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Population and Sustainable Development of Small Island Developing States: Challenges, Progress made and Outstanding Issues

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Population and Sustainable Development in Small Island Developing States: Challenges, Progress made and Outstanding Issues

William J. House

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NOTE

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PREFACE

The Population Division of the Department of Economic and Social Affairs (DESA) of the United Nations Secretariat is responsible for providing the international community with up-to-date and scientifically objective information on population and development. The Population Division provides guidance on population and development issues to the United Nations General Assembly, the Economic and Social Council and the Commission on Population and Development and undertakes regular studies on population estimates and projections, fertility, mortality, migration, reproductive health, population policies and population and development interrelationships.

The purpose of the *Technical Paper* series is to publish substantive and methodological research on population issues carried out by experts within and outside the United Nations system. The series promotes scientific understanding of population issues among Governments, national and international organizations, research institutions and individuals engaged in social and economic planning.

This paper, which was prepared by Mr. William House using the latest set of United Nations demographic estimates and projections, provides an up-to-date overview of major population trends in the Small Island Development States (SIDS) in connection with the critical development issues they face. The paper was commissioned by the DESA Population Division to serve as background and input for the substantive preparations of the 3rd International Conference on SIDS, which is scheduled to take place from 1 to 4 September 2014 in Apia, Samoa.

The paper highlights the great diversity of SIDS with regard to their population and geographical size, the exposure of their populations to episodic natural hazards, as well as longer-term sea-level rise due to climate change. Many SIDS experience significant out-migration, which has concerning implications for their human resources and development prospects. The total population of SIDS currently exceeds 66 million and even though the annual growth rate is slowing, the projections indicate that SIDS could be the home to almost 82 million people by 2040. The rate of natural increase (the difference between births and deaths, divided by the total population) is fastest in Melanesia (2.3 per cent) and slowest in the Caribbean and Micronesia (1.1 and 1.2 per cent, respectively). Small Island Developing States as a whole have experienced net out-migration of about 360,000 people during 2005-2010 with the largest net losses registered in the Caribbean subregion.

The total population of all major SIDS subregions is expected to continue to grow in the coming decades. However, given the large differences among SIDS in population size, economic potential and geographic location, their longer-term demographic future is more difficult to ascertain. In the opinion of the author, the larger islands with skilled workforce located close to developed country regional markets, with potential demand for niche exports and a steady supply of tourists will likely have the brighter future and rising populations. In contrast, climate change and sea-level rise are expected to exacerbate the problems of the smaller countries, especially those coral atolls under the threat of sea-level rise. In these countries, as well as those suffering perennial drought, population resettlement may have to be considered as an extreme form of adaptation at some point in the future.

The *Technical Paper* series as well as other population information may be accessed on the Population Division's website at www.unpopulation.org. For further information concerning this publication, please contact the office of the Director, Population Division, Department of Economic and Social Affairs, United Nations, New York, 10017, USA, telephone (212) 963-3179; fax (212) 963-2147, email: population@un.org.

POPULATION AND SUSTAINABLE DEVELOPMENT IN SMALL ISLAND DEVELOPING STATES: CHALLENGES, PROGRESS MADE AND OUTSTANDING ISSUES

William J. House

A. INTRODUCTION

The United Nations General Assembly Resolution 65/234 of 2011, Follow-up to the International Conference on Population and Development (IPCD) beyond 2014, recognised that the Programme of Action (PoA) is due to come to a formal end in 2014, but that its goals and objectives remain valid beyond this date (United Nations, 2011). It recognised the crucial linkages between the implementation of the Programme of Action (PoA) and the achievement of the internationally agreed development goals, including the Millennium Development Goals (MGDs). However, it was acknowledged that many Governments may not meet all the goals and objectives of the PoA by 2014, and that, in spite of the progress made, considerable gaps still exist in the implementation of different areas of the PoA. Importantly, the Resolution states:

> Stressing the importance of protecting the achievements of the International Conference, responding to new challenges relevant to population and development and to the changing development environment, and reinforcing the integration of the population and development agenda in global processes related to development;
>
> Emphasizes the need for Governments to recommit themselves at the highest political level to achieving the goals and objectives of the Programme of Action of the International Conference on Population and Development; and
>
> Decides to extend the Programme of Action and the key actions for its further implementation beyond 2014 and ensure its follow-up in order to fully meet its goals and objectives (…).

The International Conference on Population and Development (ICPD) in 1994, adopted a comprehensive, and in many ways, path breaking Programme of Action that has led to the reorientation of population policies and programmes worldwide. The ICPD also laid the foundation for the adoption of the Millennium Declaration and its eight related goals known as the Millennium Development Goals (MDGs), in 2000 by Heads of State and Governments of 189 countries. The special case of Small Island Developing States (SIDS) has been given prominence by numerous global meetings and their recommendations,[1] including the most recent Rio+20 meeting held in Rio de Janeiro in 2012, and the conference declaration, *The Future We Want (2012)*. In line with previous conference declarations, it recognised that eradicating poverty is the greatest global challenge facing the world today and an indispensable requirement for sustainable development. It pledged to free humanity from poverty and hunger as a matter of urgency and acknowledged the need to integrate economic,

[1] These were The Barbados Programme of Action 1994, the Mauritius Strategy of Implementation (MSI), 2005 and the MSI+5 Outcome Document 2010.

social and environmental issues by recognising their inter-linkages, so as to achieve sustainable development. It recognised that poverty eradication, promoting sustainable patterns of consumption and production, and protecting and managing the natural resource base of economic and social development, are the overarching objectives of and essential requirements for sustainable development.

The Future We Want reaffirmed the need to achieve sustainable development by: promoting sustained, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living; fostering equitable social development and inclusion; and promoting integrated and sustainable management of natural resources and ecosystems that supports, inter alia, economic, social and human development while facilitating ecosystem conservation, regeneration and restoration and resilience in the face of new and emerging challenges (Rio+20, 2012).

B. SMALL ISLAND DEVELOPING STATES (SIDS)

1. The challenges

The United Nations Office of the High Representative for Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS), identifies Small Island Developing States (SIDS) as numerically significant, being presently comprised of 54 countries or areas.[2] They are found in roughly three regions: the Atlantic, Indian Ocean and South China Sea (AIMS) Region, numbering 8 Nation States; the Caribbean Region, numbering 16 Nation States; and the Pacific Region, numbering 14 Nation States. Such aggregates do not include those 16 SIDS, which are not United Nations Member States, but these island states are nonetheless recognised by the UN-OHRLLS as SIDS.[3] See Appendix 1 for a list of SIDS.

The Barbados Programme of Action (BPoA) adopted in 1994, which was further complemented by the Mauritius Strategy of Implementation (MSI) 2005 and MSI+5 Outcome document, all recognised that, despite being afflicted by economic difficulties and confronted by development challenges common to developing countries generally, SIDS have their own peculiar characteristics and vulnerabilities. Such challenges in the pursuit of sustainable development are particularly unique, severe and complex.

The 54 States that fall into the classification of Small Island Developing States have received special consideration in the development agenda since the first Global Conference on Sustainable Development of SIDS held in 1994. In spite of some common characteristics, there is a large degree of differentiation amongst the SIDS. For instance, the extremes are illustrated by the following examples: in terms of population size, St Kitts and Nevis has around 54,000 inhabitants while Cuba has a population in excess of 11 million; Singapore and the Bahamas enjoy Gross National Product (GNP) per capita in excess of US$27,000

[2] It is worth noting that there is no one uniform list of SIDS, both within the UN system and externally. However, for analytical reasons, and to be more comprehensive, this report has included non-UN member states.
[3] The list of the Small Island Developing States (SIDS) is defined by the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (of UN-OHRLLS), and contains 54 countries as of July 2013. Available from http://www.unohrlls.org/en/lldc/39/ (Accessed on 23 July 2013).

while in Guinea-Bissau, this figure is just above US$1,000. In a similar vein, while three of the SIDS are ranked as 'very high human development' countries and 13 as 'high human development' countries, 5 are among those classified as 'low human development' countries (UNDP, 2013).

Another dimension of the diverse nature of SIDS is reflected in their many linguistic and cultural differences, both between countries and between the three continents they span. In the Caribbean, Dutch, French, Spanish, Papiamento, Maroon, Creole and English are spoken in the context of cultural influences that arose from Western Europe, North America, Africa and Asia. In the Pacific, English and French are spoken beside a large number of indigenous tongues, including over 800 in Papua New Guinea alone.

A common feature of SIDS is their perennial exposure to disasters, which result from their vulnerability to natural hazards, partially caused by their low resistance to physical, environmental and economic events. Their ability to respond to catastrophic events and their resilience is further inhibited by other dimensions of their vulnerability, including their physical, demographic, social, economic and environmental characteristics. Indeed, small population size often dis-incentivises or impedes the construction of extensive infrastructure with built-in redundancy.

The following summary identifies some of the critical challenges confronting SIDS:

- Small population and geographic size. There are many disadvantages that derive from small size, including limited opportunities for the labour force to specialise; a limited range of natural resources, which results in a narrow economic base; excessive dependence on international trade, causing vulnerability to global business developments; pockets of high urban population density, which increases the pressure on limited resources; tendency to over-use resources leading to their premature depletion; relatively small watersheds and threatened supplies of fresh water; costly public administration and infrastructure per person, including transportation and communication; and limited institutional capacities, domestic markets and export volumes, which do not allow for economies of scale.

- Isolation. Due to their geographic dispersion, isolation from markets and remote locations, many SIDS are disadvantaged economically by small economies of agglomeration, high freight costs and reduced competitiveness.

- Climate change and sea-level rise. Due to the concentration of population in coastal zones of limited land area, the adverse effects of climate change and sea-level rise present significant risks to the sustainable development of SIDS, while the long-term effects of climate change threaten the very existence and viability of some SIDS.

- Natural and environmental disasters. SIDS are located in some of the most vulnerable regions of the world and are exposed to intense and frequent natural and environmental disasters with increased deleterious social, environmental and economic consequences.

- The out-migration of scarce human resources or brain drain. Owing to their small size, there is a narrow range of employment opportunities at home for citizens

trained in specialised vocations. Nor can local employers compete for talented workers with international multinational corporations and more affluent overseas locations, in terms of wages and promotion prospects, so that many educated citizens leave SIDS to seek job opportunities and enhanced financial gain in developed countries. They leave behind economies facing strategic skills gaps, which are often filled with more expensive expatriate labour.

- Dependence on public sector employment, agriculture, fishing and tourism. Because of their limited natural resource base and small size, the majority of SIDS rely on employment in the public sector, agriculture, fishing and tourism for income generation. Unfortunately, the resource-based sectors are often particularly hard hit by climate change, natural disasters and global economic swings, placing SIDS in dire need of diversification of their economies to ensure sustainable development. While such vulnerability is endemic to SIDS, only the fortunate few, with export potential and a sizeable skilled labour force, can hope to diversify their economies as a means of building resilience to global forces.

These constraints accentuate other challenges facing developing countries in general, for example, obstacles to benefiting from trade liberalisation and globalisation; heavy dependence on welfare and external donor funding, which are being adversely affected by the current global economic crisis; energy dependence; limited freshwater resources; often rapid population growth set against few natural resources, resulting in land degradation, which affects waste management; and vulnerable biodiversity resources.

Other factors, which can assist or impede progress to sustainable development relate to the size, structure and dynamics of the population in SIDS.

2. Key demographic indicators

Table 1 illustrates that the population of SIDS was estimated at just over 64 million in 2010, including the Caribbean Region, the Pacific Region and the AIMS Region, the latter comprising the Atlantic, Indian Ocean and South China Sea. The total was made up of around 42 million persons in the Caribbean, 10 million in the Pacific and 12 million in the AIMS countries (United Nations, 2013). Over the 30 year period 1980 to 2010, the population of SIDS has grown from 41.5 million to 64.3 million, an increase of 22.8 million or 55 per cent, representing an average annual growth rate of 1.5 per cent. However, SIDS as a whole have recorded a significant decline in the annual natural rate of growth of population since 1980, from around 2 per cent in the period 1975-1980 to 1.3 per cent in the period 2005-2010. There have been marked differences between the experience of Caribbean and Pacific island countries and other SIDS, and within the Pacific nations, with much less of a decline in the Melanesian countries of Papua New Guinea, Solomon Islands and Vanuatu.

TABLE 1. DEMOGRAPHIC INDICATORS FOR SMALL ISLAND DEVELOPING STATES 1980-2040[4]

Demographic indicator and region			
	1980	**2010**	**2040**
Total population ('000)			
SIDS	41,530	64,163	81,805
Caribbean	30,361	42,299	48,615
Melanesia	4,339	8,729	14,218
Micronesia	299	498	644
Polynesia	462	645	789
Rate of natural increase %	**1975-80**	**2005-10**	**2035-40**
SIDS	2.0	1.3	0.8
Caribbean	1.9	1.1	0.4
Melanesia	2.8	2.3	1.3
Micronesia	2.0	1.2	0.7
Polynesia	2.3	1.6	0.9
Population density (Persons / sq. km)	**1980**	**2010**	**2040**
SIDS	33	52	66
Caribbean	127	178	203
Melanesia	8	16	26
Micronesia	96	160	208
Polynesia	56	78	96
Total dependency ratio [a]	**1980**	**2010**	**2040**
SIDS	117	81	78
Caribbean	119	81	77
Melanesia	133	105	79
Micronesia	94	67	59
Polynesia	123	80	75
Child dependency ratio[b]	**1980**	**2010**	**2040**
SIDS	106	68	52
Caribbean	104	63	47
Melanesia	127	98	68
Micronesia	114	74	55
Polynesia	131	79	59
Old-age dependency ratio[c]	**1980**	**2010**	**2040**
SIDS	11.1	12.8	25.9
Caribbean	12.9	15.1	30.9
Melanesia	5.5	6.6	11.0
Micronesia	7.3	9.2	25.2
Polynesia	7.7	11.3	25.9
Total fertility rate[d]	**1975-80**	**2005-10**	**2035-40**
SIDS	3.9	2.7	2.2
Caribbean	3.6	2.4	1.9
Melanesia	5.5	3.9	2.8
Micronesia	4.8	2.7	2.2
Polynesia	5.2	3.2	2.4
Infant mortality rate[e]	**1975-80**	**2005-10**	**2035-40**
SIDS	74	36	22
Caribbean	69	27	12
Melanesia	73	45	33
Micronesia	55	25	12
Polynesia	46	17	10
Life expectancy at birth	**1975-80**	**2005-10**	**2035-40**
SIDS	61.8	70	75.5
Caribbean	64.4	71.2	77.3
Melanesia	53.2	63.1	67.3
Micronesia	63.3	72.5	78.9
Polynesia	62.3	73.1	79.7

[4] The total SIDS data include countries from the AIMS Region, comprising the Atlantic, Indian Ocean and South China Sea.

Net migrants ('000s)	1975-80	2005-10	2035-40
SIDS	-916	-360	-540
Caribbean	-683	-832	-542
Melanesia	-30	-35	-35
Micronesia	-2	-23	-5
Polynesia	-22	-27	-15

Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision. Special Aggregates.*

Key:

a. The total dependency ratio is the ratio of the population aged 0-19 and that aged 65+ to the population aged 20-64. They are presented as number of dependants per 100 persons of working age (20-64).
b. The child dependency ratio is the ratio of the population aged 0-19 to the population aged 20-64. They are presented as number of dependants per 100 persons of working age (20-64).
c. The old-age dependency ratio is the ratio of the population aged 65 years or over to the population aged 20-64. They are presented as number of dependants per 100 persons of working age (20-64).
d. The average number of children a hypothetical cohort of women would have at the end of their reproductive period if they were subject during their whole lives to the fertility rates of a given period and if they were not subject to mortality. It is expressed as children per woman. The 'medium fertility' scenario is reported here.
e. Infant mortality rate is the number of deaths during the first year of life per thousand live births.

TABLE 2. DEMOGRAPHIC INDICATORS FOR THE INDIVIDUAL AIMS COUNTRIES 1980-2040

Demographic indicator and country			
	1980	**2010**	**2040**
Total population('000s)			
Cabo Verde	302	488	613
Comoros	314	683	1,281
Guinea Bissau	818	1,587	2,981
Maldives	154	326	473
Mauritius	966	1,231	1,271
São Tomé and Principe	95	178	335
Singapore	2,415	5,079	6,904
Seychelles	66	91	100
Rate of natural increase (%)	**1975-80**	**2005-10**	**2035-40**
Cabo Verde	3.0	1.7	0.7
Comoros	3.0	2.9	2.0
Guinea Bissau	2.5	2.6	1.9
Maldives	2.8	1.8	0.8
Mauritius	2.0	0.5	-0.2
São Tomé and Principe	3.1	3.0	1.9
Singapore	1.2	0.6	0.0
Seychelles	2.1	1.2	0.2
Population density (Persons / sq. km)	**1980**	**2010**	**2040**
Cabo Verde	75	121	152
Comoros	169	367	688
Guinea Bissau	23	44	83
Maldives	518	1,093	1,588
Mauritius	474	603	623
São Tomé and Principe	98	185	347
Singapore	3,535	7,436	10,108
Seychelles	144	200	220
Total dependency ratio [a]	**1980**	**2010**	**2040**
Cabo Verde	188	99	61
Comoros	144	121	96
Guinea Bissau	126	125	96
Maldives	141	87	59
Mauritius	103	59	69
São Tomé and Principe	168	127	86
Singapore	78	50	76
Seychelles	130	61	74

Child dependency ratio[b]	**1980**	**2010**	**2040**
Cabo Verde	173	87	41
Comoros	136	114	87
Guinea Bissau	118	119	88
Maldives	135	77	39
Mauritius	95	47	35
São Tomé and Principe	155	119	77
Singapore	69	37	31
Seychelles	115	49	42
Old-age dependency ratio[c]	**1980**	**2010**	**2040**
Cabo Verde	15	11	20
Comoros	8	6	9
Guinea Bissau	8	7	8
Maldives	6	9	20
Mauritius	7	12	34
São Tomé and Principe	13	8	9
Singapore	8	14	45
Seychelles	15	12	32
Total fertility rate[d]	**1975-80**	**2005-10**	**2035-40**
Cabo Verde	6.6	2.6	1.8
Comoros	7.1	5.1	3.5
Guinea Bissau	6.1	5.3	3.6
Maldives	6.9	2.4	1.7
Mauritius	3.1	1.6	1.6
São Tomé and Principe	6.5	4.5	2.9
Singapore	1.8	1.3	1.4
Seychelles	4.3	2.3	1.9
Infant mortality rate[e]	**1975-80**	**2005-10**	**2035-40**
Cabo Verde	69	19	7
Comoros	111	70	47
Guinea Bissau	137	98	60
Maldives	114	12	3
Mauritius	30	12	5
São Tomé and Principe	64	45	32
Singapore	11	2	1
Seychelles	23	9	4
Life expectancy at birth	**1975-80**	**2005-10**	**2035-40**
Cabo Verde	58.4	73.2	80.9
Comoros	51.0	59.7	65.1
Guinea Bissau	45.3	53.0	59.9
Maldives	49.9	75.5	84.3
Mauritius	65.7	72.8	77.5
São Tomé and Principe	60.2	65.5	69.4
Singapore	71.0	81.2	86.3
Seychelles	69.0	72.4	77.4
Annual net migrants ('000s)	**1975-80**	**2005-10**	**2035-40**
Cabo Verde	-37	-13	-1
Comoros	7	-3	-2
Guinea Bissau	-15	-4	-1
Maldives	0	0	0
Mauritius	-4	-2	0
São Tomé and Principe	-3	-2	-1
Singapore	1	19	4
Seychelles	-1	-2	-1

Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision. Special Aggregates*.

Key:

a. The total dependency ratio is the ratio of the population aged 0-19 and that aged 65+ to the population aged 20-64. They are presented as number of dependants per 100 persons of working age (20-64).

b. The child dependency ratio is the ratio of the population aged 0-19 to the population aged 20-64. They are presented as number of dependants per 100 persons of working age (20-64).

c. The old-age dependency ratio is the ratio of the population aged 65 years or over to the population aged 20-64. They are presented as number of dependants per 100 persons of working age (20-64).

d. The average number of children a hypothetical cohort of women would have at the end of their reproductive period if they were subject during their whole lives to the fertility rates of a given period and if they were not subject to mortality. It is expressed as children per woman. The 'medium fertility' scenario is reported here.

e. Infant mortality rate is the number of deaths during the first year of life per thousand live births.

The disparate AIMS countries (Cabo Verde, Comoros, Guinea-Bissau, Maldives, Mauritius, São Tomé and Principe, Singapore and Seychelles), which are geographically dispersed and quite unconnected culturally and economically, other than being small islands, had a combined population in 2010 of 12.3 million, the largest of which was Singapore (5.1 million) and the smallest Seychelles (91,000). The United Nations' *World Population Prospects: The 2012 Revision* does not group the AIMS countries as it does with the Caribbean and Pacific subregions. Therefore, no attempt has been made in table 1 to develop aggregate demographic indicators for the AIMS grouping of countries, as was done for the other SIDS groupings. Table 2 portrays the demographic characteristics of the individual AIMS countries.

All of the AIMS countries have realised significant population growth over the period 1980 to 2010, with the largest relative increases in the West African countries of Cabo Verde, Guinea-Bissau and São Tomé and Principe. In Eastern Africa, Comoros has experienced a doubling of its population over this period. In contrast, Maldives, Mauritius and Singapore have seen their annual growth rates fall dramatically over the same period with the latter two countries projected to have negative growth by 2040.

Projections suggest that the total population of SIDS will grow to 81.8 million by 2040, an increase of 17.5 million or 27.2 per cent from 2010, representing an average annual growth rate of less than 0.1 per cent. The largest relative increase will come from the Melanesian countries where it is projected that the increase will be in the order of 68 per cent, or 1.7 per cent annually. All the African countries in AIMS are projected to continue to grow relatively fast to 2040.

3. Population trends in SIDS

A goal of the International Conference on Population and Development (ICPD), which was held in Cairo in 1994, was to raise the quality of life for all people through appropriate population and development strategies, which will contribute to lower fertility and mortality and ultimately, to population stabilisation.

Since the ICPD, over 13 million persons have been added to the population of SIDS. Annual growth rates fluctuated from period to period and country to country but, overall, they have declined from an average above 2 per cent in the 1950-1955 periods to 1.6 per cent in 1990-1995 and 1.3 per cent in 2005-2010.

In most Micronesian and Polynesian countries, lower population growth is not the result of having completed the demographic transition or having achieved population stabilisation. Rather, lower growth has been achieved by emigration, while natural increase has remained relatively high. For example, over the period 2005-2010, the annual rate of population growth was 2.2 per cent in Melanesia, -0.1 per cent in Micronesia and 0.6 per cent in Polynesia, while the rate of natural increase was 2.3 per cent in Melanesia, 1.2 per cent in Micronesia and 1.6 per cent in Polynesia (United Nations, 2013). In the Caribbean, the population has grown from 30.3 million in 1980 to 42.3 million in 2010, and is expected to peak at nearly 48.6 million by 2040. However, at the country level, some SIDS had high population growth

rates in 2005-2010. Bahrain, Belize, British Virgin Islands, Caribbean Netherlands, Comoros, Curaçao, Guinea-Bissau, Papua New Guinea, São Tomé and Principe, Singapore, Sint Maarten (Dutch part), Solomon Islands and Vanuatu had average population growth in excess of 2 per cent per year, while American Samoa, Cuba, Micronesia (Fed. States of), Nauru, Niue, Northern Mariana Islands, Puerto Rico and United States Virgin Islands had a declining population (United Nations, 2013). The most dramatic declines in the annual population growth rates occurred in American Samoa, Aruba, Cabo Verde, Guam, the Federated States of Micronesia, Northern Mariana Islands and Palau, from over 2 per cent per year during 1990-1994 to less than 1 per cent in 2005-2010.

The demographic transition from the first stage of high birth and death rates to the stage of low birth and death rates has been achieved by many SIDS. For the most part, population trends in the islands show a continuing decrease in fertility. There is, however, less conclusive evidence of continued decline in mortality. Notwithstanding these trends, SIDS have experienced a corresponding increase in life expectancy.

In 1975-1980, the total fertility rate (TFR) in SIDS was 3.9, ranging from a high of 6 or over in Comoros, Belize, Cabo Verde, Guinea-Bissau, Maldives, Federated States of Micronesia, Samoa, São Tomé and Principe and Solomon Islands to a low of 1.8 in Singapore.[5] By 2005-2010, 10 SIDS had a TFR below the replacement level of 2.1 children per woman while 8 SIDS still had a TFR of 4 or more.[6]

Adolescent fertility rates exceeded 100 births per 1,000 teenage women in Belize, Cabo Verde, Dominican Republic and Guinea-Bissau. Early pregnancy often has deleterious effects on the health and socio-economic well-being over the life course, and can translate into an intergenerational transmission of poverty.

Life expectancy in SIDS was estimated to be around 56 years for both sexes in the period 1960-1965; by 2005-2010 it had risen to 70 years. In the early period, female life expectancy was 58 years and 4 years less for males; by 2005-2010 the former had increased to 73 years and the latter to 68 years, so the gap had widened slightly. In the 1980s and 1990s, improvements in life expectancy for males started to stall or even reverse in a few countries such as Belize, Jamaica, Puerto Rico and Seychelles, partly because of increases in violent deaths. The Caribbean is the region with the second highest HIV-prevalence rates after sub-Saharan Africa (UNAIDS, 2013). Several countries in the region had a generalized epidemic (i.e., with HIV prevalence of 1 per cent or greater).[7]

Increased life expectancy in SIDS, together with declining fertility, has led to changes in the age structures of populations, particularly the relative and absolute increases in older persons. A shift from young-age dependency towards old-age dependency first moderates or even decreases the total age dependency. The "demographic dividend" caused by the increase

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[5] The total fertility rate (TFR) is the average number of children a hypothetical cohort of women would have at the end of their reproductive period if they were subject during their whole lives to the fertility rates of a given period and if they were not subject to mortality. It is expressed as children per woman.

[6] Aruba, Bahamas, Barbados, Cuba, Curaçao, Mauritius, Puerto Rico, Singapore and Trinidad and Tobago all had a TFR of less than 2; only Comoros, Guinea-Bissau, Papua New Guinea, Samoa, São Tomé and Principe, Solomon Islands, Timor Leste and Tonga TFR remained at 4 or more.

[7] According to UNAIDS, the following countries in the Caribbean region had adult HIV prevalence rate of 1 per cent or greater: Bahamas (3.3 per cent), Belize (1.4 per cent), Guyana (1.3 per cent), Haiti (2.1 per cent), Jamaica (1.7 per cent), Suriname (1.4 per cent) and Trinidad and Tobago (1.6 per cent).

in the share of the working-age population leads to opportunities for economic growth. However, once the smaller age cohorts start entering and the larger age cohorts start leaving the economically active age groups, total-dependency ratios will increase. At this more advanced stage of the demographic transition, the imbalance caused between the productive and the non-productive population leads to strains on the capability to support the latter. Higher dependency ratios contribute to higher public spending on social pensions and health care. Renewed increase in population growth is no solution as it will only lead to postponement and an even stronger effect later on.

Beside fertility and mortality, age patterns and population growth can also change because of migration. The Caribbean population is one of the most mobile in the world and migration has been important to and from the region as well as within the region. Caribbean citizens have migrated temporarily or permanently to other countries within and outside the region in search of education and work, or to escape poverty and the effect of natural disasters. The United Kingdom of Great Britain and Northern Ireland, the Netherlands, the United States of America and Canada have large Caribbean communities, while Pacific Islanders have migrated in large numbers to the United States of America, Australia and New Zealand.

For many countries in both the Caribbean and the Pacific regions, migration has mitigated population growth to some extent. However, several areas or territories have also seen their growth increasing because of in-migration (for example, Anguilla, Aruba, Cayman Islands, and the Turks and Caicos Islands). This is strongly related to a high demand for labour and relatively high earning opportunities resulting from rapid economic growth based on tourism and the financial sector, and oil and gas in the case of Trinidad and Tobago.

As a group, SIDS countries are continuing their slow transition to a low-fertility/low mortality scenario, but all groups still had a total fertility rate above replacement level in 2010. Only the Caribbean countries in table 1 are projected to approach the replacement level by 2040 with the countries of Melanesia and Micronesia still well above replacement by that date.

The countries in the AIMS group show great diversity in fertility behaviour, as illustrated in table 2. While Singapore is a high-income country that had attained replacement fertility in the late 1970s, Comoros and Guinea-Bissau were not projected to attain this level of fertility until the end of, or beyond, this century. Meanwhile, Cabo Verde and Maldives have realised very dramatic declines in fertility in the last 30 years.

Table 1 also shows the differences in mortality, as reflected in the life expectancy at birth and infant mortality rates (IMRs) that exist among SIDS countries. While average life expectancy was only 62 years in 1975-1980, it had reached 70 years by 2005-2010, and it exceeded 70 years in the Caribbean, Micronesia and Polynesia. However, Melanesia lagged behind with a life expectancy at birth of only 53 years in 1975-1980 and 63 years by 2005-2010. By 2035-2040, SIDS are projected to have a life expectancy exceeding 75 years, with Melanesia still having the lowest life expectancy, at 67 years.[8]

Not surprisingly, the patterns of infant mortality are very similar. The IMR fell from 74

[8] In contrast, average life expectancy in the developed countries of the OECD had already reached 73 years in 1975-1980 and 80 years in 2005-2010, and is projected to exceed 83 years by 2035-2040.

deaths per 1,000 live births in 1975-1980 to 36 by 2005-2010, a decline of 49 per cent, and is projected to fall further to 22 by 2035-2040.[9]

As a result of declines in mortality and fertility, particularly the latter, the age structure of SIDS populations has undergone change. The share of the population below age 20 years decreased from 52 per cent in 1970 to 38 per cent in 2010, and is projected to fall further to 34 per cent by 2020 and 29 per cent by 2040. Meanwhile, the percentage of the population aged 65 years or over has risen from 4.3 per cent in 1970 to 7.1 per cent in 2010, and is projected to reach 14.5 per cent by 2040.

In 1970, the populations of all SIDS were reasonably 'young' and have become 'older' but to widely varying degrees, as the different dynamics of fertility and mortality have impacted on their age structures. For example, in table 3, the contrast between the high fertility countries of Comoros and São Tomé and Principe on the one hand, and low fertility countries of Mauritius and Singapore on the other hand, is quite stark. In 1970, all four countries had over 50 per cent of their populations below the age of 20 years; by 2020, Comoros and São Tomé and Principe will still have over 50 per cent of their populations under 20 years of age, while, in Mauritius and Singapore, this share will have fallen to around a quarter of the population or less. In contrast, the share of the older population (aged 65 years or over) has remained low in African countries generally, but have risen significantly in Mauritius and Singapore to 10 per cent or more. By 2040, projections indicate all four countries will have acquired a more aged population structure, but, because of their low fertility and rising life expectancy, the impact in Mauritius and Singapore will be much greater than in Comoros and São Tomé and Principe.

These changes in demographic behaviour manifest themselves in an increase in old-age dependency and a fall in child dependency across SIDS. Where the fall in the latter exceeds the growth in the former, which is the case in many of SIDS, there is a so-called 'window of opportunity' or demographic dividend for the period of time during which there is a rise in the share of the working-age population, offering the prospect of increased savings, investment and economic growth.

TABLE 3. PERCENTAGE OF THE POPULATION IN "YOUNGER" (0-19) AND "OLDER" (65+) AGE GROUPS FOR SELECTED COUNTRIES

Age group/ Selected county	***1970***	***2010***	***2020***	***2040***
Age 0-19				
Comoros	55.1	51.8	50.8	44.5
São Tomé and Principe	58.1	52.2	50.2	41.5
Mauritius	54.9	29.4	24.2	21.0
Singapore	50.7	24.3	20.0	17.7
Age 65+				
Comoros	5.2	4.5	5.1	7.0
São Tomé and Principe	6.9	4.9	5.1	7.8
Mauritius	4.2	12.2	17.6	26.8
Singapore	5.7	14.1	20.5	32.0

Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision. Special Aggregates*

[9] The overall mean IMR for SIDS exceeds all the estimates for the regions in table 1 because of the very high IMRs in some of the countries in the AIMS group, as displayed in table 2.

Significant differences in population structures remain between Melanesia and Micronesia on the one hand, and the Caribbean and Polynesia on the other hand. In addition, differences between the AIMS countries remain large over time.

Policy guidance from the international community on ageing comes from the Madrid International Plan of Action on Ageing (MIPAA), adopted at the Second World Assembly on Ageing in 2002, whose overall aim is to "ensure that persons everywhere are able to age with security and dignity and to continue to participate in their societies as citizens with full rights". MIPAA's policy advice is for the issue of ageing to be incorporated into national social and economic policies including poverty reduction strategies. Policy should ensure that barriers are removed, which inhibit older persons from participating in social, cultural and economic activities. Since the older population is growing at a relatively rapid rate in some SIDS, it is important to ensure that older persons are given every opportunity to fully participate in their nation's development process.

The capacity of societies in SIDS to successfully address the challenges presented by an ageing population will depend on the relative strengths and contributions of kin-based family relationships, civil society, including NGOs and religious organisations, and State institutions (Hayes, 2009). All SIDS will need to accommodate and cater for an increasing number of school-age children, raising the demand for educational institutions and staff, larger numbers in the working-age groups seeking productive employment, and a greater number of older persons who will require pensions and social services.

These changes impact on SIDS by raising population densities even further in these small island states, most of who are severely constrained by limited land areas. Population density in the world is estimated to be 50.8 persons per square kilometre in 2010 but, as illustrated in tables 1 and 2, this figure is far exceeded in all the regions of SIDS, but especially in the countries in the AIMS group.[10]

Many of the countries of the SIDS group will complete their demographic transitions in future decades. While the mortality transition has progressed considerably, with life expectancy above 70 years in some of them, the fertility transition has lagged behind. The possibility of out-migration, from the Caribbean to the United States of America and Europe; and from the Pacific islands to Australia and New Zealand, may have reduced the incentive at the family level to reduce fertility. In the AIMS countries, migration has played little such role since the numbers of people migrating have been very small.

C. Aspects of vulnerability in SIDS

Concern has been shown repeatedly over the nature and extent of vulnerability of SIDS, as evidenced at the 1994 Barbados Conference on Sustainable Development of Small Island Developing States. Following this conference, which recommended "the development of vulnerability indices and other indicators that reflect the status of small island developing countries and integrate ecological fragility and economic vulnerability", the United Nations General Assembly requested the Secretary-General to prepare a report on the vulnerability index and the Committee for Development Planning (CDP) to examine this index. In 1998,

[10] Guinea-Bissau and Montserrat are the exceptions with population density below the world average.

the United Nations Commission on Sustainable Development urged the CDP to present its findings and for other United Nations bodies to accord priority to the work on the vulnerability of SIDS. In 1999, after considering several available indicators, the Committee for Development Policy (the CDP renamed) proposed a new and relatively simple index, which was elaborated further at the following CDP sessions. Ten years after the Barbados Conference, the Mauritius Conference in December 2004, reiterated the concern of the international community over the vulnerability of small islands (Guillaumont, 2007).

One major threat to a country's ability to attain sustainable development is derived from its exposure to various forms of vulnerability, including economic vulnerability. This comes in the form of the risk to a relatively poor country of having its development potential being hampered by natural or external shocks. SIDS face two main kinds of exogenous shocks as well as two main sources of vulnerability: environmental or 'natural' shocks, such as earthquakes or volcanic eruptions, plus the more frequent climatic shocks, such as typhoons, cyclones and hurricanes, droughts, floods, etc; and exogenous trade and exchange rate-related shocks, such as downturns in external demand, instability in world commodity prices and in their terms of trade, international fluctuations of interest rates, etc. Other domestic shocks may also be generated by political instability.

Vulnerability can be seen as the result of three components:

- Exposure to shocks, which is a structural factor independent of a country's political will, but is also dependent on public policy, which may erect defences to minimize exposure;
- The size and frequency of the exogenous shocks, either observed after the event or anticipated;
- Resilience or the capacity to contain and react to shocks.

1. Economic vulnerability

A principal structural factor in inducing greater exposure of SIDS to exogenous shocks is the smallness of the countries. Economic vulnerability derives from a nation's small size, whether measured in terms of population, land area or gross national product (Briguglio, 1995). Small size can imply poor natural resource endowments and low inter-sectorial linkages, and leaves little room to exploit scale economies. With few producers and little domestic competition, catering to a small population, resulting monopolies are more likely to inflate prices. Import dependence on goods is inevitable when opportunities for import substitution are limited, and there is the need to generate scarce foreign exchange to pay for the imports. This gives rise to high dependence on export earnings from a narrow range of goods and services (often tourism), and exogenous macroeconomic events overseas can have major negative domestic impacts. As a result, SIDS are invariably price-takers for the goods and services they export and import, adding to other aspects of vulnerability to which they are exposed.

All SIDS are, by definition, insular, but not all are situated in remote areas. Insularity and remoteness often lead to high costs of transport and communications since air and sea transport are the only options available for the movement of goods and people. Smallness also tends to require relatively small and fragmented cargoes, with consequent high unit transport costs. Such insular locations, far removed from the principal business and commercial centres, can lead to delivery time delays and unreliable supplies of strategic

imports. To minimize these risks from irregular and unreliable supplies, large stocks of imported supplies may need to be kept, which also raises the unit costs of local production.

Because of small population size, public sector services in SIDS tend to be very expensive on a per capita basis, partly because trained citizens often migrate overseas where salaries are higher, and they, in turn, are sometimes replaced by expensive expatriates. A consequence of a SIDS being economically vulnerable is that poverty, in various guises, can affect many of its citizens to some degree. Economic volatility has significant poverty impacts since any shock to the economy can create unemployment and push people living just above the poverty line into extreme poverty. Unfortunately, data on the extent of poverty in SIDS is scarce, except for some recent information provided in the latest Human Development Report (UNDP, 2013), for a limited number of SIDS, which is reproduced as table 4.

The data in table 4 confirm that poverty is highly correlated with Gross National Income (GNI) per capita, and with the United Nations' Human Development Index (HDI). According to these data, poverty is severe in numerous SIDS. The high rate of youth unemployment is particularly worrying in those SIDS where data are available, since it blights the future prospects of the current generation.

Sound public policy, a major determinant of resilience, is needed to respond to such structural vulnerability by lessening its impact on national income and growth. Yet policy is weakened by structural vulnerability: overall instability of income can be transmitted to Government revenue, public deficit and indebtedness. If fiscal policy is allowed to behave pro-cyclically, policy variables become an intermediate factor of instability that transfers primary instabilities to economic growth. The main factors of resilience with regard to shocks are policy and institutions, in other words, the capacity of a country to cope effectively with exogenous shocks (Guillaumont, 2007).

The recently released United Nations 2013 Global Assessment Report on Disaster Risk Reduction warns that climate change would magnify disaster risk in SIDS (UNISDR, 2013), which have the highest risk of disaster in the world. Natural disasters are amplified in SIDS because their economies are largely undiversified and hazards often affect their entire land area. Since many SIDS are highly indebted, they have little room to use expansionary fiscal policy to address such dire situations. Expected losses from a one-in-250-year earthquake could exceed the value of 80 per cent of annual capital formation in some SIDS. In the case of wind damage from a catastrophic one-in-250-year cyclone, six of the most affected countries are SIDS (UNISDR, 2013).

Because of the combination of high risks and low resilience, successful investments to offset these disadvantages by SIDS in disaster risk reduction and climate change adaptation are likely to produce relatively greater returns, because of high-risk premium returns, than in any other country group. Such investment would likely attract domestic and foreign investment, strengthen national resilience and enhance sustainable development.

The slow-growth period, following the global economic and financial crisis, had dire consequences for the economies of SIDS, while the global food and energy crises, coupled with the uneven pace of insertion into global trade and development processes and the negative impacts of climate change, have exacerbated the structural vulnerabilities of these

countries. The result of an attempt to build an economic vulnerability index is reproduced in figure 1.

TABLE 4. INDICATORS OF POVERTY FOR SELECTED COUNTRIES

	GNI per capita US$2005	*Population in Multi-dimensional poverty*	*Population vulnerable to poverty*	*Population in severe poverty*	*Population below US$1.25 PPP/day*	*Population below national poverty line*	*Youth unemployment rate*
	PPP	*(%)*	*(%)*	*(%)*	*(%)*	*(%)*	*(%)*
High human development							
Trinidad & Tobago	21,941	5.6	0.4	0.3	-	-	12.9
Medium human development							
Belize	5,327	5.5	7.6	1.1	-	33.5	28.8
Dominican Rep	8,506	4.6	8.6	0.7	2.2	34.4	44.5
Maldives	7,478	5.2	4.8	0.3	-	-	30.5
Surinam	7,327	8.2	6.7	3.3	-	-	-
Guyana	3,387	7.7	12.3	1.0	-	-	50.0
Vanuatu	3,960	30.1	33.5	6.5	-	-	-
Timor Leste	5,446	68.1	18.2	38.7	37.4	49.9	-
Low human development							
São Tomé and Principe	1,864	34.5	24.3	10.7	-	-	-
Haiti	1,070	56.4	18.8	32.3	-	-	-

Source: United Nations Development Programme (2013*). Human Development Report 2013, The Rise of the South: Human Progress in a Diverse World*, New York. Figure 1 Economic vulnerability index for SIDS who are LDCs and non-LDCs

Definitions: **Multidimensional poverty Index**: Percentage of the population that is multi-dimensionally poor adjusted by the intensity of the deprivations. See Technical Note 4 available from http://hdr.undp.org/en/media/ HDR_2013_En_technotes.pdf for details on how the Multidimensional Poverty Index is calculated.

Population vulnerable to poverty: Percentage of the population at risk of suffering multiple deprivations—that is, those with a deprivation score of 20 per cent–33 per cent.

Population in severe poverty: Percentage of the population in severe multi-dimensional poverty—that is, those with a deprivation score of 50 per cent or more.

Population below PPP $1.25 a day: Percentage of the population living below the international poverty line $1.25 (in purchasing power parity terms) a day.

Population below national poverty line: Percentage of the population living below the national poverty line, which is the poverty line deemed appropriate for a country by its authorities. National estimates are based on data from household surveys.

Youth unemployment: Percentage of the labour force population ages 15–24 years that is not in paid employment or self-employed but is available for work and has taken steps to seek paid employment or self-employment.

The economic vulnerability index is defined as the normalised difference between an exposure index and a coping capacity index. Five indicators were used to measure exposure to the economic crisis:

- An index of export sophistication per GDP per capita;
- Foreign direct investment as a percentage of GDP;
- Official development assistance as a percentage of GDP;
- Workers' remittances as a percentage of GDP;
- Inbound tourism as a percentage of GDP.

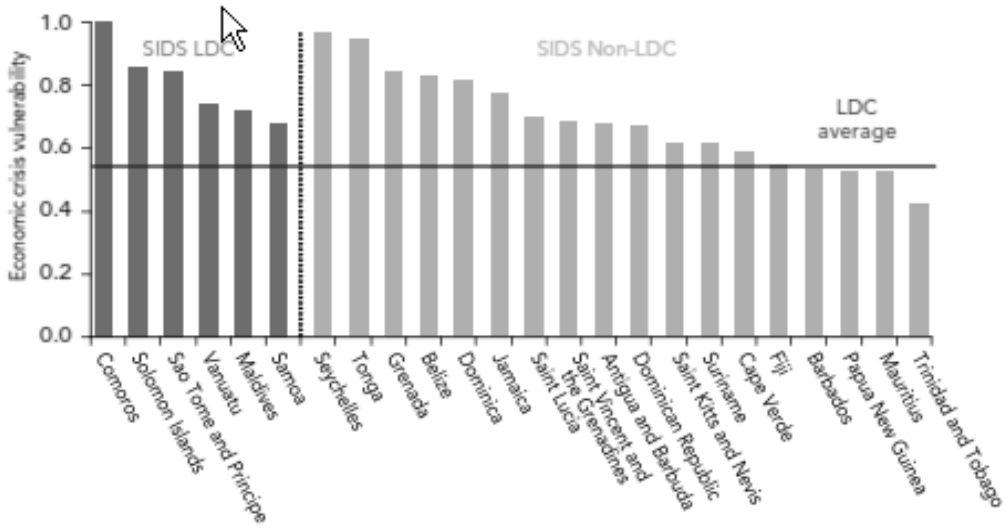
The capacity to mitigate the crisis, or resilience, is assessed using the following indicators:

- Ratio of external public debt to GDP;
- Total reserves in months of imports;
- Ratio of gross savings to GDP;

- Government effectiveness from the World Bank's Worldwide Governance Indicators; and
- The Human Development Index.

Not surprisingly, many of the countries with the highest index of vulnerability have low HDI values and are among the poorest in table 4.

Figure 1. Economic vulnerability index for SIDS that are LDCs and non-LDCs



Source: United Nations (2010), *Trends in Sustainable Development in Small Island Developing States (SIDS),* DESA, New York.

2. Climate change and environmental vulnerability

Despite the many variations in their geographic, physical, cultural and ethnic make-up, as a group, SIDS are among the most exposed and vulnerable countries in the world to climate change and sea-level rise. Most have limited natural resources, which have become heavily stressed from growing populations and unsustainable human activities set in the context of inadequate infrastructure. Much of the population and economic activities are squeezed along high density coastal zones. Many are susceptible to frequent and intense tropical cyclones with associated storm surges, droughts, tsunamis and volcanic activities. Their limited size is not conducive to effectively adapting to climate change and sea-level rise. Furthermore, their limited financial, technical and institutional capacities curtail their ability to adequately implement measures of resilience to mitigate any adverse impacts of climate change.

Even though SIDS produce extremely low levels of greenhouse gases (GHG), they are likely to suffer disproportionately from the damaging impacts of projected climate change.[11]

[11] An important feature of SIDS is that, although they rely heavily on fossil-fuel based energy for their economic and social development, they account for less than 1 per cent of global greenhouse gasses (GHGs). For example, the Pacific islands' average per capita equivalent emissions are 0.96 tons of carbon dioxide (CO_2) per year; this equates to only a quarter of the CO_2 emissions attributable to the average person worldwide.

Climate change and sea-level rise undermine efforts to promote sustainable development in a multitude of ways across SIDS, and threaten the livelihoods and security of their citizens, as well as their survival, viability and sovereignty. International action to address climate change continues to be grossly inadequate and emissions of greenhouse gases continue to rise globally at an alarming rate. Some illustrations of how SIDS are most vulnerable can be seen from the examples of Barbados in the Caribbean and Kiribati and the Marshall Islands in the Pacific, where almost all food, fuels, construction materials and other essential goods need to be imported; from the Maldives, the Marshall Islands and Kiribati whose land area is mostly less than one metre above sea level; from the Seychelles and Fiji, where the bulk of the population is located along the narrow coastal belts; and from the most recent crisis in April-June 2013 in the Marshall Islands, where drought has depleted water stocks and where groundwater has become unsafe for human consumption because of its high salinity.

Many SIDS already experience water stress at current levels of rainfall and extraction of groundwater. Water pollution is one of the major problems facing small islands. Poor water quality negatively affects human health and increases the incidence of water-borne diseases. The dependency on rainfall increases the vulnerability of small islands to future changes and distribution of rainfall. Low rainfall can lead to a reduction in the amount of water that can be physically harvested, a reduction in river flow, and a slower rate of recharge of the freshwater lens, which can result in prolonged droughts. Since most of the islands are dependent upon surface water catchments for their water supply, it is likely that demands cannot be met during periods of low rainfall. In contrast, during the rainy season, lack of suitable land areas for dams (for example, in the Seychelles) and high runoff during storms (for example, in Fiji) result in significant loss of surface and stream water to the sea.

The most recent crisis in April-June 2013 in the Marshall Islands is symptomatic of the vulnerability of SIDS. The United Nations Office for Disaster Risk Reduction (UNISDR) issued warnings that a lack of safe drinking water has emerged as a major natural hazard for many small islands in the Pacific. The UNISDR Head for Asia and the Pacific claimed:

> "The worsening situation in the Republic of the Marshall Islands is a strong warning for the whole of the Pacific of the potential suffering that drought brings particularly as many islands in the Pacific have limited water supplies….The Marshall Islands crisis clearly shows how important it is for Pacific Islands to integrate drought mitigation measures into their national planning and risk assessment….We mainly think about sea level rise and cyclone risks when we talk about Small Island Developing States (SIDS) but drought is also threatening thousands of communities''.

During this crisis more than 6,700 people in the Marshall Islands lacked safe water as drought conditions depleted water tanks and made groundwater unsuitable for human consumption due to high salinity. The government response was to declare a "state of drought disaster".

A warming of the ocean surface around small island states has been detected, and

this trend is expected to continue.[12] Projections show that this warming will be accompanied by an increase in heavy rainfall events and other temporal and spatial changes in precipitation patterns, and by more intense or frequent cyclones/hurricanes. Arable land, water resources and biodiversity are already under pressure from increases in population on these small islands and the unsustainable use of available natural resources.

With climate change, negative impacts on agriculture are predicted; coral reefs will be threatened by increased sea surface temperatures and acidification of the oceans; mangroves will be threatened by sea-level rise and an increase in extreme weather events. Water resources are expected to be stressed by changes in precipitation patterns. These changes will have a negative impact on tourism and agriculture, which are major sectors in SIDS. These climate changes threaten the achievement of the sustainable development goals contained in the Mauritius Strategy. Policy responses to climate change and sea-level rise must be coordinated and integrated with existing policies of socio-economic development and environmental conservation to facilitate sustainable development.

Other projected impacts of climate change include economic losses from reduced agricultural yields, for example by the shortening of the growing season or drought. For a long time, agriculture has been the mainstay of survival and economic development in many SIDS. Subsistence agriculture provides local food security and cash cropping has enabled SIDS to earn export revenue and participate in world trade. Subsistence food production is vital in small islands even within those that have limited arable land. However, arable land for crop agriculture, much of which is located on the coastal plains, is increasingly in short supply and the likely prospect of land loss and salinisation, due to climate change and sea-level rise, will threaten the sustainability of both subsistence and commercial agriculture.

SIDS are home to a large proportion of the world's biodiversity, mainly because of their geographic isolation, which has led to the formation of many endemic species. The biodiversity of upland and coastal forests, including mangroves, is threatened by both global change and local factors, where, for example, more than a quarter of SIDS have greatly reduced forest cover as a result of encroachment from infrastructure development or agriculture. Meanwhile, coral reefs are threatened by rises in sea surface temperatures, which lead to coral bleaching.

Population growth and inward migration are putting additional pressures on SIDS' coastal settlements. Such concentrations include extensive economic and social activities, bringing pressure to bear on public utilities and resources that create a series of problems in terms of pollution, waste disposal and housing. On Pacific and Indian Ocean atolls, villages are located on the sand terrace or on the beach itself, and in the Caribbean more than half the population live within 1.5 kilometres of the shoreline. For example, along the north coast of Jamaica and the west and south coasts of Barbados, continuous corridors of development now occupy practically all of the prime coastal lands. They also accommodate a range of other settlements, such as fishing villages, government buildings and important facilities such as hospitals that are frequently located close to the shoreline.

Tourism is a leading sector in the economies of many SIDS. However, the negative

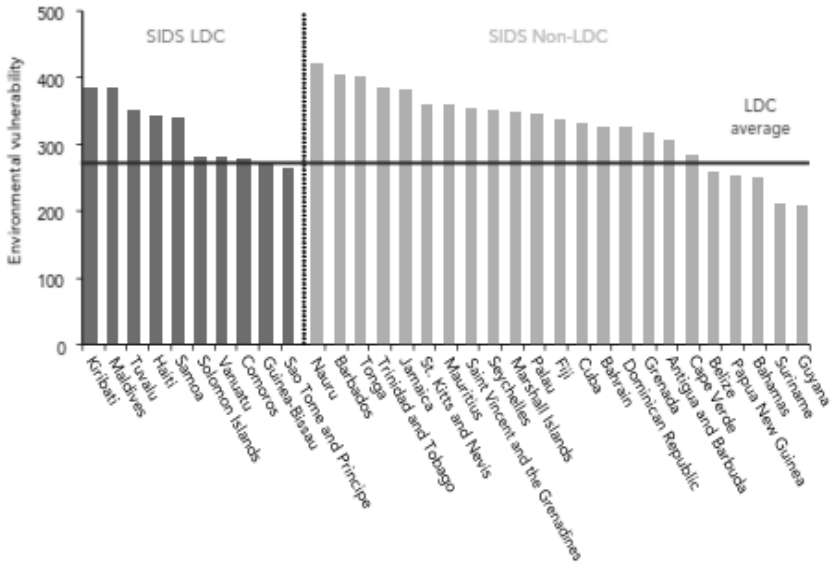
[12] Observational records show that sea surface temperatures have been increasing by 0.1° C per decade in the oceans where most SIDS are located.

impact of climate change on tourism is projected to be significant, and measures to promote economic diversification towards other revenue generating sectors must be identified and implemented.

Vulnerability and adaptation assessments undertaken by SIDS also support the prediction that sea level will rise worldwide as a consequence of climate change. This is consistent with the conclusions of the Third Assessment Report of the Intergovernmental Panel on Climate Change, which indicated that by the end of the twenty-first century, global sea level will rise 9–88 centimetres depending on regional variations in ocean circulation and other geophysical conditions. Sea-level rise will vary across the planet, with some regions such as the Pacific, experiencing a greater increase than the global average.

Although natural systems and people living in SIDS have developed a wide range of adaptive strategies and measures of resilience to address degrees of change in climate and sea level, in many of these nations the environment and various biological systems are already close to their tolerance limits or are experiencing climate-related stress. Their vulnerability to climate change, already high, thus worsens with each passing year. An environmental vulnerability index has been derived and is reproduced as figure 2. Some of the countries with high levels of economic vulnerability in figure 1, and high levels of poverty in table 4, also feature in figure 2 with high levels of environmental vulnerability.

Figure 2. Environmental vulnerability index for a sample of SIDS relative to an average for all LDCs.



Source: United Nations (2010). *Trends in Sustainable Development in Small Island Developing States (SIDS),* DESA, New York, derived from DESA calculations based on UNEP/SOPAC methodologies.

Evidently, adaptation to climate change must be a priority for SIDS and remains dependent on the provision of sufficient and predictable financial resources. Such external funding will be used to implement climate change adaptation and mitigation projects and to support national climate change priorities. Where funds already exist, application and bureaucratic procedures often preclude SIDS from accessing those funds, and capacity building efforts have yet to address this persistent problem.

The United Nations has recognised the need for SIDS to implement strategies that build resilience to address these vulnerabilities.[13] For example, in 2010, the United Nations General Assembly decision A/65/2 reiterated the importance of data and information systems and called on the international community:

> "to assist the efforts of small island developing States to strengthen national disaggregated data and information systems as well as analytical capabilities for decision-making, tracking progress and development of vulnerability-resilience country profiles; the efforts of SIDS in developing databases and in institutionalizing national indicators for monitoring and evaluating sustainable development should also be supported".

In line with the above-mentioned resolution, the United Nations Department of Economic and Social Affairs, with financial support from the European Union (EU), under the umbrella of an EU-funded project known as ISLANDS, which is being executed by the Mauritius-based Indian Ocean Commission, began a project to develop an analytical framework for assessing progress in addressing the vulnerabilities of SIDS in the context of the Barbados Programme of Action (BPoA) and its implementation through the Mauritius Strategy for Implementation (MSI). The result of this work is the *Vulnerability-Resilience Profile* (VRP), which is a methodology to monitor and evaluate their progress towards building resilience to their unique vulnerabilities.

The VRP methodology is being piloted in seven SIDS through this EU-funded project on monitoring and evaluation of the MSI:[14] two in the Caribbean, three in the Indian Ocean (Comoros, Mauritius, Seychelles) and two in the Pacific, over a period of nine months from July 2013 to March 2014. The aim of the pilot is to test the VRP methodology in practice by using its handbook as a training resource, and to incorporate the lessons and best practices from the pilot projects into further refinement and development of the methodology. A revised and updated handbook, incorporating the experiences of the pilot countries, will be made available to SIDS at the Third International Conference on SIDS, which will be held in Samoa in 2014.

The VRP methodology addresses the vulnerability-resilience nexus and consists of an assessment of a country's vulnerabilities and its capacity to cope with these vulnerabilities. The vulnerability assessment would be based on both qualitative and quantitative indicators and indices that reflect a country's vulnerabilities to threats in terms of the three dimensions of sustainable development: environmental, economic and social. The resilience assessment would evaluate the measures that strengthen the coping capacity of the country to prevent, adapt to, or mitigate these exogenous and endogenous risks and threats for each of the three dimensions of sustainable development in term of actions at three levels: national, regional and international. The national level actions would include Government actions such as policies, plans and projects, as well as actions by communities, civil society and the private sector—all of these would ultimately build a country's resilience. These national efforts would be supported by regional responses such as technical assistance, information sharing and capacity building activities by regional organisations and international responses such as

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[13] The following paragraphs draw on information provided by the SIDS' Ocean and Climate Change Branch in the Division of Sustainable Development, DESA.

[14] Project on "Monitoring and Evaluation system for the Mauritius Strategy for Implementation of the Programme of Action for Small Island Developing States" executed by UN-DESA, 2012.

technical, logistical and financial support from the United Nations system and development partners.

The VRP methodology is based on a systematic and participatory process comprising five steps:

Step 1: Priority themes and major issues:

(i) Each country would rank the 19 priority themes of the MSI in the order of importance for the country and focus their main analysis on those themes that are considered to be the most important for the country, but would also consider the other priority themes of the MSI, albeit in less detail, in order to ensure that their VRP addresses the whole of the MSI.

(ii) Selection of three major issues/concerns facing the country for each theme, identifying the social, economic and environment vulnerabilities and possible resilience measures for each issue at the national/community, regional and global levels.

Step 2: Selection of Criteria:

(i) Selection of criteria for assessing vulnerability and resilience for each of the three issues identified in the first Step. For vulnerability, these criteria would reflect exposure to exogenous and endogenous risks in terms of the social, economic and environmental dimensions of sustainable development. For resilience, these criteria would reflect the country's coping capacity in terms of actions at the national, regional and global levels that address the potential social, economic and environmental impacts.

Step 3: Selection of Indicators:

(i) Selection of indicators for the criteria for each of the three major issues in terms of the social, economic and environmental vulnerabilities and the corresponding resilience measures that would address these social, economic and environmental vulnerabilities through actions at the national, regional and international levels.

Step 4: Assessment and rating:

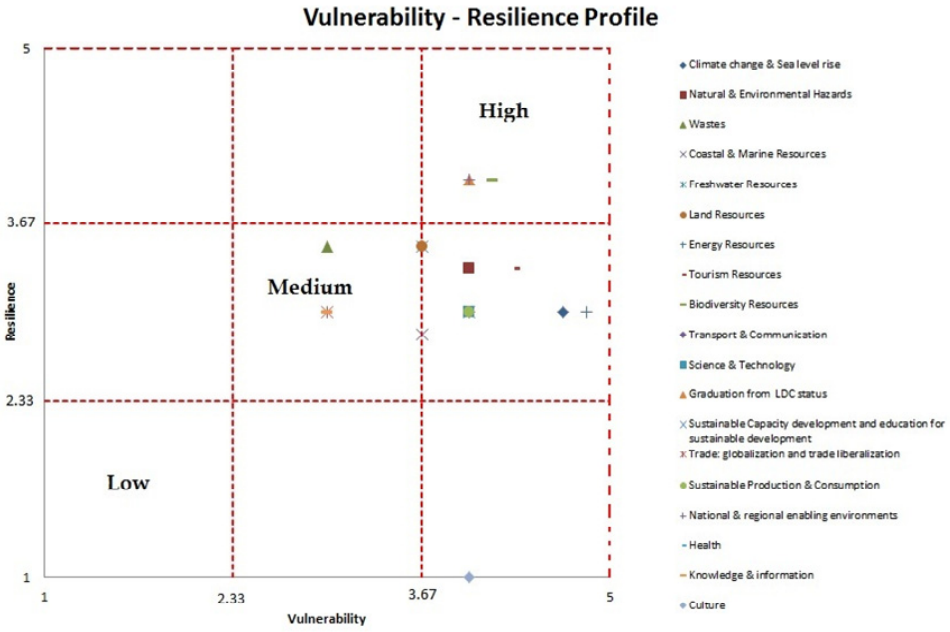
(i) Assessment of vulnerabilities and rating of coping measures to strengthen resilience for each issue, and using the criteria and indicators from steps 2 and 3 to arrive at vulnerability and resilience scores for each of the three major issues for each priority theme.

Step 5: Justification and mapping:

(i) Summarise the vulnerability and resilience scores for each of the priority themes of the MSI, using a narrative to justify the scores and to formulate a country vulnerability-resilience profile or VRP based on these overall scores.

These five steps would be carried out by each SIDS using an inclusive process based on multi-stakeholder and multi-disciplinary consultations. The VRP would enable each small island state to assess its vulnerabilities in each of the 19 thematic areas of the MSI and to rate its performance in strengthening its resilience for achieving sustainable development.

Example of a VRP for a hypothetical small island state



Source: United Nations (2013). Country Vulnerability Resilience Profile. Available from http://www.sids2014.org/content/documents/260attrdlu7.pdf.

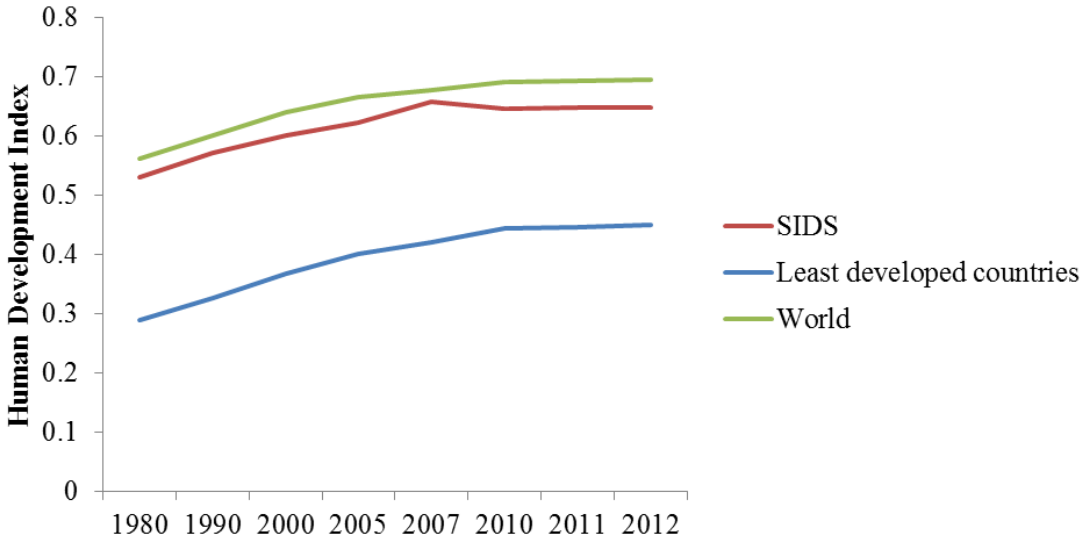
D. Developmental trends in the SIDS

Perhaps some of the most instructive indicators of the status of sustainable development in SIDS are reported in the United Nations' annual Human Development Reports and the numerous indices for the individual countries of SIDS.[15] The most recent data for SIDS are reported in Appendix table 2, while figure 3 illustrates how the Human Development Index (HDI) has improved over time for SIDS relative to all least developed counties (LDCs) and the world average.

The countries of SIDS are represented in all the categories of human development from "very high" to "low" levels. The AIMS and Caribbean countries are over represented at the "very high" and "medium high" levels while only one Pacific islands country, Palau, makes it into the "high" category. Countries from all of the groupings are found in the "medium" and "low" levels while Haiti is the only Caribbean country in the lowest state of human development.

[15] The Human Development Index (HDI) is a composite index measuring average achievement in three basic dimensions of human development; a long and healthy life, knowledge and a decent standard of living. See http://hdr.undp.org/en/media/HDR_2013_EN_TechNotes.pdf for details on how the HDI is calculated.

Figure 3. HDI values for SIDS, LDCs and the World, 1980-2012



Source: United Nations Human Development Report (2013). *The Rise of the South: Human Progress in a Diverse World.* New York.

As expected, the components of the HDI, life expectancy, mean years of education and gross national income (GNI) per capita, all descend as the countries move from "very high" to "low" human development. Life expectancy in the "low" HDI group is always under 70 years, the mean for all SIDS, with Guinea-Bissau at a distressing 48.4 years. Mean years of education are also especially low for most countries in this group and for some of the countries in the "medium" HDI group, falling below the mean of 7.3 years for all SIDS.

In table 2 in the appendix, the column denoting the difference between the ranking of GNI per capita and HDI illustrates how a high rank in the former (low income) can be compensated by a low rank (high human development) in the latter. For example, Cuba's and Tonga's relatively low incomes are offset by their high social indicators—life expectancy and education—so the differences are +44 and +26 respectively. Conversely, in those SIDS with relatively high incomes generated largely from exploiting mineral and other resources, for example, Trinidad and Tobago, Timor Leste and Papua New Guinea, the difference is negative because their high incomes have not helped to boost their social indicators.

Appendix table 3 examines some of the indicators relating to health status for the individual countries making up SIDS. For example, immunisation coverage for diphtheria, tetanus and pertussis (DTP) is quite extensive across all HDI levels, although there are laggards in the "low" group. Less extensive is the coverage against measles, with some countries in the "medium" HDI group at less than 70 per cent and some at less than 65 per cent in the "low" group. Indeed, measles coverage is slightly larger in LDCs as a whole than in SIDS.

While SIDS have made progress towards the health-related MDGs, there are still gaps in providing affordable, high-quality healthcare for all. Challenges remain in dealing with non-communicable diseases (NCDs), communicable diseases and environmental health; family planning, maternal, child and adolescent health; and improvement in health systems.

As the recently held Regional Preparatory meeting for Pacific SIDS recognised, the NCD crisis is not just a concern for the health of the people of the Pacific; it drains limited national budgets, reduces worker productivity, separates families and robs communities of leadership and wisdom, as adults suffer long-term illnesses and their lifespans are shortened. High childhood obesity rates in the Pacific, if not addressed, will cause a future health epidemic, which will be catastrophic for the future of the region. The meeting also expressed concern for the lack of secure sustainable funding to effectively address the constraints and opportunities necessary for curbing the NCD crisis and the lack of access to affordable, safe and quality medicine including diagnostic services.

There are very wide disparities in the maternal mortality ratio among LDCs and SIDS, with an overall mean for SIDS of 193, compared to an average of 394 for LDCs, and of 145 for the world as a whole. However, some of the countries in the "medium" HDI group have ratios in excess of 100, while at the low end of the "low" HDI group, four countries report a ratio in excess of 200. Of course, it should be noted that maternal mortality is a very rare event, and difficult to measure reliably, especially in such small populations as those of SIDS.

Reflecting the low profile of reproductive health, and the lack of "quality of care" that gives rise to these high ratios, are the very low numbers of physicians per thousand population amongst countries at the lower end of the "medium" HDI group and those in the "low" category. In contrast, almost all countries in the top two HDI levels have in excess of one doctor for every one thousand persons in the population. Meanwhile, rates of adolescent fertility, which partly reflect the access of younger women to reproductive health care, tend to be higher for countries with lower levels of HDI, although the relationship is less than perfect.

Superior health outcomes for the countries with higher measures of HDI partly reflect their higher absolute levels of expenditure on the health sector. While the shares of GDP spent on the sector are not radically different across HDI levels, those higher income countries spend significantly more per person than lower income countries

Appendix table 4 brings together indicators of educational attainment in SIDS. All countries have relatively high levels of adult literacy except for those towards the lower end of the "medium" HDI level and almost all in the "low" level who have close to or less than 60 per cent of adults who are literate. As expected, secondary and tertiary enrolments are positively related to a country's HDI status, which is also reflected in the proportion of adults who have attained secondary education. On the whole, the shares of primary school teachers who are untrained, as well as the primary school drop-out rate, are higher for those countries at the lower levels of the HDI.

E. ADDRESSING THE CHALLENGES: THE ICPD AND THE MDGS

The International Conference on Population and Development (ICPD) Programme of Action (PoA) addresses the cross-cutting issues of population and development strategies; poverty; migration; population structure and ageing; gender equality, equity and the empowerment of women; the family; the interdependence between productive and reproductive lives, sexual and reproductive rights, reproductive health, HIV and AIDS; and emerging issues such as climate change. It is very comprehensive and includes a number of objectives, actions and goals relating to a broad set of issues of population and sustainable

development. It places emphasis on national actions, international cooperation and partnership with NGOs, as well as the private sector, in implementing its roadmap. It calls for periodic reviews of progress by national governments and international organisations in the implementation of the PoA.

The ICPD PoA recommends a number of interdependent objectives and goals to be realised by 2015 and calls upon countries and development partners to take specific actions to attain them. The PoA and key actions adopted at various five-yearly ICPD reviews, calls upon countries to achieve the following goals:

- Universal access to reproductive health care, including family planning and sexual health by 2015 (ICPD PoA para 7.6);
- Halving the 1990 illiteracy rate for women and girls by 2005 (ICPD+5 para 35c);
- Enrolling 90 per cent of boys and girls in primary schools by 2010 and ensuring universal access to primary education by 2015 (ICPD PoA para 11.6 and ICPD+5 para 34);
- Reducing infant mortality to below 35 deaths per 1000 live births and under-five mortality to below 45 per 1000 by 2015 (ICPD PoA para 8.16);
- Reducing maternal mortality rates to half the 1990 levels by the year 2000, and by half again by 2015 (ICPD PoA para 8.21);
- Increasing life expectancy at birth to 75 or more by 2015; those countries with the highest levels of mortality should aim to attain at least 70 by 2015 (ICPD PoA para 8.5);
- Reducing the unmet need for contraception by half by 2005 and eliminating it altogether by 2015 (ICPD+5 para58);
- Ensuring that 60 per cent of primary health care and family planning facilities offer a wide range of services by 2005, including family planning, obstetric care and prevention and treatment of RTIs including STDs, and that 80 per cent do so by 2010 (ICPD+5para 53);
- Ensuring that 90 per cent of all births are assisted by skilled attendants by 2015 (ICPD+5 para 64);
- Reducing HIV infection in youth by a quarter by 2010; guaranteeing that 95 per cent of 15-24 year olds have access to information and services by 2010 to help them avoid HIV infection—including condoms, voluntary testing, counselling and follow-up (ICPD+5para 70);

In addition, it calls upon countries to:

- Raise the quality of life through population and development policies and programmes aimed at achieving poverty reduction and sustained economic growth in the context of sustainable development (ICPD PoA para 3.16); and

- Integrate population issues into formulation, implementation, monitoring and evaluation of policies and programmes relating to sustainable development (ICPD PoA para 3.5).

Most importantly, the ICPD PoA urges countries to adopt a rights-based approach in the provision of reproductive health, including family planning services that meet the needs of individuals and couples. To this effect, the PoA calls on countries to make accessible reproductive health to all individuals by 2015 through the primary health-care system (para 7.6).

The MDGs are derived from the Millennium Declaration, a Resolution of the United Nations General Assembly passed in September 2000. The Millennium Declaration was a reiteration and reinforcement of the values and principles of the United Nations and a call to intensify global efforts to eradicate extreme poverty and promote sustainable social and economic development. The eight goals and their statistical indicators were formally approved by the United Nations General Assembly in September 2001 and over the subsequent years they have provided a universal framework for addressing poverty and underdevelopment at the national level. Many developing countries have integrated the MDGs into their development programmes and many have prepared MDG reports describing their current level of achievement and their prospects for achieving the goals by the target date of 2015.

The goals are:

1. Eradicating extreme poverty and hunger
2. Achieving universal primary education
3. Promoting gender equality and empowering women
4. Reducing child mortality rates
5. Improving maternal health
6. Combating HIV/AIDS and halting and reversing its spread
7. Ensuring environmental sustainability
8. Developing a global partnership for development.

Although the MDGs did not originally contain a specific reference to population or "reproductive health", the close relationship between the MDGs and the ICPD PoA was apparent at the outset. On the one hand, some of the MDG targets for maternal health, child health and gender equality reflected similar or identical aims contained in the ICPD PoA. On the other hand, the ICPD PoA provides a wide range of recommended actions that governments could take to achieve the MDGs while also implementing the PoA. In 2005, the overlap between the MDGs and the ICPD PoA was further emphasised by the incorporation of "universal access to reproductive health by 2015" as a target under MDG5: improve maternal health.

Additionally, three of the four indicators to be used to measure progress toward this goal were derived from the ICPD PoA. There is a widely-held consensus that efforts to achieve the ICPD PoA will contribute to the achievement of the MDGs, either because the

goals overlap or because the strategies outlined in the PoA provide an effective means to achieve those MDGs focused on poverty, health, gender and sustainable development.

As the 2015 target date of the MDGs is approaching, a debate on the framework of international development beyond this date has started. In this vein, 192 United Nations Member States agreed at the 2012 Rio+20 summit to start a process of designing sustainable development goals, which are:

> …"action-oriented, concise and easy to communicate, limited in number, aspirational, global in nature and universally applicable to all countries while taking into account different national realities, capacities and levels of development and respecting national policies and priorities"…. (United Nations, 2012).

The Rio+20 outcome document, "The Future We Want", also calls for the goals to be integrated into the United Nations' post-2015 Development Agenda. Since Rio+20 did not elaborate specific goals, a 30-member Open Working Group (OWG) was established in early 2013 by a decision of the United Nations General Assembly. The OWG is tasked with preparing a proposal on the sustainable development goals (SDGs) for consideration during the sixty-eighth session of the General Assembly, from September 2013 to September 2014. The OWG uses a constituency-based system of representation, which means that most of the seats in the working group are shared by several countries.

The Rio+20 outcome document states that, "at the outset, the Open Working Group will decide on its methods of work, including developing modalities to ensure the full involvement of relevant stakeholders and expertise from civil society, the scientific community and the United Nations system in its work, in order to provide a diversity of perspectives and experience" (United Nations, 2012).

At the Rio+20 Conference, the heads of State and Government representatives renewed their commitment to the achievement of the internationally agreed development goals, including the MDGs by 2015. Central to these goals is the promotion of sustainable development, which would guarantee an economically, socially and environmentally sustainable future for the planet and for present and future generations. The eradication of poverty was recognised as the greatest global challenge facing the world today and an indispensable requirement for sustainable development. Commitment was made to free humanity from poverty and hunger as a matter of urgency and to further mainstream sustainable development and integrate economic, social and environmental aspects and their inter-linkages into the sustainable development planning process. The need to achieve sustainable development by promoting equitable economic growth and to create greater opportunities for all and reduce inequalities was reaffirmed. Also noted was the need to promote the sustainable management of natural resources and ecosystems that support, inter alia, economic, social and human development while facilitating ecosystem conservation, regeneration and restoration, and resilience in the face of new and emerging challenges.

In particular, commitment was made to take urgent and concrete action to address the vulnerability of SIDS, including through the sustained implementation of the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States and the Barbados Programme of Action. They underscored the urgency of finding additional solutions to the major challenges facing

SIDS so as to support them in sustaining momentum in implementing the Barbados Programme of Action and the Mauritius Strategy for Implementation.

Overall, much progress has been made in SIDS in achieving the quantitative goals of the ICPD PoA and the MDGs. However, because of the great diversity in the experience between the three groups of SIDS (Caribbean, Pacific and AIMS), as well as between the countries within each group, any general statement of "success" must always be qualified.

1. Population, sustained economic growth and sustainable development

The ICPD charges governments to:

> Raise the quality of life through population and development policies and programmes aimed at achieving poverty reduction and sustained economic growth in the context of sustainable development (ICPD PoA para 3.16); and
>
> Integrate population issues into formulation, implementation, monitoring and evaluation of policies and programmes relating to sustainable development (ICPD PoA para 3.5).

The integration of population policies and development strategies is central to the ICPD PoA. It argues that population-related factors should be integrated into the formulation, implementation, monitoring and evaluation of all policies and programmes relating to sustainable development.

Many SIDS countries are moving towards an integrated approach in addressing the interrelated issues of population, economic development, environment, climate change and urban development, through the formulation of national plans and policies. For example, in the Pacific islands, Papua New Guinea, Tuvalu and Vanuatu have formulated national population policies while the Solomon Islands and Samoa have policies in draft form. However, much more work is needed to ensure that all SIDS develop comprehensive population policies to provide coherent frameworks for national planning and programme development, and that countries have sufficient support from international donors for funding and technical assistance to implement these policies and programmes.

ICPD has been the foundation and the catalyst for efforts made by SIDS to incorporate population concerns into their development strategies. Many have formulated population policies, either explicitly or by the inclusion of population-related matters in other programmes. However, the extent to which population dynamics have been seriously addressed in such plans in SIDS has varied considerably, with the majority of countries paying only cursory attention to population matters in their national development strategies.

Those countries mentioned above with national population policies have usually established some form of a National Population Council to coordinate programmes and advise on or oversee population policy. In other countries, the MDG task force or its equivalent has performed the function of a National Population Council (UNFPA, 2013).

Issues regarding gender equality and empowerment of women, sexual and reproductive rights and health, population ageing and the position of older persons have all featured in the development plans of SIDS to some extent. Sustained economic growth, the relation between population and the environment and the impact of urbanisation and the growth of large urban

agglomerations have been addressed to an ever growing degree.[16] However, a major exercise remains to integrate existing sectoral policies into a comprehensive vision, with the resource implications of implementation fully accounted for. Understanding the linkages between population and socio-economic issues and sustainable development remains one of the principal research challenges. Local, national and regional capacity for data collection and their analysis, in order to identify the interrelationships between population and development, is limited in SIDS.[17] The availability of relevant and timely data is difficult to realise with the financial and staffing limitations facing these small countries.

2. Poverty reduction

The ICPD PoA maintains that sustained economic growth within the context of sustainable development is a prerequisite for poverty reduction. The complex interrelationships between population and the environment and their effect on poverty alleviation, are given prominence in the PoA. The United Nations Conference on Environment and Development (UNCED) and the resulting programme, Agenda 21, addresses these issues.

In the Caribbean, the relative advanced position of countries, in terms GDP per capita and the Human Development Index (HDI), does not preclude the existence of large pockets of poverty and social exclusion in the region (ECLAC/UNFPA, 2009). This situation is partly caused by poor economic growth, macroeconomic shocks and limited social services, all contributing to the persistence of poverty in certain sections of the society. Access to facilities and services is not easily available to all segments of the population in many countries, resulting in social exclusion and poverty for some.

Poverty alleviation programmes are threatened by the aftermath of the global financial and economic crises. While many governments are committed to poverty reduction and social development and have pledged that no financial cuts will be made, it is unlikely that budgets will be able keep pace with the amount of assistance required.

Poverty data in the Caribbean are limited and not timely while comparable time-series are unavailable. At the end of the 1990s, it was estimated that the percentage of persons living below the poverty line was around a third of the population in most of these countries. The latest figures show that those living below the national poverty line make up 18 per cent of the population in Antigua and Barbuda, 34 per cent in Belize, 40 per cent in Dominica, 38 per cent in Grenada, 35 per cent in Guyana, 10 per cent in Jamaica, 29 per cent in Saint Lucia, 30 per cent in Saint Vincent and the Grenadines, 66 per cent in Suriname, and 17 per cent in Trinidad and Tobago[18] (ECLAC/UNFPA, 2009). Therefore, efforts to address poverty has had limited success in the Caribbean region in recent times.

Poverty is of special concern to most of the AIMS countries, although its magnitude varies across countries in this group (UNOHRLLS, 2010). In Cabo Verde, the population

[16] Between 2000 and 2012, the urban share of the population in SIDS grew from 49 to 52 per cent. Correspondingly, the share of the urban population in all LDCs grew from 24 to 29 per cent (United Nations, 2013, table 14).

[17] Over many years UNFPA has provided financial and technical assistance for data collection, particularly for census enumerations and analyses.

[18] It is important to note that, as all countries have their own poverty line and figures refer to different periods, these data are not strictly comparable.

living under the poverty threshold was estimated at 37 per cent in 2002 and has not changed since. In 2004, the Government published a Poverty Reduction Strategy Paper (PRSP) to address poverty by focusing on the promotion of the tourism sector as a means of stimulating economic growth. In contrast, Bahrain has high levels of human development and is free from extreme poverty. In 2003, Comoros prepared a PRSP, and a 2005 update was complemented by an action plan for the period 2006-2009. The proportion of the population living below the poverty line[19] went down from 55 per cent in 1995 to 45 per cent in 2004. Most improvement came in the sectors of education and health, and to a lesser degree, in a reduction in the level of income poverty. The prevalence of HIV/AIDS has been kept under 1 per cent.

The reduction in poverty has been limited in Guinea-Bissau because of the lack of vigorous economic growth. In 2004, the government gave priority to the MDGs in its National Strategy Document for the Reduction of Poverty and enhanced the consistency of sectoral policies with a revision in 2006 to ensure a correct prioritisation of interventions.

In Mauritius, the incidence of absolute poverty is relatively low, although pockets still prevail in some suburban and coastal regions. Based on two Household Budget Surveys in 2001-2002 and 2006-2007, the proportion of people living in extreme poverty in Mauritius was estimated to be less than 1 per cent; 12 per cent of the population was estimated to be poor, based on a poverty benchmark calculated at 50 per cent of the median monthly household expenditure. The incidence of poverty was relatively higher among female-headed households, at 34 per cent, than among male-headed households, at 8 per cent. The incidence of poverty in rural areas was estimated at more than three times that of urban areas.

In 2001, 54 per cent of the population in São Tomé and Principe lived in poverty and 15 per cent in extreme poverty. The situation has been especially dire in rural areas, aggravating a rural exodus to urban centres. The country's response was to adopt its first PRSP in 2002, which was reviewed in 2005 to better align it with the MDGs. It is most unlikely that the goal of poverty eradication will be reached in the near future and poverty continues to be of major concern (UNOHRLLS, 2010).

For Seychelles, a household budget survey conducted in 2006/7, just prior to major economic reforms, indicated that 30 per cent of households were below the Basic Needs Poverty Line. Data are not available to show how these reforms have impacted on the level of poverty. However, it is projected that more families are living below the poverty line now than there were at the time of the previous BPOA national assessment in 2003 (UNOHRLLS, 2010).

In the Pacific region, perceptions of poverty have changed over recent years. Previously, Pacific Governments reluctantly accepted that poverty existed but found it difficult to measure, instead focusing on 'poverty of opportunity' to access education and health services and to obtain jobs in the formal economy. More recently, the global financial

[19] Among the indicators for monitoring the PRSP are: the percentage of the population living below the national poverty line; the rate of unemployment among young people of 25-34 years; the proportion of children who are underweight or who show insufficient growth for their age; the net primary school enrolment ratio; the ratio of maternal mortality; the rate of infant mortality; and the proportion of women in paid non-agricultural employment.

and economic crisis, together with the rapid urbanisation that has occurred over recent decades, has changed these perceptions.

The situation in the Pacific is one where poverty is rising, economic growth has been insufficient and inequitable. Not enough children complete secondary schooling and there are significant inequalities in the access to basic health care. The urbanisation of poverty has been a visible development in most countries, informal and unplanned squatter settlements have sprung up, particularly in the Melanesian countries but also in some of the smallest Polynesian and Micronesian countries, including Samoa, Tonga, Tuvalu, the Federated States of Micronesia and the Republic of the Marshall Islands.[20]

3. Climate change

In SIDS, the idea that sustainable development is primarily about environmental management has now changed. It has become recognised that a fresh emphasis is needed to move from policies focused on environmental protection to those that integrate environmental concerns with plans and initiatives for economic and social development. This has led to the enhancement of inter-ministerial planning and the participation of the private sector and non-governmental organizations (NGOs) in the process of strategy review and the development of plans. However, inter-agency or cross-sectoral coordination remains a challenge in most SIDS.

Many Pacific Island governments have struggled to keep pace with the consequences of population growth and increased urbanisation, especially as it occurs in low-income settlements. The 2011 annual report of the Secretariat of the Pacific Regional Environment Programme (SPREP), for example, stated that:

> "Many of the governments in the region still do not classify waste management as a key development priority, as shown by the lack of prominence in national development strategies…. Climate change is the key sustainable development challenge for Pacific island countries. Climate change risks in the region are wide-ranging and can be substantial, especially for low-income and disadvantaged groups. A coordinated approach is required to effectively and efficiently manage these risks" (SPREP, 2011).

Challenges to the small islands and coastal states of the Caribbean were highlighted in the Port of Spain Declaration on Population and Development (1993) in preparation for the 1994 Cairo conference. The Organisation of Eastern Caribbean States' (OECS) Environment and Sustainable Development Unit (ESDU) coordinates environmental activities on behalf of the OECS' Secretariat and is an important subregional initiative to ensure the sustainability of the livelihoods of the peoples of the OECS.

To address such challenges, several countries in the Caribbean region have increased areas under environmental protection. Protection of coral reefs is of special concern in order

[20] Often described as the largest slum in the Pacific is the island of Ebeye in the Marshall Islands, with a land area of only 0.23 square kilometres, and a resident population of 9,300 persons, resulting in a population density of over 40 thousand inhabitants per square kilometre. In comparison, Macau has a population density of over 20 thousand and Monaco of over 18 thousand per square kilometre.

to protect the unique under-water biospheres of the Caribbean. The relationship between the environment and poverty is more direct in the case of waste, pollution and erosion. In general, the poor live on the fringes of urban centres, often in slums or informal settlements, and are most strongly affected by these negative impacts.

The countries in the AIMS group, among the poorest in the world, are net food and net energy importing countries and the global energy and food crisis and volatility of food prices have aggravated their socio-economic situation. As a result, they all face many challenges in terms of attaining economic development and environmental preservation. In response they have sought to overcome them by enhancing progress in various socio-economic sectors. They recognise that the greatest natural threat to their sustainable development is climate change and sea level rise. They have developed and strengthened National Strategies and Plans to drive the processes of sustainable development, including the eradication of poverty and improvement in the livelihoods of their people, through enhancing their resilience and capacity to address their unique and particular vulnerabilities.

Almost all of them have experienced some progress, albeit at varying degrees, with actions called for in the Mauritius Strategy. An Intergovernmental Oceanographic Commission (IOC) Climate Change Adaptation programme is being implemented to address climate change issues. Following the devastating tsunami of December 2004 in the Indian Ocean, an Indian Ocean Tsunami Warning and Mitigation System has been put in place under the aegis of the IOC of the United Nations Educational, Scientific and Cultural Organization (UNESCO). Cooperation with the Pacific Tsunami Warning Centre (PTWC) from the United States of America and the Japan Meteorological Agency (JMA) had been established. Many are participating in the United Nations Environment Programme-Global Environment Facility (UNEP-GEF) project "Addressing land-based activities in the Western Indian Ocean" (WIO-Lab) to address marine pollution.

Various national and regional initiatives have been taken to enhance the development of coastal and marine resources. The process to develop renewable sources of energy, in order to reduce their dependence on imported fossil fuel, has been initiated. Tourism development is being diversified to attract more visitors. Transport and communications, the lifelines linking AIMS with the outside world, have been considerably improved and modernised. However, in the last couple of years, the global energy, food and financial crises have slowed the progress with the poorest countries such as Comoros, Guinea-Bissau and São Tomé and Principe being most affected. According to the MDGs report (2009), because of the economic crisis, progress towards meeting the goals is now threatened by sluggish, even negative economic growth as a consequence of diminished resources, fewer trade opportunities and aid flows from donor countries.

At the recent Regional Preparatory Meeting of the AIMS SIDS (Mahe, Seychelles, July 2013) participants stressed the importance of the sustainable use of oceans and the need to strengthen ocean governance. In particular, reversing decreasing fish stocks will promote food security, and the conservation of coastal and marine ecosystems will be important for maintaining carbon sinks. AIMS SIDS called on partners to provide adequate assistance to enable the SIDS fishing and related industries to benefit from a greater share of the total catch and value, in particular for highly migratory species.

The AIMS SIDS expressed deep disappointment at the non-replenishment of the Climate Adaptation Fund and called on development partners to address, as a matter of

priority, its recapitalisation. They called for the early fulfilment of pledges made in respect of the Green Climate Fund.

4. Sexual and reproductive rights

The ICPD PoA, echoed by the MDGs, proposes:

(i) Ensuring that 60 per cent of primary health care and family planning facilities offer a wide range of services by 2005, including family planning, obstetric care, and prevention and treatment of RTIs including STDs, and that 80 per cent do so by 2010 (ICPD+5 para 53);

(ii) Ensuring that 90 per cent of all births are assisted by skilled attendants by 2015 (ICPD+5 para 64);

(iii) Reducing HIV infection in youth by a quarter by 2010; guaranteeing that 95 per cent of 15 to 24 year olds have access to information and services by 2010 to help them avoid HIV infection—including condoms, voluntary testing, counselling and follow-up (ICPD+5 para 70).

The ICPD PoA brings a great deal of focus to delineate sexual and reproductive rights. Sexual rights comprise the rights of all people to decide freely and responsibly on all aspects of their sexuality, including protecting and promoting their sexual health, being free from discrimination, coercion or violence in their sexual lives and in all sexual decisions, and to expect and demand equality, full consent, and mutual respect and shared responsibility in sexual relationships. Reproductive rights embrace the rights of couples and individuals to decide freely and responsibly the number and spacing of their children, to have the information, education and means to do so, attain the highest standards of sexual and reproductive health, and make decisions about reproduction free from discrimination, coercion and violence.

There has been little analysis of the potential benefits and costs of increasing access to family planning in SIDS. It might be that this lack of hard, empirically-based evidence has contributed to the inadequate prioritisation and funding for family planning and the slow progress towards universal access to reproductive health in SIDS. A recent exercise by Kennedy and others (2013) modelled the costs and associated health, demographic and economic benefits of reducing unmet need for family planning between 2010-2025 in Vanuatu and the Solomon Islands. Baseline data were obtained from census reports, Demographic and Health Surveys and United Nations agency reports. Using a demographic modelling programme the authors compared a scenario of "no change in unmet need" with two distinct scenarios: 1) all family planning needs met by 2020; and 2) all needs met by 2050.

Their results showed that, by meeting family planning needs by 2020, this would increase the prevalence of modern contraception in 2025 from 38 to 66 per cent in Vanuatu and from 29 to 38 per cent in the Solomon Islands. The average annual number of unintended pregnancies during the period 2010-2025 would fall by 68 per cent in Vanuatu and by 50 per cent in the Solomon Islands, and high-risk births would fall by more than 20 per cent, averting 2,573 maternal and infant deaths. Total fertility rates would also fall in Vanuatu and in the Solomon Islands, contributing to slowed population growth and lower dependency

ratios. The direct cost of reducing unmet need by 2020 was estimated to be $5.19 million for Vanuatu and $3.36 million for the Solomon Islands. Preventing unintended pregnancies would save $112 million in health and education expenditure. Therefore, in SIDS such as Vanuatu and Solomon Islands, increasing investment in family planning will contribute to a fall in unmet need, improved maternal and infant outcomes and substantial public sector savings.

Meanwhile, much has been achieved in SIDS in advocating for the rights agenda. Several countries have introduced Family Life Education (LFE) school-based sexuality, reproductive health and HIV education at primary and secondary levels. It has been recognised that it is equally important to target the out-of-school youth populations with messages relating to sexual and reproductive health and rights, as this group generally lacks adequate and accurate information.

The focus on adolescents and youth is to ensure that they access information and services on sexual and reproductive health, HIV and AIDS prevention in a friendly and non-threatening space. Hence, the emphasis is on establishing youth-friendly spaces at the community level. These spaces offer information and services in the areas of adolescent sexual and reproductive health, gender, career guidance, life skills/personal development, income-earning skills, recreation and information and technology.

5. Health and reproductive health

The key charges here from the ICPD PoA are to bring about:

(i) Universal access to reproductive health care, including family planning and sexual health by 2015 (ICPD PoA para 7.6);

(ii) Reducing infant mortality to below 35 deaths per 1000 live births and under-five mortality to below 45 per 1000 by 2015 (ICPD PoA para 8.16);

(iii) Reducing maternal mortality rates to half the 1990 levels by the year 2000, and by half again by 2015 (ICPD PoA para 8.21);

(iv) Increasing life expectancy at birth to 75 years or more by 2015; those countries with the highest levels of mortality should aim to attain at least 70 years by 2015 (ICPD PoA para 8.5);

(v) Reducing the unmet need for contraception by half by 2005 and eliminating it altogether by 2015 (ICPD+5 para58);

(vi) Ensuring that 60 per cent of primary health care and family planning facilities offer a wide range of services by 2005, including family planning, obstetric care, and prevention and treatment of RTIs including STDs, and that 80 per cent do so by 2010 (ICPD+5 para 53);

(vii) Ensuring that 90 per cent of all births are assisted by skilled attendants by 2015 (ICPD+5 para 64).

Furthermore, three of the MDGs are related to sexual and reproductive health:

(i) Promoting gender equality and empowering women

(ii) Reducing child mortality rates

(iii) Improving maternal health

Chapter 6 of Agenda 21 recognises the close dependency of human health on a healthy environment and provides a list of priority actions. Although some SIDS have implemented relevant activities, the overall improvement in the health of their populations continues to slow down. In many cases, the health conditions of vulnerable groups, such as poor women and children, have actually deteriorated (United Nations, 2005).

An important determinant of a nation's health status is its citizens' access to safe drinking water and sanitation. One of the MDGs' targets is to halve the proportion of people without sustainable safe drinking water by 2015. There are significant disparities among the regions with regard to access to improved drinking water and sanitation facilities, with the Caribbean region having achieved the highest levels among SIDS, and the AIMS region lagging behind, though improving more rapidly in recent years. On the basis of 21 SIDS with complete data sets, 8 have already attained the target, 3 are "on track" and 10 are "off track", showing a rate of progress of 52 per cent. Of the 34 SIDS with data for 2004, 10 million people lacked safe drinking water, 86 per cent of whom come from just 5 countries, Haiti (35 per cent), Papua New Guinea (32 per cent), Cuba (9 per cent), Guinea-Bissau (6 per cent) and Fiji (4 per cent) (Roberts, 2011, p. 244). Some countries, such as Comoros, Maldives and Samoa, show a reverse trend for access to safe drinking water, while Haiti and the Federated States of Micronesia have seen a worsening of access to improved sanitation facilities.

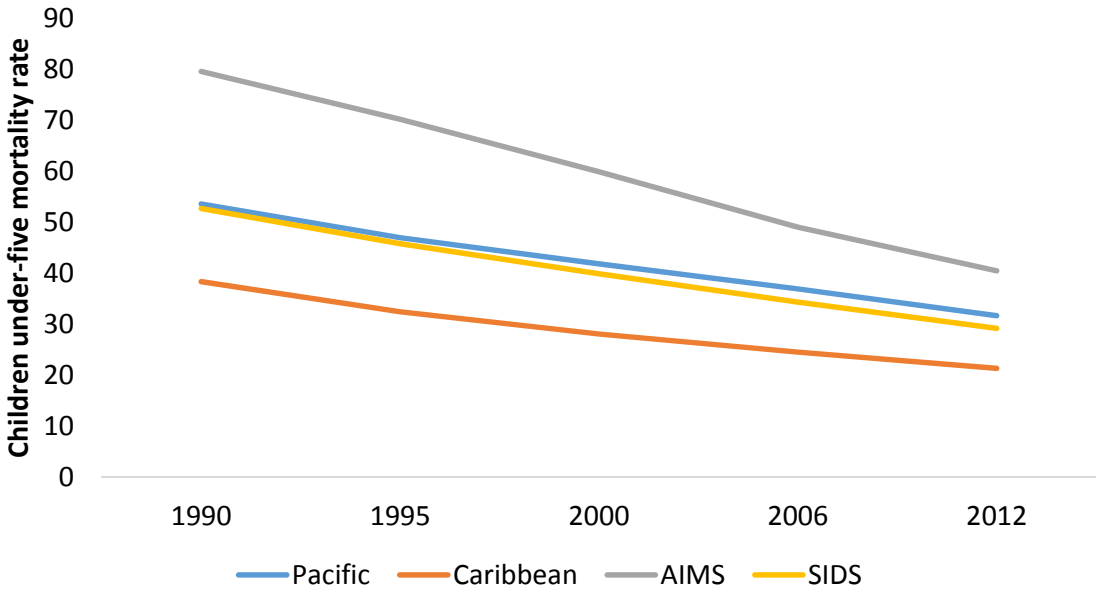
Reproductive health, which is defined as the state of complete physical, mental and social well-being, and not merely the absence of reproductive disease or infirmity, addresses the reproductive processes, functions and systems at all stages of life.

Significant gains in reducing infant and child mortality have been made in all SIDS, as illustrated in tables 1 and 2 above and figure 4 below. The most dramatic declines have occurred in the AIMS SIDS including Maldives, which lowered its infant mortality rate from 114 to 12 over a 30 years period, and its child mortality rate to 18 per 1,000 live births, less than a third of its 1990 rate of 94. Guinea-Bissau (168), Comoros (100) and Haiti (81) had the highest rates of child mortality among SIDS in 2005-2010 (United Nations, 2013).

The SIDS are likely to meet the PoA target of reducing the overall infant mortality rate (IMR) to below 35 by 2015, as it is projected to be 32 in the period 2010-2015 (United Nations, 2013). However, seven countries are projected to have an IMR above the target including Comoros (67), Guinea-Bissau (94), Haiti (40), Papua New Guinea (48), São Tomé and Principe (44), Solomon Islands (38) and Timor Leste (39). The SIDS as a whole will meet the PoA target of reducing the child mortality rate below 45 by 2015 since it is projected to be 45 around that date (United Nations, 2013). However, the same countries listed above, and Kiribati (42) are expected to fall short of meeting this target.

The task of reducing the 2000 level of the maternal mortality ratio (MMR)[21] by half by 2015 will be challenging, as revealed by the data in appendix table 3 and portrayed in figure 5. From the pattern of change between 2000 and 2010, the following countries are on track to meet the target: Belize (MMR to fall from 100 to 53), Cape Verde (from 170 to 79), Maldivas (from 190 to 60), Singapore (from 15 to 3) and Timor Leste (from 610 to 300). Countries that have seen a decline in the MMR but are likely to miss the target are Bahamas (from 56 to 47), Guinea-Bissau (from 970 to 790); Papua New Guinea (from 310 to 230), Solomon Islands (from 120 to 93) and Vanuatu (from 120 to 110). The following countries have observed a rise in their MMR, a surprising result, which raises some doubt about the accuracy of the data that are notoriously difficult to collect and interpret, especially in small populations with few maternal deaths: Mauritius (from 28 to 60), Cuba (from 63 to 73), Jamaica (from 83 to 110), and Guyana (from 220 to 280).[22]

Figure 4. Under-five mortality rates for SIDS, 1990-2012



Source: United Nations (2013) Millennium Development Goals database available from http://unstats.un.org/unsd/mdg/Data.aspx (accessed October 2013).

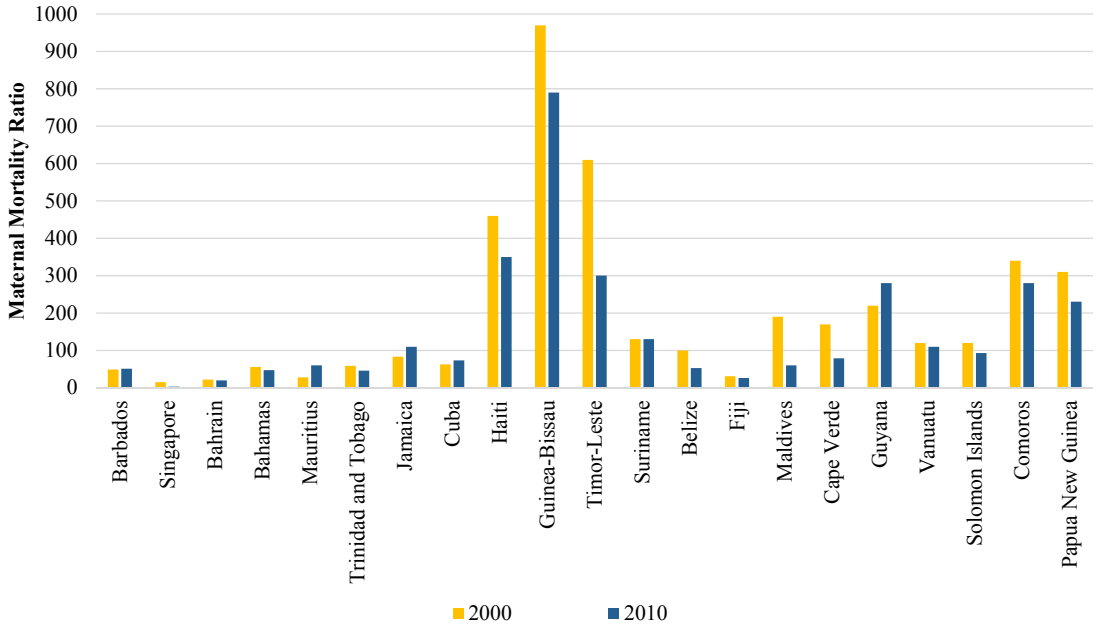
Reproductive health includes family planning, infertility management, cervical and breast cancer prevention and treatment, prostate cancer prevention and treatment, unsafe abortion prevention and treatment, attendance of births by skilled health professionals, including pre-natal services, safe delivery of babies and post-natal services. These services encourage

[21] Maternal mortality ratio is defined as the ratio of the number of maternal deaths to the number of live births in a given year, expressed per 100,000 live births.

[22] Data were computed to ensure comparability across countries and are thus not necessarily the same as official country statistics, which may be based on alternative rigorous methods. Data are rounded according to the following scheme: less than 100, no rounding; 100–999, rounded to the nearest 10; and greater than 1,000, rounded to the nearest 100.

women to exercise their reproductive rights and to practice healthy life styles during pregnancy. Reproductive health is not only a major health issue, but also a means to including pre-natal services, safe delivery of babies and post-natal services. A key component of reproductive health at present is the integration of HIV and AIDS services and programmes into family planning and other reproductive health activities. Reproductive health is also a means to sustainable development as well as a human right (UNFPA, 2005). There is a clear linkage between Millennium Development Goal 5 and the reproductive health goals of ICPD.

Figure 5. Maternal mortality ratios for selected SIDS, 2000 and 2010



Source: United Nations (2013) Millennium Development Goals database available from http://unstats.un.org/unsd/mdg/Data.aspx (accessed October 2013).

As tables 1 and 2 illustrate, there have been significant decline in fertility in all SIDS. In most Caribbean countries, adolescent fertility has been declining although reductions in their fertility rates have been less than among other age groups. Available, but limited evidence, points to increases in the Contraceptive Prevalence Rate (CPR) in some SIDS in recent times. For example, between 1990 and 2005-2010, the CPR for married women age 15-49 years increased from 56 per cent to 73 per cent in the Dominican Republic and from 10 per cent to 32 per cent in Haiti (World Bank, 2012). Reported CPRs in 2005-2010 range from 78 per cent in Cuba, 72 per cent in Jamaica, 43 per cent in Trinidad and Tobago, 22 per cent in Timor Leste (down from 25 per cent in 1990) and 14 per cent in Guinea-Bissau (World Bank, 2012).

Some progress has been made as more individuals have become empowered to make decisions on sexual and reproductive health issues and have, in turn, attained the means to exercise their choices. In the Caribbean region, there is the right of choice and the somewhat

unrestricted use of contraceptives, as well as the advanced development of family planning programmes and services, which are ably supported financially by some Caribbean governments and international organisations such as the International Planned Parenthood Federation (IPPF) and the United Nations Population Fund (UNFPA). However, this is an area were the scarcity of data represents a serious setback to any analysis. With the exception of Jamaica, where the National Family Planning Board conducts Reproductive Heath Surveys every five years, detailed contraceptive prevalence studies have been absent in the region since the early 1990s, or, at best, fragmented in a multitude of small scale surveys. Most recently, the United Nations Children Fund (UNICEF) sponsored Multi-Indicator Cluster Surveys (MICS), focusing mainly on women 15-24 years of age.

What evidence there is, still points to high unwanted fertility in SIDS, particularly among the poor, suggesting a high level of unmet need for family planning services and to the persistence of factors limiting the exercise and enjoyment of basic human rights, in particular, reproductive rights. For example, estimates of unmet need are 38 per cent of married women aged 15 to 49 years in Haiti, 31 per cent in Timor Leste, 27 per cent in Trinidad and Tobago, 25 per cent in Guinea-Bissau, 11 per cent in the Dominican Republic and 8 per cent in Cuba (World Bank, 2012). In Jamaica, indications are that there is a high unmet need, estimated to be 22 per cent, at the same time as the CPR is a high 67 per cent. This enigma suggests that different categories of women are lacking access to sexual and reproductive health services, including methods of family planning.

Sexual and reproductive health (SRH) issues have received considerable attention by Pacific island governments and development partners since the ICPD in 1994. Substantial resources, both human and financial, have been devoted to building capacity and delivering services to more communities. Whereas achievements have been made, challenges remain, simply because of the geography of the Pacific and the small, scattered populations making economies of scale difficult to achieve. For example, there is an identified need in the region for better quality health services, which are readily available, accessible and culturally acceptable.

All countries in the Pacific have been addressing the ICPD issues on sexual and reproductive health and rights, and overall, access has been improving for women and adolescents. Policies to improve SRH and upgrade institutional arrangements have been designed in order to implement these programmes. Ten countries have conducted situation analyses on sexual and reproductive health and rights at the national or subnational levels, mostly relying on Demographic and Health Surveys (DHS). Many countries have made SRH an integral part of primary health care while referral mechanisms and guidelines have been developed. In addition, data have been disaggregated by age and sex while health personnel have received training on the elimination of stigma, sexual and reproductive health and rights, and HIV.

Despite this apparent success, however, there is a large scatter of reported CPRs among the Pacific countries, from a high of 56 per cent in the Federated States of Micronesia to the low of 21 per cent in Kiribati and 17 per cent in Palau (Robertson, 2009). Firm estimates of the unmet need for contraception have been limited because few DHS and Reproductive Health Surveys (RHS) have been conducted. This lacuna has been corrected recently and the results of the latest DHSs suggest that the unmet need for family planning is high in most of the region, ranging from 46 per cent in Papua New Guinea to 28 per cent in Kiribati, and 24 per cent in both Tuvalu and Vanuatu. Robertson (2009) concludes for the Pacific:

> Key indicators of family planning success have shown little improvement to the extent expected in recent years. The "unmet need" for family planning is high; contraceptive prevalence rates remain relatively low in several countries and may have stalled or decreased in others; women in several Pacific countries are still having more than four children on average; and teenage fertility rates remain persistently high in several countries. A paradigm shift in policy and programming innovations to address access and utilisation barriers is needed in all countries (Robertson, 2009).

Even less success has been achieved in serving the SRH needs of the teenage populations where rates of unintended pregnancies are high (see Appendix table 3, which reports adolescent fertility rates). Kiribati and Solomon Islands report high teenage fertility rates while those for the Marshall Islands (138) and Vanuatu (92) are among the world's highest (Robertson, 2009). Such outcomes result from low contraceptive use, low levels of knowledge, unsafe sexual behaviour and the lack of empowerment among young women.

6. HIV/AIDS

The key charges from the ICPD are:

(i) Reducing HIV infection in youth by a quarter by 2010; guaranteeing that 95 per cent of 15-24 year olds have access to information and services by 2010 to help them avoid HIV infection—including condoms, voluntary testing, counselling and follow-up (ICPD+5 para 70);

and from the MDGs:

(ii) Combating HIV/AIDS and halt and reverse its spread by 2015.

The principal objectives of the ICPD PoA with respect to HIV and AIDS are to prevent the further spread of HIV infection and to minimise its impact, and to ensure that HIV-infected individuals have adequate medical care and are not discriminated against.

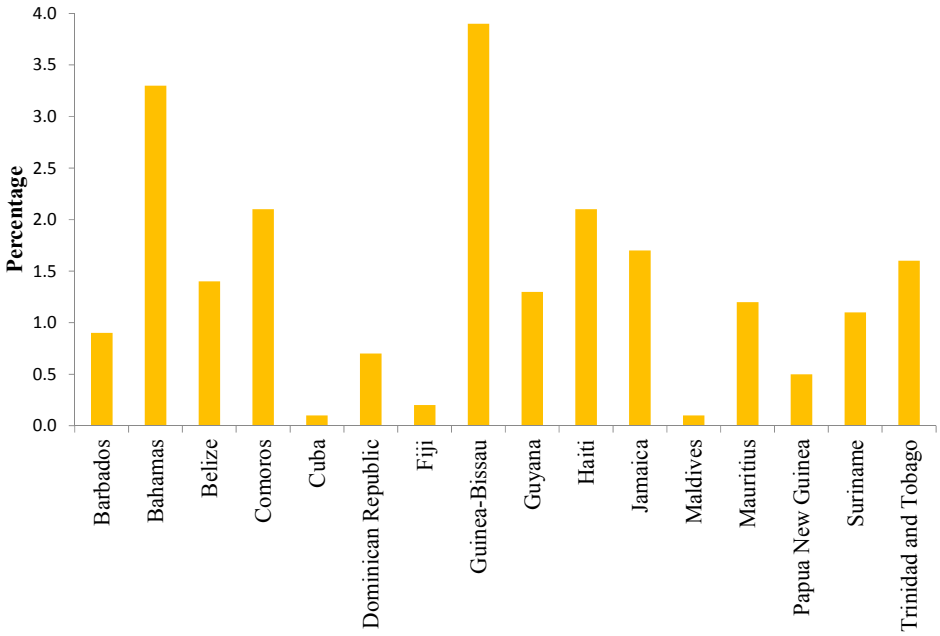
Figure 6 reports on the HIV prevalence rate in selected SIDS in 2012 (UNAIDS, 2013). Latest values range from a low of 0.1 per cent prevalence in Maldives to highs of 3.9 per cent in Guinea-Bissau and 3.3 per cent in the Bahamas. The highest SIDS value is well below the average for sub-Saharan Africa of 4.7 per cent, which is insignificant compared to reported rates for Botswana (23.0 per cent), Lesotho (23.1 per cent) and Swaziland (26.5 per cent).

The Caribbean is the second region most affected by HIV and AIDS in the world with the prevalence of 1 per cent in 2012 (UNAIDS, 2013). It was currently estimated that over 250,000 persons are living with HIV in the region. There were 12,000 new HIV infections in 2012, showing a 46 per cent decline in the number of new infections from 25,000 in 2001. An estimated 72 per cent of people eligible for antiretroviral therapy (ART) were receiving it by the end of 2012. In countries with a generalized epidemic (HIV prevalence of 1 per cent or greater), there were considerable variation in the coverage ranging from 74 per cent in Bahamas to 63 per cent in Haiti.

The Pacific SIDS have not been insulated from the HIV pandemic as figure 6 demonstrates. Evidence indicates high knowledge but low usage of condoms by the youth of the region. While HIV prevalence rates are currently low, they can be expected to rise in the

future as there are rising levels of sexually transmitted infections among youth (Nii-K Plange, 2009).

Figure 6. HIV prevalence rates for persons aged 15-49 years, for selected SIDS, 2012



Source: UNAIDS 2013 report on the global AIDS epidemic (2013). Available from http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2013/gr2013/GR2013_HIV_Estimates_AnnexTable.xls.

Among six AIMS countries with available information in 2012, four countries had the prevalence of 1 per cent or greater, namely: Comoros (2.5 per cent); Guinea-Bissau (3.9 per cent); Mauritius (1.2 per cent); and São Tomé and Principe.

7. Education

The ICPD PoA, echoed by the MDGs, proposes:

(i) Halving the 1990 illiteracy rate for women and girls by 2005 (ICPD+5 para 35c);

(ii) Enrolling 90 per cent of boys and girls in primary schools by 2010 and ensuring universal access to primary education by 2015 (ICPD PoA para 11.6 and ICPD+5 para 34).

Progress toward achieving universal primary education has been mixed in SIDS. General literacy is high in the Caribbean but remains a challenge in the Pacific and in parts of the AIMS region. For example, those SIDS with less than 90 per cent adult literacy include Dominican Republic (89 per cent), São Tomé and Principe (89 per cent), Jamaica (87 per cent), Cabo Verde (84 per cent), Vanuatu (83 per cent), Comoros (75 per cent), Papua New Guinea (61 per cent), Timor Leste (58 per cent), Guinea-Bissau (54 per cent) and Haiti (49 per cent) (United Nations, 2013).

Consistent data on primary level education rates for SIDS are quite scarce. Countries with above 95 per cent net primary enrolment during 2009-2010 include Cuba, Dominica, Fiji, Grenada, Maldives, Samoa, São Tomé and Principe and Trinidad and Tobago (UNESCO, 2012). World Bank data show those SIDS with less than 85 per cent primary education completion around 2005-2010, which include Jamaica (73 per cent), Belize (72 per cent for females), Guinea-Bissau (68 per cent overall; 54 per cent for females) and Timor Leste (65 per cent) (World Bank, 2013). Meanwhile, UNESCO data show Suriname increased its net primary enrolment rate between 2008 and 2011 from 89 to 92 per cent for males and from 88 to 93 per cent for females; the Dominican Republic from 85 to 93 per cent for males and from 87 to 91 per cent for females; St Kitts and Nevis from 82 to 86 per cent for males and from 83 to 89 per cent for females; and Timor Leste from 74 to 91 per cent for males and from 73 per cent to 91 per cent for females. Declines were reported for Antigua and Barbuda 92 to 87 per cent for males and 90 to 85 per cent for females; and St Lucia from 93 to 88 per cent for males and from 92 to 88 per cent for females (UNESCO, 2012).

Progress has been made at the tertiary level with the operation and expansion of the University of the West Indies and the University of the South Pacific, and, in recent years, new higher education institutions have appeared.

8. Population ageing

The ICPD PoA stresses the need for enhancing the self-reliance of older persons and the creation of conditions that promote their quality of life and that enables them to work and live independently in their own communities as long as possible, or as desired. Additionally, it advocates for the development of systems of health care as well as for systems of economic and social security in old age. At the same time, the need to develop a social support system, both formal and informal, with a view to enhancing the ability of families to take care of older persons within the family, is stressed. The proclamation of the International Year of Older Persons in 1999 recognised older persons as equal subjects of their own development and participants in all spheres of social life. In 2002, the Madrid International Plan of Action on Ageing came into being ("Madrid Plan"). This milestone meant a shift from the goal of protecting older persons towards promoting their empowerment and their full participation in all spheres of their lives.

As tables 1 and 2 above demonstrate, total age dependency ratios are currently at an historic low in SIDS, falling from 117 to 81 over the period 1980 to 2010.[23] Overall dependency ratios are similar to the more developed regions of the world, in which the burden is more or less equally distributed between the young and old. However, age dependency in the SIDS countries is still predominantly concentrated on the young who are the largest dependent group. Overall, Old-age dependency has risen slightly over the last few years in SIDS, albeit, less so in Melanesia and Micronesia in the Pacific group and actually fallen in the AIMS countries of Cabo Verde, Comoros, Guinea-Bissau and São Tomé and Principe, where fertility and mortality have fallen the least.

Ageing will continue in SIDS but is expected to converge at some future date. The speed at which a population ages depends on where the country is in the demographic transition, as it graduates from a state of high to low fertility and mortality. Those SIDS that are more advanced in the transition: Mauritius, Maldives, Singapore and most of the

[23] Guinea-Bissau is the exception, partly because of its high fertility rate.

Caribbean countries, already have significant numbers of their populations in the older age groups. As populations age, the share of the 'oldest old', those 80 years or over, will continue to increase.

As the demographic transition proceeds in SIDS, cohorts move up the age pyramid and the share of persons above retirement age grow markedly. Increased old-age dependency will require an increase in spending on social pensions and health care. Governments need to take advanced and responsive action in anticipation of their ageing populations in order to safeguard a decent future for their elderly. To mitigate rising costs, good planning and proper policies that can reduce the negative effects of ageing must be implemented. Many countries in the Caribbean region now have some kind of non-contributory social pension or safety net programme. Although they give older persons some kind of independence and alleviation from abject poverty, they are not sufficient for a decent livelihood in retirement (ECLAC/UNFPA, 2009).

Awareness of governments of the need to formulate responsive policies to accommodate their increasing ageing populations has been limited in the Pacific SIDS. Of the 11 countries that reported to the United Nations in 2007on their population policies, 7 did not respond to the question on ageing while the remaining 5 described ageing as a "minor concern", including 1 that is among the fastest ageing countries in the region (Hayes, 2009). In three country studies, institutional arrangements for policy-making and programming to address the problem of ageing were found to be weak (Hayes, 2009). In Samoa and the Marshall Islands, such institutions were found to be non-existent while a skeleton framework in Fiji plays no major role in policy formulation, programme coordination or in giving direction to research on ageing.

In the Caribbean countries that have estimated national poverty lines, incomes provided to the elderly are far below the levels determined. Therefore, further efforts in poverty reduction among the growing older populations are needed. Relative costs of social pensions and health will, together with the old-age dependency, increase steadily. Contributory pension schemes are therefore needed to complement them. Coverage of pensions for government and higher income groups is in general adequate, but incorporating lower income groups, the self-employed and those working in the informal economy remains a challenge. Women are often found in the informal economy with a short working history and are in a more vulnerable state. Unfortunately, government initiatives to address the problem will be limited in the near term, given the current financial crises and the large current account deficits and government debts in many countries.

The International Labour Organization (ILO) has conducted a series of studies in some of the Pacific island countries to assess the overall social security situation, including health care and retirement coverage and benefits. The main conclusion was that there is a serious unmet need for social security in SIDS, where coverage is too low and benefits are inadequate (Hayes, 2009). The major source of retirement income comes from a contributory provident fund, only covering those in the formal economy. Even these retirees may have withdrawn significant amounts of their contributions during their working years to cover children's education or housing costs, leaving many retire with insufficient pensions to enjoy retirement. Therefore, expanding the coverage and improving the scale of old-age benefits, in the light of ageing populations, is a major challenge yet to be addressed by many SIDS in the Pacific.

Only a few of the countries in the AIMS group have been inclined to address the population ageing issue since child dependency is often paramount. Maldives, Mauritius and Singapore are well into their demographic transitions and have addressed the ageing issue. Pressure on social security and health services, including the pension scheme for retired officials, has induced Mauritius to raise the retirement age for public servants from 60 to 65, a policy that may need to be considered by other SIDS in the near future.

9. Gender equality, equity and the empowerment of women

The theme of Chapter IV of the ICPD PoA is that the empowerment of women and improvements in their societal status are important goals in themselves and are essential for the achievement of sustainable development. It also argues that greater equality for the girl child is a necessary first step in ensuring that women realise their full potential and become equal partners in development. The PoA further acknowledges that women cannot achieve gender equality and sexual and reproductive health without the cooperation and participation of men.

Meanwhile, the MDGs are founded on two premises: 1) that gender equality is a stand-alone aspiration to which countries should commit; and 2) that gender equality should be aimed for in the pursuit of all the other goals and targets. It is widely acknowledged that achieving gender equality is the key to achieving the other seven goals. There are three dimensions of gender equality and women's empowerment that the MDGs monitor: education; employment and public participation in decision-making.

TABLE 5. GENDER INEQUALITY INDEX

Countries/Regions	***Rank of Gender inequality index***	***Value of index***
Netherlands	1	0.045
Sweden	2	0.055
Caribbean Countries		
Trinidad and Tobago	50	0.311
Bahamas	53	0.316
Barbados	61	0.343
Cuba	63	0.356
Belize	79	0.435
Jamaica	87	0.458
Suriname	94	0.467
Guyana	104	0.490
Dominican Republic	109	0.508
Haiti	127	0.592
Pacific Countries		
Tonga	90	0.462
Papua New Guinea	134	0.617
AIMS Countries		
Bahrain	45	0.258
Maldives	64	0.357
Mauritius	70	0.377
LDCs		0.566
SIDS		0.481
World		0.463

Source: United Nations Development Programme (2013) *Human Development Report 2013; the Rise of the South; Human Progress in a Diverse World*. (Table 4), New York.

Table 5 reports the results of the attempt by the United Nations' Human Development Report (2013) to build a Gender Inequality Index (GII) for a sample of countries, including

some SIDS. The index is a composite measure reflecting inequality in achievements between women and men in three dimensions: reproductive health, empowerment and the labour market. [24]

The Netherlands and Sweden are included in the table, as they are ranked 1 and 2 respectively, in having the least inequality between the sexes. The highest ranked SIDS is Bahrain at 45 and the lowest ranked is Papua New Guinea at 134, suggesting that gender inequality is widespread in SIDS. Seven of the ten Caribbean countries have a value of the index below the value for all SIDS, illustrating that gender equality is greater in the region than the average for all SIDS, as do the three countries from the AIMS group. With only two SIDS from the Pacific group in the table, Tonga shows greater equality than all SIDS and Papua New Guinea shows much greater gender inequality.

Empowering women and advocating for their full participation in decision-making processes, including having access to power and resources, are issues being increasingly addressed by governments of SIDS. Such outcomes are seen as facilitating sustainable development strategies, including those to promote economic growth, poverty alleviation, environmental protection and social justice.

To further these goals of the ICPD and MDGs, social policy must confront such issues and accept that cultural and other factors that impede women's progress will necessitate a long-term approach, involving intensive public education and awareness-raising programmes.

Single female household heads are widespread in SIDS and their status has a significant impact on the attainment of the ICPD PoA and MDGs in their countries. For example, while female labour force participation has risen in many SIDS, women tend to have higher rates of unemployment, encounter barriers to entering formal sector employment, earn lower wages and are over-represented in the vulnerable informal economy where conditions of work and pay are inferior.

In the Caribbean group of countries, gender inequality is widely manifested in terms of poverty and in young girls' vulnerability to HIV/AIDS, economic discrimination, reproductive health inequities and sexual and gender-based violence (SGBV), where violence against women has been on the increase. Sociological studies undertaken in a number of SIDS in the region suggest that at least one in three women in unions have experienced some form of abuse in the domestic setting. It is interesting to note from these studies that, though domestic violence may take several forms, the incidence tends to be consistent, regardless of ethnicity, spatial setting and employment status (ECLAC/UNFPA, 2009). In response, several countries in the region have taken steps to address the issue. For example, in Antigua and Barbuda, the national gender machinery conducted several training sessions and partnered with the Ministry of Health and the police to develop a protocol for dealing with sexual violence and the collecting of data. In Jamaica, a draft Sexual Harassment Policy has been developed, and in July 2009, a landmark Sexual Offences Bill was passed in the Senate, addressing a range of issues including violation of persons and the establishment of a sexual offences registry. Guyana has also made some changes to its policy and legislative changes in its Sexual Offences Act (ECLAC/UNFPA, 2009).

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[24] For details on how the Gender Inequality Index is calculated, see Technical Note 3 available from http://hdr.undp.org/en/media/HDR_2013_En_technotes.pdf.

Meanwhile, males have been under-performing in school and generally fail to reach the levels of education attained by females. Despite this, they still enjoy greater access to formal employment, alternative routes for generating capital, higher incomes and decision-making positions and, therefore, access to greater material and symbolic power.

The institutional and policy arrangements for gender mainstreaming are in place within some governments. They have been made responsible for overseeing the formulation and implementation of policies and programmes to promote women's empowerment. Yet, while there exists such a mechanism in every Caribbean country, the general conclusion is that their effectiveness has been lessened because of under-funding, diffuse mandates and limited leverage to influence policy dialogue at the national and regional levels.

Within the region and at national levels, progress has taken place and includes the establishment of gender focal points where staff are assigned to oversee gender mainstreaming. In Jamaica, for example, the Planning Institute of Jamaica (PIOJ) has two gender focal points assigned to the economic and social sectors. Their task is to ensure that gender focal points have the required knowledge of gender issues, which is gained through training; and that there are linkages between focal points and the Bureaux of Gender Affairs, as well as among focal points. In Guyana, an inter-ministerial committee has been established by the Women's Affairs Bureau with focal points from each ministry. A gender policy received approval in Dominica in 2006. In addition, the Women's Bureau collaborated with an inter-sectoral committee to compile and submit to Cabinet a Draft National Action Plan on Gender Mainstreaming. In the Bahamas, a National Gender Policy has been developed. In Trinidad and Tobago, a draft policy on gender, which was first issued in 2005, was revised again in 2008. The Ministry of Human Services and Social Security in Guyana is spearheading legislative reform of the sexual offences law in that country. Under the proposed Act, the corroboration rule has been abolished as has the defence of marriage to an allegation of rape. The proposed Act also sets out the mandatory requirement for police to record and investigate every reported case of sexual abuse as well as the mandatory reporting of suspected cases of child sexual abuse by health workers.

In summary, while there have been significant gains in promoting gender equality and the advancement of women in the Caribbean region, several major challenges remain. Some of these include limits on human and financial resources assigned to the national gender institutions. In addition, comprehensive gender mainstreaming in national policies and programmes has been lacking. For example, macroeconomic policies and budgets should be designed to reflect a deeper understanding of women's realities, including an awareness of the impacts of various policy interventions on their well-being. The male underperformance in education needs to be addressed to avoid the breakdown of harmonious gender relationships in Caribbean societies. Lack of understanding of the relevance of gender concerns and commitment to change still exists in many countries across the region, which further facilitates perpetuation of the gender stereotypes. Increased efforts are, therefore, necessary to continue to promote gender equality and the advancement of women.

In the AIMS countries, the median per cent of seats held by women in their national parliaments in 2006 was 14 per cent, compared with 18 per cent for all SIDS. The highest in the AIMS group was 29 per cent in Seychelles and the lowest in Bahrain with 0 per cent (Roberts, 2011, p. 240).

Some of the Pacific SIDS have signed up to national, regional and international instruments that commit them to taking positive steps towards improving women's public and

political representation to eliminate sexual and gender-based violence. However, a major conclusion is that Pacific SIDS have made slow progress and the region has some of the lowest rates of women's participation and the highest levels of sexual violence in the world (WRAP, 2011). For example, the Pacific SIDS have the lowest rates of female political representation in the world, averaging at around 2.5 per cent, with five states having not a single woman in Parliament.

The ability of women to participate in deciding on the priorities and the allocation of scarce public resources in their community and country is a fundamental human right. Including women in decision-making and public consultation is vital to legitimise democracy since it ensures greater participation by all segments of society. Women's participation enhances the quality of decisions that are made because their input broadens and deepens the knowledge pool. Such improved decision-making is a consequence of the creation of opportunities for women's participation, whether they are social, cultural, environmental or economic.

The vast inequality between the representation of men and women in Pacific parliaments is a stark reminder of the on-going social, economic and cultural barriers that continue to exist for women in the region. The commitment of all but one Pacific Island state to the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) shows an increasing trend to address this issue but the barriers that continue to exist mean that at times, states must take the "affirmative action" of temporary special measures to advance gender equality in parliament.

The barriers to achieving gender equality for females in public and political life in the Pacific are created by both institutional and societal factors, such as entrenched stereotyping of the customary and traditional roles of women in society. Entrenched societal attitudes and cultural biases, which reinforce the patriarchal attitudes of Pacific society, must be overcome if barriers to women's public and political participation are to be removed. Education in human rights and leadership programmes to encourage women to become leaders in their own communities are fundamental to challenging and reforming these attitudes. The strong leadership shown by women's civil society organizations in the Pacific mean that there are many impressive women role models to serve as examples for other women. These examples need to be built on and supported by Pacific Island governments to ensure that women have the ability to develop the necessary skills and opportunities to contribute to public and political decision-making.

The following are some of the recent examples of successful strategies and proven initiatives that are helping to break down barriers and build new opportunities to improve gender equity:

1. The Young Women's Christian Association's (YWCA) Pacific Young Women's Leadership Strategy is an existing initiative that is important for encouraging the engagement of young women and girls into leadership and decision-making roles;

2. The Tuvalu National Council of Women work in educating and empowering women into leadership roles, called "Rise up";

3. Women's Leadership Programmes in Solomon Islands and Bougainville, Papua New Guinea;

4. The Young Women's Leadership Programme in Fiji, a national initiative led by civil society to support women into leadership roles through education on reproductive rights and the elimination of discrimination;

5. The United Nations Entity for Gender Equality and the Empowerment of Women's (UN WOMEN) Gender and Governance Programme (GEGP) is a regional programme, which works with parliamentary bodies, non-governmental organizations' representatives, electoral bodies and women's departments in a number of Pacific Island states to ensure the prioritization of increasing women's public and political participation.

Much else has yet to succeed in the post ICPD PoA era in the region. The Pacific SIDS have some of the highest rates of SGBV in the world with over two thirds of women experiencing physical and/or sexual violence in some states (WRAP, 2011). For example, 68 per cent of women in Kiribati reported having experienced physical and/or sexual violence. In the Solomon Islands, nearly one in two women report having experienced physical and/or sexual violence. Such actions impact on all aspects of their lives, including their sexual and reproductive health. It can lead to severe injury or death of the woman, miscarriages in pregnant women, increased contraction and transmission of sexually transmitted infections, as well as unwanted pregnancy.

While efforts to address SGBV have gained momentum at an international level, such efforts have remained very slow in the Pacific SIDS. As a result, up to half of the region's population remains at increased risk of SGBV simply by virtue of being a woman or a girl. This is a major impediment to attaining sustainable development and the region's leaders need to do more to ensure the rights of women and girls are respected and to eradicate SGBV.

10. International migration

The ICPD PoA calls for countries to measure the size of movements and to address the root causes of migration, especially those related to poverty. It encourages cooperation and dialogue between countries of origin and destination in order to maximise the contribution to development of both countries involved. The reintegration process of migrants who return home should be facilitated. The social and economic integration of documented migrants into the countries of destination should be ensured; the elimination of discriminatory practices, especially against women, children and the elderly, should be eliminated; and the protection of migrants against racism, ethnocentrism and xenophobia must be ensured. Other objectives of the PoA are the promotion of welfare and the assurance of respect for the cultural and religious values, beliefs and practices of migrants and their families.

International migration is an area of critical concern in the Caribbean region. There is a need to develop national policies on intraregional and interregional migration and to consider the growing flow of return migrants, as well as the need to design re-integration policies and programmes.

The main problem in assessing the level, nature and causes of migration in the Caribbean region remains the lack of data. Stock data from censuses give a snapshot every 10 years of the size and distribution of the migrant population. Flow data are largely unavailable and, where present, there are problems with their reliability, while information on

undocumented migration is lacking. Due to the lack of migration data, its impact on the population size and composition is difficult to gauge.

Moreover, the relationship between migration and sustainable development in the Caribbean region is multidimensional and complex. The macro- and socio-economic effects of emigration, as well as the sociocultural and economic impact of immigration on local societies are very different dimensions of the same process. Often, the emigration of nationals in search of better terms of labour and education has been counterbalanced by immigration from the poorer countries in the wider region, such as Colombia, Dominican Republic, Guyana and Haiti and also from countries in Asia.

While out-migration may have eased population pressure and lessened unemployment, it has often meant a 'brain drain' of those in the productive age groups as well as many of the better educated and vocationally trained. Remittances sent home by emigrants have added to the income of many families left behind, but these benefits are unlikely to be larger than the loss in productivity to the economy of the emigrants, provided they could have been gainfully employed. The occupation of nurses who leave for the United States of America and Canada is often cited as one of the greatest losses to the Caribbean region, which are sometimes replaced by nurses from other countries in the region. Yet, no country in the Caribbean has established comprehensive policies and programmes to address the various problems caused by migration and to leverage its potential benefits.

Given the significance of migratory movements both within and outside the region, there is a huge gap in the amount of information and data collected on such mobility. In order to comply with the ICPD PoA, it is important for the statistical offices in the island countries to compile consistent data on population movements, perhaps by revising the questions on relevant data collection mechanisms, such as passenger forms, including those relating to the reasons for arrival and departure, to the duration of stay or absence, etc.

Remittances play an increasingly important role in the economies of the Pacific SIDS, contributing towards investment, economic growth and sustaining livelihoods, including meeting education and basic needs. Migration of labour to more developed countries covers not only specialised skills such as doctors and engineers but also general trades, such as nurses, seasonal workers and care-providers. Consequently, the recipients of remittances represent a broad spectrum of society, making the monetary flows very effective in addressing poverty-related issues. There are large numbers of Polynesians (predominantly from Tonga, Samoa, Niue and Cook Islands) who, due to historical and cultural ties, reside permanently or temporarily in New Zealand. More recently, growing numbers of Fijians have taken security-related overseas contract work, including joining the armed forces of the United Kingdom of Great Britain and Northern Island. The smaller countries of Kiribati and Tuvalu have a number of seafarers working on marine vessels in Europe and Asia.

Following the New Zealand example, the Australian Government has started a Seasonal Labour Scheme for unskilled Pacific Islanders, which include fruit picking, in order to absorb the labour of those without access to or unable to complete education and training. Under this trial, up to 2,500 visas will be available over three years for workers from Kiribati, Tonga, Vanuatu and Papua New Guinea. In 2007, Fiji was one of the top ten absolute remittance earners in the East Asia and Pacific region, with an estimated USD$150 million. As a percentage of GDP, this amounts to 5.8 per cent compared with 32.3 per cent for Tonga, 9.9 per cent for Kiribati, 6.3 per cent for Solomon Islands and 2.8 per cent for Vanuatu.

Remittances are also important in the Federated States of Micronesia, Marshall Islands and Palau (ESCAP, 2010).

TABLE 6. SUMMARY OF PROGRESS

	Eradicate extreme poverty and hunger	*Achieve universal primary education*	*Promote gender equality and empower women*	*Reduce child mortality*	*Improve maternal health*	*Combat HIV/AIDS and other diseases*	*Ensure environmental sustain/ability*
Caribbean group							
Antigua & Barbuda	+	+	=	+	++	=	n/a
Barbados	+	++	++	++	++	=	=
Belize	=	+	=	+	=	=	=
Cabo Verde		++	++	++	++	+	n/a
Cuba	+	++	++	++	+	+	=
Dominica	n/a	++	+	++	++	=	+
Dominican Republic	n/a	-	+	+	-	n/a	n/a
Grenada	=	+	-	-	++	n/a	=
Guyana	=	=	+	-	=	n/a	=
Haiti	n/a	=	+	-	-	-	-
São Tomé and Principe	-	+	-	+	=	+	-
Suriname	=	+	-	=	=	=	n/a
Pacific group							
Cook Islands	++	-	++	++	++	+	+
Fiji	=	-	++	=	=	+	=
Kiribati	n/a	++	++	=	+	++	+
Marshall Islands	n/a	-	++	=	n/a	++	=
Federated States of Micronesia	n/a	n/a	++	=	n/a	++	=
Palau	n/a	++	++	=	++	++	=
Papua New Guinea	-	-	-	=	-	=	-
Samoa	+	++	++	=	++	++	+
Solomon Islands	n/a	n/a	+	=	-	++	=
Tonga	n/a	=	++	=	+	++	=
Tuvalu	n/a	++	++	=	++	++	+
Vanuatu	n/a	=	+	=	=	++	=
AIMS group							
Comoros	n/a	=	-	+	=	n/a	n/a
Guinea-Bissau	n/a	+	+	=	=	=	=
Maldives	++	++	+	+	+	+	=
Mauritius	+	++	+	=	+	=	++
Singapore	n/a	n/a	n/a	+	n/a	=	+
Timor Leste	-	+	+	=	-	+	=

Source: United Nations (2010), *Trends in Sustainable Development in Small Island Developing States (SIDS),* DESA, New York

Key:
++ Early achiever;
+ On track;
= Slow, possible to achieve if some changes are made;
- Regressing/No progress

Such temporary and permanent international migration can be usefully harnessed as a means of easing population pressure on the limited resources of SIDS and as a way of increasing remittances for domestic consumption, investment and the provision of much needed foreign exchange. But in the smallest of the islands and those suffering from sea-level rise and chronic drought, perhaps a by-product of global climate change, they could become economically and environmentally unsustainable. In these cases, such as Maldives and coral atolls in the Pacific, such as Marshall Islands, Kiribati and Tuvalu, some forms of population resettlement may be called for as an extreme form of adaptation.

No substantive macro-level assessments have been made of the relative costs and benefits of such temporary labour movements from the region, largely because they cannot be

quantified, given the existing data constraints. However, one attempt has been made to investigate the net benefits of temporary labour movements at the micro level, from Fiji to New Zealand, for those engaged in agriculture (fruit picking/packing), transport services and construction. The results suggest net benefits of such labour movements in these activities (Prasad, Singh and Chand, 2009). As a consequence, a recent Pacific Islands Forum Secretariat meeting recognised that governments now have a major responsibility to devise national and regional policies directed at maximising existing and future opportunities for temporary labour movement.

F. An overall assessment of progress on implementation of some of the ICPD PoA and MDGs

As table 6 illustrates, SIDS have made good progress in terms of the ICPD PoA and MDGs objectives with respect to gender, health and some education and environmental goals. They have made less progress as a group in most of the other goals and sometimes regressed, in terms of economic growth and poverty reduction. Not shown in the table are the positive achievements with regard to increases realised in life expectancy at birth, falling rates of maternal mortality and rising years of education. Less positive are the high rates of adolescent fertility, which have failed in some countries to decline along with overall fertility and population growth rates.

G. The way forward

There can be no doubt that the global economic crisis has impacted, and in some cases, retarded, progress in SIDS countries as they endeavour to further sustainable socio-economic development and meet the goals of the ICPD PoA and the MDGs. Ensuring that achievements already made do not regress, while continuing to strive to make further progress, is an immense challenge that will confront SIDS. With most of the donor countries experiencing slow economic growth or recession, a diminished amount of aid to SIDS is likely. For many of these small countries, lower levels of aid will not only impede further progress, but may even reverse some of the gains already made.

The food, energy, financial and economic crises have placed a strain on reaching the goals of the ICPD PoA and the MDGs. The loss of income from domestic tax revenues and from donor support will reduce budgets available for population and development-related activities. Long-term debts will restrict budgets for many years and limit the scope for further investment in population-related activities and social development. The opportunities available for initiating new projects aimed at accelerating progress towards the ICPD goals are, therefore, limited for the near future.

Perhaps the greatest threat comes from climate change and sea-level rise, which are expected to exacerbate the problems. Given such a scenario, perhaps some SIDS, including those suffering perennial drought, should consider population resettlement as an extreme form of adaptation.

Many SIDS are experiencing warmer temperatures with frequent heat waves putting much stress on labour productivity. Flooding and drought are becoming more frequent with far-reaching consequences for agricultural output and water resources. Coastal erosion is

widespread and threatening the tourist industry on which many SIDS depend. However, such global warming should not only be seen as a threat but as an opportunity to take bold actions and measures to promote further sustainable development. These should include developing more "green" technologies and make the structural changes needed that will contribute to sustainable growth. Every effort should be made to take advantage of the Copenhagen Launch Fund, which commenced in 2010, from where 10 per cent of the US$10 billion will be allocated to SIDS countries for developing and implementing adaptation strategies (UNOHRLLS, 2010).

Given the anticipated decline in resources available to SIDS to pursue the objectives of the ICPD PoA and the MDGs, comprehensive planning and budgeting are required to identify the measures that can help to achieve the goals (Mendoza and Stuart, 2010). This will require planning and direction, both of which are necessary for projects and programmes to move towards the predetermined objectives. The level of human and financial investment required for successful programme implementation must be carefully assessed and costed and presented to donors to attract their support.

Achieving gains in all streams of education, realising greater gender equality and making further improvements in reproductive health, will require that strategic investments are made in gender-mainstreaming and education, two cross-cutting goals. These investments would, in turn, generate gains in male and female participation at primary, secondary and tertiary education levels, improvements in women's participation in politics and their employment in the formal non-farm sectors. Secondary impacts will accrue to the population sector generally, inducing changes in fertility behaviour, mortality, governance, information and communication technology and, more directly, to poverty reduction and improvements in living conditions.

Achievement of other ICPD PoA and MDGs goals requires priorities and programmes to be country-driven and to have the full support and commitment of national governments and citizens. This necessitates that the private sector be given a greater participatory role as a means of intensifying cross-sector collaboration (public, private and NGOs), such as in education, health, natural resources and the environment.

Identifying the resources required for successful programme implementation needs technical know-how and leadership by national officials, which may require enhanced government capacity-building programmes, including on the production and use of population data.

The establishment of clear monitoring and evaluation systems, and regular reporting and programme adjustment, will be essential. These systems in SIDS should be set in the context of the programme objectives, which should, in turn, be linked to the indicators and targets (Mendoza and Stuart, 2010).

Now, what does the future hold for the populations in this diverse set of SIDS? Given their large differences in population size, economic potential and geographic location, no simple conclusion can suffice. The larger islands with skilled workforces, located not too far from developed country regional markets, which can provide the potential demand for niche exports and a steady supply of tourists, will likely have the brighter future. The smaller countries, particularly the coral atolls under the threat of sea-level rise, have the bleakest outlook and need to plan carefully for the possibility that their populations will need to be relocated at some point in the future.

APPENDIX 1

List of Small Island Developing States
(United Nations Members)

1	Antigua and Barbuda	20	Federated States of Micronesia
2	Bahamas	21	Mauritius
3	Bahrain	22	Nauru
4	Barbados	23	Palau
5	Belize	24	Papua New Guinea
6	Cabo Verde *	25	Samoa *
7	Comoros *	26	São Tomé and Principe *
8	Cuba	27	Singapore
9	Dominica	28	St. Kitts and Nevis
10	Dominican Republic	29	St. Lucia
11	Fiji	30	St. Vincent and the Grenadines
12	Grenada	31	Seychelles
13	Guinea-Bissau *	32	Solomon Islands *
14	Guyana	33	Suriname
15	Haiti *	34	Timor-Lesté *
16	Jamaica	35	Tonga
17	Kiribati *	36	Trinidad and Tobago
18	Maldives *	37	Tuvalu *
19	Marshall Islands	38	Vanuatu *

List of Small Island Developing States
(Non-United Nations Members/Associate Members of the Regional Commissions)

1	American Samoa	9	Guam
2	Anguilla	10	Northern Mariana Islands
3	Aruba	11	Montserrat
4	British Virgin Islands	12	New Caledonia
5	Caribbean Netherlands	13	Niue
6	Cook Islands	14	Puerto Rico
7	Curacao	15	Sint Maarten (Dutch part)
8	French Polynesia	16	United States Virgin Islands

*Also LDCs

APPENDIX 2

HUMAN DEVELOPMENT INDICES FOR SIDS

	HDI 2012 (1)	*Rank (2)*	*Rank in SIDS (3)*	*Life expectancy at birth in years (4)*	*Mean years of education (5)*	*GNI per capita US$2005 PPP (6)*	*GNI/capita rank minus HDI rank (7)*
Very High Human Development							
Singapore	0.895	18	1	81.2	10.1	52,613	-15
Barbados	0.825	38	2	77.0	9.3	17,308	10
Seychelles	0.806	46	3	73.8	9.4	22,615	-9
High Human Development							
Bahrain	0.796	48	4	75.2	9.4	19,154	-3
Bahamas	0.794	49	5	75.9	8.5	27,401	-21
Palau	0.791	52	6	72.1	12.2	11,463	18
Cuba	0.780	59	7	79.3	10.2	5,539	44
Grenada	0.770	63	8	76.1	8.6	9,257	21
Antigua & Barbuda	0.760	67	9	72.8	8.9	13,883	-12
Trinidad & Tobago	0.760	67	9	70.3	9.2	21,941	-28
Dominica	0.745	72	11	77.6	7.7	10,977	-1
St Kitts & Nevis	0.745	72	11	73.3	8.4	12,460	-5
Mauritius	0.737	80	13	73.5	7.2	13,300	-17
St Vincent & Grenadines	0.733	83	14	72.5	8.6	9,367	-1
Jamaica	0.730	85	15	73.3	9.6	6,701	14
St Lucia	0.725	88	16	74.8	8.3	7,971	1
Medium Human Development							
Tonga	0.710	95	17	72.5	10.3	4,153	26
Belize	0.702	96	18	76.3	8.0	5,327	8
Dominican Rep	0.702	96	18	73.6	7.2	8,506	-11
Fiji	0.702	96	18	69.4	10.7	4,087	24
Samoa	0.702	96	18	72.7	10.3	3,928	28
Maldives	0.688	104	22	77.1	5.8	7,478	-9
Surinam	0.684	105	23	70.8	7.2	7,327	-7
Fed States of Micronesia	0.645	117	24	69.2	8.8	3,352	14
Guyana	0.636	118	25	70.2	8.5	3,387	11
Kiribati	0.629	121	26	68.4	7.8	3,079	13
Vanuatu	0.626	124	27	71.3	6.7	3,960	-1
Cabo Verde	0.586	132	28	74.3	3.5	3,609	-6
Timor Leste	0.576	134	29	62.9	4.4	5,446	-29
Low Human Development							
Solomon Islands	0.530	143	30	68.2	9.3	2,172	1
São Tomé and Principe	0.525	144	31	64.9	10.8	1,864	7
Papua New Guinea	0.466	156	32	63.1	3.9	2,386	-15
Haiti	0.456	161	33	62.4	4.9	1,070	7
Comoros	0.429	169	34	61.5	2.8	989	4
Guineas Bissau	0.364	176	35	48.4	2.3	1,042	6
SIDS	**0.648**			**69.8**	**7.3**	**5,397**	
Others							
Marshall Islands				72.3			
Tuvalu				67.5			
HDI	**1980**	**1990**	**2000**	**2010**	**2012**		
SIDS	0.530	0.571	0.600	0.645	0.648		
LDCs	0.290	0.327	0.367	0.443	0.449		
World	0.561	0.600	0.639	0.690	0.694		
% growth pa in HDI	**1980-90**	**1990-00**	**2000-10**	**2000-12**			
SIDS	0.75	0.50	0.73	0.65			
LDCs	1.22	1.15	1.91	1.70			
World	0.68	0.64	0.77	0.68			

Source: United Nations Human Development Report (2013). *The Rise of the South: Human Progress in a Diverse World.* New York.

APPENDIX 3

SOCIAL INDICATORS IN THE SIDS: HEALTH

	% GDP Spent on Health	*Immunisation coverage*		*Maternal mortality ratio*	*Maternal mortality ratio*		
		DTP	*Measles*	*2000*	*2010*	*Adolescent fertility rate*	*Physicians per 1000 population*
	(1)	*(2)*	*(3)*	*(4)*	*(4)*	*(6)*	*(7)*
Very High Human Development							
Singapore	1.4	98	95	15	3	6.7	1.8
Barbados	5.2	95	85	49	51	40.8	1.8
Seychelles	3.1	99	99	-	-	47.6	1.5
High Human Development							
Bahrain	3.6	99	99	-	20	14.8	1.4
Bahamas	3.6	99	94	56	47	28.3	-
Palau	7.9	99	75	-	-	12.7	1.3
Cuba	9.7	98	99	63	73	43.9	6.4
Grenada	2.6	99	95	27	24	35.4	-
Antigua & Barbuda	4.3	99	98	-	-	49.1	-
Trinidad & Tobago	3.4	96	92	59	46	31.6	1.2
Dominica	5.2	99	99	-	-	18.9	-
St Kitts & Nevis	4.0	98	99	-	-	33.2	-
Mauritius	2.5	99	99	28	60	31.8	1.1
St Vincent & Grenadines	3.9	99	99	88	48	54.1	-
Jamaica	2.6	99	88	83	110	69.7	0.9
St Lucia	5.3	98	95	46	35	55.9	0.5
Medium Human Development							
Tonga	4.1	99	99	87	110	18.0	0.3
Belize	3.3	99	98	100	53	70.8	0.8
Dominican Rep	2.7	96	79	130	150	103.6	-
Fiji	3.4	99	94	31	26	42.8	0.5
Samoa	5.7	97	61	150	-	25.5	0.3
Maldives	3.8	97	97	190	60	10.2	1.6
Suriname	3.4	99	89	130	130	34.9	-
Fed States of Micronesia	12.9	90	80	-	100	18.5	0.6
Guyana	5.1	99	95	220	280	53.9	-
Kiribati	9.3	97	89	-	-	16.4	0.3
Vanuatu	4.8	78	52	120	110	50.6	0.1
Cabo Verde	3.1	99	96	170	79	69.2	0.6
Timor Leste	5.1	75	66	610	300	52.3	0.1
Low Human Development							
Solomon Islands	8.0	85	68	120	93	64.6	0.2
São Tomé and Principe	2.7	98	92	110	70	55.4	0.5
Papua New Guinea	2.6	80	55	310	230	62.0	0.1
Haiti	1.5	83	59	460	350	41.3	-
Comoros	3.0	81	72	340	280	51.1	0.2
Guineas Bissau	0.9	92	61	970	790	96.2	-
Others							
Marshall Islands	15.0	99	97	-	-	37.7	0.6
Tuvalu	14.2	99	85	-	-	21.5	0.6
SIDS	3.0	89	72		193	61.1	2.6
LDCs	2.2	88	78		394	90.9	0.2
World	6.5	91	85		145	51.2	1.4

Source: United Nations Human Development Report (2013). *The Rise of the South: Human Progress in a Diverse World.* New York, and United Nations (2012) Millennium Development Goals database available from http://unstats.un.org/unsd/mdg/Data.aspx. (Accessed October 2013).

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Appendix 4

SOCIAL INDICATORS IN THE SIDS: EDUCATION

	Adult literacy (%)	*Population with at least secondary education (%)*	*Gross enrolment of cohort*		*Primary teachers trained (%)*	*Primary school drop-out rate (% of school cohort)*
			Secondary	*Tertiary*		
	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Very High Human Development						
Singapore	96.1	75.0	107	71	94	0.9
Barbados	-	88.6	101	66	59	4.2
Seychelles	91.8	66.8	119	-	99	15.1
High Human Development						
Bahrain	91.9	78.0	103	-	-	1.8
Bahamas	-	89.6	96	-	92	10.5
Palau	-	-	96	38	-	-
Cuba	99.8	77.1	89	95	100	3.8
Grenada	-	-	108	53	65	-
Antigua & Barbuda	99.0	-	105	16	55	-
Trinidad & Tobago	98.8	59.3	90	12	88	10.6
Dominica	-	26.5	98	4	61	11.9
St Kitts & Nevis	-	-	97	18	62	26.5
Mauritius	88.5	49.0	89	25	100	2.2
St Vincent & Grenadines	-	-	107	-	84	-
Jamaica	86.6	72.6	93	29	-	4.8
St Lucia	-	-	96	11	87	7.9
Medium Human Development						
Tonga	99.0	74.0	101	7	-	9.6
Belize	-	34.0	75	22	45	9.7
Dominican Rep	89.5	42.5	76	34	85	-
Fiji	-	57.8	86	16	98	9.1
Samoa	98.8	62.1	85	8	-	-
Maldives	98.4	25.4	71	-	77	-
Surinam	94.7	43.7	75	12	100	9.7
Fed States of Micronesia	-	-	83	14	-	-
Guyana	-	55.6	91	12	66	16.5
Kiribati	-	-	86	-	85	21.1
Vanuatu	82.6	-	55	5	100	28.5
Cabo Verde	84.3	-	88	18	90	14.3
Timor Leste	58.3	-	56	17	-	33.4
Low Human Development						
Solomon Islands	-	-	36	-	-	-
São Tomé and Principe	89.2	-	59	5	41	32.0
Papua New Guinea	60.6	10.5	-	-	-	-
Haiti	48.7	29.1	-	-	-	-
Comoros	74.9	-	46	8	57	25.9
Guineas Bissau	54.2	-	36	3	39	-
Others						
Marshall Islands	-	-	99	16	-	16.5
Tuvalu	-	-	100	-	-	-
SIDS	-		77	45	89	-
LDCs	60.7	-	36	7	72	40.9
World	81.3	57.7	71	29	-	18.0

Source: United Nations Development Programme (2013). *Human Development Report 2013, The Rise of the South: Human Progress in a Diverse World.* New York.

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