged the lack of hard data, but guessed that probably only 3–5 per cent had been allocated to sustainable development.

The decline of ODA as a percentage of both the incomes of the donor countries and the SIDS occurred while the need for additional funding for sustainable development projects in developing countries was increasing. In particular, there was a clear case for special allocations of ODA targeted to global public goods such as the protection of the ozone layer. The evidence is that the general decline in ODA from developed countries was particularly severe in the case of the SIDS.

Private flows – Foreign Direct Investment (FDI) and portfolio investments

Unlike ODA flows, private flows, and particularly FDI flows, have been increasing rapidly. Except for 2002 when portfolio investment (purchases of financial securities) was -37 per cent of net flows from DAC countries, private flows averaged 51 per cent for the years 2001, 2003–06. In 2006, the share rose to 64 per cent of total net flows from DAC countries. Direct investment averaged 47 per cent of total net flows for the same period, with the vast majority of the balance accounted for by bilateral and multilateral portfolio investments.

Private flows have been concentrated among few countries, and within these, in few sectors. In a review[8] of financing for sustainable development in Latin America and the Caribbean, it was pointed out that of the top twenty FDI recipient countries, only six were developing countries. Another study noted that '… the vast majority of FDI, around 75 per cent, has gone to just ten middle-income countries. Moreover, FDI is observed to be heavily concentrated in a limited number of sectors: automotive, chemicals, electronics, energy, petroleum and petrochemicals, and pharmaceuticals[9]'. On the whole, developing countries received very little of these flows.

One of the features of globalisation has been the growth of portfolio investments in the capital markets of both developed countries and developing countries. It is generally believed that the volatility of these investments contributed to the Asian and Latin American financial crises.

For SIDS, whereas FDI accounted for about 19.5 per cent of gross fixed capital formation for the decade of the 1990s, for the years 2002–06 the annual average increased to 33.8 per cent. Table 7.4 presents FDI as a percentage of gross fixed capital formation for 40 SIDS. In 15 of the countries, the FDI as a percentage of gross fixed capital formation declined, and in most instances the decline was marginal. In the Caribbean, only tiny Montserrat that was partially destroyed by its volcano and St. Vincent and the Grenadines with a collapsed banana industry experienced any significant declines. On the other hand, several of the Pacific SIDS reported declines, and particularly those with social and political instability such as Fiji, Papua New Guinea, and the Solomon Islands.

Table 7.4 also shows the FDI per capita for the 40 SIDS for 2002–06, with the last column indicating whether there was an increasing, constant, or a decreasing trend for those years by a plus (+) sign, a zero (0), and a minus (-) sign respectively. In 28 of the countries, the FDI per capita was increasing for those years, and in only 9 of the countries was the FDI per capita decreasing. Here again, the Caribbean SIDS fared better than the other SIDS, particularly those in the Pacific.

The potential role of private investment in funding sustainable development is suggested by the fact that, 'In 1999, the assets of the world's top ten banks were equivalent to the combined gross domestic product (GDP) for all 108 developing countries[10]'. The pros and cons of private foreign investments as a driver for economic development have sustained a debate over many decades. Many of the same arguments apply with respect to foreign investment funding sustainable development. On the positive side, it is argued that foreign investors are 'increasingly coming to recognise the importance of socially and environmentally sustainable activities in their efforts to secure a licence to operate, to protect or

Table 7.4. FDI flows to selected SIDS – as a percentage of gross fixed capital formation, and in per capita US$

	FDI as a % of Gross Fixed Capital Formation								FDI per capita, US						
	Avg 1990–2000	2002	2003	2004	2005	2006	Avg 2002–6	Change between avg 1990–2000 and 2002–6	2002	2003	2004	2005	2006	Avg 2002–2006	
Anguilla	75.9	120.5	98.5	179.1	189.5	202.6	158.0	82.1	3800.00	3400.00	9200.00	10300.00	11300.00	7600.00	(+)
Antigua and Barbuda	19.5	21.8	30.2	24.0	31.0	45.7	30.5	11.1	1142.86	2557.14	1300.00	1842.86	2957.14	1960.00	(+)
Bahamas, The	7.1	12.8	15.3	26.6	32.2	38.2	25.0	18.0	696.67	823.33	1476.67	1880.00	2353.33	1446.00	(+)
Barbados	4.4	4.2	12.8	-2.2	10.1	5.6	6.1	1.7	60.71	207.14	-42.86	603.57	128.57	191.43	(+)
Belize	14.5	11.5	–5.8	59.7	50.5	27.5	28.7	14.2	92.31	–3.70	474.07	382.14	251.72	239.31	(+)
Cape Verde	8.3	4.3	6.4	6.9	5.9	26.7	10.0	1.7	24.39	34.15	47.62	45.24	290.48	88.37	(–)
Cuba	1.3	0.1	–0.3	0.1	0	0	0.0	–1.4	0.27	–0.80	0.35	–0.09	–0.09	–0.07	(+)
Comoros	9.2	1.7	2.6	2.1	2.8	2.2	2.3	–6.9	0.00	1.59	0.00	1.49	1.45	0.91	(+)
Cook Islands	0.2	–0.3	0	–2.8	2.5	–0.1	–0.1	–0.3	0.00	0.00	–50.00	0.00	0.00	–10.00	(+)
Dominica	31.0	39.2	48.7	35.1	47.4	45.1	43.1	12.1	300.00	428.57	357.14	385.71	485.71	391.43	(+)
Dominican Republic	14.4	18.9	16.3	20.7	17.9	19.6	18.7	4.3	105.65	69.58	84.69	98.90	128.17	97.40	(+)
Fiji	16.6	5.8	5.3	18.6	–0.7	17.7	9.3	–7.2	24.42	29.89	106.82	–4.49	114.44	54.21	(+)
Grenada	25.6	42.9	48.8	42.7	49.9	65.4	49.9	24.4	633.33	1011.11	611.11	311.11	1322.22	777.78	(+)
Guinea-Bissau	8.3	7.8	13.5	4.8	27.5	65.7	23.9	15.5	3.01	2.96	1.45	7.09	29.17	8.74	(+)
Guyana	26.2	15.8	16.8	16.2	28.8	36.4	22.8	–3.4	57.89	34.21	39.47	100.00	132.47	72.81	(+)
Haiti	1.2	1.7	3.5	1.3	5.2	30.4	8.4	7.2	0.77	1.77	0.74	1.20	18.82	4.66	(+)
Jamaica	15.3	17.9	29.7	21.7	20.4	24.1	22.8	7.5	180.08	268.03	222.14	219.34	307.97	239.51	(+)
Kiribati	36.7	66.6	66.2	65.6	2.5	36.7	47.5	10.8	150.00	160.00	190.00	170.00	120.00	158.00	(–)
Maldives	7.2	7.6	7.2	5.4	4.6	6.4	6.2	–1.0	37.50	43.75	45.45	41.18	40.00	41.58	(+)
Marshall Islands	34.5	–78.9	7.9	834.9	483.2	29.4	255.3	220.8	–783.33	83.33	8550.00	2616.67	316.67	2156.67	(+)
Mauritius	4.8	3.1	4.9	1	3	6.8	3.8	-1.0	26.67	51.64	11.38	19.35	84.00	38.61	(+)
Montserrat	19.2	3.3	9.0	13.1	6.1	3.6	7.0	–12.2	100.00	200.00	300.00	100.00	100.00	160.00	(+)
Nauru	0.2	8.1	8.6	4.5	4.5	4.9	6.1	5.9	100.00	200.00	100.00	100.00	100.00	120.00	(–)
Palau	41.0	2.4	3.9	12.6	1.7	2.1	4.5	–36.5	50.00	100.00	350.00	150.00	50.00	140.00	(+)
Papua New Guinea	34.3	2.9	14.3	3.3	3.2	2.9	5.3	–29.0	3.46	19.06	4.79	5.77	5.63	7.74	(–)

	FDI as a % of Gross Fixed Capital Formation								FDI per capita, US					
	Avg 1990–2000	2002	2003	2004	2005	2006	Avg 2002–6	Change between avg 1990–2000 and 2002–6	2002	2003	2004	2005	2006	Avg 2002–2006	
Samoa	16.8	–0.2	1.4	5.5	–7.6	–3.3	–0.8	–17.6	0.00	5.00	–55.00	–19.05	–9.52	–15.71	(–)
São Tôme & Principe	9.6	17.3	4.8	–7.3	–2.4	–1.7	2.1	–7.4	17.65	5.56	–11.11	36.84	0.00	9.79	(+)
Seychelles	16.9	28.2	92.3	47.8	105.3	169.4	88.6	71.7	600.00	725.00	462.50	1025.00	1825.00	927.50	(–)
Singapore	36.2	31.9	52.2	77.5	57.6	79.5	59.7	23.6	1714.29	2429.98	3406.90	4543.67	5391.31	3497.23	0
Solomon Islands	18.5	–7.4	–3.8	10.9	32.6	31.3	12.7	–5.7	–8.00	–3.92	1.92	–1.85	34.55	4.54	(+)
St Kitts and Nevis	32.7	47.9	47.2	30.4	51	94.3	54.2	21.5	2025.00	1950.00	1325.00	1250.00	5075.00	2325.00	0
St Lucia	35.2	37.1	73.9	50.4	45.6	62.7	53.9	18.7	356.25	700.00	525.00	658.82	700.00	588.01	(+)
St Vincent and the Grenadines	48.9	31.4	43.7	46.5	24.6	47.1	38.7	–10.3	283.33	458.33	550.00	283.33	708.33	456.67	(+)
Suriname	–11.6	61.0	62.9	76.7	79.8	61.3	68.3	79.9	331.82	–168.89	–80.43	89.13	687.23	171.77	0
Timor-Leste	31.6	1	4.5	3	0.1	2.4	2.2	–29.4	1.05	5.00	1.96	2.88	2.83	2.75	(–)
Tonga	4.6	–1.2	11.2	14.6	52.4	31.0	21.6	17.0	0.00	109.09	9.09	45.45	100.00	52.73	(+)
Trinidad and Tobago	38.3	49	45.6	54.1	35.2	28	42.4	4.1	719.09	741.28	926.85	1018.52	736.45	828.44	(+)
Turks & Caicos Islands	0.7	–0.1	13.3	–9.9	48.7	15.2	13.4	12.7	0.00	700.00	–750.00	0.00	1800.00	350.00	(–)
Tuvalu	–1.7	304.2	0.1	0.3	–0.1	0.1	60.9	62.6	227.27	0.00	0.00	66.67	0.00	58.79	(–)
Vanuatu	47.2	25.2	27.9	27.9	19.8	86.2	37.4	–9.8	65.00	75.00	110.00	71.43	290.48	122.38	(+)
Average	19.5						33.8	14.3	328.48	436.35	745.09	711.20	949.49	634.12	(+)

Source: World Development Indicators, 2010

enhance their reputation, and to go beyond regulatory compliance as a means of competitive advantage[11]'. A stronger version of this argument is 'There is mounting evidence that foreign firms tend to pollute less since, as they are generally based in developed countries, their technology and processes comply with higher environmental standards and it would not be cost-effective to adapt them to less strict regulatory regimes. In many cases, these firms also export to markets that are more sensitive to environmental issues and certification: ISO 14000 certification[12], though voluntary, is increasingly becoming a commercial necessity[13]'.

There is also the emergence of an asset class, socially responsible investment (SRI) that combines its rate of return with the values of the investors and the entities in which they invest. 'Recent years have seen a definite movement to a greater appreciation of businesses that build value by integrating a sustainable development approach into their core business model and offering services or products specifically designed to meet the environmental and social, as well as economic, needs of clients[14].'

Finally, there is a case to be made for increasing the pool of funds for microfinance, with the proper guidance of micro-enterprises toward environmentally sustainable products and services. Incomes generated by these activities can lift individuals and their families out of poverty and generate demand for health, education, clean water, and the other services that will encourage greater productivity and the ability to tap into economic opportunities.

On the negative side, some foreign investment has gone into industries such as mining, some have exploited local labour and taken advantage of weak environmental standards and lax regulation by authorities, and still others have been accused of influencing policy-makers toward concessions that undermine sustainable development. This last trend is reinforced in circumstances where developing countries compete with each other for foreign investment instead of establishing common standards and enforcing them.

Debt relief

Debt relief in the form of forgiveness and debt for nature swaps have been proposed as a way of freeing up resources for sustainable development projects. In 1996, the Fund for Heavily Indebted Poor Countries (HIPC) was launched by the World Bank and the IMF and expanded in 1999. Four SIDS – Guyana, Haiti, Guinea Bissau, São Tôme and Principe – are included in the HIPC, and have benefited from debt relief. This study has not been able to access information on how the resources released from debt repayment are being utilised.

Debt for nature swaps have been used by some countries, especially in Latin America, as early as 1987[15]. In1990, the Enterprise of the Americas Initiative (EAI) was launched with a facility for debt for nature swaps for countries qualifying under the Brady Plan. Under this initiative, a percentage of the principal owed by a country is cancelled and the balance and interest is deposited in local currency in a Trust Fund for environmental protection and sustainable development projects. The Environmental Foundation of Jamaica was set up in this way to support sustainable development in Jamaica.

The USA also passed the Tropical Forest Act in 1998 to extend the facility of the EAI to important tropical forests in the developing world. Belize benefited from this programme

The Environmental Foundation of Jamaica (EFJ)

The Environmental Foundation of Jamaica was established by the governments of the USA and Jamaica as a private non-profit organisation in 1993 with funds from two debt swaps within the context of the Enterprise of the Americas. Its goal is to finance environmental and child development projects using local NGOs. The first agreement provided for US$9.2 million between 1991 and 2001 from interest payments due to USAID. The second will provide US$12.3 million between 1993 and 2012 from interest payments due to PL480 (food aid).

There is a tight ceiling on the EFJ's own administrative expenses, consisting of 15 per cent of the annual contributions of the government plus 15 per cent of the interest earned on capital.

The EFJ was conceived of as a 'sinking fund' that would cease when it had spent all its capital. This was expected to be in 2012, but could be before depending on its rate of expenditure. However, investments in high yielding government securities have expanded the capital base significantly, and the organisation developed fund-raising strategies to prolong its life in the face of the anticipated persistence of Jamaica's needs for environmental and child development projects beyond 2012.

As the only vehicle of its kind, the EFJ has received a wide array of requests for funding, most of which do not meet the organisation's technical and administrative requirements. In addition, the wide ranging demands have pressured the EFJ to take on responsibilities which are properly outside its focus and competence. It remains as the main source of funding for all Jamaican NGOs, especially for projects within EFJ's focus on the environment and child development. As such, it is the principal source of funding for sustainable development in Jamaica.

with a debt swap that left the country with a small fund (US$7 million) for conservation. Table 7.5 summarises the agreements that benefited Jamaica and Belize, the only two Caribbean SIDS that reported debt swaps.

Table 7.5. Caribbean SIDS – Debt-for-nature swaps, US$ millions

Year	Country	Purchaser/Donor	Face value	Cost	Conservation funds
2002	Belize	USA-TFC and TNC	9.00	7.20	7.20
1991	Jamaica	TNC/USAID	0.44	0.30	0.44
1991	Jamaica	EAI	271.00	n.a.	9.20

Source: CEPAL-UNDP, 2002, Table II.1, p. 17

Debt swaps require debtor governments to find domestic resources to fund environmental projects. This often leads to more fiscal pressure, as the governments have to trade off other services for the environmental projects. The CEPAL-UNDP study estimated that in 2002, the total debt relief due to debt for nature swaps was equivalent to only 1 per cent of the debt of developing countries. That is, very little resources had been released by this method for funding sustainable development projects.

Multilateral financial institutions

The World Bank and the network of regional multilateral funding institutions were seen as natural sources and vehicles for funding sustainable development, and particularly environment projects. Table 7.6 shows the trend in per capita mulitlateral flows to selected SIDS for the years 2002–08, with the last column showing whether the trend has been increasing (+), decreasing (–), or constant (0). Of the 38 SIDS in Table 7.6, 11 countries experienced declining per capita multilateral flows. Table 7.6 also shows the average for the countries for these years, varying from negative flows for Trinidad and Tobago to the high for Montserrat with its historically very small population that was halved by the eruptions of the island's volcano.

New sources

The Multilateral Fund for the Implementation of the Montreal Protocol that was established in 1987 was the precursor of new sources of funding that paved the way for the establishment of the Global Environmental Facility (GEF) in 1991. By 2007, the Fund had received US$1.9 billion of the US$3.2 billion that had been pledged, and 'had supported the transfer of technology and capacity building through about 5500 projects and activities in 144 developing countries[16]'. Thirty-six SIDS were included in the developing countries.

GEF was the mechanism for funding sustainable development, in the narrow sense of environmental development that was established in 1992 in the wake of UNCED. Between 1992 and 2004, it 'allocated $4.5 billion in grant financing, supplemented by more than $14.5 billion in additional financing, for 1,400 projects in more than 140 developing countries and countries with economies in transition[17]'. The SIDS received $365.1 million, 8 per cent of the total grant financing, on 225 projects, or 16 per cent of the total number of projects. The average project funded by GEF in the SIDS was $1.6 million compared to the average of $10.4 million for developing countries.

GEF has focused on an integrated approach to 'biodiversity loss, climate change, degradation of international waters, and ozone depletion – and subsequently desertification, deforestation, and persistent organic pollutants'. A strong case was made for an 'interlinkages' approach to sustainable governance, and in particular toward the financing of sustainable development and the implementation of multilateral environmental agreements (MEAs)[18]. Essentially, the approach recognised the overlap of agreements, and institutions, and proposed a more co-ordinated approach to funding that supported the complementarity of projects, while minimising support for the areas of conflict between agreements.

The Clean Development Mechanism (CDM) is intended to support the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC). There has been some growth of carbon trading both within and outside of the context of the Kyoto Protocol. In some instances, countries receive credit to be applied to the targets for their own emission levels from the savings obtained by investing in low carbon emission projects in developing countries[19]. In other cases, carbon is sequestered by the conservation of forests which also supports the maintenance of biodiversity.

Table 7.6. Multilateral flows to selected SIDS, per capita, US$

	2002	2003	2004	2005	2006	2007	2008	Average 2002–08	
Anguilla	–107.0	214.0	131.0	–29.0	411.0	187.6	227.1	147.8	(+)
Antigua & Barbuda	57.9	28.4	19.3	3.0	16.1	61.9	78.6	37.9	(–)
Barbados	1.5	61.8	93.8	–29.4	–12.4	40.3	14.1	24.2	(+)
Belize	35.6	29.0	16.7	19.4	15.8	47.2	64.8	32.6	(–)
Cape Verde	121.8	129.9	122.8	132.1	89.6	102.5	111.1	115.7	(–)
Comoros	27.1	21.0	17.9	11.5	14.4	39.7	23.6	22.2	(–)
Cook Islands	13.5	60.0	143.5	39.0	65.0	28.3	104.1	64.8	(+)
Cuba	1.0	1.4	2.4	1.7	1.8	2.8	2.7	2.0	(+)
Dominica	227.6	106.4	261.0	150.0	247.4	218.3	290.6	214.5	(–)
Dominican Republic	0.7	0.9	0.0	2.2	4.2	9.9	6.0	3.4	(+)
Fiji	2.9	9.0	30.8	27.9	17.4	21.2	13.0	17.5	(+)
Grenada	101.1	37.8	58.8	275.2	262.3	185.8	291.9	173.3	(+)
Guinea-Bissau	25.2	35.3	35.1	28.1	29.8	50.8	49.7	36.3	(+)
Guyana	40.3	76.1	83.8	127.2	164.0	114.1	162.0	109.6	(+)
Haiti	3.9	7.4	6.2	19.3	25.7	27.8	36.2	18.1	(+)
Jamaica	10.6	0.8	24.8	8.9	13.7	17.4	31.4	15.4	(+)
Kiribati	21.3	55.4	66.3	64.8	55.5	44.8	68.9	53.9	(+)
Maldives	47.8	28.6	41.0	69.6	57.9	66.5	13.6	46.4	(–)
Marshall Islands	116.2	82.8	26.8	12.0	0.2	9.4	36.0	40.5	(–)
Mauritius	16.3	2.1	16.2	8.5	9.6	21.8	75.2	21.4	(+)
Montserrat	–178.0	18.0	710.0	85.0	744.0	772.1	494.0	377.9	(+)
Nauru		13.0	8.0	10.0	14.0	30.0	112.1	31.2	(+)
Palau	10.5	4.0	3.0	4.0	5.5	18.8	95.1	20.1	(+)
Papua New Guinea	1.1	0.4	3.6	3.8	4.7	5.8	6.5	3.7	(+)
Samoa	31.8	29.8	30.2	66.2	41.6	44.9	70.4	45.0	(+)
São Tôme & Principe	39.7	67.6	64.7	71.0	17.3	31.1	127.6	59.9	(+)
Seychelles	52.8	39.8	36.4	86.1	93.5	92.8	79.6	68.7	(+)
Solomon Islands	9.8	7.2	8.7	47.9	46.4	24.3	11.1	22.2	(+)
St Kitts & Nevis	502.0	6.5	23.5	44.0	80.3	18.7	288.3	137.6	(–)
St Lucia	132.4	62.4	14.6	26.2	83.8	54.4	116.9	70.1	(–)
St Vincent & Grenadines	35.4	21.8	31.7	–7.5	25.2	169.3	164.0	62.8	(+)
Suriname	8.8	15.1	17.6	22.5	17.3	52.8	53.4	26.8	(+)
Timor-Leste	32.3	27.3	19.6	23.4	33.4	47.6	43.0	32.4	(+)
Tonga	49.8	98.5	39.4	63.3	25.7	41.0	16.6	47.8	(–)
Trinidad & Tobago	–13.1	–7.5	–8.6	–7.6	8.3	10.3	6.1	–1.7	(+)
Turks & Caicos Islands	73.0	50.0	97.0	105.5	–25.0	580.0	129.3	144.3	(+)
Tuvalu	5.0	3.2	24.0	25.4	22.0	217.8	222.0	74.2	(+)
Vanuatu	25.6	21.2	15.6	28.9	35.0	20.0	10.8	22.4	(–)

Source: http://stats.oecd.org/wbos/Index.aspx?DatasetCode=ODA_RECIPIENT

As of April 2008, only six SIDS – Cuba, Cyprus, Dominican Republic, Fiji, Jamaica, Papua New Guinea – were on the list of countries with registered CDM projects. Except for Cyprus which had two projects, each of the other SIDS has one project, accounting for a total of seven of the 1029 projects registered[20]. As far back as 2006, the executive board of the CDM had noted '... submissions [to the Board] agreed that there were barriers to the (increased) participation of Small Island Developing States (SIDS), Least Developed Countries (LDCs), and Sub-Saharan African countries ... . Two of the main obstacles for these

countries relate to financial issues: a need for increased financial resources to assist in building requisite capacity and for innovative means of project financing/risk management[21]'.

The Resilience Building Facility was agreed by the Mauritius meeting in 2005 to help SIDS to 'implement technological, administrative and even market-oriented innovations to strengthen resilience and reduce vulnerability[22]'. The Facility is yet to be funded and implemented.

Opening markets in the developed countries

David Pearce has argued for the removal of subsidies in the developed world that seek to protect labour and other resources against competition from developing countries, and subsidies on water and energy in developing countries which frequently have harmful environmental impacts. He estimated that the removal of these subsidies could free up $200 million per annum for financing sustainable development projects[23]. This would also serve to promote economic growth through enhanced exports from developing countries.

Potential sources of funds

A Tobin tax on transactions that speculate on foreign currencies has been proposed as a source of new funds. The original proposal was justified as a means of reducing speculation to mitigate the instability of exchange rates. The proceeds were to be deposited in international financial institutions for funding development in poor countries. The modern twist to the proposal is to use these funds for sustainable development. The problem of achieving international agreement on implementing a Tobin tax remains intractable. In 2002, Pearce estimated that at a rate of 0.25 per cent, such a tax could bring well over $200 million annually[24].

There have been many other proposals for taxes on activities that emit greenhouse gases in the developed countries that are subject to the same drawback of requiring a supranational agency to implement them.

Public-private partnerships

An increasingly widely held view is that ODA and FDI should have complementary roles. For example, ODA could increase the capacity of developing countries to benefit from FDI, and thereby reduce the risks faced by private investors.

Carefully targeted and timely delivered ODA, and properly administered projects that ODA funds, can also assist in enabling the productive sectors to lead the re-positioning of SIDS in the global economy.

Despite the commitments given by the international community at least from UNCED and most recently in Monterrey and Mauritius, the international flows have not been as large and sustained as required to support the targets set by Agenda 21 and the MDGs almost a decade later. There continues to be great potential in the rapid growth of private investment flows, but the challenges of tapping these for sustainable development in developing countries in general, and SIDS in particular, remain formidable. Tapping into new sources of funding, such as resources mobilised by a Tobin tax and similar kinds of measures, are

even more elusive since they require new institutions with global authority and power that are not likely to be agreed at the expense of national sovereignty.

Nevertheless, SIDS and other developing countries must continue to campaign for increased ODA flows that are less tied, and to see whether these flows can assist in leveraging FDI toward more sustainable development projects and activities. There is much that can be done to improve the attractiveness of the investment climate in SIDS. However, the fundamental characteristics of small size and the proneness to natural hazards that underpin the vulnerabilities of SIDS will remain as constraints and obstacles to the resource flows that are so desperately needed by these countries[25].

Financing sustainable development – Domestic resources

Of the $600 billion Agenda 21 estimated to fund sustainable development annually, $475 billion, or 79 per cent, was projected to come from domestic sources. Naturally, this requires re-allocation of traditional public expenditure patterns, and some governments have been able to generate incremental resources for one-off projects in this way. However, perhaps the sustainable approach is to mainstream sustainable development in public expenditure and to promote public-private sector partnerships to fund the relevant programmes and activities.

Mainstreaming sustainable development

SIDS and other developing countries will have to align their budgetary processes and practices with the requirements of financing sustainable development to support the mainstreaming of sustainable development in public policy. Governments will have to re-engineer the services they provide to deliver them in a way that is consistent with sustainable development approaches. It is generally accepted that sustainable development is premised on a participatory approach to policy formation and implementation, that prudent resource use is fundamental to protecting the resource base for future generations, and that confronting poverty is the top priority of the public policy agenda.

It cannot be that traditional service delivery modes that are inconsistent with and/or undermine sustainable development are pursued side-by-side with sustainable development initiatives. Energy and water policy must be re-oriented to minimise waste and environmental abuse while addressing the needs of the poor. Education and health policy should promote attitudes and practices that support the fight against poverty while protecting the environment. Similarly, housing policy should be re-drafted to establish standards for building that optimise renewable energy use, and regulations for locations that adapt to climate change and are best suited to cope with the natural hazards. Security policy should strive for eliminating the incentives for anti-social and criminal behaviour rather than suppressing behaviour that recurs once the fundamental drivers remain in place. In this way, the entire budget will be converted to financing sustainable development.

Even with this perspective, there will be the need for additional resources to fund special projects to mainstream sustainable development as well as to tackle the legacy of social neglect and environmental abuse.

In the previous section, the potential for freeing up resources through debt relief was dis-

cussed. Here, attention is being drawn to the potential savings from the removal of subsidies which encourage consumption and frequently adversely impact on the environment. The most commonly cited example is the subsidy on petroleum that facilitates consumption and results in emissions that pollute the atmosphere.

In addition, the common justification for subsidies is to assist the poor. Often, there is abuse and the non-poor benefit disproportionately from subsidies designed for the poor. For example, subsidised kerosene for cooking often ends up fuelling trucks.

Along with subsidies on the consumption of energy, governments of developing countries provide subsidies on water consumption, including the consumption of water by farmers for irrigation purposes. Indeed, farmers benefit as well from subsidies on inputs such as fertilisers and other chemicals, such as pesticides.

Subsidies on water make waste more affordable, and in that sense do not encourage efficient use of water. In the case of farm inputs, the excessive use of chemicals impacts negatively on the soil, on the aquifers, and on the rivers and the life sustained by their waters.

A study done for the World Bank has argued that the 'removal of energy subsidies would support the three main aims of sustainable development: social welfare, environmental protection, and economic growth. Funds supporting subsidies could be directed to social benefits and income redistribution. Environmental benefits accrue from proper pricing, which could reduce both local and global pollution (including CO_2 emissions). Economic growth would be boosted through improved efficiency and reduced budget costs[26].' A similar conclusion was drawn from a review of subsidies on water usage.

In the case of SIDS, there is no evidence to suggest that the removal of subsidies will release significant amounts of funds. Table 7.7 summarises what little data we have on the importance of subsidies and the potential gains from removing them in seven SIDS. On the other hand, the arguments that subsidies often encourage the abuse of resources and environmentally unfriendly practices, and that the non-poor frequently benefit disproportionately from subsidies intended for the poor are equally valid for SIDS.

Environmental taxes

The EU probably has the widest array of environmental taxes and charges[27] with the longest experience of implementing them. Environmental levies were first implemented in the EU in the 1980s, and the evaluation of the implementation and of the impact of these taxes and charges is quite recent. Environmental levies may seek to alter behaviour and/or generate revenue. In the first instance, if the levy is successful, then the revenue generated will decline over time. For both of these reasons, SIDS can utilise these to generate domestic resources to fund sustainable development projects.

The economic rationale for these levies is to take account of the cost of production and consumption externalities which refer to costs that are incurred but not paid for. Pollution is the most common example, and has been met with the polluter-pays principle.

In a study reviewing the use of these instruments in the EU up to 2000, the authors trace the interest of policy-makers in these instruments beginning in the 1980s, and sanctioned

Table 7.7. Potential gains from removing subsidies and capturing rents in SIDS

	Electricity			Efficiency gains from subsidy phase out		Gasoline subsidy, US$m		Diesel subsidy, US$m		Gasoline and diesel subsidy, % of GDP		Net effect on public budget from gasoline and diesel price reform							Total resource rents	
												US$ m		% of GDP		Mineral fuels rents, US$m	Mineral rents US$m	Timber rents US$m	Timber rents % of GDP	US$ m	% of GDP
Country	US$ mns	% of LMC	% of GDP	US$ m	% of GDP	GB1	GB2	GB1	GB2	GB1	GB2	GA	RA	GA	RA						
Cuba	35	3.3	n.a.	0	n.a.											n.a.	n.a.	7		n.a.	n.a.
Dominican Republic	0	0	0	0	0	0	0	0	98	0.00	0.56	374	128	2.1	0.7	0	39	0		39	0.23
Guinea-Bissau																		3	1.6		
Guyana																		8	1.1		
Haiti	0	0	0	0	0	0	0	0	0	0.00	0.00	14	0	0.3	0	0	0	4		4	0.1
Jamaica	0	0	0	0	0	0	0	0	0	0.00	0.00	75	55	1.1	0.8	0	58	5		63	0.91
Netherlands Antilles						0	0	0	0	n.a.	n.a	3	0	n.a.	n.a						
Papua New Guinea																179	154	69	1.8	402	11.21
Solomon Islands																		16	6		
Trinidad & Tobago	135	50.9	2	29	0.4	0	0	2	26	0.03	0.38	94	75	1.4	1.1	433	0	1		434	6.32

Source: *Generating Public Resources to Finance Sustainable Development*, Table 3.1, p. 35, and Tables C.1–C.3, p. 121–132
Estimates of rents from timber based on 1999 data
GB1 – traditional measure of energy subsidy; GB2 – transport measure of energy subsidy = GB1 + subsidies to transport infrastructure;
GA – global average; RA – regional average; LMC – long-run marginal cost.

and promoted by several regional and international agreements, including the Rio Declaration on the Environment and Development[28]. The study lists the taxes and charges implemented in each of the member states of the EU under the broad headings of agricultural pesticides and fertilisers; other goods that have impact on the environment, such as batteries, tyres, disposable plastic and other packaging, lubricant oil, and others; waste; water; and air transport. The most common levies are for user charges for waste disposal and water, followed by the levy for noise pollution.

Apart from the levies, there are deposit schemes for containers, and take-back schemes for hazardous materials like batteries. The purpose of these is to discourage improper disposal by giving the users the incentives of reclaiming their deposits for returning the items covered.

EU policy-makers are concerned with a variety of other issues, all of which ultimately relate to the kinds of market signals by way of incentives and disincentives sent to producers and consumers. There is debate as to whether the proceeds of any particular levy should be earmarked for specific, and usually related, services, or simply put into a pool that allows for re-allocation according to need. There is interest in shifting the burden of taxation from goods and services, and hence labour, to environmental goods and services. There is concern, however, that the taxes do not result in a loss of employment or competitiveness. All of these are pertinent to the implementation of environmental taxes in SIDS. Here too, the shift from taxing 'goods' to taxing 'bads' supports the pursuit of sustainable development.

The revenue from levies earned by OECD countries is estimated to be 2.0–2.5 per cent of GDP, depending on whether the estimate is the weighted or arithmetic averages across member countries. Based on five case studies in Latin America and the Caribbean, it was estimated that environmental expenditure had probably not exceeded 1 per cent of GDP and had rarely exceeded 3 per cent of public expenditure[29].

It is clear that the use of environmental levies is still new, but that there is a great potential to be tapped. SIDS in particular, with their fragile environments and their dependence on tourism, have a yet untapped source of funds from environmental levies.

Privatisation of the ownership or the management of public assets

Another approach is to divest the ownership or management of public resources to private operators. In the first case, the government earns a one-off sum in the form of the sale price. Unless this value is then invested to earn a stream of future revenues, its impact on public expenditure will be limited to the spot expenditures that it finances.

In the second case, the government can earn a stream of revenues from the operators. Resources freed up from managing parks, beaches, and other public facilities can then be re-allocated along with the revenues earned from the divestment. An essential factor for success will be appropriate guidelines for operating the facilities in a sustainable manner, and the adequate regulatory oversight.

Capturing rents from natural resources

Forests

Some SIDS – Guyana, Suriname[30], Belize, Papua New Guinea – have large forest reserves,

and hence potentially large rents from timber from their forests. Table 7.7 lists four SIDS among the top ten countries in terms of potential rents from forests as estimated from 1999 data by a World Bank team. In all cases, potential rents were estimated to be greater than 1 per cent of GDP, and as much as 6 per cent in the case of the Solomon Islands in the Pacific.

Case studies of five developing countries[31] showed that, except for Cameroon, the governments were collecting between 23 per cent and 66 per cent of the potential rent from their forests through a variety of royalties and taxes. The challenge for the tax authorities is to identify the appropriate royalties and the correct levels of those royalties to capture the full potential rents efficiently[32].

Protected areas

Tourism is becoming the leading industry, and especially hard currency earner, for SIDS. There is evidence that tourists are willing to pay more than they are currently charged for maintaining protected areas such as ecological habitats and national parks. Estimating the form and level of charges for each attraction will require on-going research of visitor expenditure patterns and preferences. Charges will be determined by the access to quality services that enhance the visitors' experience with the natural attraction. As such, some, and perhaps all, of the revenue earned by each attraction should be reinvested in the development of the attraction both for purposes of conservation as well as enhancing its earning capacity.

Private resources

As with international resources, domestic private resources constitute a greater potential pool than public resources in SIDS whose governments are generally poorly resourced. Domestic private resources refer not only to the resources of firms and households normally resident in the country, but also to remittances from migrants. In many SIDS remittances constitute the single most important source of private inflows annually. Domestic resource owners respond to market incentives too, and are more likely to respond to evidence-based regulations implemented by impartial transparent processes than capricious decision-making.

Accordingly, when the governments of SIDS review traditional incentive regimes of subsidies and taxes, they will of necessity change relative costs and prices to entrepreneurs and hence send different signals for the allocation of resources. Mainstreaming sustainable development entails re-engineering regulatory processes to guide investors and entrepreneurs away from environmentally unfriendly practices, toward more efficient resource utilisation and labour regimes and processes that comply with the best international practices. Again, the government should strive for partnerships with private domestic and international investors to effect synergies that enhance their profitability while operating within the national strategy for sustainable development. Households too can contribute to sustainable development by their consumption and waste disposal practices.

In Jamaica, for example, a third of gross fixed capital formation annually is in construction of housing, commercial buildings and infrastructure. Building regulations governing siting and encouraging the optimisation of energy for cooling and heating can re-orient the built environment toward more harmonious relationships with the natural environ-

ment. Public-private partnerships have had mixed success in managing water resources, but the challenges vary across SIDS, and within each SIDS. There may be no universal one-size-fits-all partnership, but there are surely opportunities for success on a case by case concrete basis.

It is estimated that 80 per cent of the waste on islands end up in the sea. With a strong orientation to beach tourism, improper waste disposal and climate change haunt the tourist industries of SIDS. Waste management is an obvious area for co-operation among investors and the state to tackle an externality that is too big for any one enterprise or for the state alone.

Most difficult will be the modalities of co-operation to address the conditions of the communities of the poor that threaten the natural environment with squatter settlements, improper sewage and waste disposal, and poor sanitation. These in turn pose serious risks to public health and frequently security. All of these constitute the causes by which the impact of natural hazards become disasters that require resources for relief. Sustainable livelihoods are essential to sustainable development.

The Green Fund of Trinidad and Tobago

In 2000, the government of Trinidad and Tobago established a fund to finance the activities of NGOs in the environmental sector by levying a tax of 0.05 per cent on gross revenue of firms operating in the country. In 2007, the Fund had exceeded US$110 million, but the requisite regulations to guide the disbursement of the Fund's resources had still not been legislated. Further, there were several articles in the Trinidadian press criticising the inactivity of the Fund, and warning against transferring the resources into the consolidated fund of the central government.

As a mechanism for sourcing new finds for sustainable development, this seems to have worked for Trinidad and Tobago. However, the lack of implementation perhaps speaks to the prioritisation of sustainable development projects and activities as well as the momentum of traditional government services that has yet to be checked.

A strategy for SIDS

The Mauritius Declaration recognised the economic, social and environmental vulnerability of SIDS, and committed the international community to building the resilience of SIDS. It reiterated the 'commitment … [of the international community to] … support the sustainable development of small island states through the provision of financial resources. This commitment entails a more coherent, co-ordinated and collaborative approach to the sustainable development of small island developing states through, *inter alia*:

…

b) Active support for regional and interregional co-operation among small island developing states …

c) Broad-based partnerships that ensure involvement and participation of all relevant stake-holders, including the private sector;[33]'.

The response of the international community continues to be less than is required in all respects. ODA flows remain weak, private flows are highly concentrated to non-SIDS coun-

tries, and the failure of the negotiations under the DOHA round underscore the persistent difficulties SIDS face in exporting to the developed countries. The Mauritius Declaration anticipated this and ended with an exhortation to the regional institutions of the SIDS to monitor the implementation of the commitments. Accordingly, the SIDS must strengthen their co-ordination to intensify the pressure on the international community to honour commitments made in all the major international meetings between UNCED and Mauritius. An immediate rallying point should be the resourcing and activation of the Resilience Building Facility.

Co-operation among SIDS was a key element in the strategy to build partnerships for sustainable development. The Consortium of Universities in SIDS has been initiated, and must be consolidated to develop some of the necessary personnel to guide the relevant policy formation and implementation. Many other points of collaboration have been mooted, not least disaster mitigation and risk reduction.

Careful study of the development success stories among the SIDS is warranted to see what lessons can be transferred to other SIDS. In this regard, Singapore, Malta, Cyprus and to a lesser extent Mauritius, are perhaps the cases that should be studied first. To some extent, this study initiated that process with regard to financing sustainable development by searching for examples of success. However, much more needs to be done at the national, regional and international levels to have a more comprehensive and detailed record of modalities for financing sustainable development in SIDS.

Ultimately, SIDS have to reconfigure the allocation of public resources to promote sustainable development policies in each concrete national context. In some cases, such as the removal of subsidies with negative environmental impacts, resources can be freed to fund incremental projects and to expand relevant activities. In most cases, the provision of public services will have to be re-engineered and re-oriented because of the inertia of expenditure patterns. To reiterate, an abiding principle should be to 'shift from taxing goods to taxing bads', both to generate revenue as well as to curb behaviour that undermines the environmental and social aspects of sustainable development.

Most important, public-private partnerships must be forged in areas where they do not now exist, and strengthened where they do, to re-direct private investment flows and consumption expenditures to support the goals and objectives of the national sustainable development strategy. This last issue is very challenging, but perhaps represents the greatest potential source of funds for SIDS to build their resilience to external shocks from natural hazards and negative impacts from the evolving global economy.

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Notes

1 Velasquez et al, 2002, p. 4
2 Ibid, citing Agenda 21.
3 From Terms of Reference for the study undertaken by the author.
4 Rodney, 1976.
5 Beckford, 2000.
6 The GNI = GDP + Net Factor Income Payments from Abroad – indirect business taxes. Accordingly, the GNI and the GDP are closely related measures of national income.
7 OECD, 2007.
8 CEPAL-UNDP, 2002.
9 Velasquez et al, 2002, p. 11.
10 IMF et al., 2002, p. 5.
11 IMF et al., 2002, p. 6.
12 ISO 14000 refers to a family of standards established by the International Standards Organization to guide environmental management.
13 CEPAL-UNDP, 2002, p. 33.
14 IMF et al., p. 8.
15 CEPAL-UNDP, 2002, p. 15.
16 http://www.multilateralfund.org/achievements.htm
17 GEF, 2005, p. 4.
18 See Velasquez et al., 2002.
19 Wara, 2006, p. 25: 'Contrary to theory and expectation, the CDM market is not a subsidy cum market mechanism by which CO_2 reductions that would have taken place in the developed world take place in the developing world. Rather CDM subsidies are paying for the substitution of CO_2 reductions in the developed world with reductions in developing world emissions of of industrial gases and methane. Indeed, the types of emissions that make up the bulk of the CDM reductions do not even occur in the developed world, not because of an absence of adipic acid or HCFC-22 manufacture, but because Annex I industries, after recognizing the threat posed by these emissions and the low cost of abating them, have opted to voluntarily capture and destroy them.'
20 See http://cdm.unfccc.int/Statistics/Registration/NumOfRegisteredProjByHostPartiesPieChart.html
21 UNFCC, 2006, p. 2.
22 UN, 2005.
23 Pearce, 2002, p. 18.
24 Pearce, 2002, p. 22.
25 A reviewer of this paper has pointed out that Singapore and Malta are somewhat of exceptions to the general claim that is being made here.
26 Pagiola et al., 2002, p. 19.
27 This study follows the distinction made in ECOTEC, 2001, p. 4. There they distinguish between a tax whose revenue goes to the government's budget without any specific reciprocation, and a charge which is collected for a specific service delivered, and whose proceeds may be ear-marked for specific purposes. The term levy refers to both taxes and charges.
28 ECOTEC, 2001, p. 20
29 CEPAL-UNDP, 2002, p. 77.
30 90 per cent of Suriname and 80 per cent of Guyana are in forest. Suriname has more rain forest than all of Central America.
31 Cameroon, Gabon, Brazil, Indonesia, Laos.
32 See Pagiola et al., 2002, p. 38.
33 Draft Mauritius Strategy, January 2005, p. 25.