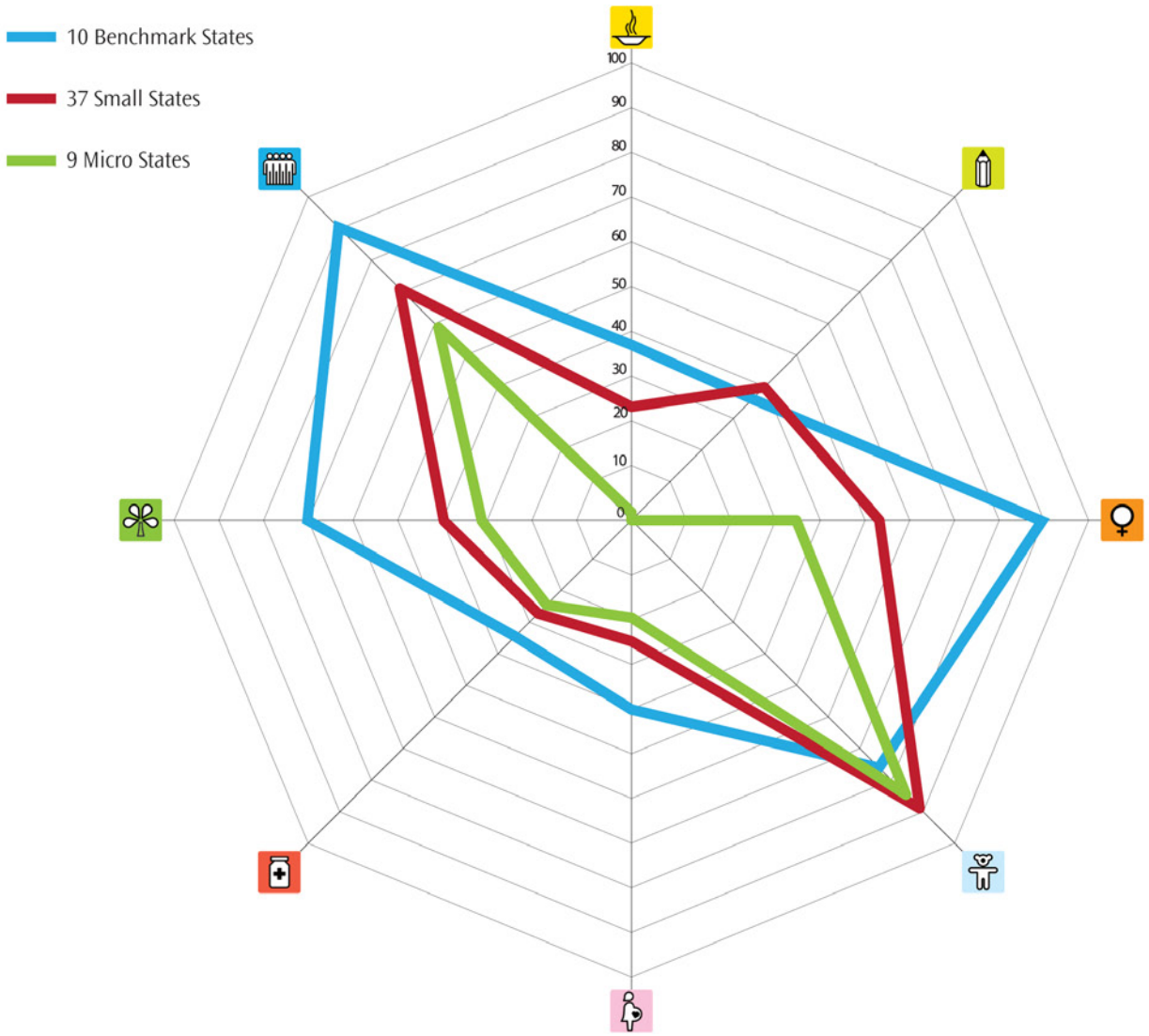
The Big Divide

A Ten Year Report of Small Island Developing States and the Millennium Development Goals

John L Roberts and Ibukunoluwa Ibitoye



Commonwealth Secretariat

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Foreword

The UN Millennium Development Goals (MDGs) were agreed by the UN General Assembly in 2000 as a worldwide strategic commitment for monitoring progress towards sustainable development. The UN has published many reviews on the MDGs, covering both global and regional perspectives. This report from the Commonwealth Secretariat focuses on progress made by small states. It is based on data collected in 2010 – ten years after the UN Millennium Declaration – and provides a comparative analysis of progress made by 46 small states against 10 benchmark states.

The Commonwealth Secretariat has a special interest in development policy and practice in small states since the majority of Commonwealth member countries are small. This research is also in line with the joint commitment of the Commonwealth Secretariat and the World Bank, through the Small States Forum, to review progress and emerging issues in this field.

In addition to highlighting the position of small states to the MDGs, the report also explores the economic implications of the MDG framework and draws attention to the opportunities for improving strategic policy on MDGs. It does this by taking into account resource needs, costs and benefits, issues of interstate inequity, the quantification of welfare, the impact on environmental assets and the decoupling of economic development from ecological damage.

The key messages that emerge from this wide-sweeping report have important lessons for policy-makers. First, the report shows that small states and especially micro-states have made less progress with MDGs than large states. Second, small states have had greater problems in reporting on the large array of over 50 indicators across the 8 goals of the MDG system and clearly need more support on monitoring progress. Third, the use of an economic perspective, which the MDG system lacks, provides a fresh illumination on priorities, giving greater emphasis to deploying resources not merely to meet arithmetically-calculated targets, but to make best use of investment in the pursuit of inter-state equity and global sustainable development. Fourth, the report presents, in a series of detailed graphs and league tables, an alarming picture of the 'Big Divide' in performance between the small states across the whole range of indicators, not so evident in previous studies. These show that within the 68 million people who live in the 46 small states there is for many a life of unacceptable social and economic inequity, differential risk of survival and increasingly depleted environmental resources.

The Big Divide throws fresh light on sustainable development in small states. It is both a new analysis of the UN-compiled MDG data and a critical review of the thrust of the millennium policy. It presents strong arguments for re-thinking Commonwealth and international strategic policy in this field and stresses the importance of clarifying economic underpinnings. It presents a series of recommendations for policy-makers, including linking investment to phases of economic, social and environmental development, the identification of technologies for intervention, and the quantification of expected results in terms of costs and benefits.

Cyrus Rustomjee

Director, Economic Affairs Division
Commonwealth Secretariat

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The authors wish to thank Constance Vigilance for initiating this study and for her guidance and support throughout the project. Thanks are also due to Will Henley for his shrewd and helpful comments in reviewing and editing the final text.

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For those wishing to undertake further analysis, the complete data sets, featuring detailed results on each indicator for each of the 46 small states and the 10 benchmark states covered in this report, are available on the Commonwealth Secretariat website: www.thecommonwealth.org/bigdividedata

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Abbreviations and acronyms

AIMS	Atlantic, Indian Ocean, Mediterranean and South China Seas
AOSIS	Alliance of Small Island States
BRIC[1]	Brazil, Russia, India and China
CARICOM	Caribbean Community
CSS	Commonwealth small states
CTP	CleanTech Park
DOTS	directly observed treatment – short- course
GDP	gross domestic product
HDI	Human Development Index
HIPC	heavily indebted poor countries
HPI	Happy Planet Index
ICT	information and communication technology
IMF	International Monetary Fund
IMR	infant mortality rate
MDGs	Millennium Development Goals
MDRI	Multilateral Debt Relief Initiative
MMR	maternal mortality ratio
MSI	Mauritius Strategy for Implementation
ODA	Official development assistance
PPP	purchasing power parity
PR	proportional representation
SIDS	small island developing states
SME	small and medium enterprise
UNDESA	UN Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNICEF	United Nations Children's Fund
WEDO	Women's Environment and Development Organisation
WHO	World Health Organization

About the authors

Dr John L Roberts is a British international consultant on macroeconomics and sustainable development, living in Mauritius, who has worked there mainly with the Indian Ocean Commission and the Commonwealth Secretariat. In 2007, he was appointed Associate Professor at the University of Mauritius teaching on a Master's programme on natural resources management. He is a graduate of the University of Birmingham, UK and took his Master's and PhD degrees there, specialising in information systems for health economics and planning. He has been a regional adviser to the World Health Organization in Europe and contributor to the United Nations Environment Programme's *Global Environment Outlook* and *Africa Environment Outlook* series, publishing case studies on malaria eradication and on cyclone early-warning systems. He is a co-author of the Commonwealth Secretariat publications: *Saving Small Island Developing States* (2010); *Tools for Mainstreaming Sustainable Development in Small States* (2011); and *Partnerships for Sustainable Development in Small States* (2011).

Ibukunoluwa Ibitoye is currently working as a UK government economist. She has a first-class undergraduate degree in Economics with Econometrics from the University of Kent, Canterbury, UK and a Master's degree in Economics and Finance from the University of Warwick, Coventry, UK. She previously worked as Economic Officer at the Commonwealth Secretariat across a range of international development issues relating to small states and international trade, as well as to human settlements and urban development. She contributed to a number of Commonwealth Secretariat publications, including *Small States: Economic Review and Basic Statistics*, Volumes 13 (2009) and 14 (2010); *Small States in Global Economic Slowdown*, Trade Hot Topics Series, Issue 64 (2009); and the ComHabitat Report *Urban Challenges: Scoping the State of the Commonwealth's Cities* (2010).

PART I Overview

Chapter 1

Introduction and Key Findings

This report is a review of progress toward the United Nations Millennium Development Goals (MDGs) in selected small and island states, including the 32 Commonwealth small states (CSS) and 14 non-Commonwealth countries classified by the UN as small island developing states (SIDS). For ease of reference these will be referred to collectively simply as 'the 46 small states'.[2]

It is now over a decade since the MDGs were agreed in New York in September 2000. It is hoped that this report, together with other recent UN and regional reviews, will help stimulate fresh discussion about the goals. In recent years they have been knocked off the global agenda – seemingly replaced by the new priorities of climate change and action to correct the economic crisis that began in 2007.

The primary aim of the review is to illuminate the achievements of the small states in pursuing the MDGs, as well as to bring attention to those that are lagging behind or are off-track. The report demonstrates that despite their many common factors of economic and environmental vulnerability, a 'Big Divide' separates these states across the range of economic, social and environmental indicators in the MDG system. While much progress has been made by many states in moving towards the targets set, interstate inequity remains a formidable issue to be addressed in formulating international strategies to get value for money in promoting sustainable development. The review highlights aspects of the MDG system that are not well attuned to the interests of small states, and makes recommendations on how these issues can be resolved.

League tables calculated from the UN MDG database outline the performance of the 46 small states in comparison with 10 benchmark states: two small island states, Iceland and New Zealand; three large states, France, the UK and the USA; the four BRIC states, Brazil, Russia, India and China; and South Africa.

In the context of the drive towards sustainable development and the Barbados Programme of Action and the 2005 UN Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of SIDS, the review suggests priorities for policy and action by governments and international partners, and sets out a reassessment of implementation at national and regional level.[3]

A major problem identified in the report is the absence of key data – even on headline commitments such as halving poverty by 2015. Without more accurate and regular reporting, it will be difficult to target already stretched resources and MDG attainment may remain out of reach.

In spite of all this, the principal findings of this report are:

1.1 Progress and population size

The 46 small states have made comparatively less progress[4] in achieving the MDGs than larger states. The report shows that success is positively related to population size, with microstates with populations under 100,000 having made the least progress.

In total, the 9 microstates achieved just 27 per cent progress on the MDGs, as compared with 38 per cent progress achieved by the other 37 small states.

The 9 micro states made less progress than both the other 37 small states and the 10 Benchmark states, on each of the eight MDGs. (see Annex A1.18 and figure on front cover).

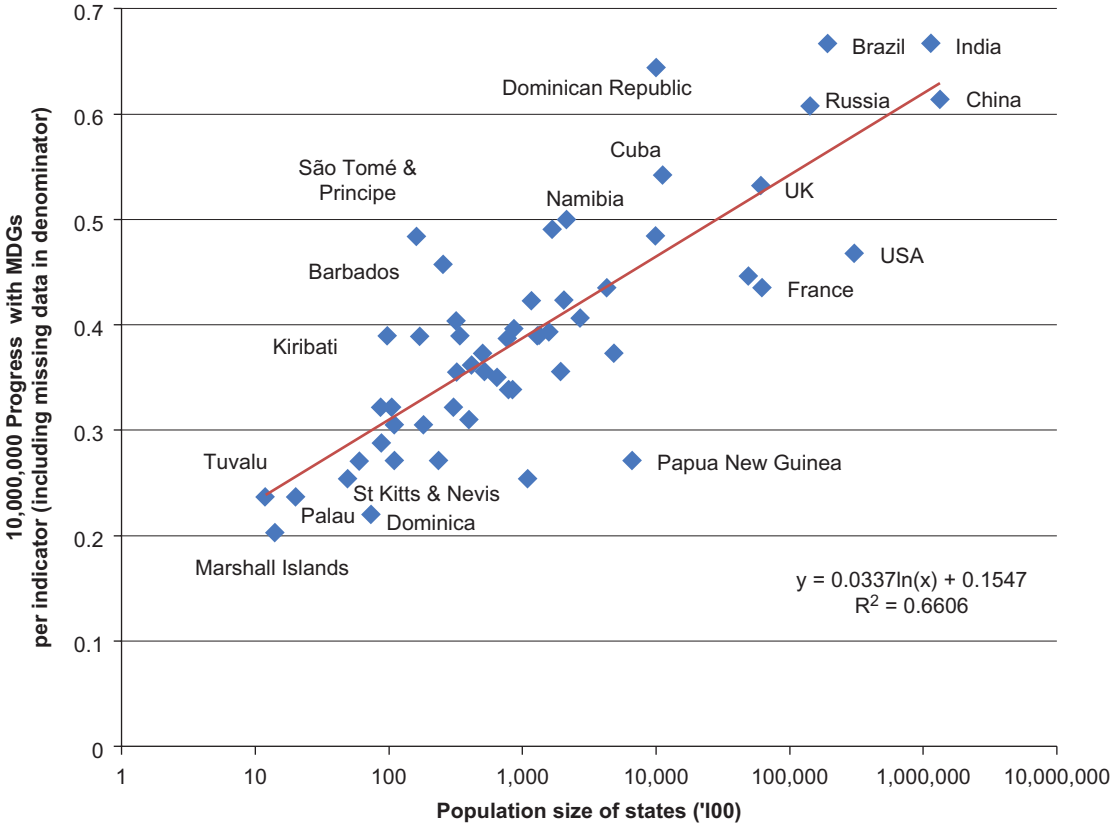
1.2 MDG 1: Poverty relief

Overall, the 46 small states made less progress with poverty relief than the 10 benchmark states. Forty-nine per cent of the small states have not reduced the percentage of the population that is undernourished since 1990.[5] The poverty divide across the 46 small states in 2007 (or latest year available) ranges from 2 per cent of the population living below US$1 a day[6] in Seychelles to 51 per cent in Comoros.

1.3 MDG 2: Universal education

The 46 small states achieved less progress with education achievement than the benchmark states. The emerging BRIC states (Brazil, Russia, India and China) reported twice the level of progress on this

Figure 1.1 The MDGs and population size



Source: Calculated from 2010 UN data

MDG compared with the small states (67 per cent compared to 34 per cent). The education divide across the 46 small states in 2007 (or latest year available) ranged from 62 per cent of children enrolled in primary education in Solomon Islands to 99 per cent in Cyprus.

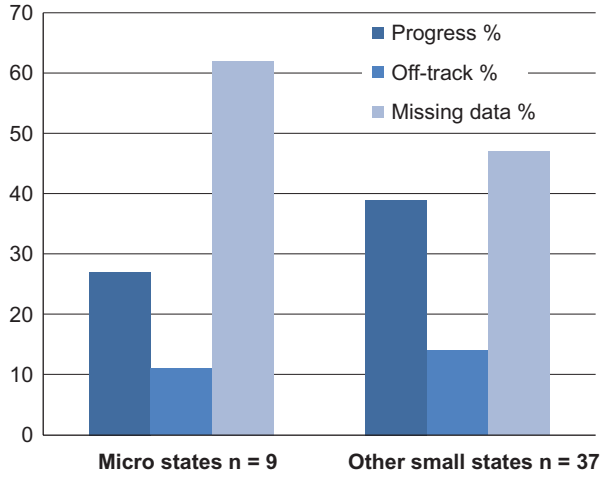
1.4 MDG 3: Gender equality

The benchmark states substantially outperformed the 46 small states on gender equality. The small states reported 48 per cent progress compared with 88 per cent reported by the benchmark states. More girls than boys enrolled in tertiary education across the 46 small states. As of 2009 (or latest year available), none of the 32 Commonwealth small states had more than 43 per cent of parliamentary seats held by women, while six had no female parliamentary representation at all. The gender divide in the 46 small states in 2007 ranged from a share of 10 per cent for women in non-agricultural employment in Bahrain to 49 per cent in Cyprus.

1.5 MDG 4: Child health

In contrast, the 46 small states outperformed the benchmark states in reducing child mortality, with

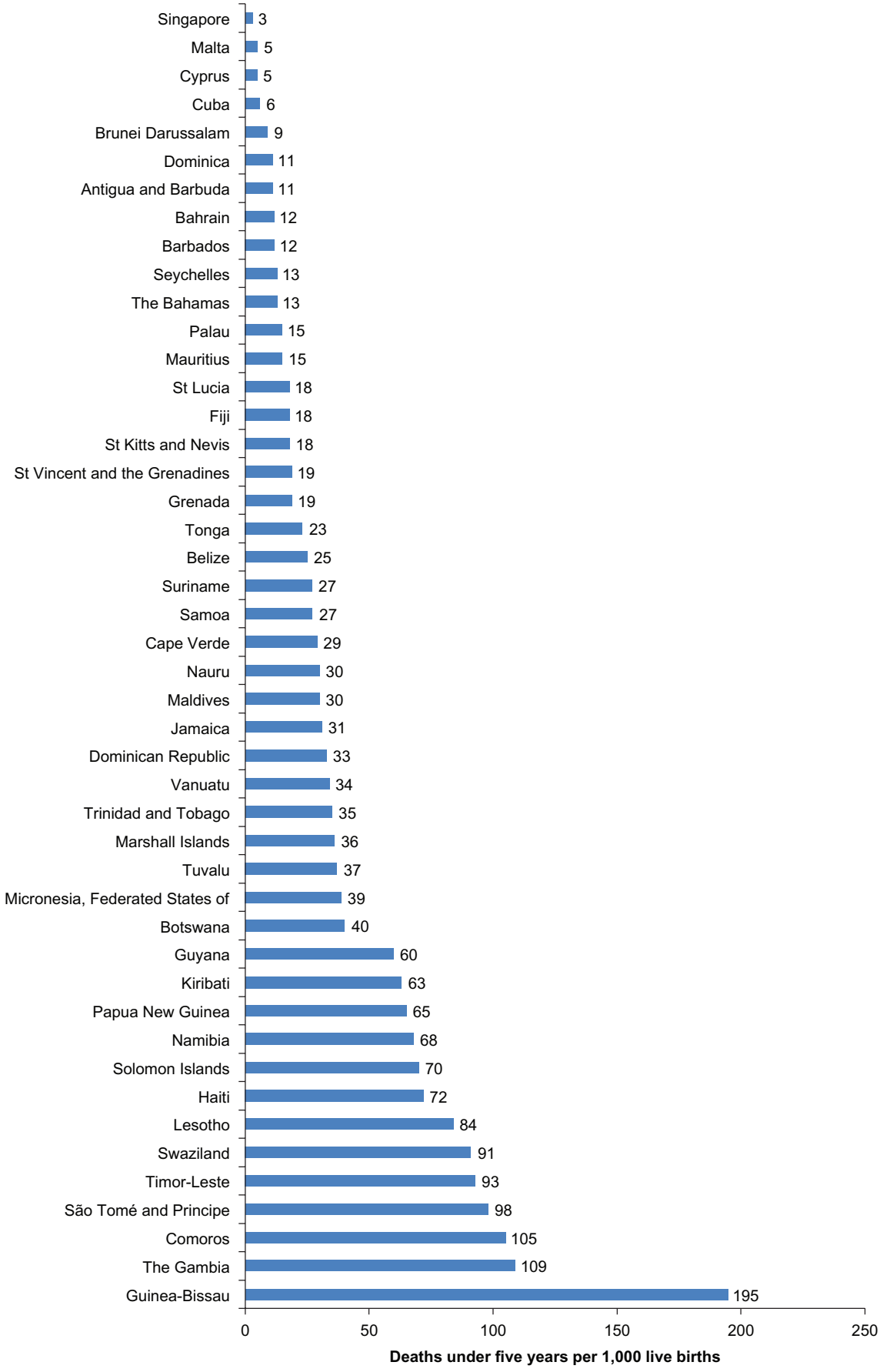
Figure 1.2 Microstates and the MDGs



Source: UN MDG database 2010

86 per cent making progress compared with 77 per cent of the benchmark states. Many of the states facing the greatest challenges in child health, such as Haiti,[7] Papua New Guinea and the Dominican Republic, reduced their infant deaths in the period 1990 to 2007/2008 by a greater number than other small states.

Figure 1.3 Reduction in Childhood deaths



Source: UN MDG database 2010

The child health divide in the 46 small states in 2007 ranged from a child mortality rate[8] of three in Singapore to 195 in Guinea-Bissau.

1.6 MDG 5: Maternal health

The 46 small states made greater progress on reducing maternal mortality than the 10 benchmark states; but within those small states there is a large variation in performance. Women in Lesotho, for example, are 100 times more likely to die during pregnancy than those in Cyprus. The risk of maternal death was shown to relate to the level of service of skilled professionals, the provision of antenatal care and undernourishment in the population. The maternal health divide in 2005 ranged from a maternal mortality ratio (MMR)[9] of eight in Malta to 1,100 in Guinea-Bissau.

1.7 MDG 6: Disease control

The 10 benchmark states outperformed the 46 small states in the control of major diseases (HIV/AIDS, malaria and tuberculosis), with 34 per cent making progress and 7 per cent off-track, compared with 25 per cent making progress and 11 per cent off-track among the small states.

The Big Divide in disease control in the 46 small states is evident from the wide range of risks and services for the major disease groups.

1.7.1 HIV/AIDS

Access to antiretroviral drugs in the 46 small states in 2007 ranges from 18 per cent of the population in The Gambia and 20 per cent in Guinea-Bissau to 79 per cent in Botswana and 95 per cent in Cuba for those with advanced AIDS. Focused support is needed to close these gaps.

1.7.2 Malaria

Reported child deaths from malaria per 100,000 population in the 46 small states in 2008 range from 0 per 100,000 population in Belize and Comoros to 87 in The Gambia and 136 in Guinea-Bissau. There were some fragmentary data for the number of children sleeping under insecticide-treated bed-nets; the lowest reported rates were 3 per cent of children in Suriname in 2000 and 1 per cent in Swaziland in 2007, while the highest reported rates were 39 per cent in Guinea-Bissau in 2006, 49 per cent in The Gambia in 2006 and 56 per cent in São Tomé and Principe in 2009. Malaria has been successfully eradicated in a number of small island states in the Caribbean, in Cyprus, Mauritius and Singapore. Greater control of this disease is clearly possible and more support is needed to reduce discrepancies in risk.

1.7.3 Tuberculosis

In 2008, there were a total of 11,000 deaths from tuberculosis in the 46 small states. Eighty per cent of these were in seven countries. The highest death rates per 100,000 population were in Timor-Leste (83), The Gambia (44) and Botswana (32). The lowest rates were in Barbados and St Kitts and Nevis, which reported zero deaths in 2008. In the benchmark states, the highest tuberculosis deathrate was 39 per 100,000 in South Africa and the lowest was 0.1 in Iceland. People in Timor-Leste are more than 800 times likely to die from tuberculosis than those in Iceland. A sharper focus is needed on tuberculosis to direct resources to the countries in greatest need.

1.8 MDG 7: Sustainable environment

The 10 benchmark states outperformed the 46 small states in the pursuit of environmental sustainability. The benchmark states made collectively 69 per cent progress with the indicators in MDG 7, with 19 per cent collectively off-track. The 46 small states, however, only made 38 per cent progress, with 28 per cent off-track.

1.8.1 Forest cover

Since 1990, some 48,000 square kilometres of forest cover has been lost across the 46 small states. While 870,000 square kilometres of total forest cover remained in place in 2005, this was largely accounted for by just four (9%) of the countries. The Big Divide on forest cover in the 46 small states in 2005 is that nine of the small states have less than 5 per cent forest cover, with Lesotho having the lowest level (0.3%), while the Federated States of Micronesia has 91 per cent. The Big Divide on terrestrial and marine protected areas as a percentage of national territory in 2009 ranges from 0.1 per cent in Solomon Islands to 32 per cent in Brunei Darussalam.

1.8.2 Safe water and sanitation

By 2008 there were about 12 million people without access to safe water and about 22 million without access to safe sanitation in the small states reviewed. The principal problems of provision were in Haiti, Dominican Republic, Papua New Guinea, Cuba, and Namibia. The Big Divide on safe water provision in 2006 in the 46 small states ranges from 47 per cent of

population with safe water in Fiji to 100 per cent in Barbados. The Big Divide on safe sanitation in 2006 ranges from 32 per cent of the population in Solomon Islands to 100 per cent in The Bahamas.

1.8.3 Slum population

The highest levels of urban slum population in 2005 were reported in Dominican Republic (70%), Bahrain (69%), Jamaica (61%) and Belize (47%). In Guyana, the proportion of the urban population living in slums rose from 5 per cent in 1990 to 34 per cent in 2005; and in Jamaica the proportion increased from 29 per cent in 1990 to 61 per cent in 2005. The Big Divide in the slum population in 2005 ranged from 5 per cent in Antigua and Barbuda to 70 per cent in Dominican Republic.

1.8.4 CO_2 emissions

While in general carbon dioxide (CO_2) emission levels are a function of increasing GDP, among the 46 small states Singapore and Brunei Darussalam have begun to decouple environmental pollution from economic growth, following a pattern associated with reported levels from the USA, the UK, Iceland and France. The Big Divide in CO_2 emissions per head of population in the 46 small states ranges from 0.2 metric tonnes per head in Comoros to 30 in Bahrain.

1.9 MDG 8: Partnerships

The 10 benchmark states outperformed the 46 selected small states on the indicators for this MDG. Overall, small states made 69 per cent progress, while the ten benchmark states made 80 per cent progress.

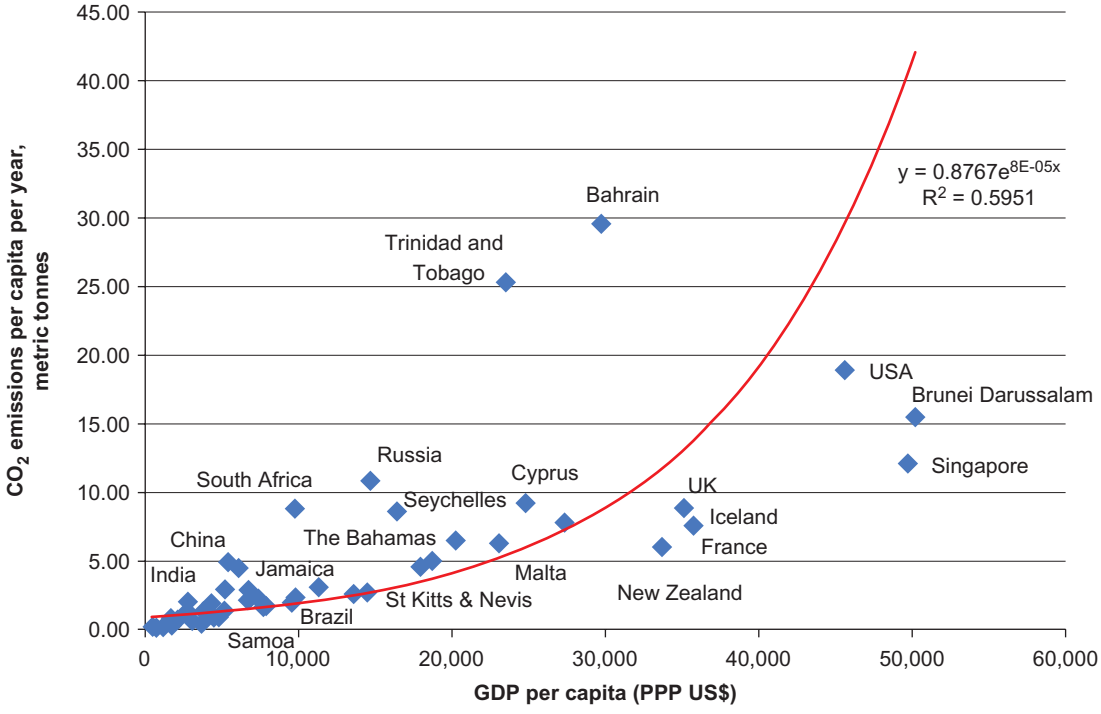
1.9.1 Official development assistance (ODA)

To achieve sustainability SIDS need to reduce the proportion of their national income that is derived from aid. Sixty-eight per cent of the 38 SIDS in this review achieved this against the 1990 baseline. Only four, St Kitts and Nevis, Haiti, Federated States of Micronesia, and Palau increased their dependence on ODA in 2008. The highest latest levels of dependence on aid are in the Federated States of Micronesia (36%), São Tomé and Principe (26%) and Seychelles (26%). The lowest levels of ODA receipts as a proportion of gross national income (GNI) are in Barbados (0%) and the Dominican Republic (0.35%).

1.9.2 Heavily indebted poor countries

Of the 46 small states, six were heavily indebted poor countries qualifying for debt relief under the International Monetary Fund's (IMF) heavily indebted poor countries (HIPC) scheme. These were Comoros, The Gambia, Guinea-Bissau, Guyana,

Figure 1.4 CO_2 emissions and GDP in small states



Sources: UN MDG database and UN Statistics Division 2010

Haiti, and São Tomé and Principe, although Comoros and Guinea-Bissau have yet to reach the completion point for agreement on the special debt relief programme.[10] Within the programme, the four states that have reached completion received in total US$1,191 million. A further US$615 million has been committed to Guinea-Bissau and an additional US$146 million to São Tomé and Principe.

1.9.3 Debt servicing

Seventeen of the 46 small states (37%) reduced their level of debt servicing as a percentage of exports of goods and services between 1990 and 2008 (or latest year available). In 2008, debt servicing ranged from 1 per cent of exports of goods and services in Botswana to 17 per cent in St Kitts and Nevis.

1.9.4 Information and communications technology

All of the 46 small states increased provision of mainline and mobile telephones and internet usage on their 1990 baseline levels. But a wide range between different countries remains.

The Big Divide in the 46 small states for mobile phones in 2008 ranged from 158 per cent in Antigua and Barbuda, 159 per cent in Barbados and 186 per cent Bahrain (more than one phone per person) to 1 per cent in Kiribati, 2 per cent in Marshall Islands and 3 per cent in Cuba.

The highest reported provision of mainline phones was 59 per cent in Malta and Barbados, while the lowest was 0.2 per cent in Timor-Leste, 0.9 per cent in Papua New Guinea and 1.6 per cent in Solomon Islands.

For internet provision, the highest level of use was in Antigua and Barbuda at 75 per cent and Barbados at 74 per cent, while the lowest levels were in Timor-Leste at 0.2 per cent, Papua New Guinea at 2 per cent and Solomon Islands at 2 per cent. Since information and communication technology (ICT) access is a key element in modern development, action on this front is likely to yield sound returns.

1.10 Assessing the real numbers

Despite the advances that have been made toward the MDGs since 1990 there is much work to be done. For example, this report shows that for the 46 small states to meet the targets:

- 7 million undernourished people need to be better fed (MDG 1, target 1C, indicator 9);[11]
- 30,000 infant lives need to be saved each year (MDG 4, target 4A, indicator 2);[12]
- 48,000 square kilometres of forest cover should be re-established (MDG 7, target 7A, indicator 7.1);[13]
- 71 million tonnes of CO_2 emissions should be cut (MDG 7, target 7A, indicator 7.2.1);[14]
- 5 million people should be provided with safe water (MDG 7, target 7C, indicator 7.8);[15] and
- 13 million people should be provided with a safe toilet (MDG 7, target 7C, indicator 7.9).[16]

1.11 Lagging behind

The report shows that in 2005 just 13 per cent of the 46 small states (Haiti, Dominican Republic, Cuba, Botswana, Guinea-Bissau and The Gambia) accounted for over 80 per cent of the total undernourished population. Meanwhile, 78 per cent of the infant lives that must be saved to meet the 2015 target were in just 17 per cent of the countries (Papua New Guinea, Haiti, Guinea-Bissau, The Gambia, Dominican Republic, Lesotho, Namibia, and Swaziland).

Six (13%) of the small states (Papua New Guinea, Botswana, Solomon Islands, Timor-Leste, Guinea-Bissau and Brunei Darussalam) accounted for 99 per cent of the forest cover that needs to be re-established. Nearly eighty per cent of the CO_2 emissions to be saved came from just seven (15%) of the countries (Trinidad and Tobago, Dominican Republic, Bahrain, Singapore, Jamaica, Cyprus and Namibia). In addition, over 88 per cent of the people who lacked safe water lived in just five states (Papua New Guinea, Haiti, Dominican Republic, Cuba, and Guinea-Bissau).[17]

1.12 Off-track status

The review shows that an assessment of progress by reference solely to the declared MDG targets can be misleading when identifying the states that are most in need of support. The assessment of off-track status can result from a marginal decline in performance from a high level of achievement.

For example, a decline from 99 to 98 per cent registers as far off-track as a decline from 2 to 1 per cent. The measurement of 'proximity to target' to help judge relative performance gives a more relevant picture of progress towards achieving the MDGs.

1.13 Missing data

The 46 small states had a higher percentage of indicators with missing data than the benchmark

states. Assisting smaller countries to collect and monitor information is a major task ahead if a clearer picture of progress is to emerge by the target date of 2015.

Overall, 26 of the 46 small states had 50 per cent or more data items missing. The countries with the highest levels of missing data were Nauru, Tuvalu, Federated States of Micronesia, Palau and Timor-Leste, all of which have more than 62 per cent missing data.

Microstates, although they had fewer indicators off-track compared with other small states (11% as against 14%), had more missing data (62% as against 47%).

1.14 Use of percentages

For many indicators, performance and targets are expressed in percentages without reference to the denominators on which they are based. So, for example, the MDG system reports the percentage of the population without safe water or safe sanitation, but variations in population size among the small states obscures the overall scale of need across the selected states.

This report shows that more attention needs to be given to the relative size of need in assessing the total support required and priorities for action. For example, the report shows that in 2007/2008 close to 50 per cent of deaths of infants in their first year (MDG 4, indicator 2) occurred in only three of the 46 small states (Haiti, Papua New Guinea, Guinea-Bissau). Similarly, 65 per cent of those without safe water in the selected states in 2005–2008 lived in two of the 30 small states for which data were available (Papua New Guinea and Haiti).

1.15 Investment for progress

The report also examines action taken by small states since 2007 to stimulate progress towards achieving the MDGs by tracking reports of fiscal stimulus packages and national budget and related official statements from 2008 to 2010. Some countries are reshaping their development policies to give greater emphasis to promoting key elements of sustainable development, despite the impact of the world financial crisis.

Such commitments embrace aspects of the MDG agenda, including poverty, education, health and the environment, although few of the national budgets examined explicitly mention progress towards achieving the MDGs or the specific targets to be achieved by 2015. Indeed, few of these states referenced in their national budgets a commitment to Agenda 21,[18] the 2005 UN Mauritius Strategy for SIDS or the MDG programme.

Exceptions include Singapore, Malta and Mauritius. Singapore was one of the most severely hit victims of the global crisis of 2008–2010, which exposed its economic vulnerability. But its integrated sustainable development programme, complete with specific targets, has allowed it to recover quickly. Although in the league table of progress on MDGs Singapore lies at nineteenth position out of 46 (Table A1.1), it is now moving towards ten new targets for 2030.

Malta, twenty-second in the league table, has declared in its 2009 budget a fresh commitment to eco-friendly programmes. Meanwhile Mauritius, thirteenth in the league table, is introducing a supplementary set of 30 sustainable development indicators covering aspects of production and consumption and natural resources linked to a strategic policy for a sustainable Mauritius.

1.16 New measurements

Approaches to monitoring welfare and the environmental impact of development are explored in this report and provide illuminating supplementary tools for policy-makers concerned with the future sustainability of life on this planet.

The United Nations Environment Programme (UNEP) is now, for instance, promoting the ecological footprint of countries as a measure of pressure exerted on the environment through the process of economic development.

Through the Happy Planet Index (HPI), the London-based New Economics Forum has shown that many small states attain a high level of wellbeing from only modest use of environmental resources. This stands in contrast to larger states that have lower levels of wellbeing and a heavier ecological footprint.

1.17 Microstates and progress

Nine of the 46 small states are microstates, with a population of less than 100,000. These microstates made less progress with the MDGs (27%) than the other 37 small states (38%), and although they had fewer indicators off-track (11% as against 14%), they had more missing data (62% as against 47%) (see Figure 1.2).

1.18 Recommendations

The report makes technical recommendations that include the following.

1. Provision of technical assistance at regional and country level:
    - More support on the monitoring and pursuit of MDGs for the smallest states through regional technical assistance;
    - Integration of the MDG process within planning, investment and governance systems at national and regional levels;
    - More explicit assessment of the marginal and total costs and benefits of making progress toward specific targets on each indicator, as well as the identification of priorities for intervention.
2. Research and development on technical 'best practices' and the evidence base for intervention:
    - More systematic documentation of the scientific and technical evidence base for interventions within an economics framework that includes social and environmental costs and benefits;
    - Establishment of methods for developing standards of best practice for interventions for the pursuit of MDGs and systems of exchange of technical information and resources.
3. UN agency focus on documentation on SIDS in line with the Mauritius Strategy for Implementation (MSI):[19]
    - Comprehensive documentation of MDG and related data from SIDS and the extension of this into the programmes and publications of international agencies (e.g. UNEP, World Health Organization (WHO), United Nations Children's Fund (UNICEF), United Nations Development Programme (UNDP) and the Commonwealth Secretariat).
4. Further development of UN and national data and indicator monitoring systems to meet the requirements of the MSI:
    - Extension of the MDG framework for the 46 small states and SIDS to cover the priority areas in the MSI and the Barbados Programme of Action.

Notes

1 In 2011 South Africa was included formally in the BRIC group which was then renamed BRICS. South Africa is included as a separate one of the 10 Benchmark states in this report whose database was compiled in 2010.
2 Of the 46 states covered in this report, 38 are defined as SIDS. Of the 32 Commonwealth small states, 24 are classified by the UN as SIDS.
3 See, for example, UNDP (2004), Jamaica MDG Report, Country Reports, p. 50.
4 Progress in this report is defined as having the status of 'achieved' or 'on-track' for performance against a target. Where assessments are reported that cover more than one indicator or more than one country, the sum of 'achieved' and 'on-track' indicators is divided by the sum of indicators assessed for each country. See Section 2.4 for definition of MDG status. The assessment is made against the value of each indicator in each state in 1990, the baseline year defined by the UN.
5 Data are for 2005, and excludes nine countries for which data were unavailable. Thus 18 (49%) of the 37 small states for which there are data had not reduced the percentage of their population that is undernourished since 1990.
6 2007 at purchasing power parity (PPP) – an arithmetical adjustment by UNDP to exchange rate values of the local currency to better express their purchasing power against a range of common goods and services.
7 The data from Haiti relate to the period before the 12 January 2010 earthquake.
8 Number of deaths in children under five years old per 1,000 live births.
9 Number of deaths of mothers in childbirth per 100,000 live births.
10 By September 2011.
11 Data are missing for nine countries: Bahrain, Marshall Islands, Federated States of Micronesia, Nauru, Palau, Papua New Guinea, Singapore, Tonga and Tuvalu.
12 Data are missing for Nauru and Tuvalu.
13 Data are missing for Marshall Islands and Nauru.
14 Data are missing for two countries: Lesotho and Tuvalu.
15 Data are missing for 21 countries: Antigua and Barbuda, The Bahamas, Bahrain, Belize, Brunei Darussalam, Cuba, Dominica, The Gambia, Grenada, Guinea Bissau, Guyana, Lesotho, Malta, Marshall Islands, Nauru, St Lucia, St Vincent and the Grenadines, Seychelles, Swaziland, Timor-Leste and Vanuatu.
16 Data are missing for eight countries: Antigua and Barbuda, Bahrain, Brunei Darussalam, Nauru, St Lucia, St Vincent and the Grenadines, Seychelles and Timor-Leste.
17 This analysis excludes countries for which data were missing.
18 The Declaration of the Rio de Janeiro 1992 UN Conference on Environment and Development (UNCED), the Earth Summit, was a 40-chapter blueprint for implementing sustainable development, commonly referred to as Agenda 21 – the Agenda for the twenty-first century.
19 Mauritius Strategy for Implementation: the UN General Assembly Commitment to the Implementation of the 2005 UN Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States.

Chapter 2

Assessing Progress

The MDG system, agreed at the UN Millennium Conference in New York, 6–8 September 2000, consists of eight MDGs and 21 targets, which apply to key aspects of development to be pursued by every country worldwide.

The data, methodology and assumptions used to monitor progress are important because their underlying results directly influence the financial and resource commitments directed through fiscal stimulus packages and national budget statements to bridge identified gaps.

2.1 Global financial crisis

By the end of the 2000s, the onset of the global financial crisis meant that political discourse favoured economic recovery, monetary policy, employment, debt and trade. Yet these fields are neglected in the MDG framework, which has no targets or indicators for gross domestic product (GDP), balance of payments, or exchange or interest rates.

As well as excluding core macroeconomic issues, the MDG framework also avoids issues such as life expectancy or demography in human development. Nor does it embrace a nation's ecological footprint or the bio capacity of the natural environment.

In light of this, in interpreting the results from this review, care has been taken to relate the data to these wider issues and to highlight ways in which the pursuit of the MDGs can be integrated within the broader framework of sustainable development.

2.2 Goals, targets and indicators

The MDGs encompass eight development objectives covering poverty alleviation, education, gender equality, child health, maternal health, disease control, environmental protection and partnerships. Within these there are 21 specific targets and some 60 principal indicators.[1]

Not all the indicators are relevant to all states as some are restricted to least developed states and others relate only to developed states; the number of indicators relevant to each of the states covered in this report varies from 58 to 62.[2]

In addition, the report considers developments that have been made in certain SIDS that can form the basis for improvements in performance appraisal for small states across the board.

2.3 Data and sources

This report covers the list of MDG indicators (see Annex 2) and relies on the UN Statistics Division's MDG database,[3] a compilation of statistics sent in by UN member states. Imputed statistics not submitted by states, but which are the result of data modelling, are also used. Most of the latest values relate to the period 2004–2006. Some values are for earlier years and some are from 2008.

The report also uses other databases within the UN system, such as those produced by the World Bank, UNDP and UNICEF, as indicated in the relevant text, tables and figures. These cover data mapped against GDP per capita at purchasing power parity (PPP), population size and annual births, as well as the Human Development Index (HDI).

2.4 Defining performance status

The report sets out progress on the MDGs using the relevant indicator values:

- **Achieved:** where the latest value on the indicator is at or beyond the target value
- **On-track:** where the latest value on the indicator is moving towards the target value in comparison with the baseline value
- **Off-track:** where the latest value on the indicator is not moving to the target value in comparison with the baseline value
- **Missing data:** where either the baseline value or the latest value is missing from the database, inhibiting the assessment of performance

Progress is defined as having the status of 'achieved' or 'on-track' for performance against a target. Where assessments are reported covering more than one indicator or more than one country, the sum of 'achieved' and 'on-track' indicators is divided by the sum of indicators assessed for each country.

This total proportion of progress per indicator assessed is expressed as a ratio. Progress made by country A on an MDG is given by:

$$\frac{Xi}{ni}$$

where x refers to the sum of progress items
n refers to the sum of indicators assessed
i refers to any one of the MDGs

Two arithmetic assessments of progress are made: one 'includes' missing data in the denominator; and the other 'excludes' missing data from the denominator, hence n is reduced where data on an indicator are not available. Missing data are a major issue in the MDG system and this is examined more closely in the analysis of progress.

2.5 Proximity to target

The assessment of progress is defined for each indicator (see Annex 1), but this does not take into account proximity to target. In some cases only a marginal variation in performance can place the status in the off-track category, even though the distance from target is relatively small. This is one of the limitations of the MDG system.

To overcome this anomaly, in selected cases attention is drawn to proximity to target by reporting the differences between the target and the latest values in the dataset. In addition, to emphasise the Big Divide in values between states, graphs are presented showing the full range of performance from the states with the highest performance to those with the lowest performance.

2.6 Comparisons, league tables and benchmarks

The report sets out baseline and latest values with calculated targets and the performance status for each indicator within the eight MDGs for each of the 46 small states. League tables show variations in performance and allow comparisons to be drawn between the 46 small states and 10 benchmark states: Iceland, New Zealand, France, UK, USA, Brazil, Russia, India, China and South Africa. These larger countries – a mix of islands, developed countries and major emerging economies – provide a range of aspirational benchmarks for the 46 small states.

2.7 Country coverage

The 46 countries which are the focus of this review include 32 states recognised as Commonwealth small states plus 14 countries that are categorised by the UN as small island developing states, but which are not members of the Commonwealth (see Annex 1).

Figure 2.1 and Tables 2.1 and 2.2 provide an overview of some basic economic and social statistics for the countries covered. The total population of the 46 small states is 68.4 million. The 32 Commonwealth small states have a combined population of 27 million (40%) and the 14 other SIDS have a total population of 41 million (60%). The 10 benchmark states have populations ranging from Iceland with 317,000 to China with 1.3 billion, with a total population of 3.3 billion.[4]

The 46 small states covered in this study are drawn from Africa, Asia, the Caribbean, the Indian Ocean, the Pacific region and the Americas. The smallest in terms of population is Tuvalu with 12,000 people and the largest is Cuba with 11 million. Nine are microstates with populations under 100,000; 28 have populations between 100,000 and 1.5 million; and nine have populations between 1.5 million and 12 million.

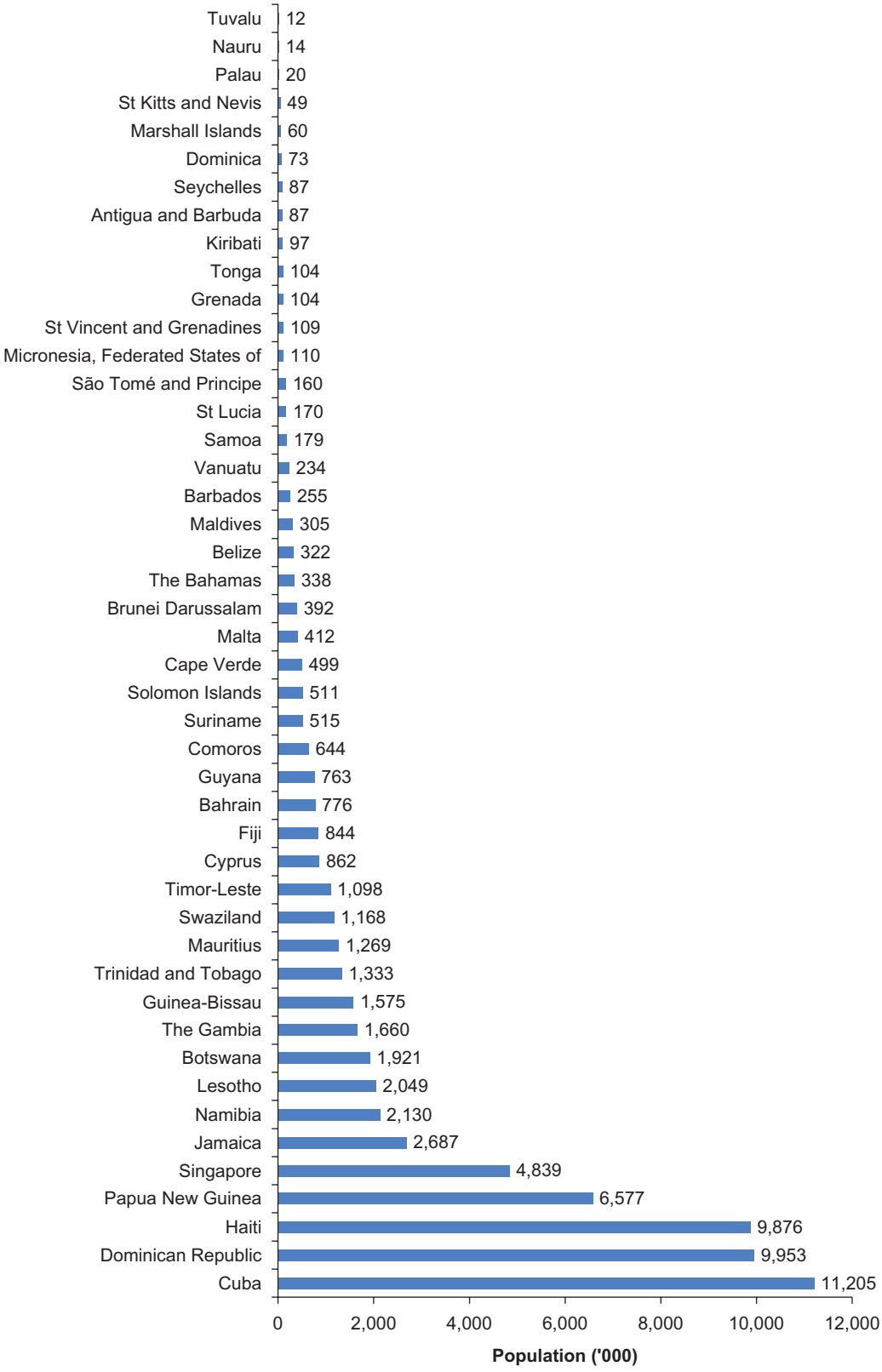
The 46 small states include eight countries with a population greater than 2 million: Cuba (11.2 million); Dominican Republic (9.9 million); Haiti (9.9 million); Papua New Guinea (6.6 million); Singapore (4.8 million); Jamaica (2.7 million); Namibia (2.1 million) and Lesotho (2.1 million). These eight countries together comprise more than 70 per cent of the total population of the 46 states (see Figure 2.1).

The dominance of just a few states in terms of population has important implications for policy planning and action. Population size is often obscured within the MDG debate by the use of targets linked to percentage change. Economists, however, are more interested in the totals concealed in these percentages, and in the total and marginal costs and benefits of investments to achieve progress.

Across the 46 small states annual income in terms of GDP per capita at purchasing power parity ranges from US$477 in Guinea-Bissau to US$49,704 in Singapore.[5] The World Bank[6] classifies nine of the states as high income,[7] 29 as middle income (14 as upper-middle[8] and 15 as lower-middle[9]) and four as low income.[10] In the 10 benchmark states income varies from US$2,753 per capita in India to US$45,597 in the USA. Iceland, New Zealand, USA, UK and France are classified as high income, Brazil, Russia and South Africa are upper-middle income, and India and China are lower-middle income.

Forty of the 46 small states are listed in the UNDP Human Development Index.[11] Three states are

Figure 2.1 Population distribution of small states



Source: UN Statistics Division 2010

Table 2.1 Economic and social statistics of small states

Small states	Region	Population, 2008 ('000)	GDP per capita, 2007 (PPP US$)	HDI, 2007 (value)
Antigua and Barbuda	Caribbean	87	18,691	0.868
Bahamas, The	Caribbean	338	20,253	0.856
Bahrain	Caribbean	776	29,723	0.895
Barbados	Caribbean	255	17,956	0.903
Belize	Caribbean	322	6,734	0.772
Botswana[a]	Africa	1,921	13,604	0.694
Brunei Darussalam[a]	Asia	392	50,200	0.920
Cape Verde	Africa	499	3,041	0.708
Comoros	Africa	644	1,143	0.576
Cuba	Caribbean	11,205	6,876	0.863
Cyprus	Europe	862	24,789	0.914
Dominica	Caribbean	73	7,893	0.814
Dominican Republic	Caribbean	9,953	6,706	0.777
Fiji	Pacific	844	4,304	0.741
Gambia, The[a]	Africa	1,660	1,225	0.456
Grenada	Caribbean	104	7,344	0.813
Guinea-Bissau	Africa	1,575	477	0.396
Guyana	Caribbean	763	2,782	0.729
Haiti	Caribbean	9,876	1,155	0.532
Jamaica	Caribbean	2,687	6,079	0.766
Kiribati	Pacific	97	1,295	..
Lesotho[a]	Africa	2,049	1,541	0.514
Maldives	Asia	305	5,196	0.771
Malta	Europe	412	23,080	0.902
Marshall Islands	Pacific	60	..	..
Mauritius	Africa	1,269	11,296	0.804
Micronesia, Federated States of	Pacific	110	2,802	..
Namibia[a]	Africa	2,130	5,155	0.686
Nauru	Pacific	14[1]	..	..
Palau	Caribbean	20	..	..
Papua New Guinea	Pacific	6,577	2,084	0.541
St Kitts and Nevis	Caribbean	49	14,481	0.838
St Lucia	Caribbean	170	9,786	0.821
St Vincent and the Grenadines	Caribbean	109	7,691	0.772
Samoa	Pacific	179	4,467	0.771
São Tomé and Principe	Africa	160	1,638	0.651
Seychelles	Africa	87	16,394	0.845
Singapore	Asia	4,839	49,704	0.944
Solomon Islands	Pacific	511	1,725	0.610
Suriname	America	515	7,813	0.769
Swaziland[a]	Africa	1,168	4,789	0.572
Timor-Leste	Asia	1,098	717	0.489
Tonga	Caribbean	104	3,748	0.768
Trinidad and Tobago	Caribbean	1,333	23,507	0.837
Tuvalu	Pacific	12[b]	..	..
Vanuatu	Pacific	234	3,666	0.693
Total		**68.4 m**	**433.6 m**	

[a] Small state: 38 of the 40 are classified by the UN as SIDS and are members of the Alliance of Small Island States (AOSIS), plus Malta and Cyprus, which were members of the original Atlantic, Indian Ocean, Mediterranean and South China Sea (AIMS) SIDS region and are now part of the EU.

[b] CIA (2009), World Factbook.

Sources: http://hdr.undp.org/en/media/HDR_2009_EN_Complete.pdf
http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=2

Table 2.2 Economic and social statistics of benchmark states

Country	Region	Population, 2008 ('000)	GDP per capita, 2007 (PPP US$)	HDI, 2007 (value)
Brazil	America	191,972	9,567	0.813
China	Asia	1,324,655	5,383	0.772
France	Europe	62,277	33,674	0.961
Iceland	Europe	317	35,742	0.969
India	Asia	1,139,965	2,753	0.612
New Zealand	Pacific	4,269	27,336	0.950
Russia	Europe	141,950	14,690	0.817
South Africa	Africa	48,793	9,757	0.683
UK	Europe	61,407	35,130	0.947
USA	America	304,375	45,592	0.956

Sources: UNDP and World Bank, available at: http://hdr.undp.org/en/media/HDR_2009_EN_Complete.pdf
http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=2

assigned a low HDI ranking (ranging from 0.396 for Guinea-Bissau to 0.489 for Timor-Leste); 21 states have a medium HDI (ranging from 0.514 for Lesotho to 0.777 for Dominican Republic); 11 states have a high HDI (ranging from 0.804 for Mauritius to 0.895 for Bahrain); and five states have a very high HDI (ranging from 0.902 for Malta to 944 for Singapore).[12]

Notes

1 The number of indicators has been expanding since the original set of 48. As some of the 57 indicators are not applicable to all countries, this report calculates performance by each state individually, using as denominators only those indicators relevant to each state.

2 The total number of indicators covered in this report exceeds the overall number of 57 indicators, as some are broken down into sub-indicators.

3 The UN database is continually updated as fresh data are reported by member states. This report is based on data downloaded in May 2010.

4 See Table 2.2.

5 World Bank databank for 2007.

6 Four of the 46 small states have not been assessed by income: Marshall Islands, Nauru, Palau and Tuvalu.

7 Antigua and Barbuda, The Bahamas, Bahrain, Barbados, Brunei Darussalam, Cyprus, Malta, Singapore and Trinidad and Tobago.

8 Botswana, Cuba, Dominica, Dominican Republic, Fiji, Grenada, Jamaica, Mauritius, Namibia, Palau, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines and Seychelles.

9 Belize, Cape Verde, Guyana, Kiribati, Lesotho, Maldives, Marshall Islands, Federated States of Micronesia, Papua New Guinea, Samoa, São Tomé and Principe, Solomon Islands, Swaziland, Timor-Leste and Tonga.

10 Comoros, The Gambia, Guinea-Bissau and Haiti.

11 UNDP Human Development Report (2009), UN, New York; data for 2007. The HDI is a composite development index that embraces education, GDP per capita at purchasing power parity and life expectancy at birth.

12 Six countries were not classified by UNDP: Kiribati, Marshall Islands, Federated States of Micronesia, Nauru, Palau and Tuvalu.

Chapter 3

Findings

Compared with other countries, small states have not moved quickly enough in the pursuit of the MDGs. The 10 benchmark states outperformed the 46 small states in terms of both targets 'achieved' and those 'on-track'. Off-track indicators are similar for both groups, but the 46 small states have substantially higher levels of indicators with missing data (see Figures 3.1 and 3.2).

3.1 Targets achieved

Table A1.3 in Annex 1 shows that the 46 small states have achieved 19 per cent of the MDG targets.[1] This compares unfavourably with the 28 per cent achieved by the 10 benchmark states. Of the 46 small states, the 32 Commonwealth small states achieved 19 per cent, and the 14 other UN SIDS also achieved 19 per cent.[2]

Top five CSS by targets achieved:

		%
1.	Barbados	28.8
2.	The Gambia	24.6
3.	Jamaica and Mauritius	23.7
4.	Guyana	22.6
5.	Cyprus	22.4

Top five other UN SIDS by targets achieved:

		%
1.	Cuba	30.5
2.	São Tomé and Principe	27.4
3.	Dominican Republic	27.1
4.	Singapore	25.4
5.	Cape Verde	23.7

Top five benchmark states by targets achieved:

		%
1.	China	40.4
2.	Russia	35.7
3.	UK	35.5
4.	Brazil	35.1
5.	Iceland	33.3

Among the 46 small states, even Cuba, the best performing with 31 per cent of targets 'achieved', did not rank as high as any of the top five benchmark states. Five of the 10 benchmark states have already achieved over 33 per cent of the targets.

3.2 Progress including missing data

This report defines progress with the MDGs as the sum of targets 'achieved' plus those where the status is 'on-track' (i.e. moving towards the target against the baseline value). The progress league table in Table A1.2 in Annex 1 shows that for the 56 states combined – the 46 small states plus the 10 benchmark states – those in the top ten ranking have made 48 per cent[3] progress or more. In the first rank is Brazil with 67 per cent progress.

Five of those in the top ten ranking are benchmark states. The small states in the top ten are: the Dominican Republic (3rd) with 64 per cent progress; Cuba (6th) with 54 per cent; Namibia (8th) with 50 per cent; The Gambia (9th) with 49 per cent; and São Tomé and Principe (10th) with 48 per cent. The bottom ten in the rankings are all SIDS, with progress ranging from 27 per cent in Papua New Guinea to 20 per cent in Nauru.

3.3 Progress and population size

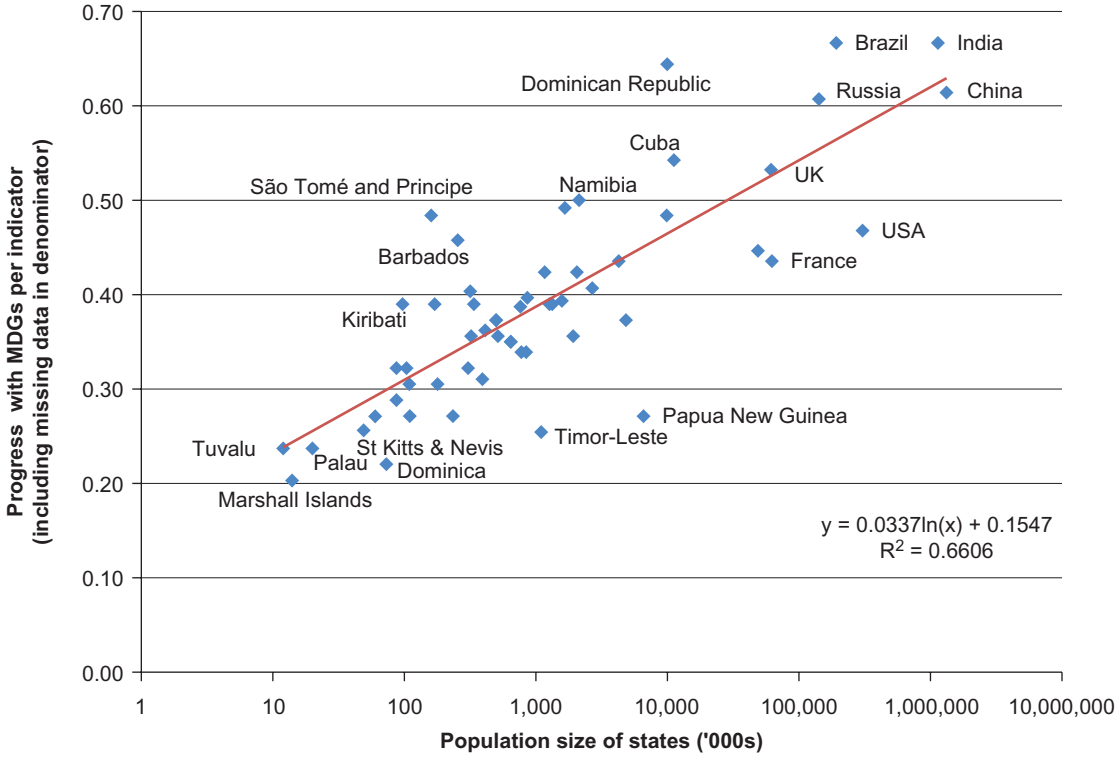
Figure 3.1 shows that progress towards achieving the MDGs is positively associated with population size. In short, size makes a difference. Smaller states have found implementation of the MDGs slower going than larger states. However, some of the benchmark states have made less progress than would be expected from their population size (below the trend line) – notably France and the USA.

Some of the 46 small states are below the trend line, including Dominica, Timor-Leste and Papua New Guinea. Benchmark states above the line and which have made more progress than would be expected for their population size are Brazil and Russia. Those above the trend line and which have made greater progress than would be expected include Dominican Republic, Cuba, and São Tomé and Principe.

3.4 Missing data

On targets 'achieved' and on 'progress' in achieving the MDGs (Figure 3.1), the percentages have been

Figure 3.1 Progress and population size



Source: Calculated from UN data 2010

calculated with missing data accounted for in the denominators. Missing data have been a major element in the MDG system, with many countries not reporting statistics necessary for assessment.

In many of the indicators, although not all, the year 1990 was determined by the UN to be the baseline year. In this report some flexibility has been adopted by accepting later values (up to 2003) as baseline values due to the unavailability of earlier data. Similarly, reporting of the latest values by countries varies, so that when data were downloaded from the UN database in 2010, for some countries the latest reported values were for 2008 but for others the latest reported values were earlier, going as far back as 2000 in some cases.

Despite this flexibility in the acceptance of data, for the 56 states overall, missing data prevented assessment of progress in 1,563 cases (41%). For the Commonwealth small states missing data affected 961 cases (44%) and for the other UN SIDS 404 cases (43%); for CSS and other UN SIDS combined missing data affected 1,365 cases (44%) and for the benchmark states 198 cases (27%).

3.5 Missing data and population size

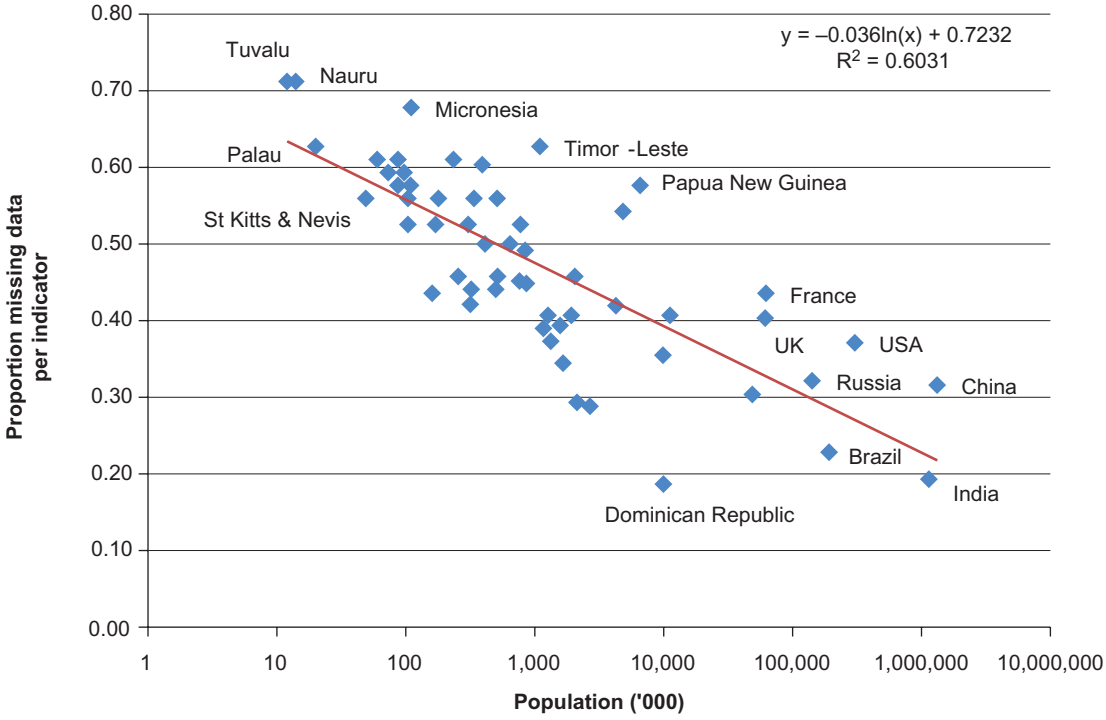
Figure 3.2 shows that the missing data were inversely associated with population size. Smaller states have a higher percentage of missing data than larger states.

Many states are close to the trend line, but certain benchmark states had a higher percentage of missing data than would be expected from their population size (i.e. above the trend line), notably France, USA and China. Some of the 46 small states are above the trend line, notably Federated States of Micronesia, Timor-Leste and Papua New Guinea. Others had fewer missing data than would be expected from their population size (i.e. below the trend line), notably the Dominican Republic.

When missing data are included in the denominator for calculating progress, we find that progress is a function of population size. But the report also finds that missing data are a function of population size. So the report finds that the smaller states have both made less progress with MDGs than the larger states and the smaller states have more missing data than larger states. Thus progress and missing data are inter-related, suggesting that smaller countries have difficulty in collecting and reporting data on MDGs, as well as in making progress towards the targets.

The league table for missing data (see Table A1.4 in Annex 1) shows states by percentage of missing data. The highest level of missing data was in Nauru and

Figure 3.2 Missing data and population size



Source: Calculated from 2010 UN data

Tuvalu at 71 per cent. The top five rankings of states by percentage of missing data are:

	%
1. Nauru and Tuvalu	71.2
2. Micronesia, Federated States of	67.8
3. Palau and Timor-Leste	62.7
4. Antigua and Barbuda, Vanuatu and Marshall Islands	61.0
5. Brunei Darussalam	60.3

(Note that the states in the same line have the same scores.)

Five of these were microstates with populations under 100,000. One of them, Federated States of Micronesia, has a population of 110,000. The exceptions were Brunei Darussalam with a population of 392,000 and Timor-Leste with a population of over 1 million. None of these nine states with the highest levels of missing data is a benchmark state. The benchmark state with the highest level of missing data was France with 44 per cent missing.

Twenty-six of the 46 small states had 50 per cent or more missing data. Clearly these states need support in developing their data systems if they are to be able to assess their progress towards achieving the MDGs and guide policy and programmes of action.

The five states with the lowest levels of missing data were:

	%
1. India	17.5
2. Dominican Republic	18.6
3. Brazil	21.1
4. Jamaica	28.8
5. Namibia	29.3

Two of these, Brazil and India, are benchmark states, while the others are among the largest of the 46 small states. It is therefore clear that it is the smallest states that have the greatest need for institutional support for collecting and reporting MDG data.

3.6 Progress excluding missing data

When indicators with missing data are excluded from the denominator for assessing progress, the Commonwealth small states plus the 14 other non-Commonwealth SIDS combined made 73 per cent progress; of the total 46 small states, the 32 CSS made 72 per cent progress and the 14 other small states made 76 per cent progress. The benchmark states made 78 per cent progress. Overall, the 56 states together made 79 per cent progress towards the MDG targets.

The league table in Table A1.5 shows the progress with MDGs since 1990 for the 56 states, excluding in the denominators indicators with missing data. The top five states in this league table of progress were:

		%
1.	Kiribati	96 (39)
2.	UK	92 (53)
3.	Cuba	91 (54)
4.	The Bahamas	89 (39)
5.	Antigua and Barbuda	86 (32)

(Figures in brackets represent percentage progress with MDGs since 1990, but including missing data in the denominator; this comparison provides a measure of the uncertainty to be attached to the assessment of progress.)

The bottom five states in this league table were:

		%
1.	Belize	62 (36)
2.	Botswana	60 (36)
3.	St Kitts and Nevis	58 (25)
4.	Jamaica	57 (41)
5.	Dominica	54 (22)

(Figures in brackets for comparison represent percentage progress including missing data in the denominator.[4])

3.7 Including or excluding missing data

By excluding missing data in the denominator, the assumption is that the pattern of progress for the indicators excluded would have followed the same pattern of progress found where data exist. This contrasts with the assumption made for assessment of progress that includes missing data in the denominator; in this case the assumption is that progress would not have been made on those indicators where there are missing data.

Thus excluding missing data provides a more optimistic assessment of progress. Including missing data gives a more pessimistic assessment. The optimistic presentation assumes that none of the missing data items, if present, would show the status of 'off-track' for those indicators; the pessimistic presentation assumes that all the missing items, if present, would be off-track.

The top five and bottom five ranks for progress made on MDGs highlight the extent of difference between the 'pessimistic' and 'optimistic' assessments, in some cases more than doubling the assessment of percentage progress. Table 3.1 uses MDG 1 as an example.

Table 3.1 Progress analysis 'including' versus 'excluding' missing data

	MDG 1	
	% progress including missing data	% progress excluding missing data
32 Commonwealth small states	17	60
14 other UN SIDS	20	63
Sub-total 46 CSS and other UN SIDS	18	61
Benchmark states		
Iceland and New Zealand	11	25
France, UK and US	15	33
Four BRIC states	69	86
South Africa	11	20

The differences in assessed performance using the 'optimistic' and the 'pessimistic' method are shown in Table A1.6. These differences reveal the measure of uncertainty for the overall assessment of performance for each MDG. In general in this report the commentary reviews performance on each indicator within each MDG using the pessimistic measure of progress by including the missing data items within the denominators for calculating percentage progress.

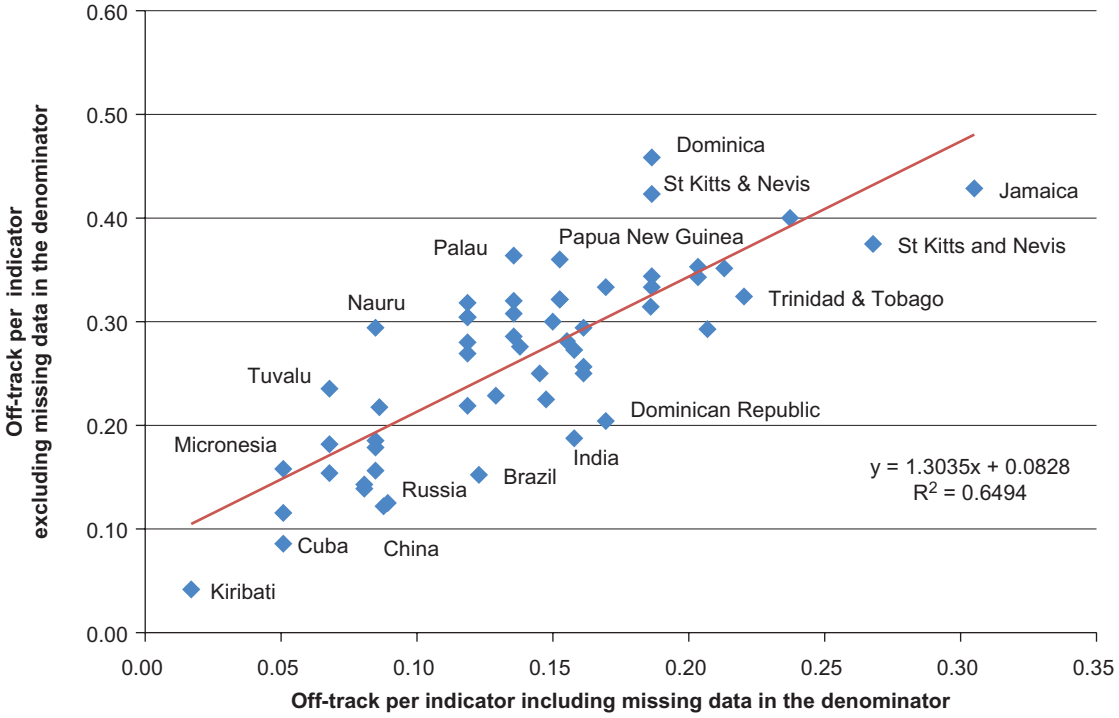
3.8 Variation in missing data by MDG

The absence of statistics was not evenly spread across the MDGs (see Table A1.7 in Annex 1). For the 46 small states missing data ranged from 1 per cent for MDG 4 (child health) to 71 per cent for MDG 1 (poverty relief). There was 70 per cent missing data for MDG 5 (maternal health); 63 per cent for MDG 6 (disease control); 54 per cent missing data for MDG 2 (education); 34 per cent for both MDG 7 (environmental sustainability) and MDG 3 (gender equality); and 26 per cent missing data for MDG 8 (partnerships).

There were fewer missing data for the ten benchmark states, ranging from 0 per cent for MDG 4 (child health) to 59 per cent for MDG 6 (disease control). For the benchmark states there were 53 per cent missing data for MDG 5 (maternal health); 43 per cent for MDG 2 (education); 40 per cent for MDG 1 (poverty relief); 12 per cent for MDG 7 (environmental sustainability); 5 per cent for MDG 8 (partnerships); and 4 per cent for MDG 3 (gender equality).

Taking the 56 states together, the missing data ranged from 1 per cent for MDG 4 (child health) to 65 per cent for MDG 1 (poverty relief). The extent of missing data for MDG 1 is particularly striking,

Figure 3.3 Off-track including and excluding missing data



Source: Calculated from 2010 UN data

given that it is viewed as one of the more significant goals. The implications of this absence of statistics substantially affect the assessment of progress and should be carefully taken into account as increasing uncertainty in the interpretation of results.

3.9 Performance off-track

The status 'off-track' is assigned in this review where the latest value of the indicator is not moving towards the target value in comparison with the baseline. Table A1.8 in Annex 1 sets out for the 56 states across MDGs 1–8 the ascending rank order of off-track performance. This table also shows a comparison of the percentages and ranks, including and excluding missing data. Figure 3.3 shows a close association between the two percentage scores for the 56 states, which means that both assessments are in accord in identifying the relative position of countries on the two scales.

Kiribati has the lowest percentage off-track both when including (1.7%) and excluding (4.2%) missing data.[5] Jamaica takes first and second position in both rank orders with 31 per cent and 43 per cent off-track respectively. Figure 3.3 shows that many of the states are close to the trend line with the overall level of association high ($R^2 = 0.65$), but some states are off the trend line with very different rank orders in the two listings.

Table 3.2 shows the five states with the highest percentage of indicators off-track, including missing data, together with the percentage off-track for those states excluding missing data. This gives an indication of the level of uncertainty in assessment arising from the factor of missing data.

3.10 Comparative analysis

The text and tables in this report present results with missing data included in the denominators for the calculation of percentages. The principal comparisons made are between the 46 small states and the 10 benchmark states.

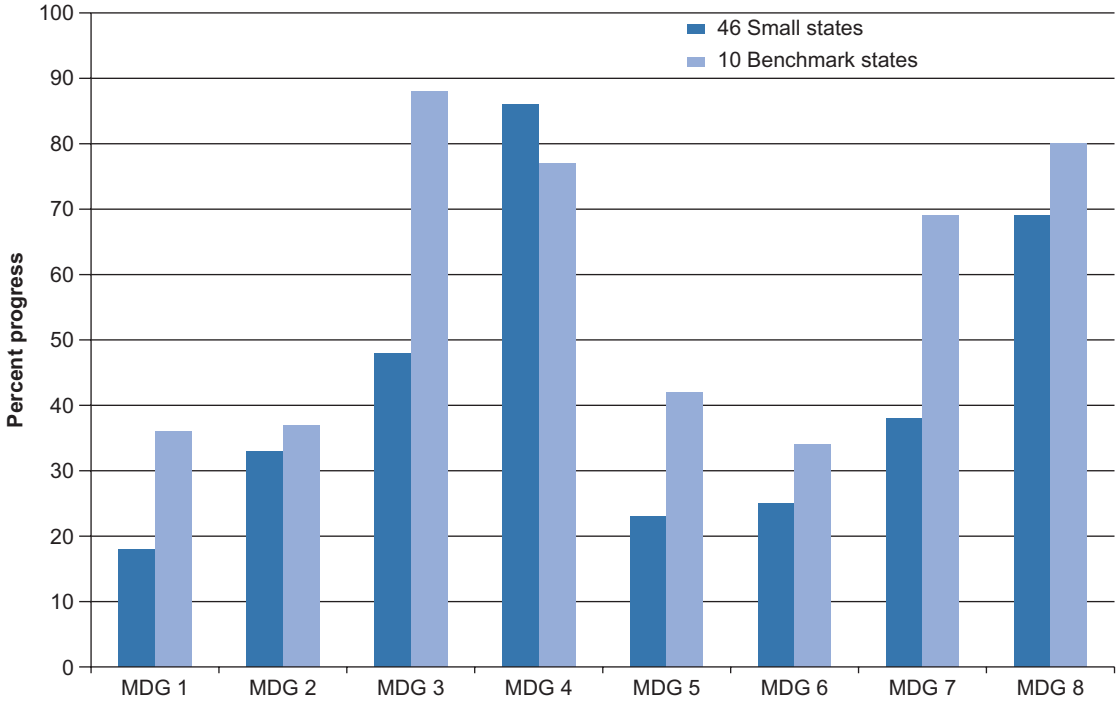
3.11 Progress by MDG

Figure 3.4 shows that the 46 small states have made less progress than the 10 benchmark states on all of

Table 3.2 Rankings of off-track states

Rank	State	% off-track (including missing data)	% off-track (excluding missing data)
1	Jamaica	31	43
2	South Africa	27	38
3	Botswana	24	40
4	Trinidad and Tobago	22	32
5	Guinea-Bissau	21	35

Figure 3.4 Progress by MDG (includes missing data in denominators)



Source: UN MDG database 2010

the eight MDGs except on MDG 4 (child health), where the small states achieved 86 per cent progress compared to 77 per cent by the benchmark states.

Notes

1 Assessed as a percentage of total indicators, with those with missing data counted in the denominator.

2 The review finds that the differences in performance were generally small between the 32 CSS and the 14 UN SIDS that together comprise the 46 small states. The detailed tables in the report and in the Annexes show the two groups of countries separately and combined.

3 Assessed on a percentage of total indicators with those with missing data in the denominator.

4 The arithmetic of the calculation of progress is shown in Section 2.4. The issue is essentially what to do about missing data. Should the missing data be included in the denominator or not? For example, one state might have made progress with 20 indicators out of 50. That might seem to be: (20/50) x 100 per cent progress = 40%. But if in the 50 indicators there were ten with missing data, then by excluding these missing data indicators the progress percentage would be (20/50–10) x 100=50%. As the rates of missing data are large and vary greatly between states, in this report we have decided to present percentage progress separately 'with missing data' and 'without missing data'. The variation between the two assessments can be taken as a measure of uncertainty in both the individual results for each country for each indicator and in the relative positions of countries in the league tables.

5 For definition of progress and the arithmetic of calculations including and excluding missing data see section 2.4.

PART II Review of Performance

This section presents the performance of the 46 selected small states[1] and 10 benchmark states on each of the MDGs.

Chapter 4

MDG 1: Poverty Relief

At the UN Millennium Summit in September 2000, world leaders recognised that the widening gap between the haves and the have-nots is a threat not only to economic and social wellbeing, but also to wider security. The relief of poverty is now one of the cornerstone objectives of international aid policy and of the work of UN agencies.

Goal 1 Eradicate extreme poverty and hunger

Target 1A: *Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day*

Indicators:

1.1 Proportion of population below $1 (PPP) per day

1.2 Poverty gap ratio (incidence × depth of poverty)

1.3 Share of poorest quintile in national consumption

Target 1B: *Achieve full and productive employment and decent work for all, including women and young people*

Indicators:

1.4 Growth rate of GDP per person employed

1.5 Employment-to-population ratio

1.6 Proportion of employed people living below $1 (PPP) per day

1.7 Proportion of own-account and contributing family workers in total employment

Target 1C: *Halve, between 1990 and 2015, the proportion of people who suffer from hunger*

Indicators:

1.8 Prevalence of underweight children under five years of age

1.9 Proportion of population below minimum level of dietary energy consumption

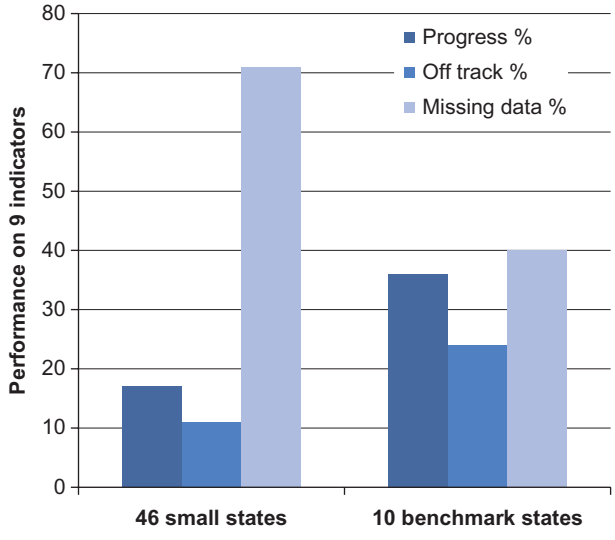
With its overarching goal of halving levels of poverty by 2015, MDG 1 seeks to improve the lot of the poorest by boosting employment and eliminating hunger. It recognises that decisive action must be undertaken by states, no matter what their size, to reduce inequalities associated with the capacity of an individual or family to earn a living and support themselves.

This MDG has three targets and nine indicators. Targets 1A and 1C include indicators with specific numerical targets of change relative to the 1990 baseline. Target 1B is a universal target unrelated to the baseline value. All of the targets in MDG 1 relate to achievement by 2015.

4.1 Overall performance

According to the statistics available, the 10 benchmark states outperformed the 46 small states in the reduction of poverty and hunger (Figure 4.1). The two island benchmark states, Iceland and New Zealand, recorded 11 per cent total progress, while

Figure 4.1 Performance on MDG 1: Poverty relief



Source: UN MDG database 2010

the three large benchmark states, France, UK and USA, achieved 15 per cent progress. The four BRIC states reported 69 per cent progress. This compared with 18 per cent progress by the 46 small states.

There were 414 indicators in total across the 46 small states (9 indicators x 46 states = 414 total indicators). The 46 small states made progress in 74 (18%) of cases,[2] while in 47 (11%) they were off-track.

4.2 Missing data

The assessment of progress on poverty relief has been seriously affected by a substantial statistical gap for each of the nine indicators. Figures are missing in the UN and World Bank MDG statistics, the sources used for the present report.

Few of the states covered have sent all the required poverty data to the UN (China is an exception), but the largest gaps were for the small states. This indicates an urgent need to build the technical capacity to collect and report poverty statistics.

This has prevented a detailed analysis across the 46 small states and 10 benchmark countries for each target and indicator. Seventy-one per cent of data for the 46 small states was missing, compared with 40 per cent for the 10 benchmark countries. For the 56 countries taken together, 65 per cent of the data was missing on MDG 1 (See Table A1.7).

4.3 Undernourishment

On indicator 1.9, measuring undernourishment, there were adequate data for assessment of progress for 37 of the 46 small states. The study found that in 2005 there were 11.7 million undernourished people in the 46 small states; the MDG target is to reduce this by 668 million by 2015. Eighteen (49%) of 37 small states (for which data was available) had not reduced the percentage of their population that is undernourished since 1990.[3] In addition, it was found that over 80 per cent of the 11.7 million undernourished people in the small states in 2005 came from just five of the countries (Haiti, Dominican Republic, Cuba, Botswana, Guinea-Bissau and The Gambia).

4.4 The BRIC states and the relief of poverty

A breakdown of the performance of each of the country groups reveals that the performance of the 46 small states was exceeded only by the BRIC states, with each of the other benchmark groups falling below the achievement of the small states. The substantial progress made in the relief of poverty in the BRIC states may be a key factor in their general progress in development. The delays by many small states in making similar progress with poverty relief may be a key factor in holding back their further development.

4.5 Action on MDG 1: Poverty relief

Some small states have taken concerted action on the relief of poverty through a refocusing of national budget priorities. **Botswana**, for instance, has developed a programme integrating housing and food security. **Cuba** has introduced a domestic food production programme using 225,000 hectares of unproductive land and has also increased its school meals programme for poor children.

The Gambia is aiming to provide poverty relief for 40 per cent of the population as a priority in its medium-term expenditure programme. **Guinea-Bissau** has identified in its current IMF-supported programme priorities for poverty relief, education and health. **Jamaica** is developing poverty relief and shelter programmes for its squatter population. It is also supporting young entrepreneurs through micro-lending programmes to relieve youth unemployment.

Mauritius has introduced an additional stimulus package for jobs, a small and medium enterprise (SME) development fund for business and direct works, as well as support for pre-primary children and corporate responsibility schemes funded by a 2 per cent levy on company profits. **Papua New Guinea** has implemented a poverty relief fund. **Seychelles** has extended its social safety net to more people in need. **St Lucia** has introduced a poverty relief scheme based on the principles of the Puenti Programme in Chile.[4] **Singapore** has a 'workfare' policy, including a regular top-up for lower- income workers; throughout the global financial crisis it contained its level of unemployment at or below 2.5 per cent.

Notes

1 The commentary on performance on each MDG takes the 32 Commonwealth small states and the 14 other non-Commonwealth SIDS combined. In general, the differences in progress between the 32 CSS and the 14 other SIDS are marginal and these differences are not examined in detail, except where large differences are evident.

2 A 'case' in this report is the assessment of the status (achieved, on-track, off-track, missing data) for a specific indicator for a specific country.

3 This excludes nine countries for which data were unavailable.

4 An integrated social and community support, economic, housing and education scheme based on a model from Chile.

Chapter 5

MDG 2: Universal Education

Education is a key element in development and an integral component of the UNDP Human Development Index. The goal of widening access to education among children – the second pillar of the MDGs – is necessary for social and economic development.

This MDG has one target and three indicators. The indicators used here provide measures of enrolment in primary school and completion of attendance, plus literacy rates for 15–24-year-olds. However many other aspects of education are not assessed; nor is the availability of 'free' education included within the MDG system.

Goal 2. Achieving universal primary education

Target 2A: *Ensure that by 2015 children everywhere, boys and girls alike, will be able to complete a full course of primary schooling*

Indicators:

2.1 Net enrolment ratio in primary education

2.2 Proportion of pupils starting Grade 1 who reach last grade of primary

2.3 Literacy rate of 15–24 year-olds, women and men

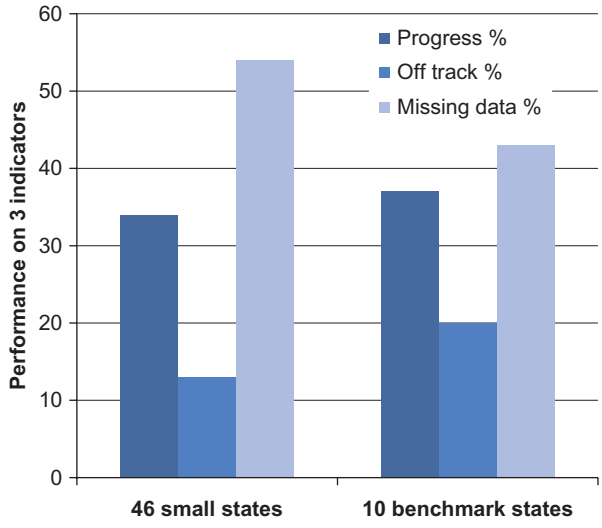
Indicators 2.1 and 2.2 are measures of primary school attendance. Indicator 2.3 is an outcome measure of literacy in young adults. All three indicators are assessed against a universal 100 per cent target, which is the same for each country and not a target arithmetically derived for each country separately from their 1990 baseline figure.

5.1 Overall performance

The 46 small states were outperformed by the 10 benchmark states on MDG 2 (see Figure 5.1). Details of the performance of the 56 states are shown in Annex 1. Only one of the 46 small states had achieved any of the MDG 2 indicators by 2007.[1]

The progress of each of the 46 small states has been assessed against each of the three indicators (making a total of 46 × 3 = 138 assessments). Of the 138 assessments, progress was made in 46 (33%) of cases. In 18 (13%) of cases the small states were off-track. Missing data inhibited assessment of progress in 74 (54%) of cases.

Figure 5.1 Performance on MDG 2: Education



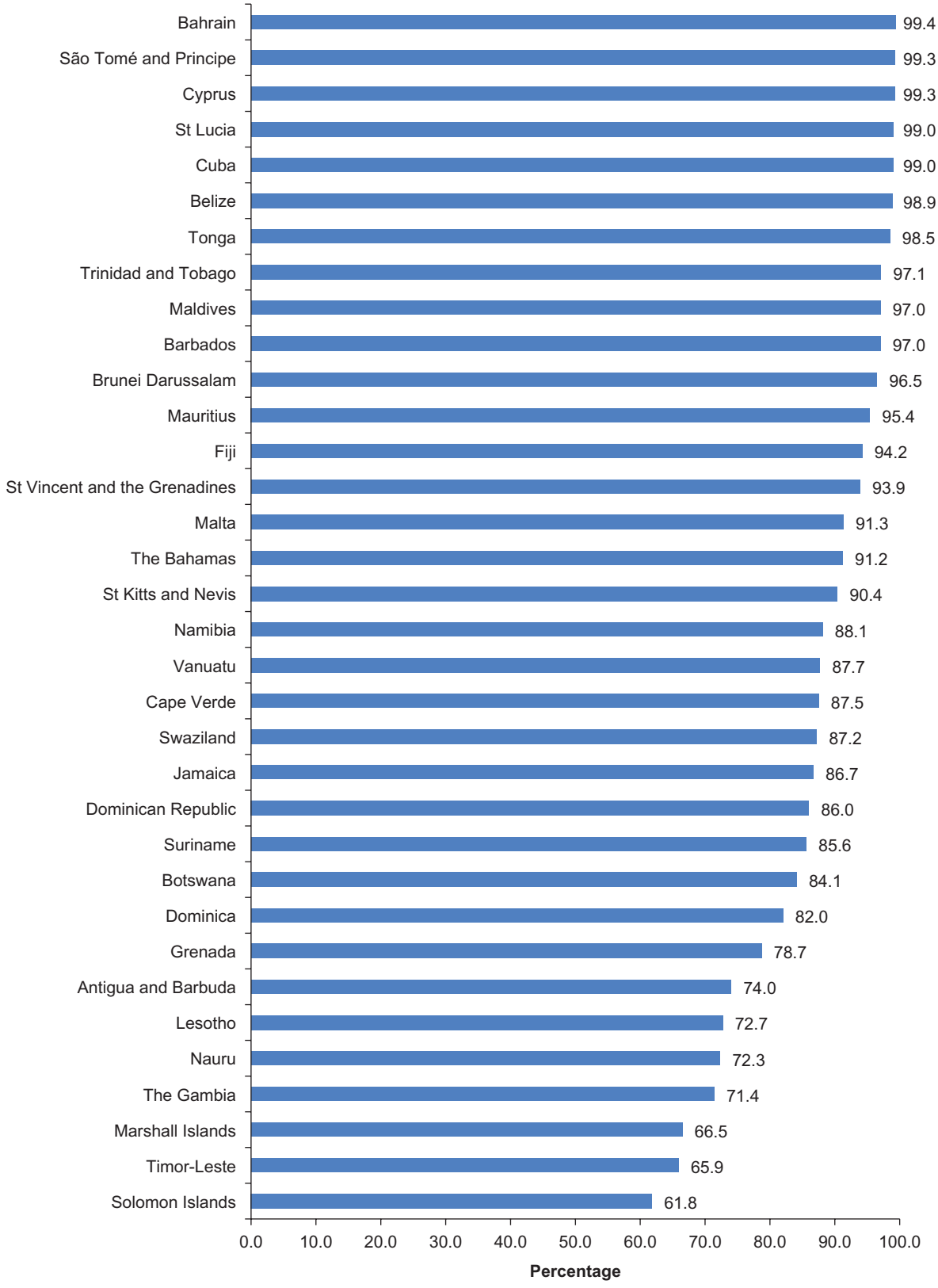
Source: UN MDG database 2010

None of the benchmark states reported achieving any of the targets for MDG 2. Missing data were substantial in all groups, ranging from 25 per cent in the BRIC states and 43 per cent in the other large states, with 52 per cent overall for the 10 benchmark states, compared with 54 per cent for the 46 small states.

Including missing data, the 46 small states made 33 per cent progress with this MDG, compared with 37 per cent progress by the benchmark states. Within this benchmark group the two island states (Iceland and New Zealand) made zero progress. The three large benchmark states (USA, UK and France) made 22 per cent progress, the BRIC states 67 per cent progress and South Africa 33 per cent progress. Thus the emerging BRIC states reported twice the level of progress of the 46 small states in achieving the goal of universal primary education.

A detailed review of the performance of states under each of the three indicators selected in MDG 2 is set out below.

Figure 5.2 Net enrolment ratio in primary education of both sexes



Note: Latest data were for 2007; where these were not available, data for 2006 or 2005 were used.
Source: UN MDG database 2010

5.2 Target 2A: Ensure boys and girls complete primary schooling

5.2.1 Indicator 2.1: Net enrolment in primary education

Including missing data, none of the 46 small states achieved 100 per cent enrolment in primary education by 2007, but progress was made by 18 (39%) of them, with 11 (24%) off-track. In 17 (37%) of cases missing data inhibited assessment of progress.

Eleven (24%) of the 46 small states were off-track on the target of achieving universal primary education enrolment, including Botswana, Dominica and Grenada, whose levels of enrolment fell below 85 per cent, as well as Marshall Islands, where enrolment in primary education fell from 88 per cent in 1990 to 67 per cent in 2007.

In seven other cases, the off-track status resulted from a decline in enrolment from over 90 per cent to a level above 85 per cent. These countries were Fiji (declined from 99 to 94 per cent), Jamaica (declined from 97 to 87 per cent), Maldives (declined from 98 to 97 per cent), Malta (declined from 97 to 91 per cent), Vanuatu (declined from 92 to 88 per cent), Cape Verde (declined from 92 to 88 per cent and Suriname (declined from 92 to 86 per cent).

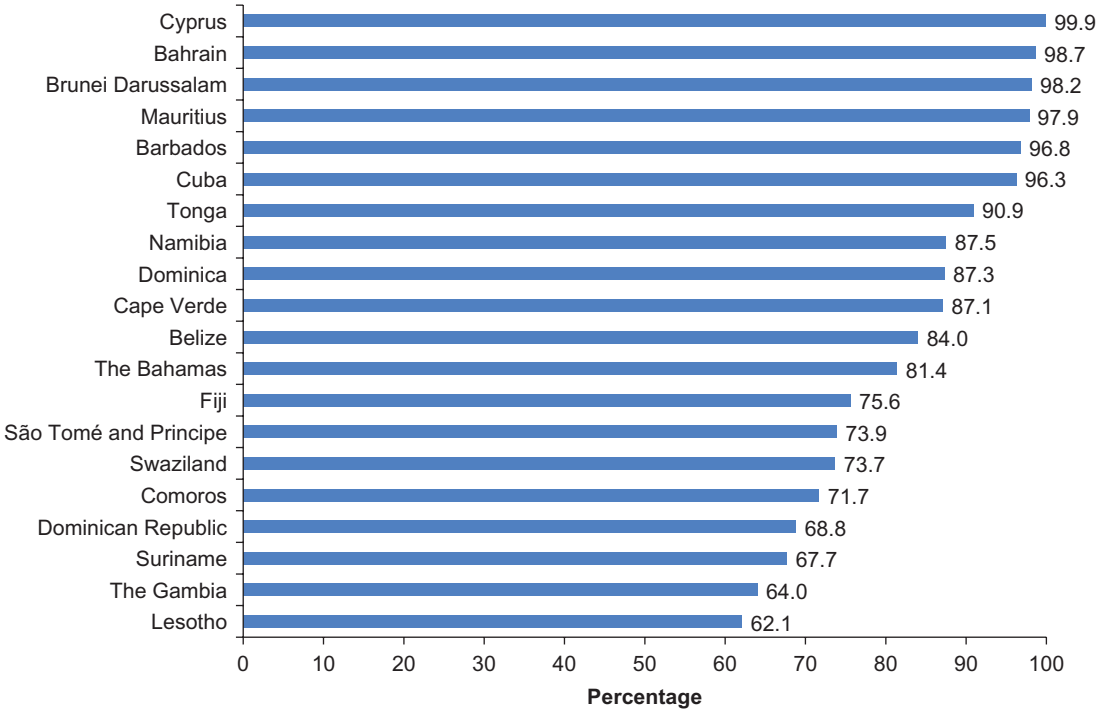
Proximity to target

The assessment of progress against the target of 100 per cent gives a partial and sometimes misleading picture of the range of performance. Proximity to target provides another view.

For example, overall the 46 selected small island states included 14 (30%) with enrolment in primary education above 95 per cent; in a further 17 states (37%) enrolment was between 75 and 94 per cent; in 10 states (22%) enrolment was below 75 per cent; in five cases (11%) no levels were recorded.

The lowest levels reported for the latest year (2005–2007) were for Antigua (74%), The Gambia (71%), Lesotho (73%), Nauru (72%), Marshall Islands (67%) and Solomon Islands (62%). The lowest levels reported from the 46 small states were for Guinea-Bissau (40%) and Haiti (22%); these levels were recorded for 1990, but there have been no further reports since then.

Figure 5.3 Percentage of pupils who reach last grade of primary education, both sexes



Note: Latest data were for 2007; where these were not available, data for 2006, 2005 or 2004 were used.
Source: UN MDG database 2010

The focus of support for improving primary education enrolment should not necessarily be on those countries that were off-track, which in some cases showed a marginal decline from a high level of achievement, but on those with countries with low levels of achievement.

5.2.2 Indicator 2.2: Percentage of pupils starting Grade 1

Including missing data, of the 46 small states, eight (17%) were on-track; five (11%) were off-track; and for 33 (72%) missing data inhibited assessment of progress.

Three of the small states were off-track in their pursuit of the target for pupils reaching the last grade in primary school: Fiji, The Gambia and Mauritius. In the case of Mauritius, while the 2007 value reported was 98 per cent, this was only marginally below the 1990 value of 99 per cent. In interpreting progress for this indicator, it is important to examine proximity to target.

Proximity to target

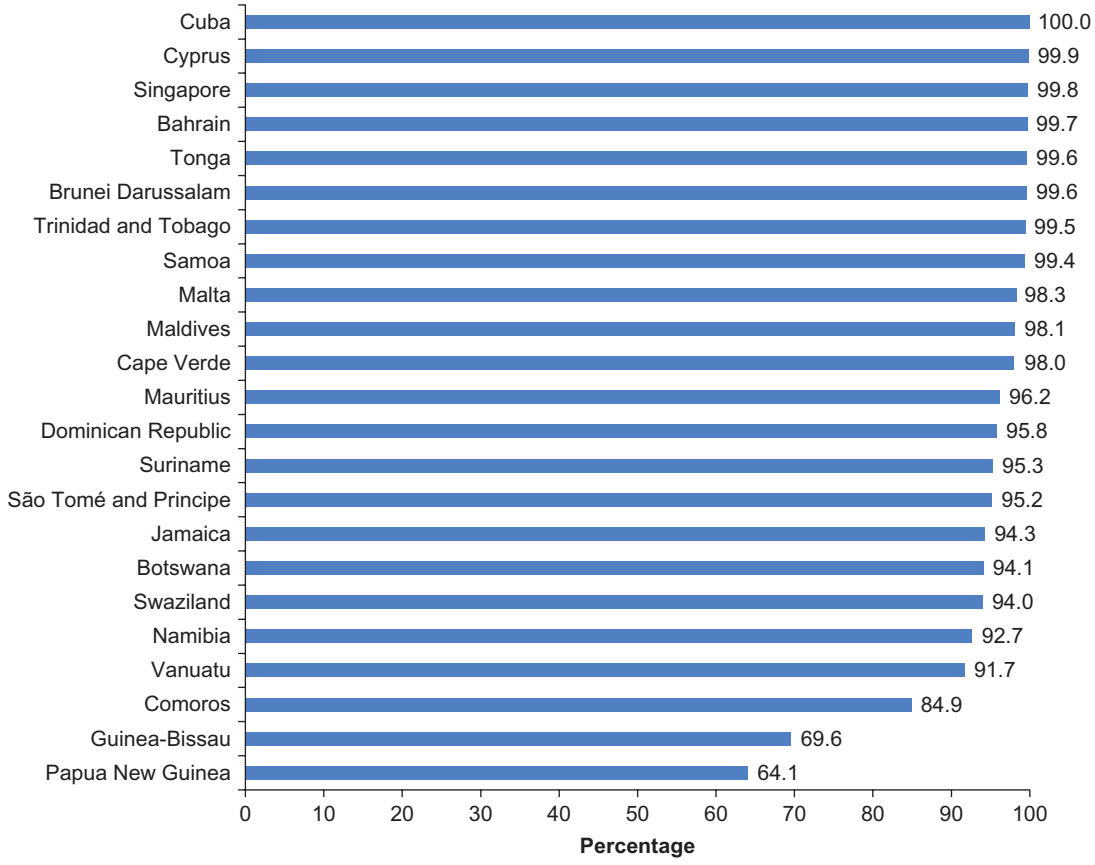
The measure of proximity to target throws a fresh light on achievement on this indicator. Of the 46 small states eight (17%) reported that at least 95 per cent of pupils reached the last grade. Eleven (24%) recorded that 75 per cent to 94 per cent reached the last grade, and ten (22%) reported less than 75 per cent. In 17 states (37%), missing data inhibited assessment of performance.

The lowest levels reported in reaching the final grade of primary school were in Lesotho (62%), The Gambia (64%), St Vincent and the Grenadines (64%), Suriname (68%), Dominican Republic (69%) and Swaziland (74%). Lesotho and Swaziland, however, despite their comparatively low levels of primary education completion, achieved marked progress on 1990 – up from 58 per cent and 64 per cent respectively.

On this indicator there was a substantial difference between the performance of the 32 CSS and the 14 non-Commonwealth SIDS. The CSS had a higher proportion of states (47%) with 75 per cent or more pupils reaching the last grade of primary school, compared with the other SIDS, which had only 21 per cent at this level.

The benchmark states, however, outperformed the 46 small states, with 70 per cent of countries reaching

Figure 5.4 Literacy rates of 15–24-year-olds, both sexes



Note: Latest data were for 2007; where these were not available, data for 2006 or 2005 were used.
Source: UN MDG database 2010

75 per cent or more primary education, completion compared with the CSS and the other 14 SIDS on 47 per cent and 21 per cent respectively. Two of the benchmark states had primary completion rates below 75 per cent: India (66%) and South Africa with (57%). Remarkably, despite its benchmark status, South Africa had the lowest level of primary school completion among the 56 states.

5.2.3 Indicator 2.3: Literacy rates for 15–24-year-olds

Cuba was the only one of the 46 small states that reported achieving 100 per cent literacy among 15–24-year-olds. Nineteen other countries (41%) were on-track in 2007 and two (4%) were off-track; in 24 countries (52%) missing data inhibited assessment of performance.

The two off-track states were Maldives, which declined from 99.2 per cent literacy in 1990 to 98.1 per cent in 2007, and Papua New Guinea, where literacy declined from 67 per cent in 1990 to 64 per cent in 2007.

Proximity to target

With this indicator it is again evident that the off-track classification can be misleading in terms of relative status. Proximity to target is a more helpful supplementary measurement.

Overall, 16 of the 46 small states (35%) reported literacy rates of 95 per cent or above. Seven (15%) recorded rates of 75 per cent to 94 per cent and two (4%) reported rates below 75 per cent (Guinea-Bissau at 70 per cent and Papua New Guinea at 64 per cent). Twenty-one countries (47%) reported missing data. None of the benchmark states reported a literacy rate below 80 per cent.

5.3 Action on MDG 2: Education

National budget statements in response to the global financial crisis have paid special attention to education as a vital element in economic recovery. Fresh spending commitments have included priority for improved pre-school and primary education services in Jamaica; special priority for education in Seychelles; and the setting up of an education commission in St Lucia. However, these education activities are not explicitly linked to the pursuit of MDG targets and these countries are not among the worst performing.

Note

1 On target 2.3, Cuba reported 100 per cent literacy for 15 to 24 year-olds.

Chapter 6

MDG 3: Gender Equality

Women commonly are found to have less attainment than men across the fields of employment, education and politics. Yet the promotion of equality and economic and social empowerment for girls and women is widely recognised as an important catalyst for development, not least because over half the world's population is female.

In some countries the gender gap is closing. In many states girls are doing better than boys. But in employment and in parliamentary representation there is much to be done to move towards equality, especially in the 46 small states, where the performance of some countries has been poor or has gone into reverse since 1990. In seven of the small states not a single parliamentary seat was held by a woman.

Goal 3. Promote gender equality and empower women

Target 3A: *Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015*

Indicators:

3.1 Ratios of girls to boys in primary, secondary and tertiary education

3.2 Share of women in wage employment in the non-agricultural sector

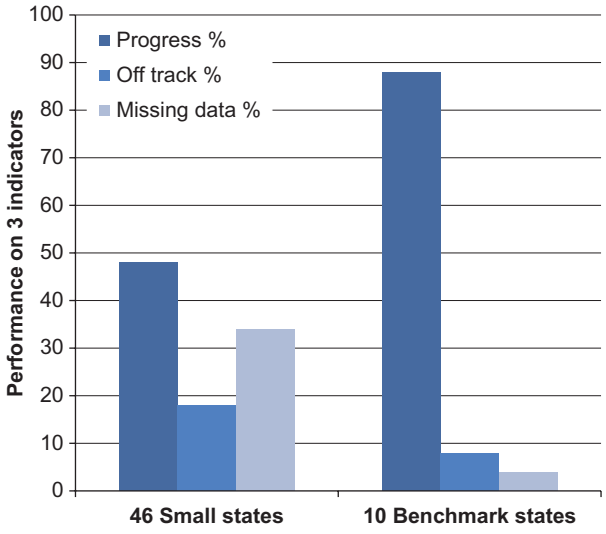
3.3 Proportion of seats held by women in national parliament

This MDG has one target, three indicators and two sub-indicators (a total of 230 cases of assessment[1] that have to be made for reporting progress in the 46 small states). Indicator 3.1 for gender equality in education is divided into three sub-indicators: 3.1.1 for primary education; 3.1.2 for secondary education; and 3.1.3 for tertiary education. All five indicators for this MDG have universal target values of 50 per cent.

6.1 Overall performance

Figure 6.1 shows that the 10 benchmark states outperformed the 46 small states in making progress towards gender equality across the five indicators.

Figure 6.1 Performance on MDG 3: Gender equality



Source: UN MDG database 2010

In the 230 assessments on gender equality for the 46 small states, in 54 cases (23%) they achieved the indicator; in 57 cases (25%) they were on-track; and in 41 cases (18%) they were off-track. In 78 cases (34%) missing data prevented assessment of progress.

Including missing data, the 46 small states made 48 per cent progress, with 18 per cent off-track and 34 per cent missing data.

The benchmark states substantially outperformed the 46 small states in progress on gender equality. The MDG was achieved in 48 per cent of cases by the 10 benchmark states,[2] compared with 23 per cent of cases by the 46 small states. There were 4 per cent missing data for the 10 benchmark states, compared with 34 per cent missing data for the 46 small states.

When missing data were included, the 10 benchmark states reported 88 per cent progress compared with 48 per cent progress for the 46 small states.

6.2 Target 3A: Gender equality in education

6.2.1 Indicator 3.1: Ratio of girls to boys in education

There are three indicators for gender equality in education, covering primary, secondary and tertiary

levels. By 2007, the 46 small states achieved gender equality in education (primary, secondary and tertiary) in 52 cases (38%).[3] In a further 14 cases (10%) they were on-track and in 26 cases (19%) they were off-track. In 46 cases (33%) missing data prevented assessment of progress. Thus the 46 small states made progress in 52 per cent of cases.

In 26 cases (19%) the 46 small states were off-track. In many of these, however, the difference between the baseline and latest values were marginal and close to target. For example, in Botswana the gender equality in primary education indicator fell between 1990 and 2007 from 1.07 to 0.99; in Cyprus it fell from 1.00 to 0.99; and in Guyana from 0.99 to 0.98. In each case this scored as 'off-track'.

Similarly, in secondary education the gender equality indicator fell between 1990 and 2007 in Palau from 1.07 to 0.97 and in Cyprus from 1.11 to 0.99. This demonstrates that this approach to assessment can be misleading where the difference between the baseline and latest value is marginal. The measure of proximity to target can help provide a supplementary perspective on relative performance and priorities for support.

Proximity to target

In primary and secondary education performance on gender equality enrolment was high and the range narrow. Indeed, in 12 states in primary education and in 26 in secondary education the parity index was 1.00 or greater, with the lowest values in primary education in Papua New Guinea at 0.84 and in secondary education in Solomon Islands at 0.84. Enrolment by girls was close to that of boys and in some cases even higher, for example in secondary level enrolment in Suriname (1.33), Lesotho (1.27) and Dominican Republic (1.20).

In tertiary education, in 13 of the 17 reported states the level of female enrolment was equal to, or greater than, that of male enrolment. In certain states the gender index far exceeded parity, as in Cuba at 1.85, Brunei Darussalam at 1.88, Guyana at 2.09, St Lucia at 2.41 and Bahrain at 2.53.

In these cases the question is why are so few boys continuing to tertiary education compared with girls? São Tomé and Principe was an exception,[4] with a reported gender parity index of zero in tertiary education.[5]

6.2.2 Indicator 3.2: Gender equality in non-agricultural employment

The purpose of this indicator is to track gender bias in employment in industry and services. None of the 46 small states achieved the gender equality target in non-agricultural employment. Thirteen (28%) were on-track; two (4%) were off-track; and missing data in 31 countries (67%) obstructed analysis.

The assessment of off-track on this indicator is somewhat misleading, as in the two off-track cases the differences between the baseline and the latest values were marginal. From 1990 to 2007 the indicator for The Bahamas fell from 50 to 49 per cent and for Jamaica from 46.2 to 45.8 per cent. The use of the measure of proximity to target provides a useful supplementary insight into the states with greatest need of assistance in this field.

Proximity to target

Where missing data were accounted for, eight (17%) of the 46 small states recorded 45 per cent or more women in non-agricultural employment. Twenty-one countries (46%) reported 35 to 44 per cent in non-agricultural employment and 24 (28%) had below 35 per cent. The lowest levels recorded were 28 per cent in Papua New Guinea, and 10 per cent in both Bahrain and Guinea-Bissau.

6.2.3 Indicator 3.3: Gender equality in parliamentary seats

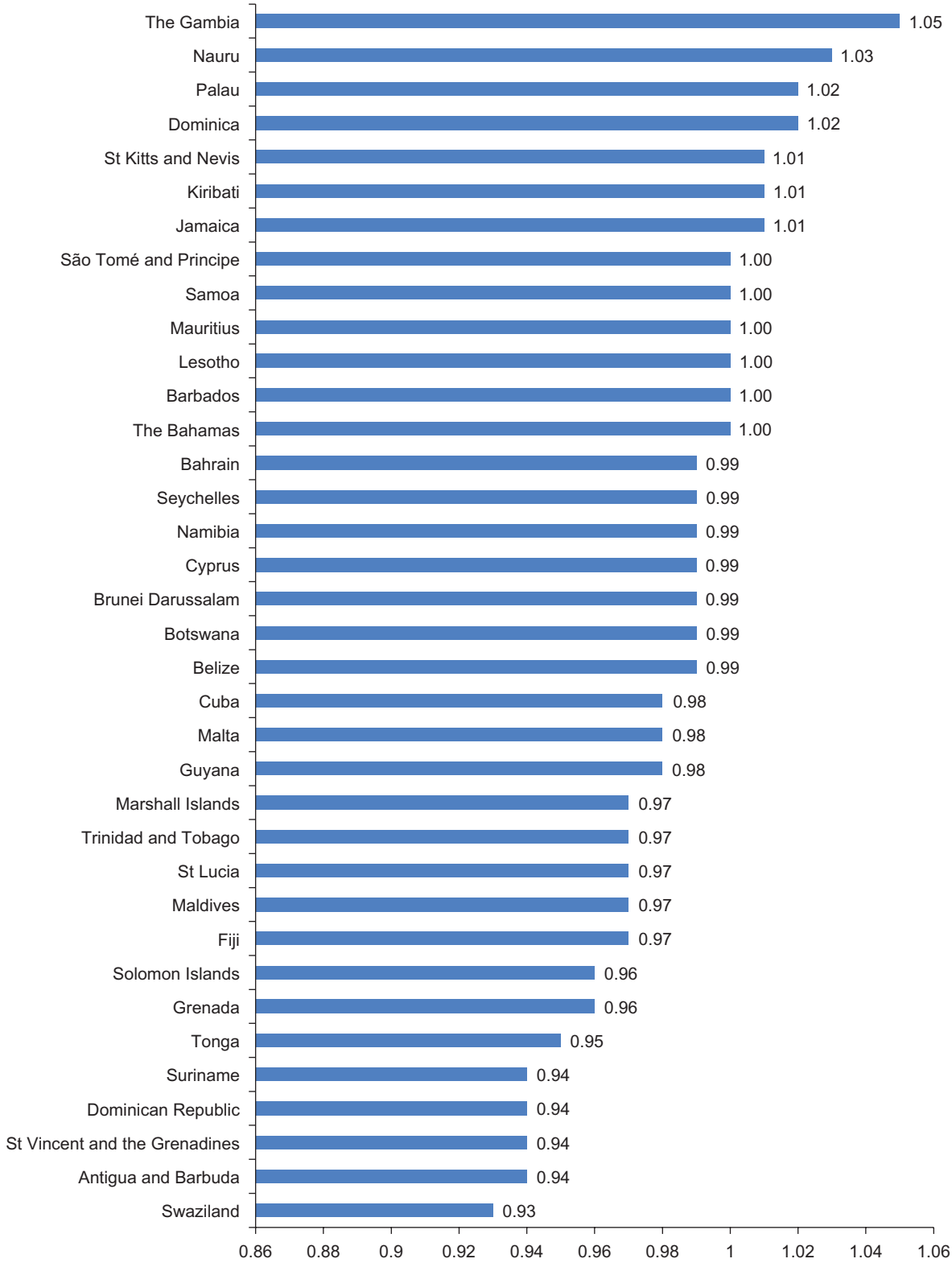
By 2007, while none of the 46 small states had achieved equality for women in terms of parliamentary seats, 70 per cent were on-track, 28 per cent were off-track and in only one state, Brunei Darussalam, did missing data prevent assessment of progress.

The off-track states included some in which the proportion of parliamentary seats held by women had not changed between 1990 and 2007 and which had therefore not moved towards the 50 per cent target. In six states the index declined, with fewer women holding parliamentary seats than previously. Among these six, in Belize the percentage fell from 20 to 13 per cent; in Nauru from 6 to 0 per cent; in Tuvalu from 7 to 0 per cent; and in São Tomé and Principe from 12 to 9 per cent.

Proximity to target

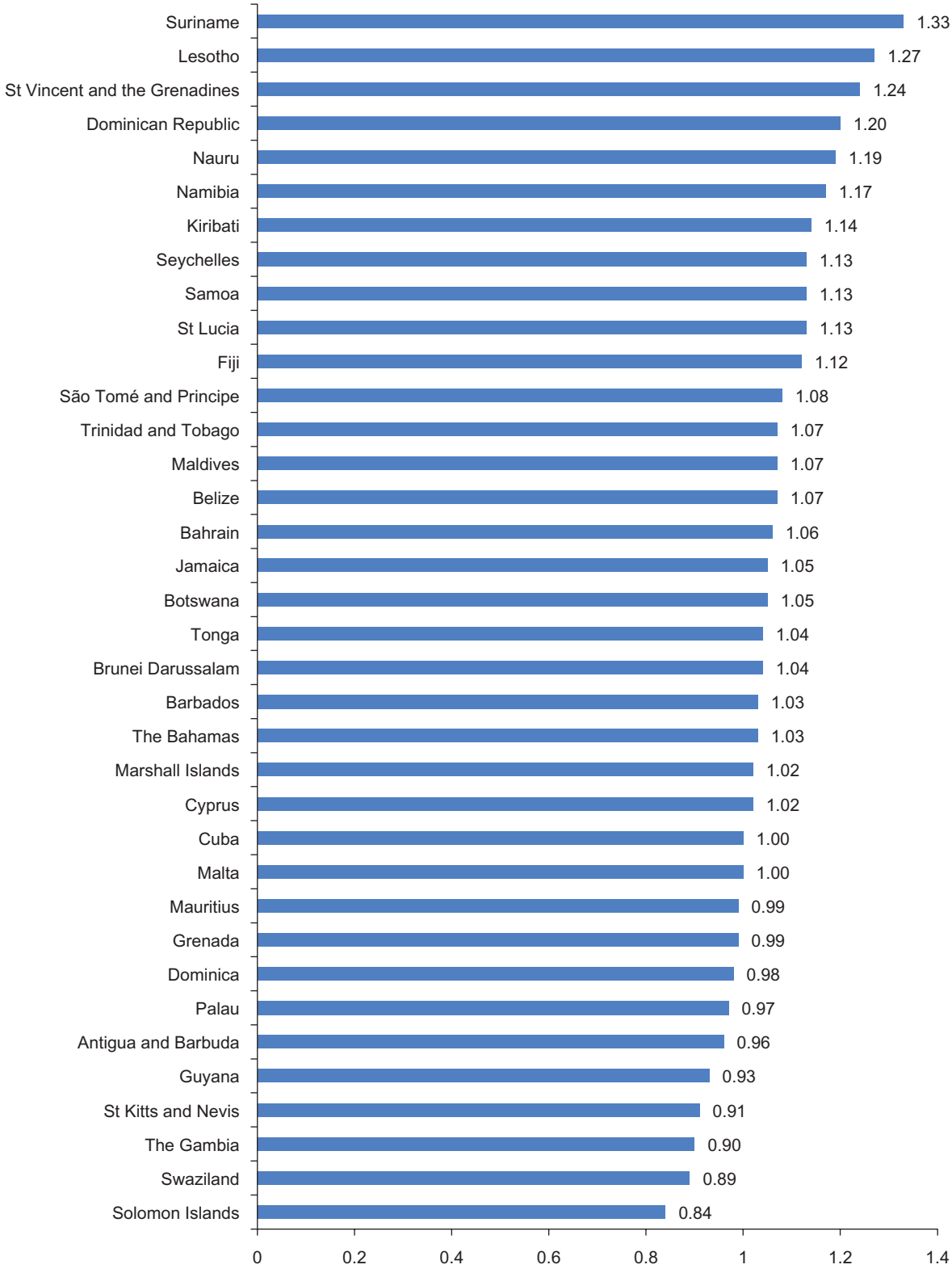
The highest proportion of parliamentary seats gained by women among the 46 small states was in Cuba with 43 per cent, followed by Guyana with 30 per cent, Namibia with 27 per cent, Trinidad and Tobago with 27 per cent and Lesotho with 25 per cent. Latest data show that in the following six small states no parliamentary seats are held by women: Belize, Federated States of Micronesia, Nauru, Palau, Solomon Islands and Tuvalu.

Figure 6.2 Gender parity index in primary level enrolment



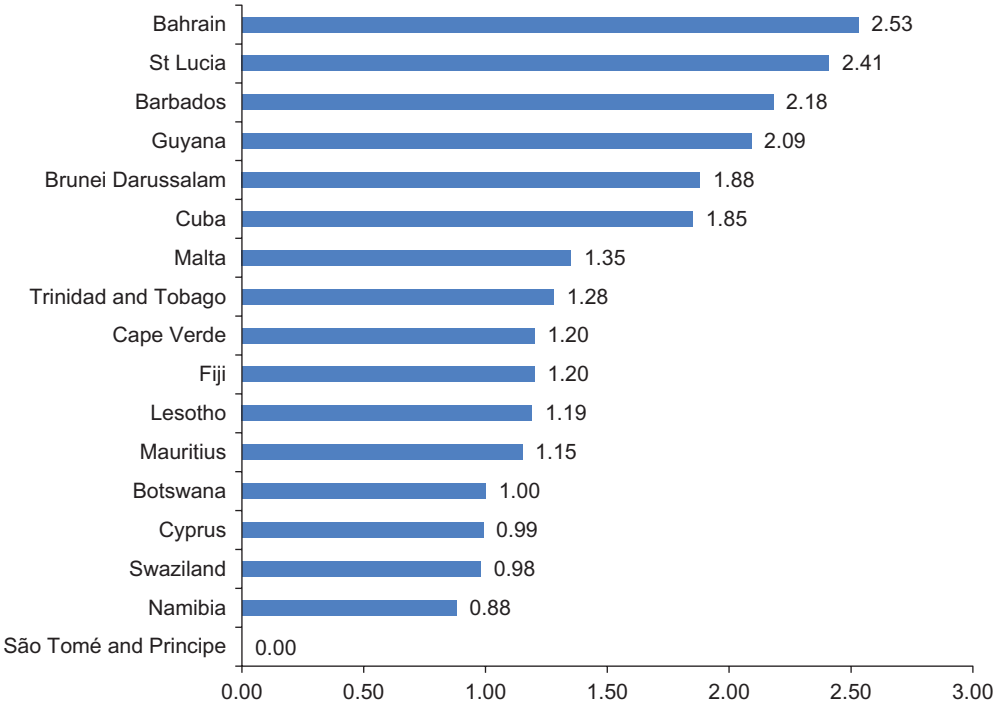
Note: Latest data were for 2007; where these were not available, data for 2006 or 2005 were used.
Source: UN MDG database 2010

Figure 6.3 Gender parity index in secondary level enrolment



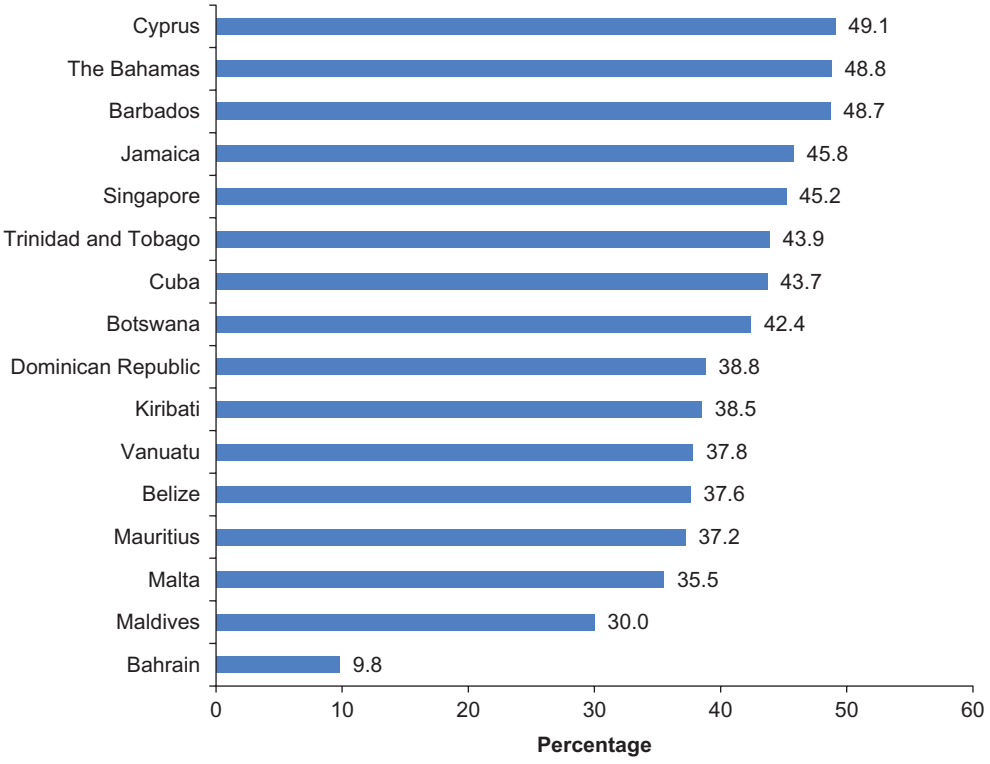
Note: Latest data were for 2007; where these were not available, data for 2006 or 2005 were used.
Source: UN MDG database 2010

Figure 6.4 Gender parity index in tertiary level enrolment



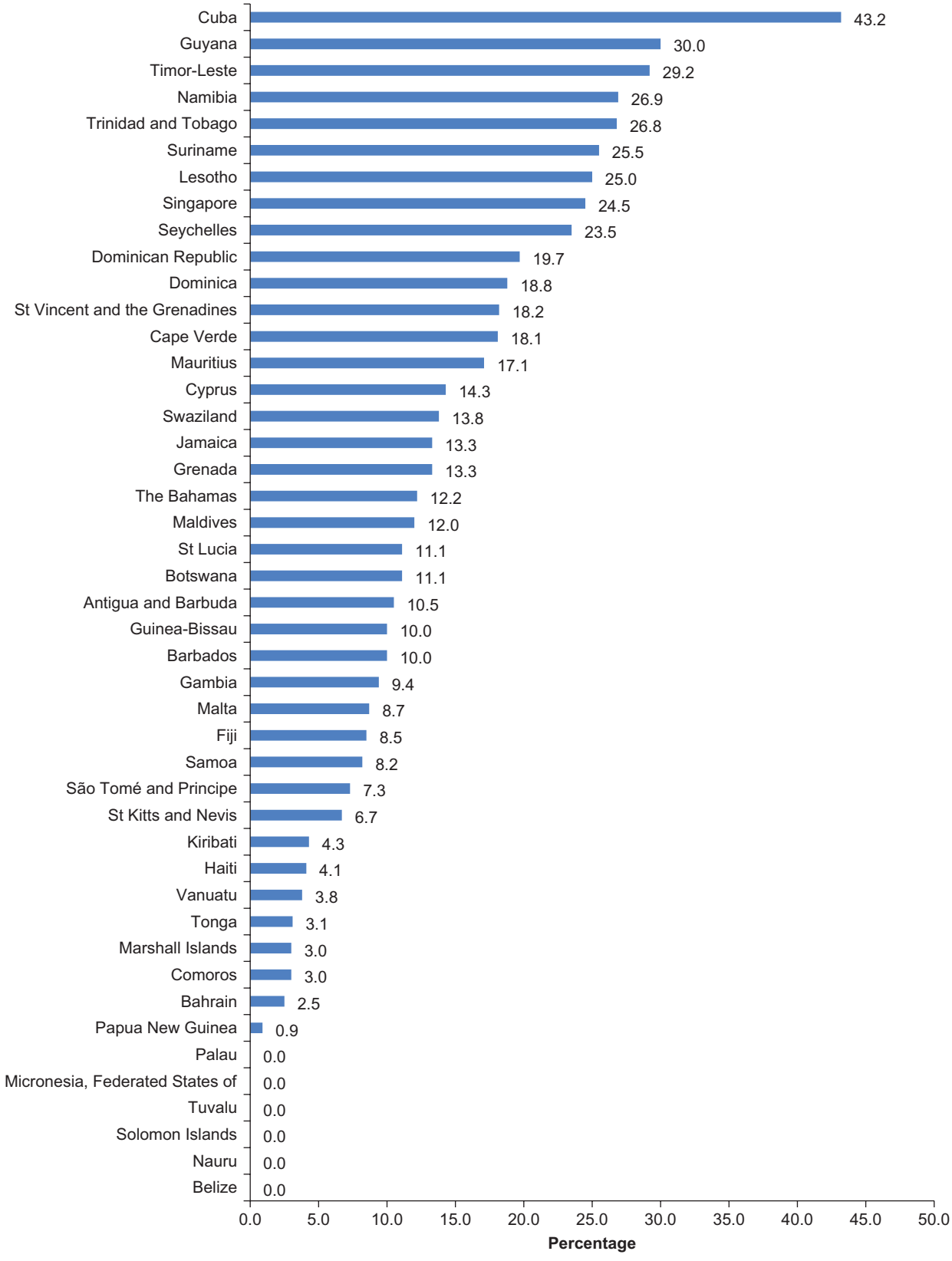
Note: Latest data were for 2007; where these were not available, data for 2006 or 2005 were used.
Source: UN MDG database 2010

Figure 6.5 Share of women in wage employment in the non-agricultural sector



Note: Latest data were for 2007; where these were not available, data for 2006 or 2005 were used.
Source: UN MDG database 2010

Figure 6.6 Proportion of seats held by women in national parliament



The Big Divide on gender equality in the 46 small states is well illustrated by the share of women in non-agricultural employment, which ranges from 10 per cent in Bahrain to 49 per cent in Barbados, and by the range in parliamentary seats held by women, which ranges from 0 per cent in seven states to 43 per cent in Cuba.

6.3 Action on MDG 3: Gender equality

Following the global financial crisis few small states have given specific attention to gender equality in their budget and policy statements for development. The exceptions include St Lucia, where special attention has been given to promoting training for women in construction projects, and Mauritius, which has introduced a business mentor programme for women.

Despite the decline in female parliamentary representation in some countries and the zero values in others, the high performance of a few states shows that it is possible to approach the target on this indicator. Progress depends on political and social commitment, rather than on finance. Future progress may be improved by greater publicity given to those states moving towards this target.

Worldwide, there are 22 countries where 30 per cent or more of parliamentary seats are held by women, according to the Women's Environment and Development Organisation (WEDO). Top of the list is Rwanda, with 56 per cent of seats held by women; five other African states are in the top 22 countries. With the majority of the world population being female, what is the secret for getting women into parliament? It seems that proportional representation (PR) systems are springboards for the election of women, with 19 of the 22 countries that rank highest for the number of women in parliament having PR systems and most having quotas for women with sanctions for non-compliance. In Trinidad and Tobago, in fifth place in the small states league for women in parliament, the slogan 'A woman's place is in the House of Parliament' was used to drum up support and promote cultural and electoral change.[6]

The Big Divide in performance in the 46 small states on this MDG should also stimulate studies on the impact of gender bias on social development and on progress with other gender-related policies.

Notes

1 46 small states x 5 indicators = 230 cases of assessment on progress.
2 The 10 benchmark states had 24 cases of target achieved on 50 indicators (10 states by 5 indicators = 50 indicators for assessment; thus the percentage achieved is calculated as 24 x 100/50 = 48%); the 46 small states had 54 cases of target achieved on 230 indicators (46 states x 5 indicators = 230 indicators for assessment; thus the percentage achieved is calculated as 54 cases x 100/230 = 23%).
3 Similar to the above the calculation is 52 cases of indicators achieved x 100/3 indicators x 46 small states = 38% of cases with achieved status. This method of calculation has been used throughout the report.
4 Data on São Tomé and Principe are for 2007.
5 São Tomé and Principe reported zero enrolment of girls in tertiary education in 1990 and 2007; in primary and secondary education in 2007 the gender parity index was reported as 1.00 and 1.08 respectively.
6 See: www.wedo.org

Chapter 7

MDG 4: Child Health

The survival of new-born babies and children under five years old is one of the principal measures of the state of public health and has been generally well reported and documented in most countries over the years. Notably, performance has been closely related to other health, social and economic indicators, especially poverty, maternal and child health services,[1] education, nutrition, shelter, safe water and sanitation.

Goal 4. Reduce child mortality

Target 4A: *Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate*

Indicators:

4.1 Under-five mortality rate
4.2 Infant mortality rate

4.3 Proportion of one-year-old children immunised against measles

MDG 4 has one target and three performance indicators. For child mortality and for infant mortality the indicators are relative to the baseline value for each country, while for measles immunisation it is universal 100 per cent coverage. MDG 4 has the lowest total percentage of missing data in the study. It contains within it indicators that are commonly recognised as key to the assessment of social development.

7.1 Overall performance

Of the 138 cases to be assessed, the 46 small states had achieved 4 (3%) targets by 2007 against their 1990 baseline values. These were Maldives (indicator 4.1) and Cyprus and Singapore (indicator 4.2). In a further 115 cases (83%) the 46 small states were on-track; in 18 cases (13%) they were off-track; missing data inhibited assessment of performance in only one case, Timor-Leste.[2]

Including the missing data, the 46 small states made 86 per cent progress towards the target, with 13 per cent off-track. Excluding missing data, the small states made 87 per cent progress.[3]

This is the one MDG on which the progress of the 46 small states exceeded that of the benchmark states (see Figure 7.1). The 46 small states made progress in 119 cases (86%); the 10 benchmark states made progress in 23 cases (77%). Among the 10 benchmark states, only Iceland reported achieving one of the MDG 4 child mortality indicators.[4]

The two island benchmark states recorded 67 per cent progress; the large benchmark states reported 89 per cent progress; and the BRIC states recorded 92 per cent progress.

A detailed review of the performance of states for each of the three indicators selected in MDG 4 is set out below.

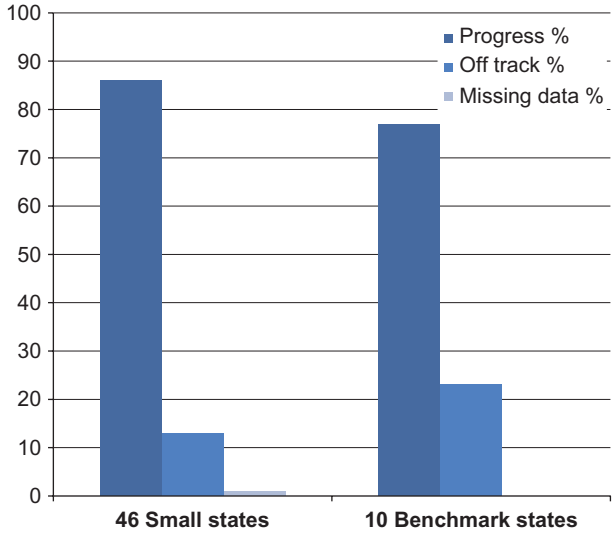
7.2 Target 4A: Reducing child mortality by 2015

7.2.1 Indicator 4.1: Under 5-year-old child mortality

One of the 46 small states (2%), Maldives, achieved the reduction in child mortality on the 1990 baseline, while an additional 43 small states (94%) were on-track and just two (4%) off-track. There were no missing data on this indicator for the 46 small states.

Two of the 46 small states (4%) were marginally off-track on this indicator. Nauru, for instance, did not reduce its level of child mortality of 30 per 1,000 towards its 10 per 1,000 target between 1990 and 2007. In Trinidad and Tobago the child mortality rate increased over the period from 34 to 35 per 1,000.

Figure 7.1 Performance on MDG 4: Child health



Source: UN MDG database 2010

Proximity to target

As the target values for reducing child mortality differ for each state, so proximity to target is calculated separately for each country and is the difference between the latest value for that country and its target value.

7.2.2 The Big Divide in child mortality

The Big Divide is seen in the range of values on child mortality indicator 4.1 in the 46 small states (see Figure 7.2 for 2007). The full range is from a rate of three deaths per 1,000 live births for children under five years old in Singapore to a rate of 195 in Guinea-Bissau. Three states had child mortality rates of five and below (Cyprus and Malta with five and Singapore with three). The same number had rates of over 100 per 1,000 live births (Comoros, 105; The Gambia, 109; and Guinea-Bissau, 195). This represents a 65-fold difference in the relative risk of death for children under five across the 46 small states.

7.2.3 Indicator 4.2: Infant mortality

Among the 46 small states, Cyprus, Maldives and Singapore achieved the two-thirds target reduction in the 1990 infant mortality rate (IMR). Singapore's performance in reducing the IMR to two per 1,000 in 2010 was the best in the world. Forty-four countries (96%) made progress on this target, with only two (4%) off-track; none had missing data.

The two states that were off-track were Nauru and Trinidad and Tobago, neither of which improved on their 1990 infant mortality rate.

Proximity to target

Three (7%) of the 46 small states achieved their target reductions in IMR, but 17 (37%) were within 1 to 9 percentage points from their target. Seventeen (37%) were within 10 to 24 percentage points of target and nine (20%) were 25 or more percentage points away from meeting their target.

The Big Divide on infant mortality in the 46 small states in 2007 ranged from the highest levels of 117 per 1,000 in Guinea-Bissau and 82 per 1,000 in The Gambia. The lowest IMRs were 3 per 1,000 in Cyprus and 2 per 1,000 in Singapore. Figure 7.3 shows this Big Divide in variations in infant mortality in the 46 small states, where there is a 59-fold difference in relative risk.

7.2.4 Indicator 4.3: Children immunised against measles

While none of the 46 small states had achieved the target of immunisation against measles for all children below one year of age by 2008, 31 states (74%) were on-track and 14 (24%) were off-track, with just one having missing data.

Eleven of the 46 small states were off-track, with reductions in the level of immunisation against measles between 1990 and the latest year. Many of these reductions, however, were marginal. The largest reduction was in Barbados where the rate fell from 87 to 75 per cent.

Proximity to target

Overall, 20 of the 46 small states (43%) reached levels of immunisation in 2008 of 95 per cent or higher. A further 20 countries (43%) reached 75 to 94 per cent, while only six (13%) recorded a rate below 75 per cent; these were Timor-Leste (73%), Namibia (69%), Vanuatu (65%), Samoa (63%), Haiti (58%) and Papua New Guinea (58%).

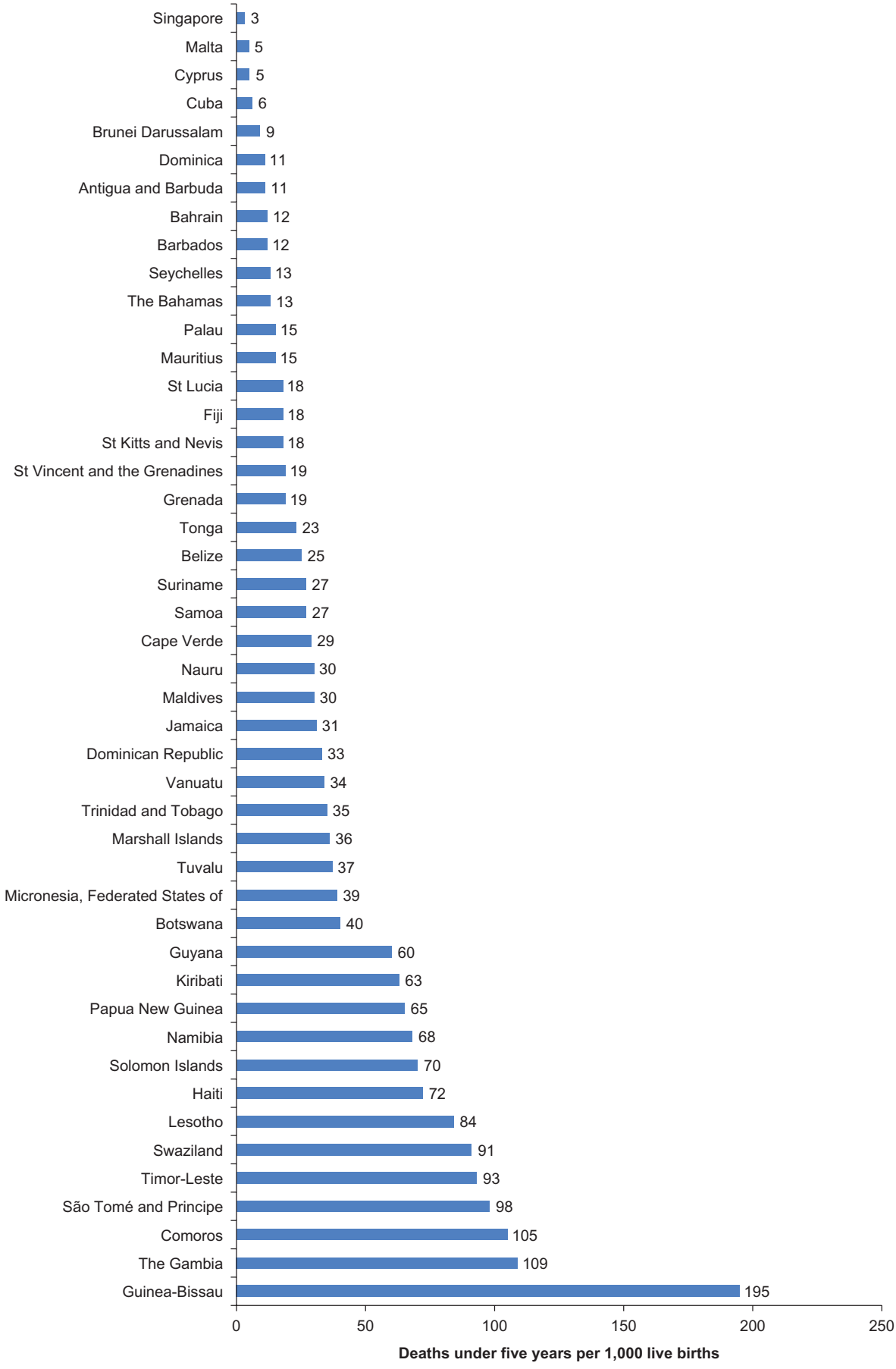
The measure of proximity to target on this indicator provides a guide to those in greatest need of support. Figure 7.4 shows the Big Divide in the 46 small states in 2008 with a range of rates of immunisation from 99 in Bahrain to 58 per cent in Haiti and Papua New Guinea.

7.3 IMR and GDP

Figure 7.5 shows that the number of infant deaths in the first year of life per 1,000 live births is closely inversely related to PPP GDP per capita. Poorer countries have much higher values of IMR until the GDP per capita reaches about US$5,000, with IMR above 20. Beyond that point IMR declines less steeply with increases in income. Most countries are close to this trend line, although Trinidad and Tobago has a more elevated level of IMR than would be expected from its per capita income.

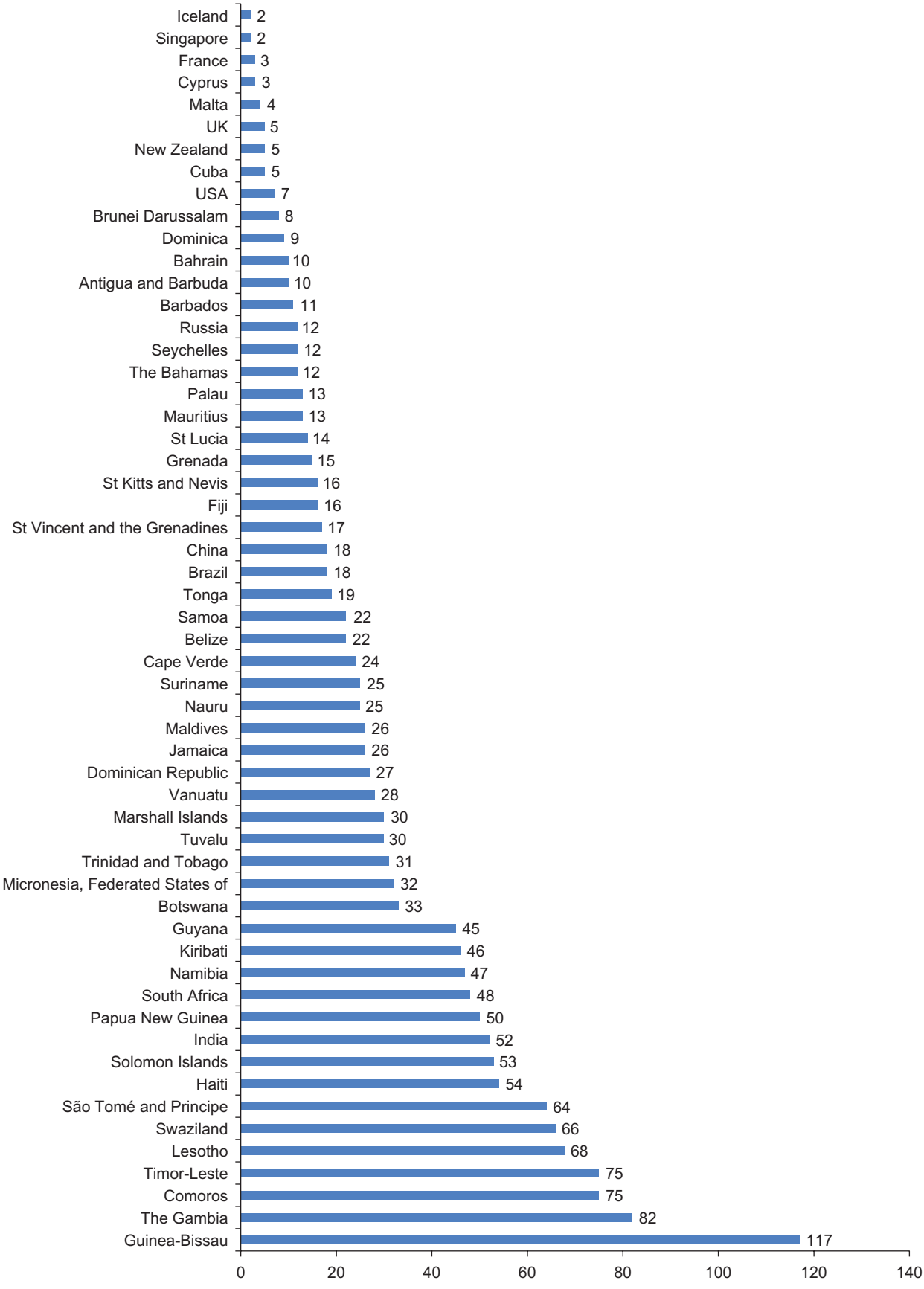
This analysis in Figure 7.5, however, belies the number of infants saved, which can only be demonstrated by using data on live births per country. These are not examined in the UN MDG system within the IMR denominator. However, by using the numbers of annual live births from the UNICEF database, it is possible to calculate approximately the numbers of infants saved per year in each country as IMR is reduced.

Figure 7.2 Under-fives mortality rate per 1,000 live births



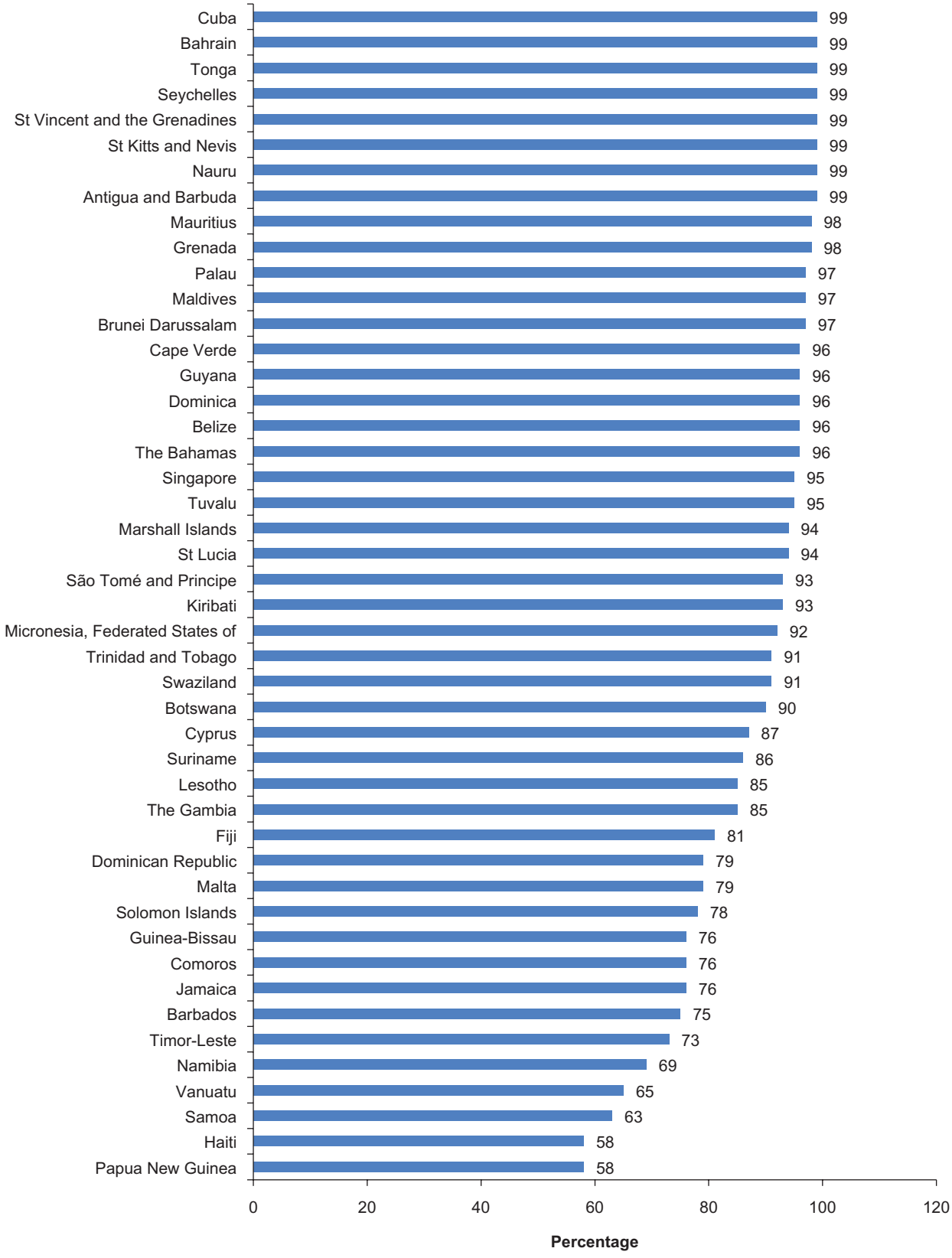
Source: UN MDG Database 2010

Figure 7.3 Infant mortality rate per 1,000 live births



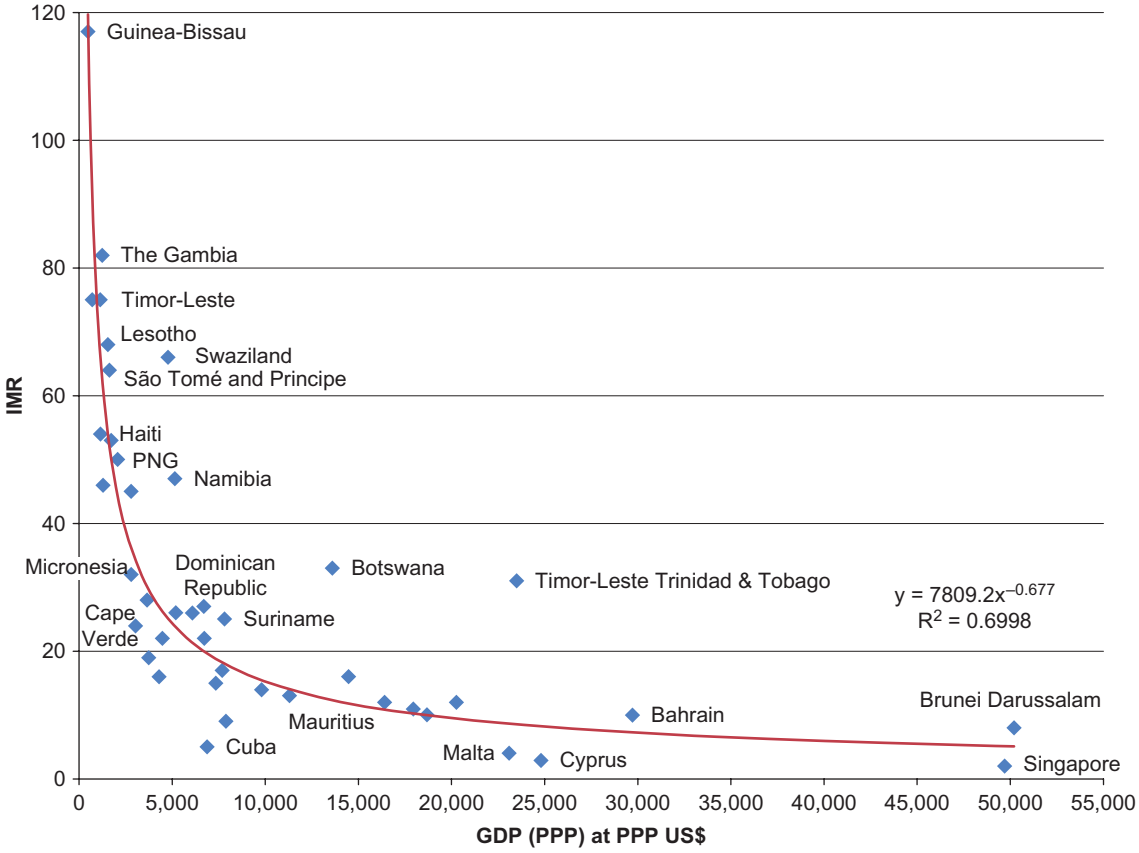
Note: Data from 2007.
Source: UN MDG Database 2010

Figure 7.4 Percentage of one-year-olds immunised against measles



Note: Latest data were for 2008; where these were not available, data for 2007 were used.
Source: UN MDG database 2010

Figure 7.5 IMR and GDP per capita at PPP US$



Sources: UN Statistics Division and UNDP 2010

Further analysis shows that IMR is closely linked to maternal mortality and to population undernourishment (see Figures 7.6 and 7.7). When mothers die in childbirth, the chances of the infant surviving are substantially reduced, especially in countries where there is a high level of undernourishment.[5]

7.4 Some of the poorest countries achieving the greatest reduction in infant deaths

Figure 7.8 plots the number of infants saved per year against the baseline of infant deaths in 1990. This shows that since 1990, paradoxically, some of the poorest countries have saved more infant lives than developed states. For example, six of the states in Table 7.1, all with a GDP of less than US$2,500 per capita per year at PPP have saved 22,346 infant lives a year by the reductions they have made in IMR.

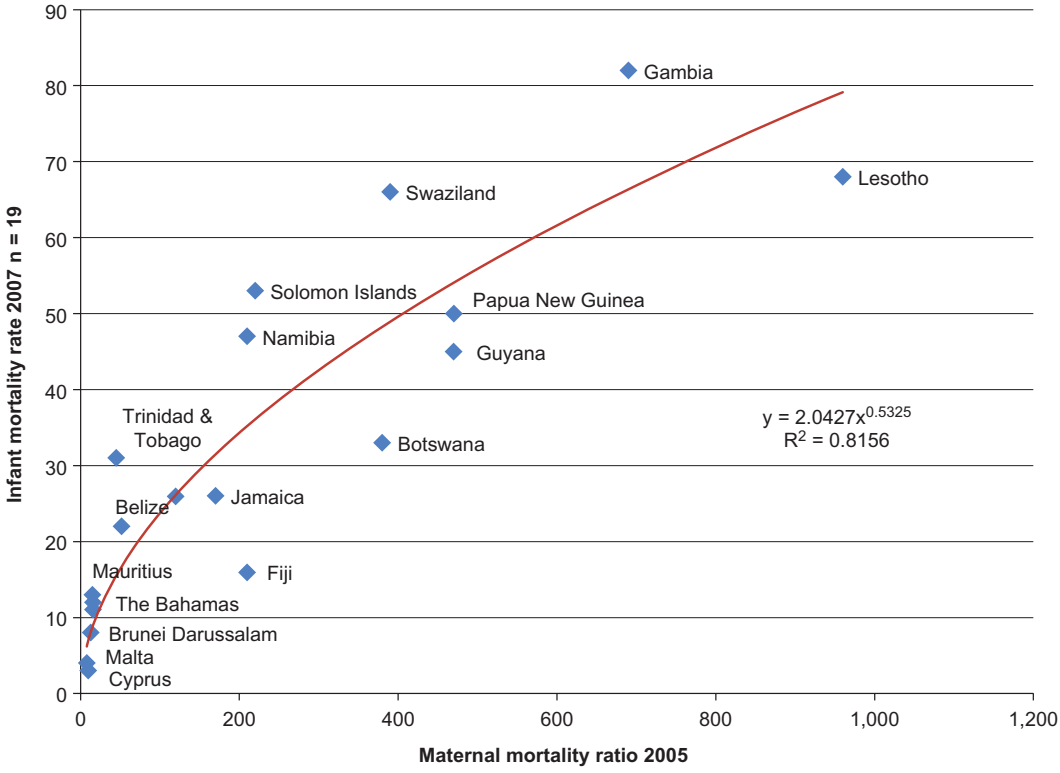
Singapore has achieved the world's lowest infant mortality rate, but has only saved 153 infant lives per year against its 1990 baseline IMR. Only Singapore among the 46 small states has so far achieved the MDG target of reducing IMR by two-thirds. However, the figures from Haiti (from reports before the 2010 earthquake) show that it was saving over 13,000 more infant lives per year than Singapore against 1990 baselines.

This paradox can be explained by the relative cost-effectiveness of the differing technologies for intervention at high and low levels of IMR. At high levels, interventions for saving lives are related to improved water and sanitation services, provision of basic primary care, education of mothers, breastfeeding and sound nutrition for mothers and babies. These interventions are relatively cheap, cost-effective and technically easy to implement.

At low levels, interventions include surgery for high-risk mothers and intensive care for high-risk babies. These are expensive, save fewer babies and require high technology and highly skilled human resources.

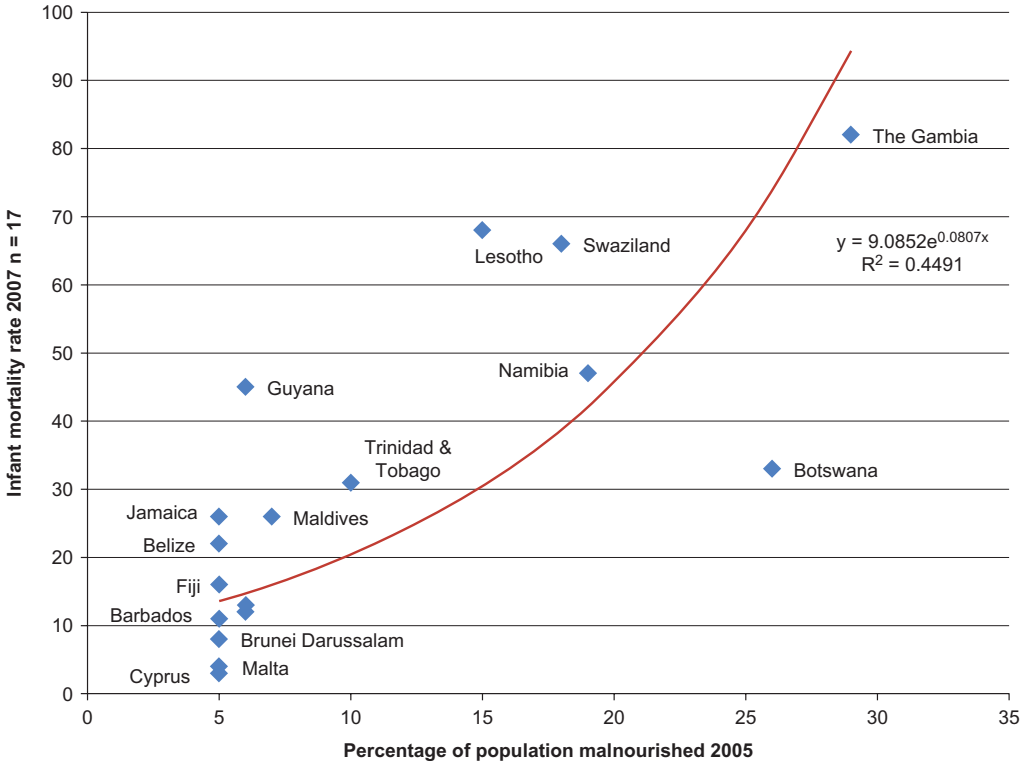
Table 7.1 looks at IMR and infant deaths between 1990 and 2007, lives saved per year and GDP per capita for the 6 small states with GDP less than US$2,500 at purchasing power parity favourably compared with Singapore in terms of infant lives saved.

Figure 7.6 Maternal mortality and infant mortality



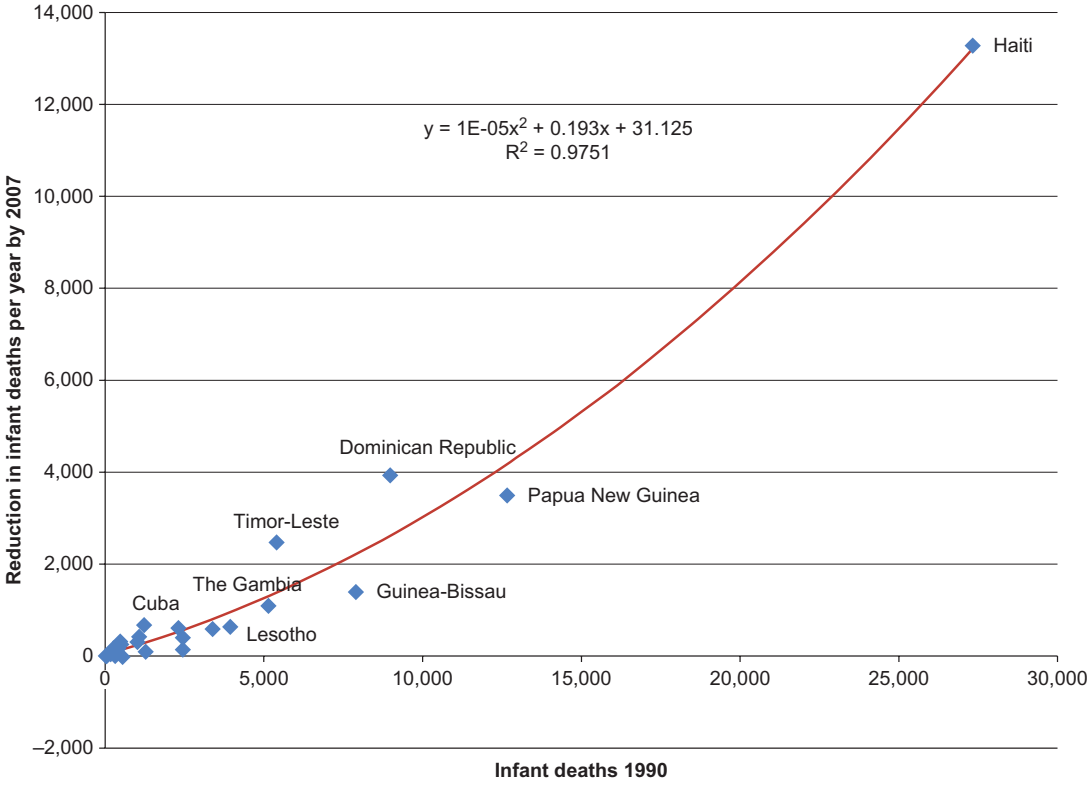
Note: n = number of countries.
Source: UN MDG database 2010

Figure 7.7 Undernourishment and infant mortality



Note: n = number of countries.
Source: UN MDG database 2010

Figure 7.8 Infant deaths and reduction in infant deaths per year



Sources: UN MDG data base and UNICEF.

Table 7.1 Infant lives saved per year since 1990 and GDP per capita in six small states

State	IMR 1990	IMR 2007	Infant deaths 1990	Infant deaths 2007	Infant lives saved per year	GDP/capita at PPP[6] US$
Haiti	105	54	27,331	14,056	13,275	1,155
Papua New Guinea	69	50	12,668	9,180	3,488	2,084
Timor-Leste	138	75	5,405	2,937	2,468	717
Guinea-Bissau	142	117	7,902	6,511	1,391	477
Gambia, The	104	82	5,152	4,061	1,090	1,225
Lesotho	81	68	3,948	3,314	634	1,541
Singapore	6	2	230	77	153	49,704

In 1990 there were over 90,000 infant deaths across the 46 small states. By 2001 this had fallen to just over 60,000, but to reach the MDG target for 2015 of a two-thirds reduction on 1990, a further 30,000 infant lives need to be saved.

Much has been achieved in reducing total infant deaths, but much more needs to be done. At present over 80 per cent of the infant deaths occur in 20 per cent of the 46 small states.[7] It is likely that further substantial reductions would be best achieved by focusing support on those states with the highest mortality rates.

7.5 Changing the global strategy on saving infant lives

If the overall aim of health policy is to save the largest number of infant lives, then these results suggest that a change is required in the strategy of each country individually seeking a two-thirds reduction on the 1990 baseline. The current policy perpetuates interstate inequality and sets all states the target of cutting infant deaths by two-thirds against their own 1990 baselines, whether this involves saving a large or small number of lives in each country and

irrespective of the relative cost per life saved, which varies greatly between countries.

In small states with a very low GDP, policies for reducing the infant mortality rate should focus on the cheap options of breastfeeding, safe water and sanitation. Safe water is a vital commodity for mothers and small babies, yet we find that in 30 of the 46 small states for which data exist, there are 12 million people without safe water. In countries with a small number of infant lives to be saved, the interventions for a further two-thirds reduction involve high-cost intensive neonatal care and surgical interventions.

Fifty-four per cent of infant lives to be saved in the 46 small states by 2015 are in just four states: Papua New Guinea, Haiti, Guinea-Bissau and The Gambia. These are the countries where the best return to intervention can be expected to save most lives at least cost.

7.6 Action on Goal 4: Child health

Many states have responded to the call for action to reduce child mortality. For example, in 2010 Botswana provided antiretroviral therapy to 94 per cent of pregnant women with HIV, reducing mother-to-child transmission rates to less than 4 per cent. It achieved this by integrating HIV/AIDS treatment and counselling with antenatal clinics. AIDS deaths in Botswana fell by 50 per cent between 2003 and 2007.

Papua New Guinea has one of the highest child mortality rates in the Pacific region. In 2007 the child mortality rate was 65 per 1,000 live births, while the infant mortality rate was 50 per 1,000 live births. The government has since set out in its National Health Plan 2011–2020 the goal to 'keep a baby healthy until its fifth birthday'. It has allocated about K120 (US$54) per child annually, totalling K26 million (US$12 million), out of the Health Minister's budget of K14.17 billion (US$6.4 billion).

Notes

1 See: www.who.int/maternal_child_adolescent/documents/pdfs/lancet_child_survival_prevent_deaths.pdf
2 For MDG 4 there are 3 indicators; thus for the 46 small states there were 138 cases to be assessed (46 x 3 = 138). The 46 small states achieved the targets in 4 cases (3%), 4 x 100/138 = 3; they were on-track in 115 cases (83%), 115 x 100/138 = 83; and off-track in 18 cases (13%), 18 x 100/138 = 13. The 46 small states thus made progress (achieved + on-track) in 119 cases (86%), 119 x 100/138 = 86, where missing data (one case) is included in the denominator.
3 The calculation of percentage progress excluding missing data is 119 cases (achieved + on-track) × 100/138–1 = 89%.
4 Iceland reduced its 1990 infant mortality rate from six infant deaths per 1,000 live births to two infant deaths per 1,000 live births in 2008.
5 Missing data reduced this analysis of undernourishment to only 17 of the 46 small states.
6 Latest value reported, UNDP (2010).
7 Haiti, 14,100; Papua New Guinea, 9,100; Guinea-Bissau, 6,500; Dominican Republic, 5,100; The Gambia, 4,100; Lesotho, 3,300; Timor-Leste, 2,900; Comoros, 2,000; and Botswana. 1,700.

Chapter 8

MDG 5: Maternal Health

Maternal deaths are largely avoidable, but prevention depends upon a range of factors, including security, nutrition, safe water and sanitation, education, primary health care, skilled attendance at childbirth, reduction in multiple pregnancies, birth control and continued technical monitoring of those most at risk.

Reported maternal mortality rates across the 46 small states are uneven, with the number of deaths per 100,000 live births at just 8 in Malta and 1,100 in Guinea-Bissau in 2005. This Big Divide underlines the need for greater priority to be given to this MDG and to those countries in greatest need.

Goal 5. Improve maternal health

Target 5A: *Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio*

Indicators:

5.1 Maternal mortality ratio

5.2 Proportion of births attended by skilled health personnel

Target 5B: *Achieve, by 2015, universal access to reproductive health*

Indicators:

5.3 Contraceptive prevalence rate

5.4 Adolescent birth rate

5.5 Antenatal care coverage

5.6 Unmet need for family planning

MDG 5 has two targets and six indicators. Under target 5A, to reduce the 1990 maternal mortality by three-quarters by 2015, there are two indicators. Indicator 5.1 relates to the number of maternal deaths per 100,000 live births: the maternal mortality ratio. This target has a different value depending on the baseline value of 1990 for each country. Indicator 5.2 reflects the proportion of births attended by skilled personnel and has an implicit universal target of 100 per cent.

Target 5B is to provide universal access to reproductive services and has four indicators. Indicator 5.3 is the contraceptive prevalence rate for married women, which for this report we assume has as its target an increased level on the 1990 baseline. Indicator 5.4 is the adolescent birth rate, which we assume has the target of a reduced level on the 1990 baseline. Indicator 5.5 is antenatal care coverage, which has an implicit universal target of 100 per cent. Indicator 5.6 is the unmet need for family planning, which has an implicit universal target of 0 per cent.

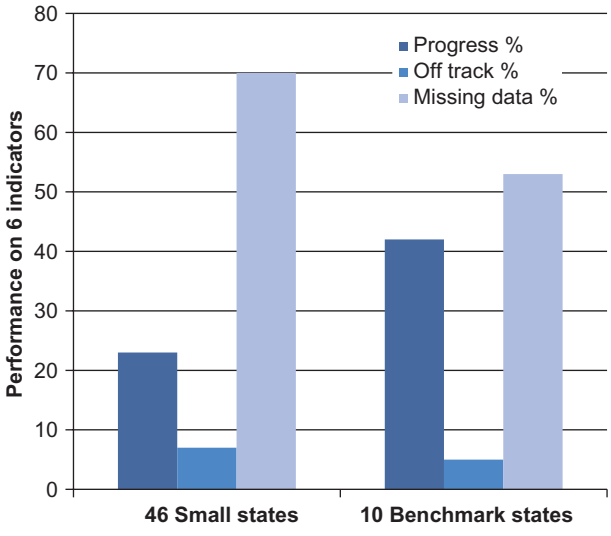
8.1 Overall performance

Within the six indicators, three have universal target values, each of which is concerned with the delivery of professional services. These include two target values for 100 per cent service (indicators 5.2 and 5.5 on professional birth attendance and antenatal care).

In addition, indicator 5.6 has a universal target value of 0 per cent and is concerned with eliminating the unmet need for family planning services. Figure 8.1 summarises the performance of the 46 small states and the 10 benchmark states for MDG 5.

At first glance, the 10 benchmark states, with 42 per cent progress across all the indicators, far exceeded the performance of the 46 small states, with only 23 per cent.[1] But 67 per cent of the total data relating to this MDG are absent: 70 per cent are missing for

Figure 8.1 Performance on MDG 5: Maternal mortality



Source: UN MDG database 2010

the small states and 53 per cent are missing for the benchmark states.

When missing data are included in the denominator, the 46 small states achieved 30 (11%) of the targets across all the indicators in this MDG, while the 10 benchmark states achieved just nine (15%). Excluding missing data, the 46 small states achieved 36 per cent and the 10 benchmark states achieved 32 per cent.[2]

8.2 Target 5A: Reduce the maternal mortality ratio

8.2.1 Indicator 5.1: Maternal mortality ratio[3]

Each of the 56 states in the study had data absent for this indicator, inhibiting an assessment of performance status. In all cases data on 1990 baseline values were lacking. Where latest values were reported, the lowest among the 46 small states was in Malta with a maternal mortality ratio (MMR) of 8.

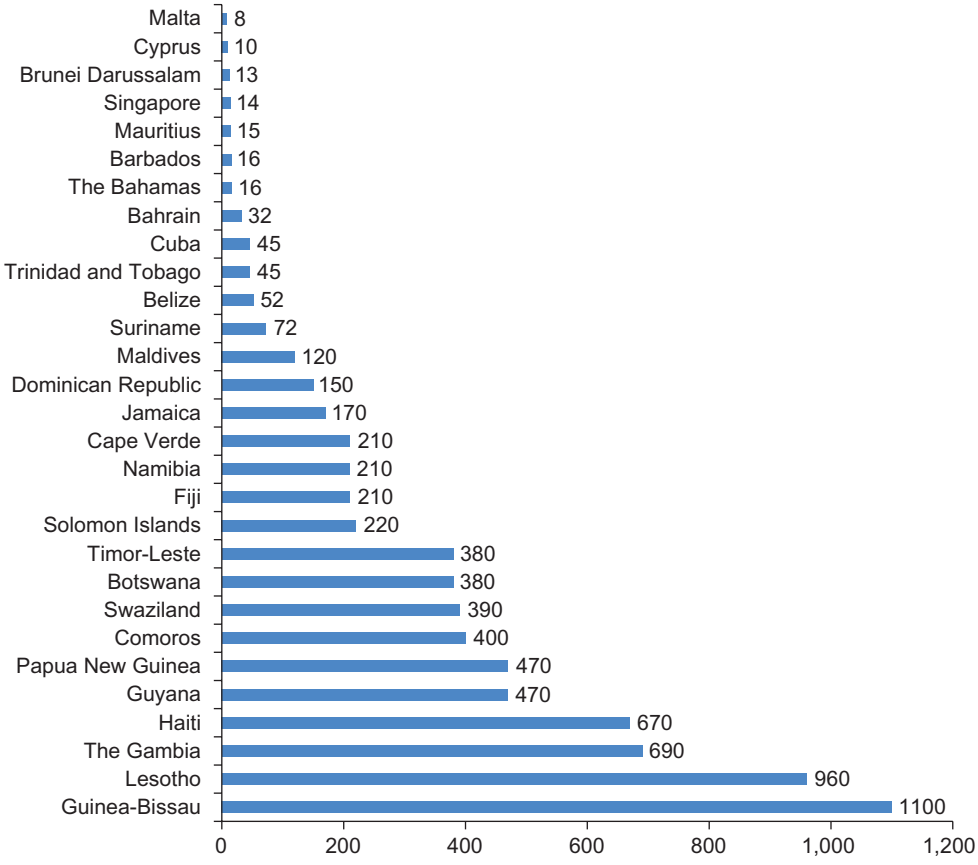
The highest MMR values were in Lesotho (960) and Guinea-Bissau (1,100). Among those benchmark states reporting a latest MMR value, the lowest was in Iceland (4) and the highest was in South Africa (400).

Guinea-Bissau, which is about twice the size of Cyprus, averages more than 600 maternal deaths each year. In contrast, Cyprus has less than 1 per year on average. The high rate in Guinea-Bissau is reflected in its relatively poor levels of service provision and low skilled birth attendance, low contraceptive practice, high adolescent birth rate and low level of antenatal care.

8.2.2 Indicator 5.2: Births attended by skilled health personnel

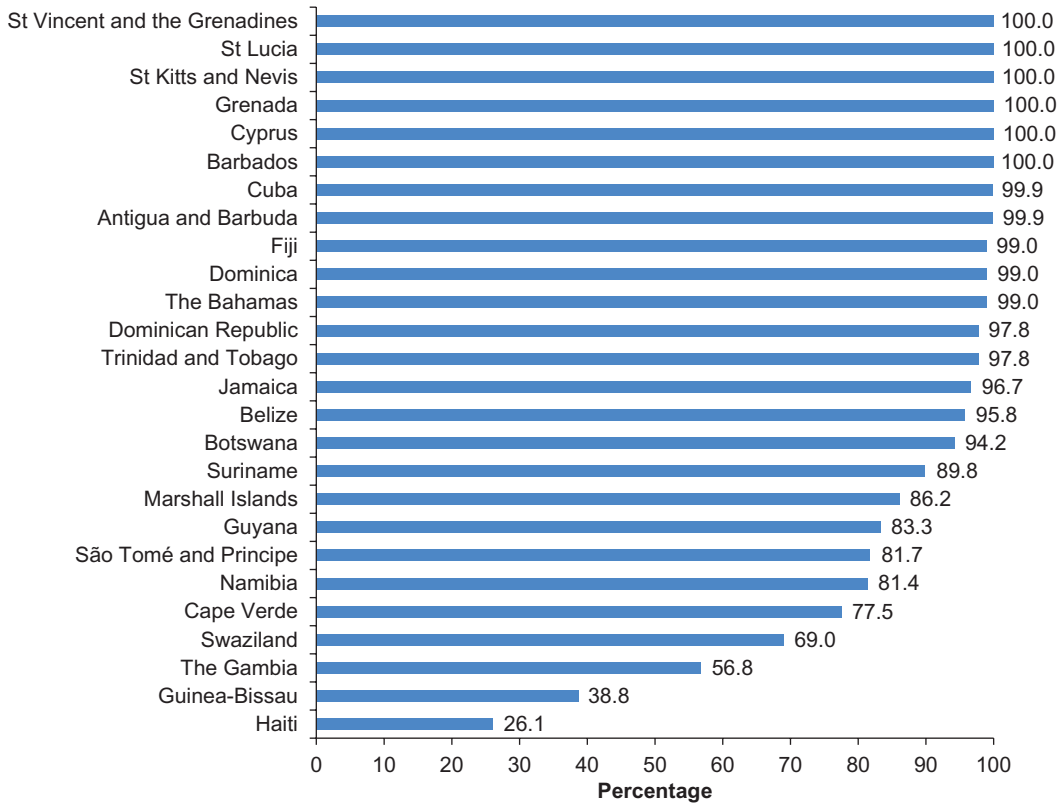
Six[4] (13%) of the 46 small states had achieved the target by 2006 and reported the attendance of skilled professionals at every birth; four states (9%) were on-track. In the 10 benchmark states, none achieved 100 per cent skilled attendance but 6 (60%) were on-track. When missing data were included for the 46 small states, there was 22 per cent progress and for the benchmark states there was 60 per cent progress.

Figure 8.2 Maternal mortality ratio per 100,000 live births



Note: Data from 2005.
Source: UN MDG database 2010

Figure 8.3 Births attended by skilled health personnel



Note: Latest data were for 2007; where these were not available, data for 2006 or 2005 were used.
Source: UN MDG database 2010

The Big Divide in skilled birth attendance in the 46 small states ranges from 100 per cent or near-100 per cent attendance in six states to the lowest latest rates of attendance by skilled personnel of 26 per cent in Haiti and 39 per cent in Guinea-Bissau.

Figure 8.4 indicates a negative assocation between the MMR and skilled birth attendance. MMR was lowest in states with the highest levels of skilled attendance. It therefore appears that the involvement of skilled professionals is critical in substantially reducing the risk of maternal death. Yet less than half of the small states have reported the data on both indicators.

8.2.3 Indicator 5.3: Contraceptive prevalence

Only three (7%) of the 46 small states achieved an increase on the 1990 baseline, while just four (9%) were on-track. However, none of the 10 benchmark states achieved it, while 5 (50%) were on-track. If missing data are included, the 46 small states made 16 per cent progress and the benchmark states made 50 per cent.

The lowest reported contraceptive prevalence in married women among the 46 small states was 10 per cent in Guinea-Bissau; the highest was 73 per cent in Cuba. Among the 10 benchmark states the lowest was 56 per cent in India and the highest was 84 per cent in the UK.

8.2.4 Indicator 5.4: Adolescent birth rate

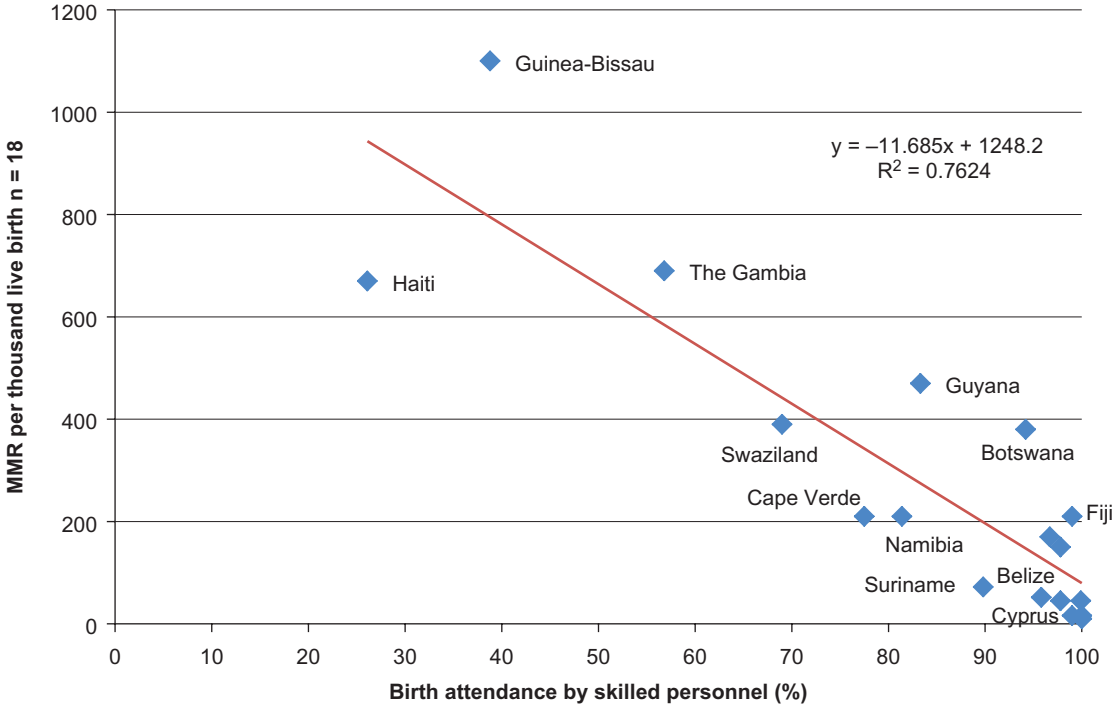
Of the 46 small states, 19 (41%) secured a lowering of the 1990 adolescent birth rate. In the benchmark states 9 (90%) achieved this. Among the small states the lowest adolescent birth rates were in Cyprus (5.6 per 1,000 women) and Singapore (7.5 per 1,000 women); the highest was in Guinea-Bissau (170 per 1,000 women).

8.2.5 Indicator 5.5: Antenatal care

Five of the 46 small states (11%) achieved 100 per cent antenatal care, at the level of at least one visit, with ten countries (22%) on-track, with higher levels than the 1990 baseline. The seven off-track states had only marginal reductions from their 1990 baseline. None of the benchmark states reported achieving the baseline, but four were on-track. Overall, the small states made 33 per cent progress and the benchmark states made 40 per cent progress.

The Big Divide in anatenatal care ranges from the lowest reported level of antenatal care among the small states in Guinea-Bissau, with 78 per

Figure 8.4 Births attended by skilled personnel and MMR



Note: n = number of countries
Source: UN MDG database 2010

cent coverage, to 100 per cent in Cuba, Barbados, Dominica, Grenada, and St Kitts and Nevis. Among the ten benchmark states the lowest reported level of antenatal coverage was in India (74%) and the highest was in Brazil (98%).

It is evident that antenatal care is a significant factor in reducing the risk of maternal death (Figure 8.5), although data were available on the two indicators for only 16 of the 46 small states. Achieving a level of at least 90 per cent antenatal cover is associated with substantially lower levels of maternal death.

8.2.6 Indicator 5.6: Unmet need for family planning

In the 46 small states there were 87 per cent missing data on this indicator. Five states (11%) reported increased use of family planning. In the benchmark states there 70 per cent of data were missing and two states (20%) had increased levels of family planning. The lowest levels of provision among the small states were in Lesotho and Haiti with over 30 per cent of unmet need. In India, a benchmark state, there was a reported 13 per cent unmet need.

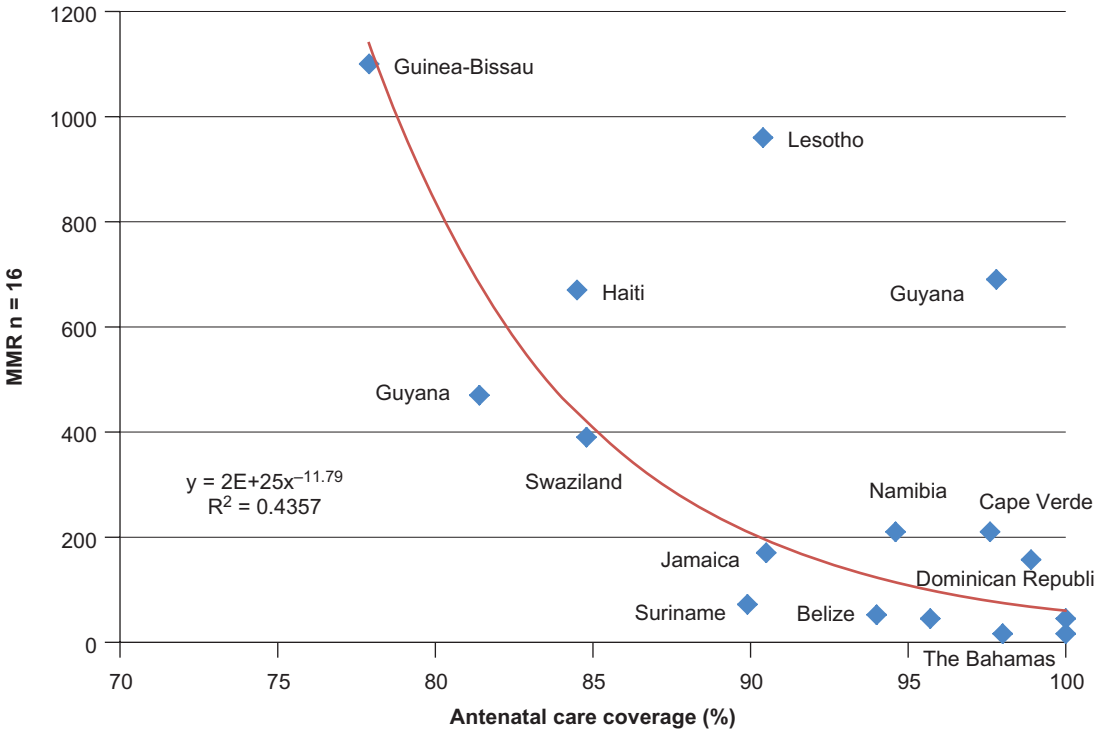
8.3 Action on MDG 5: Maternal health

In July 2010, leaders meeting for the fourth African Union Summit in Kampala, Uganda, reviewed the long-term health situation across member countries. In addition to a commitment to increasing health budgets to 15 per cent of their total government budgets, the African Public Health Alliance observed that although some states have made progress in addressing maternal and child health through expending additional resources, they are still far below the 40 per cent budgetary allocation recommended by the WHO.

Merely allocating 15 per cent of a national budget to health is not considered adequate for African countries. Investment is also required to improve other social determinants such as a skilled workforce, access to water and a better environment. The 2010 Africa Maternal Health Scorecard[5] and the 2010 Africa Health Financing Scorecard[6] both indicated that African states have been slow in achieving three of the millennium development goals: MDG 4, which seeks to reduce child mortality; MDG 5 on improving maternal health; and MDG 6 on combating HIV/AIDS, tuberculosis and malaria.

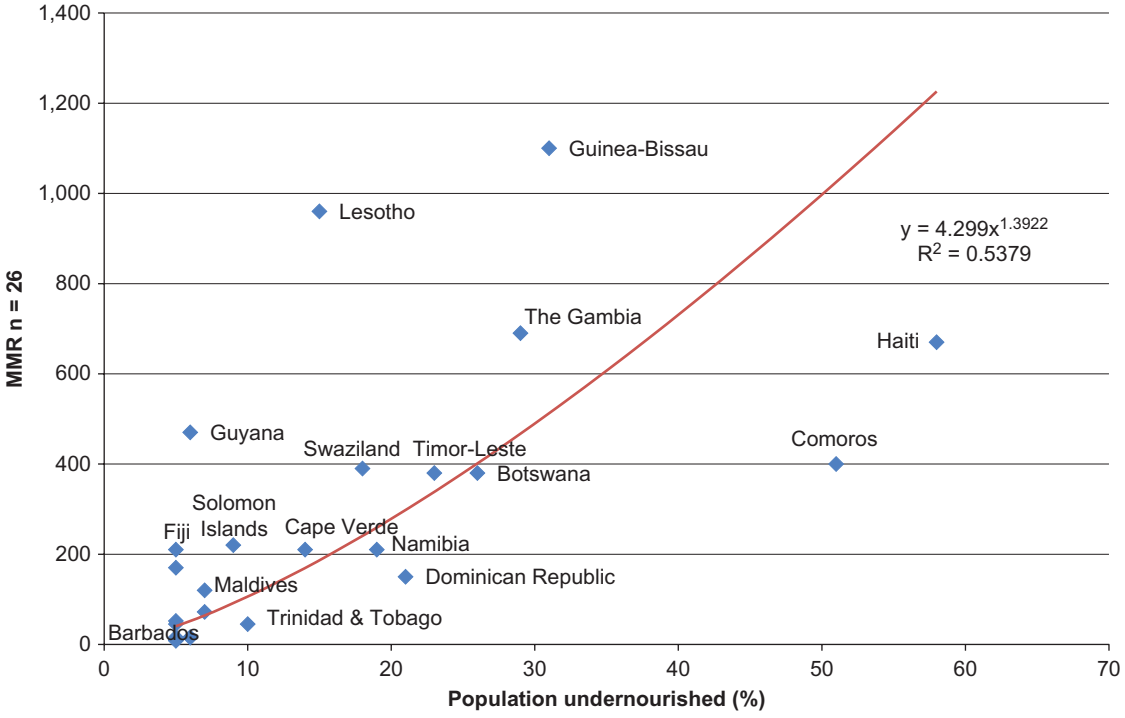
The Africa Maternal Health Scorecard report highlighted the absence of skilled workers at birth, one of the leading causes of maternal death, and called for governments to adopt innovative health financing systems to increase access to health services.

Figure 8.5 Maternal mortality and antenatal care coverage



Note: n = number of countries.
Source: UN MDG database 2010

Figure 8.6 Undernourishment and maternal mortality



Note: n = number of countries.
Source: UN MDG database 2010

Undernourishment is a leading factor in maternal mortality (Figure 8.6), especially when 25 per cent or more of the general population is undernourished. Nutritional support programmes should be targeted at pregnant women (WHO 2003: 30–31).

Recent achievements by Cyprus, Malta, Singapore, Mauritius, Barbados, and Antigua and Barbuda in achieving low levels of maternal deaths offer models of good practice and serve as a stimulus to action.

Notes

1 The progress assessment when missing data items are included in the denominator (see Section 2.4 for an explanation of the arithmetic involved and the interpretation of the results).

2 The variability of missing data within goals and between countries creates a continuing problem in presenting and interpreting results. The authors have tried to draw attention to the anomalies thrown up by specific large variations in missing data, as in this case, rather than overburden the report with every minor instance. The tables in the Annexes show the full picture, making it possible to examine the variation in results for each country and each indicator.

3 Maternal deaths per 100,000 births. For small states the figures are usually averaged over a period of years because of the small number of births per year.

4 The six were Barbados, Cyprus, Grenada, St Kitts and Nevis, St Lucia and St Vincent and the Grenadines.

5 See:www.who.int/pmnch/media/membernews/2010/20100721_africanunion_pr/en/index.html

6 See: www.who.int/pmnch/events/2010/ausummit_2010healthfinancingscorecard.pdf

Chapter 9

MDG 6: Disease Control

The spread of disease has an extremely adverse impact on the attainment of all other MDGs, as it can cripple the capacity of national and local government and private enterprise, robbing organisations and communities of talented and capable individuals.

This MDG focuses on three major preventable and treatable infectious diseases, HIV/AIDS, malaria and tuberculosis, which continue to impact upon small and vulnerable developing countries. The goal, which covers cost-effective interventions such as providing insecticide-treated nets and condoms, has three targets and ten indicators.

Goal 6. Combat HIV/AIDS, malaria and other diseases

Target 6A: *Have halted by 2015, and begun to reverse, the spread of HIV/AIDS*

Indicators:

6.1 HIV prevalence among population aged 15–24 years

6.2 Condom use at last high-risk sex

6.3 Proportion of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS

6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10–14 years

Target 6B: *Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it*

Indicators:

6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs

Target 6C: *Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases*

Indicators:

6.6 Incidence and death rates associated with malaria

6.7 Proportion of children under five sleeping under insecticide-treated bed nets

6.8 Proportion of children under five with fever who are treated with appropriate anti-malarial drugs

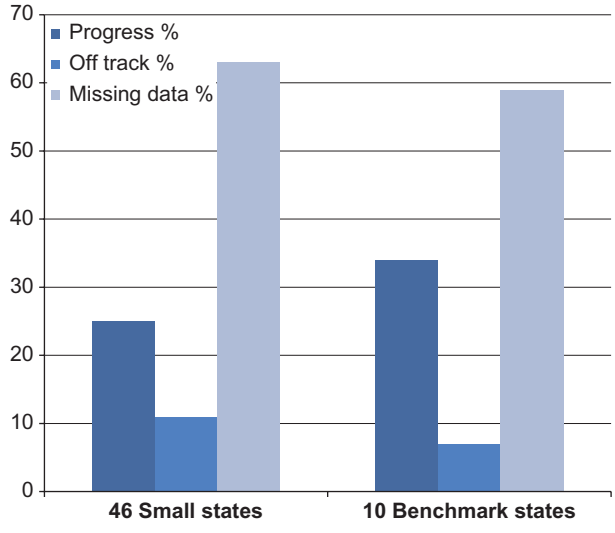
6.9 Incidence, prevalence and death rates associated with tuberculosis

6.10 Proportion of tuberculosis cases detected and cured under directly observed treatment short-course

Targets 6A and 6B relate to HIV/AIDS and have five principal indicators and two sub-indicators. Target 6B relates to achievement by 2010 and not by 2015. The third target and the remaining five principal indicators and five sub-indicators relate to malaria and tuberculosis. Figure 9.1 shows the performance of all 56 states for MDG 6.

In assessing performance on MDG 6, this report has made the following assumptions: for indicator 6.1 the value should be less than the 1990 value; for indicators 6.2 and 6.3 the value is 100 per cent; for indicator 6.4 the target is equality (i.e. a ratio of 1.0 orphans to non-orphans); for indicator 6.5 the target value is 100 per cent.

Figure 9.1 Performance on MDG 6: Disease control



Source: UN MDG database 2010

In assessing performance on the targets for malaria and tuberculosis, this report has made the following assumptions: for indicator 6.6 on malaria the aim is to reduce rates below the 1990 baseline; for indicators 6.7 and 6.8 on malaria it is to increase (or at the very least, not exceed) the value above 1990; for indicator 6.9 on tuberculosis it is to reduce rates below (or at the very least, not exceed) 1990; for indicator 6.10a the aim is to achieve a 100 per cent detection rate; and for 6.10b it is to achieve a 100 per cent treatment rate.

9.1 Overall performance

The 10 benchmark states outperformed the 46 small states in the control of major disease (HIV/AIDS, malaria and tuberculosis). The 46 small states made 25 per cent progress, when missing data are included, with 11 per cent off-track and 63 per cent missing data. Excluding missing data, the 46 small states made 69 per cent progress.

In contrast, the ten benchmark states made 34 per cent progress on this MDG, with 7 per cent off-track and 59 per cent missing data. Excluding missing data, the benchmark states made 83 per cent progress.

For the 46 small states there were 63 per cent missing data overall, but for the seven indicators concerned with HIV/AIDS there were 84 per cent missing data. For the five indicators for malaria there were 94 per cent missing data. However, the absence of baseline values prevented the definition of targets, except for those indicators with universal target values (6.3, 6.4, 6.5 and 6.10a).

It was found that for the 10 benchmark states there were 74 per cent missing data on the HIV/AIDS indicators and 86 per cent missing data on the malaria indicators. This frustrated reporting on both the pattern of performance on HIV/AIDS and malaria targets for these 10 benchmark states and made it impossible to make valid comparisons with the 46 small states.

9.2 Targets 6A and 6B: Indicators 6.1–6.5: HIV/AIDS

From the few elements of data reported, it is worth noting that on indicator 6.1 the three countries with the highest reported levels of HIV/AIDS in pregnant women aged 15–24 years (Botswana, Lesotho and Swaziland) have produced modest reductions, each having a baseline figure of over 23 per cent.

The evidence also shows that access to antiretroviral drugs (indicator 6.5) for those with advanced AIDS ranges widely from 18 per cent in Lesotho and 20 per cent in Guinea-Bissau to 79 per cent in Botswana and 95 per cent in Cuba.

9.3 Target 6C: Indicators 6.6–6.8: Malaria

On indicator 6.6b, the death rate from malaria per 100,000 population, the reported range varied from 0 in Belize and 0.11 in Cape Verde to 97 in The Gambia, 98 in Comoros and 142 in Guinea-Bissau. (Mauritius is one of the small island states which has eradicated malaria, but is nonetheless recorded in the UN system as having missing data.)

On children sleeping under insecticide-treated bednets (indicator 6.7), there were some fragmentary reported data. The lowest reported rates were 3 per cent of children under five in Suriname and 1 per cent in Swaziland, while the highest were 39 per cent in Guinea-Bissau, 47 per cent in The Gambia and 56 per cent in São Tomé and Principe.

9.4 Target 6C: Indicator 6.8: Children under 5-years-old treated with anti-malaria drugs

In 41 (89%) of the 46 states, missing data inhibited assessment of progress on this indicator.

Four of the five states where adequate data were reported, Guinea-Bissau, Haiti, Namibia and São Tomé and Principe, had lower levels of treatment in 2009 than in 1990; only in The Gambia had levels increased. The Big Divide in levels of treatment reported ranges from 63 per cent in The Gambia to 5 per cent in Haiti.

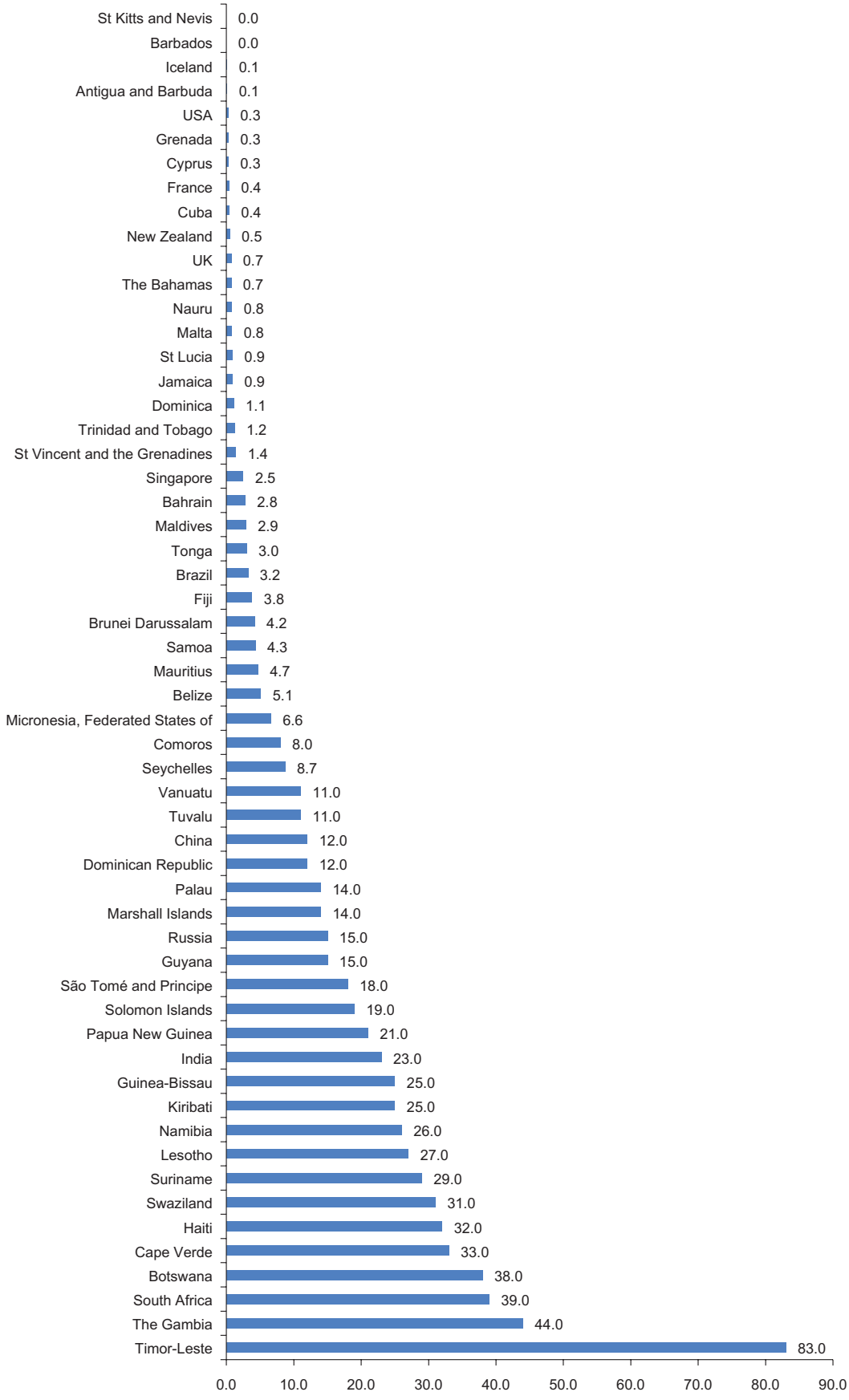
9.5 Target 6C: Indicators 6.9–6.10: Tuberculosis

The remaining commentary on MDG 6 below is on tuberculosis from five indicators (6.9a–6.10b), for which there were 11 per cent missing data for the 46 small states and 10 per cent missing data for the benchmark states.

9.5.1 Indicator 6.9a: tuberculosis prevalence rate

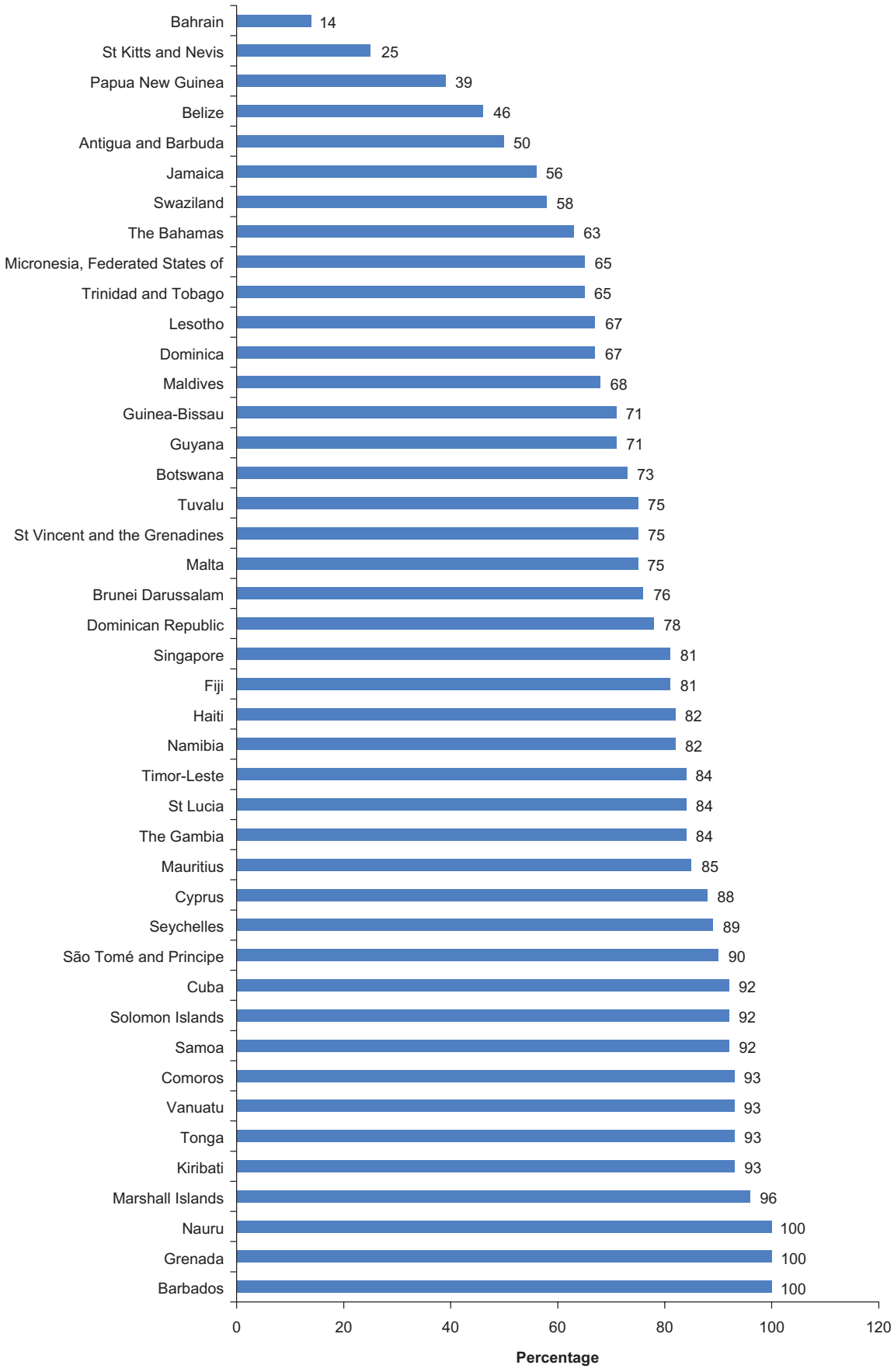
Twenty-nine (63%) of the 46 small states reduced the tuberculosis prevalence rate per 100,000 population below the 1990 baseline. Prevalence in this context means the number of existing cases present at the midpoint in the year, including old and new cases. The ten benchmark states also achieved this, with the exception of South Africa, whose 1990 baseline value of 300 per 100,000 increased to 610 by 2008.

Figure 9.2 Tuberculosis death rate per year per 100,000



Note: Data from 2008.
Source: UN MDG database 2010

Figure 9.3 Tuberculosis successful treatment rate under DOTS



Source: UN MDG database 2010

9.5.2 Indicator 6.9b: Tuberculosis death rate

Twenty-seven (59%) of the 46 small states reduced the death rate from tuberculosis per 100,000 population below the 1990 baseline. Among the 10 benchmark states, all achieved the indicator except South Africa, whose reported death rate increased from the 1990 baseline of 37 to 39 per 100,000 population in 2008.

In 2008, there were a total of 11,000 deaths from tuberculosis in the 46 small states. Eighty per cent of these deaths came from just seven countries. The highest death rates from tuberculosis per 100,000 population were in Timor-Leste (83), The Gambia (44) and Botswana (38). The lowest were in Barbados and St Kitts and Nevis, which each reported zero tuberculosis deaths in 2008. Among the benchmark states, the highest tuberculosis death rate was 39 per 100,000 population in South Africa and the lowest 0.1 in Iceland.

9.5.3 Indicator 6.9c: Tuberculosis incidence rate

This indicator measures the number of new cases per 100,000 population in the year, in contrast to indicator 6.9b, the prevalence rate, which includes old and new cases. In the 46 small states, 32 (70%) reduced the incidence of tuberculosis below the 1990 baseline. All the benchmark states except South Africa achieved a reduction in tuberculosis incidence. In South Africa the incidence of tuberculosis rose from 300 per 100,000 population in 1990 to 960 in 2008.

9.5.4 Indicator 6.10a: Tuberculosis detection rate under DOTS[1]

Thirty-two (70%) of the 46 small states were on-track to achieve a 100 per cent detection rate under the DOTS (directly observed treatment – short-course) programme. All the benchmark states were on-track, including South Africa, whose detection rate increased from 41 per cent in 1990 to 68 per cent by 2008.

9.5.5 Indicator 6.10b: Tuberculosis treatment success rate under DOTS

Twenty-five (54%) of the 46 small states increased their success rate from the 1990 level under the DOTS programme. Six (60%) of the ten benchmark states also achieved this. However, success rates declined in 16 (35%) of the small states, including Bahrain, Brunei Darussalam, Cyprus, Mauritius and Singapore. Success rates also declined in the benchmark states of Iceland, Russia and South Africa.

The Big Divide in tuberculosis treatment success among the 46 small states ranges from the lowest reported rates in Bahrain at 14 per cent, St Kitts and Nevis at 25 per cent, Papua New Guinea at 39 per cent, Belize at 46 per cent and Jamaica at 56 per cent. The highest reported success rates were in Barbados, Grenada and Nauru, all at 100 per cent. In the benchmark states the lowest reported treatment success rates were in Russia (58%) and Brazil (72%). The highest reported success rates were in India (87%) and in China (94%).

9.6 Action on MDG 6: Disease control

The major diseases identified by this MDG seriously affect economic and social development. As the report bears out, there is a wide range in risk, performance and outcomes, indicating missed opportunities for action. Concerted effort here can not only save lives and suffering, but also contribute to development. Fresh direct financing to tackle the three major diseases of developing countries has not featured highly in recent statements of financial commitment.

Two exceptions are to be found in Botswana, which has faced a major epidemic of HIV/AIDS and subsequently increased its financial support for antiretroviral therapy, and in Mauritius, which has raised its commitment to work with NGOs on HIV/AIDS, drug and alcohol abuse programmes.

The apparent systemic absence of financial commitments to the diseases highlighted in this review warrants further study. It would, for example, be of interest to explore how far the wide range of mortality from tuberculosis is linked to variation in service provision, efficiency in delivery, price at the point of service, and support through education and sensitisation of the most vulnerable groups.

Note

1 DOTS is the internationally recommended approach to tuberculosis control, which forms the core of the WHO-sponsored 'Stop TB Strategy'. The five components of DOTS are: political commitment with increased and sustained financing; case detection through quality-assured bacteriology; standardised treatment with supervision and patient support; an effective drug supply and management system; and a monitoring and evaluation system and impact measurement. The DOTS detection rate for new smear-positive cases is calculated by taking the number of new smear-positive cases treated in DOTS programmes and notified to WHO, divided by the estimated number of incident smear-positive cases for the same year, expressed as a percentage.

Chapter 10

MDG 7: Sustainable Environment

The continued degradation of the natural environment in small and island states is unsustainable and damages efforts to maintain the economic value of their productive natural assets. The wider provision of safe water, sanitation and decent housing for urban dwellers is essential for economic and social progress.

This MDG covers many of the critical aspects of environmental protection relevant to sustainable development. It includes forest cover as a major habitat for indigenous flora and fauna, air pollution from human activity, and the provision of safe water and sanitation relevant to human health, economic and social welfare.

This report presents some limited evidence of the capacity of more developed states to rein back the levels of pollution and environmental degradation while sustaining economic and social development.

Goal 7. Ensure environmental sustainability

Target 7A: *Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources*

Target 7B: *Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss*

Indicators:

7.1 Proportion of land area covered by forest

7.2 CO_2 emissions, total, per capita and per $1 GDP (PPP)

7.3 Consumption of ozone-depleting substances

7.4 Proportion of fish stocks within safe biological limits

7.5 Proportion of total water resources used

7.6 Proportion of terrestrial and marine areas protected

7.7 Proportion of species threatened with extinction

Target 7C: *Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation*

Indicators:

7.8 Proportion of population using an improved drinking water source

7.9 Proportion of population using an improved sanitation facility

Target 7D: *By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers*

Indicators:

7.10 Proportion of urban population living in slums

MDG 7 has four targets and ten indicators. Three of the four targets have specific, but different, dates for achievement: target 7B by 2010; target 7C by 2015; and target 7D by 2020. No date is specified for target 7A. Two indicators have specific numerical targets of change relative to the baseline, while the other eight merely ask for improvement.

Figure 10.1 shows a summary of the performance of the 46 small states and 10 benchmark states in making progress with this MDG across the four defined MDG targets and ten indicators.

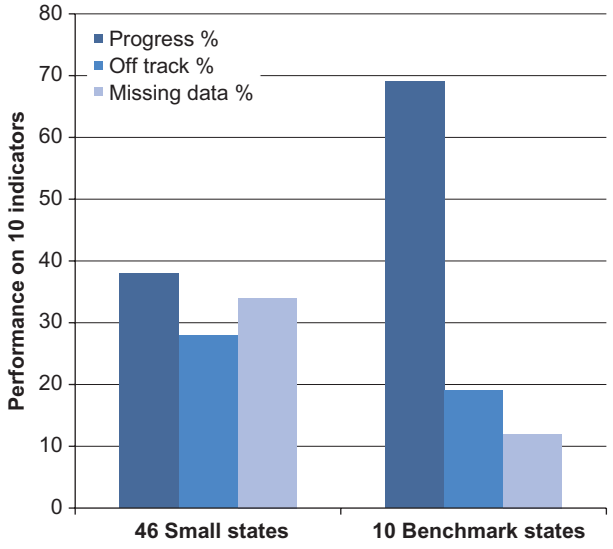
10.1 Overall performance

Of 460 indicators overall that could have been met (10 indicators for each of the 46 states), in total 153 (33%) were achieved. A further 21 (5%) were on-track, with missing data preventing assessment in 157 (34%) of cases.

The 46 small states made progress in 174 cases (38%); in 129 cases (28%) they were off-track. Excluding missing data, the 46 small states made 57 per cent progress.

In the pursuit of environmental sustainability, the evidence suggests that the 10 benchmark states outperformed the 46 small states. In 63 per cent of cases the benchmark states reported achieving these indicators by 2007, compared with 33 per cent achievement by the 46 states. Data were missing

Figure 10.1 Performance on MDG 7: Environmental sustainability



Source: UN MDG database 2010

in 12 per cent of cases for the benchmark states, compared with 34 per cent of cases for the 46 small states.

Including missing data, the 10 benchmark states made 69 per cent progress towards achieving this MDG, exceeding the 38 per cent progress made by the 46 small states. Excluding missing data, the performance of the benchmark states exceeded the small states with 79 per cent progress and 19 per cent off-track, compared with 57 per cent progress by the small states and 28 per cent off-track.

A detailed examination of the data from the benchmark states shows that, including missing data, the two island benchmark states (Iceland and New Zealand) made 62 per cent progress; the three large benchmark states (France, UK and USA) made 70 per cent progress; the four BRIC states (Brazil, Russia, India and China) reported 68 per cent progress; and South Africa recorded 90 per cent progress. This compares with 38 per cent progress by the 46 small states.

Excluding missing data, the two island benchmark states made 81 per cent progress; the three large benchmark states made 88 per cent progress; the four BRIC states made 69 per cent progress; and South Africa made 90 per cent progress. This compares with 57 per cent progress by the 46 small states.

The performance of the 46 selected small states on each of the ten indicators in MDG 7 is examined in detail below.

10.2 Target 7A: Sustainable development and environmental loss

Target 7A is a general target within MDG 7 for which there are no specific indicators; progress under this target is subsumed under target 7B for which there are seven indicators, of which one (7.2) is made up of three sub-indicators (7.2: 1–3), making nine indicators in all. In total under targets 7A and 7B there were thus 414 indicators to assess.[1] The 46 small states made 31 per cent progress with this combined target, with 26 per cent of cases off-track; 43 per cent of the overall indicators had missing data.

If missing data are included in the denominator for assessing progress, there was 31 per cent progress; if missing data are excluded from the denominator, there was 54 per cent progress. This provides a measure of the uncertainty in the assessment of performance in the face of 43 per cent missing data. The extent of missing data was greatly affected by the two indicators 7.4 on fish stocks and 7.6 on threatened species, for which the UN data files provided no data at all.

10.2.1 Indicator 7.1: Proportion of land area covered by forest

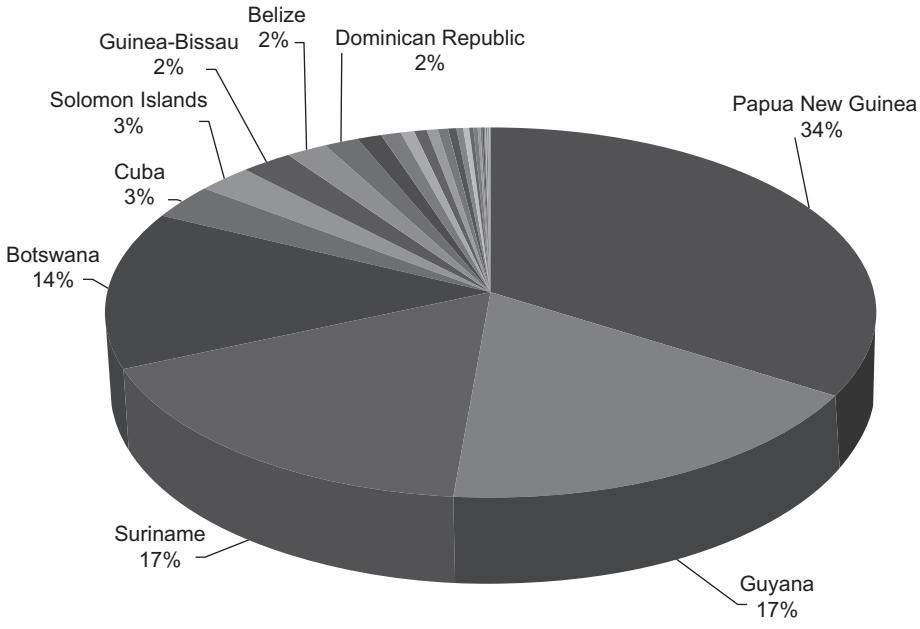
Since 1990 some 48,000 square kilometres (5%) of forest cover has been lost across the 46 small states. By 2005, 870,000 square kilometres of cover remained; however, 82 per cent of this is in just four states (Papua New Guinea, Guyana, Suriname and Botswana – see Figure 10.2). Around 80 per cent of remaining forest cover is to be found in four (9%) of the small states for which data are available (this analysis excludes Nauru and Marshall Islands, for which no data are available).

Nine[2] states have less than 5 per cent of cover left. Thirty-two countries (70%) maintained or increased forest cover, when missing data are included. Twelve states (26%) were off-track. In two states (4%) missing data inhibited assessment of progress.

The largest gain was in Samoa, which raised the level of cover from 46 to 60 per cent. Five states maintained forest cover above 70 per cent: Seychelles (89%), Palau (88%), Solomon Islands (78% despite loss), Guyana (77%) and Belize (73%).

Four of the states retained less than 5 per cent forest cover: Haiti (4%), Kiribati (3%), Maldives (3%), Comoros (3%), Singapore (3%), Malta (1%) and Lesotho and Bahrain (less than 1%). Other countries with over 50 per cent cover included Guinea-Bissau, Federated States of Micronesia, Suriname and Timor-Leste.

Figure 10.2 Total forest cover square kilometres



Note: Data from 2005.
Source: UN MDG database 2010

Across the 12 states (26%) that were off-track in 2007, substantial forest cover losses occurred in Comoros, where 55 per cent of forest cover has been lost since 1990, as well as Guinea-Bissau and Timor-Leste (6% and 17% respectively). Haiti, which had only 4.2 per cent forest cover in 1990, lost a further 10 per cent, leaving 3.8 per cent cover.

10.2.2 Indicator 7.2: CO_2 emissions

Progress on reducing CO_2 emissions is measured across three sub-indicators: 7.2.1 measures the reduction in terms of total emissions; 7.2.2 relates to emissions per capita; and 7.2.3 measures emissions per US$1 GDP at purchasing power parity.[3]

Across the three sub-indicators, the small states made progress in 34 cases (25%) and were off-track in 83 (60%). Missing data inhibited assessment of progress in 21 (15%) of cases. Excluding missing data, the small states made progress in 29 per cent of cases; in 14 (30%) of cases the 46 small states were off-track on each of the sub-indicators.

On the first sub-indicator, 7.2.1, the highest total emissions of CO_2 were in Singapore at 54 million metric tonnes per year and Trinidad and Tobago at 34 million metric tonnes a year. The lowest were in Kiribati at 29,000 metric tonnes per year.

By 2006, 80 per cent of total CO_2 across the 46 small states was attributable to only seven (16%) of the countries (this analysis excludes Lesotho and Tuvalu, for which no data were available).

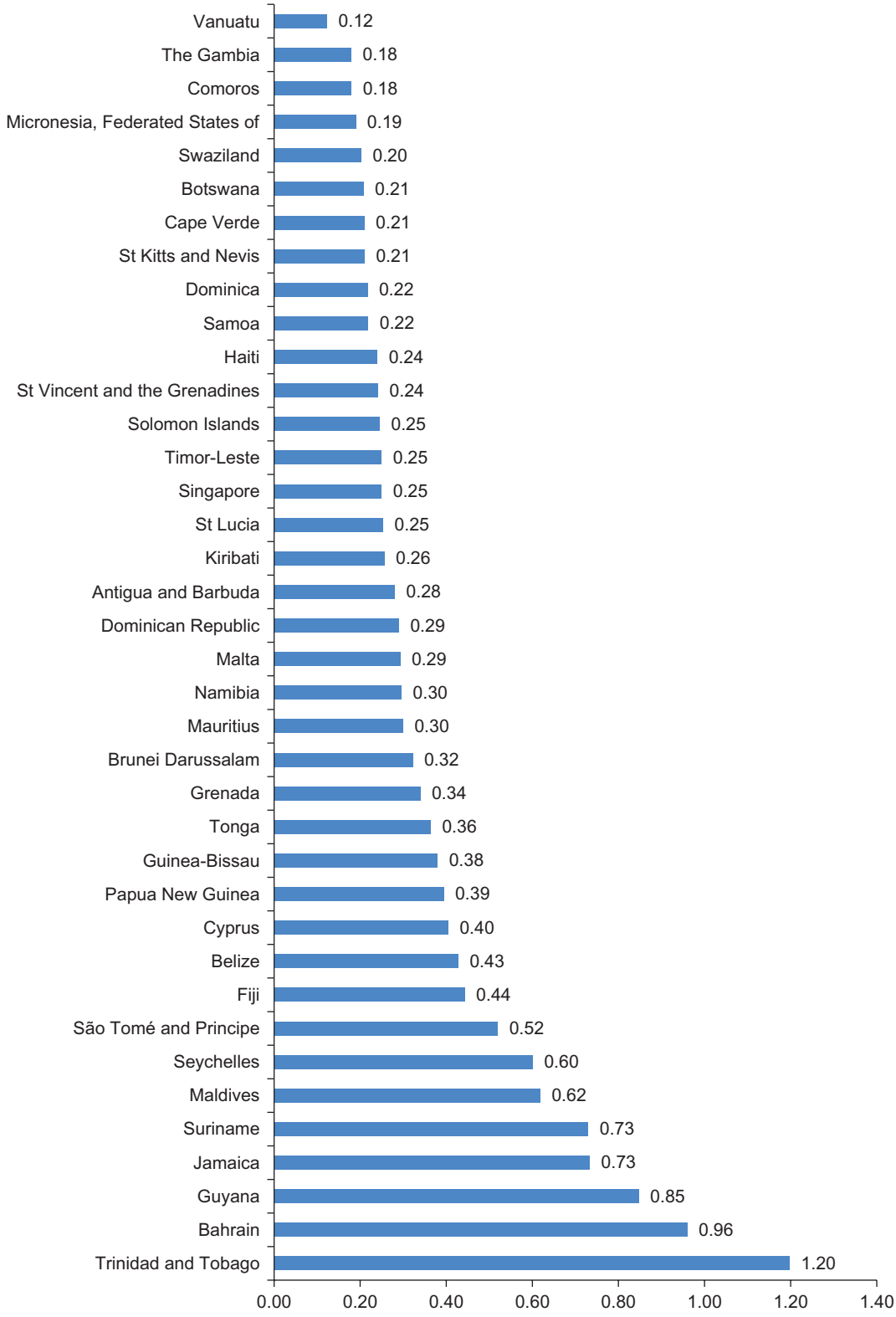
On the second sub-indicator, 7.2.2, the highest levels of per capita emissions of CO_2 were in Bahrain with 30 metric tonnes per person per year and in Trinidad and Tobago with 25 metric tonnes per person per year. The lowest were Comoros, Guinea-Bissau, Haiti and Timor Leste, all with 0.2 metric tonnes per capita.

On the third sub-indicator, 7.2.3 (Figure 10.3), the highest emissions came from Trinidad and Tobago with 1.2 kilogrammes per US$1 GDP (PPP). Bahrain came second highest with 0.96 kilogrammes per US$. The lowest was in Vanuatu with 0.12 kilogrammes per US$1 GDP (PPP) and Comoros with 0.18 metric tonnes per US$1 GDP (PPP).

Trinidad and Tobago had the highest level of CO_2 emissions per US$1 GDP (PPP) and came second of the 46 small states on the other two sub-indicators. It was off-track on total emissions and emissions per capita, with increased levels in each case. On the third sub-indicator, however, it achieved reduced CO_2 emissions per US$GDP against its 1990 baseline value, while remaining the highest in terms of emissions per US$ value of PPP GDP.

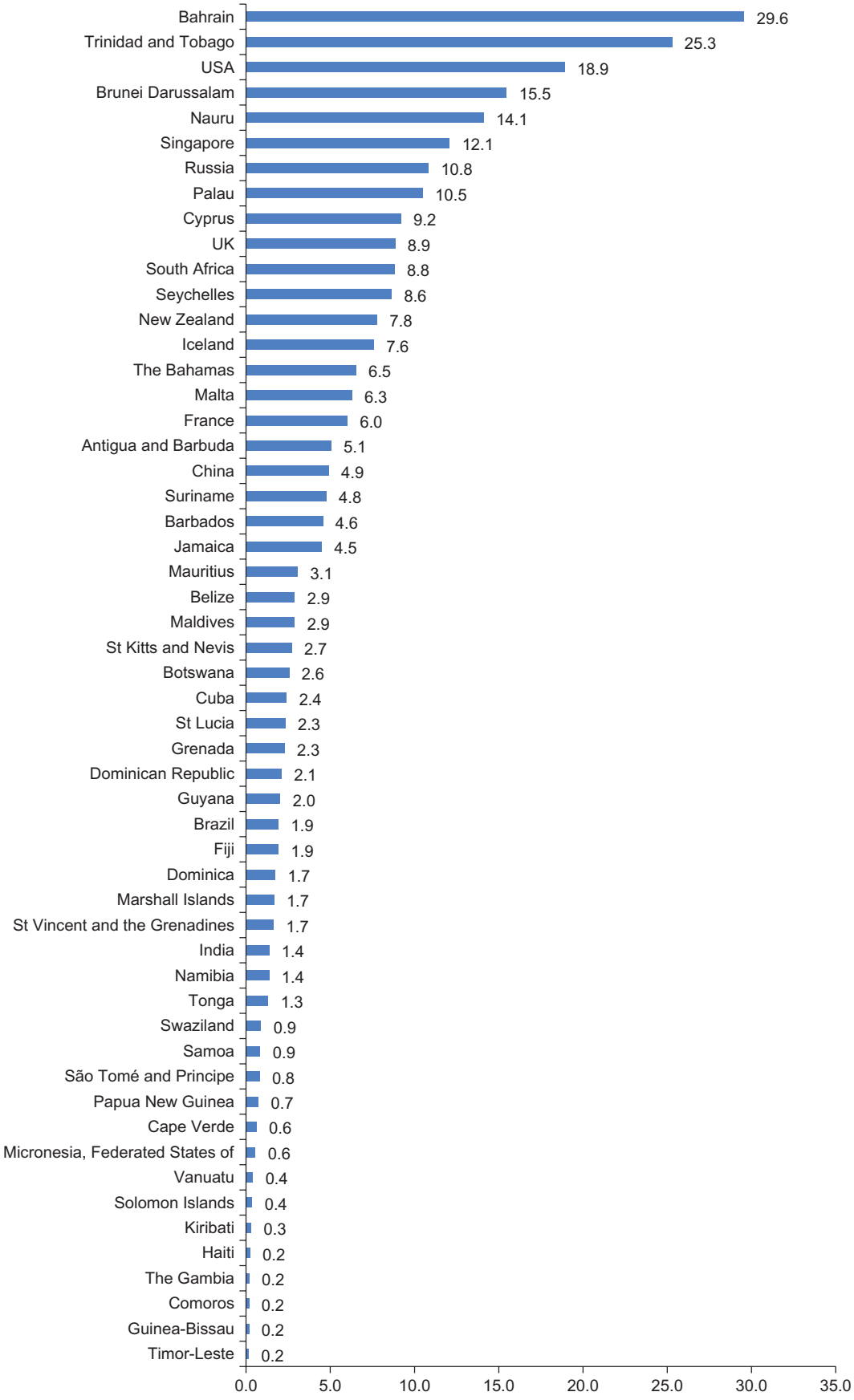
Singapore's total emissions increased by 15 per cent from 47 million metric tonnes in 1990 to 54 million in 2007. But Singapore achieved reductions on the two other indicators, reducing per capita emissions on indicator 7.2.2 by 16 per cent and the weight of

Figure 10.3 CO_2 emissions per US$1 GDP (PPP)



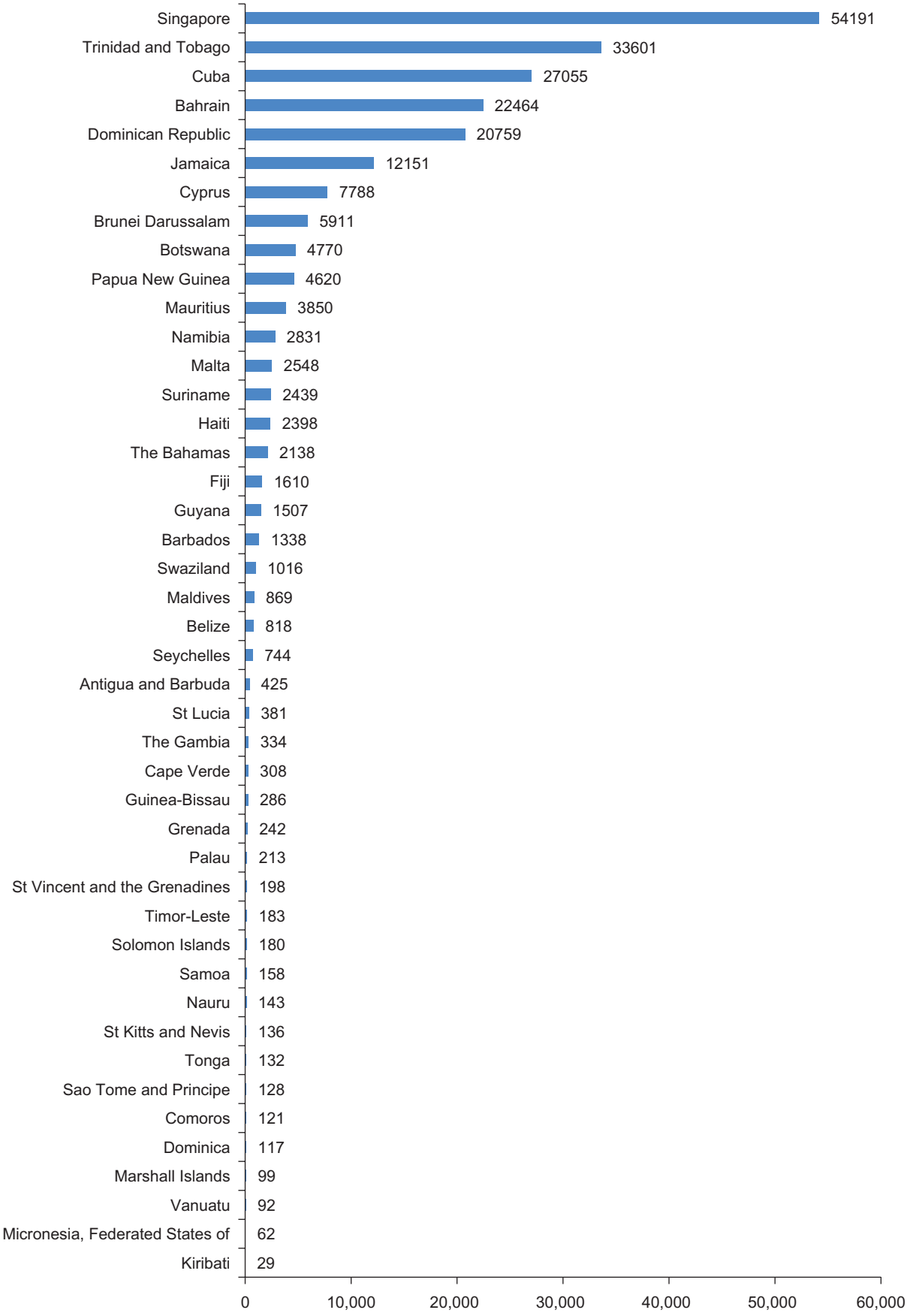
Note: Data from 2006.
Source: UN MDG database 2010

Figure 10.4 CO_2 emissions, metric tonnes per capita[4]



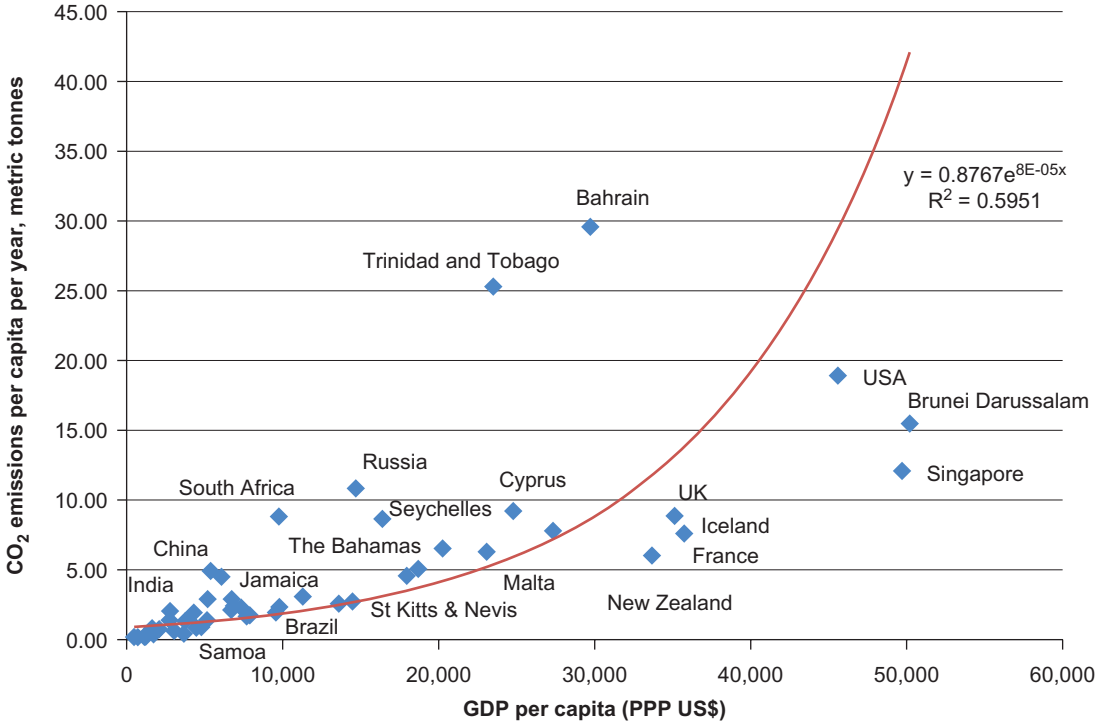
Note: Latest data were for 2007; where these were not available, data for 2006 were used.
Source: UN MDG database 2010

Figure 10.5 CO_2 emissions in 1,000 metric tonnes



Source: UN MDG database 2010

Figure 10.6 GDP per capita and CO_2 emissions per capita



Sources: UN MDG database and UN Statistics Division 2010

emissions per US$ GDP on indicator 7.2.3 by 62 per cent between 1990 and 2007.

De-coupling the link between economic growth and pollution

Figure 10.6 shows the CO_2 emissions per capita plotted against PPP GDP per capita for all the 56 states in the study. This indicates that overall there is a trend of CO_2 emissions mounting with rising GDP.

There are examples of countries bucking this trend, however, with some of the higher-income states enjoying much lower CO_2 emissions than would be expected from their GDP level. In this category are USA, UK, Iceland and France, among the 10 benchmark states, and Singapore and Brunei Darussalam among the 46 small states.

Conversely, among the benchmark states, China, South Africa, and Russia have higher levels of CO_2 emissions per capita than might be expected from their GDP per capita. This is also the case for Trinidad and Tobago, Cyprus, Bahrain and Seychelles.

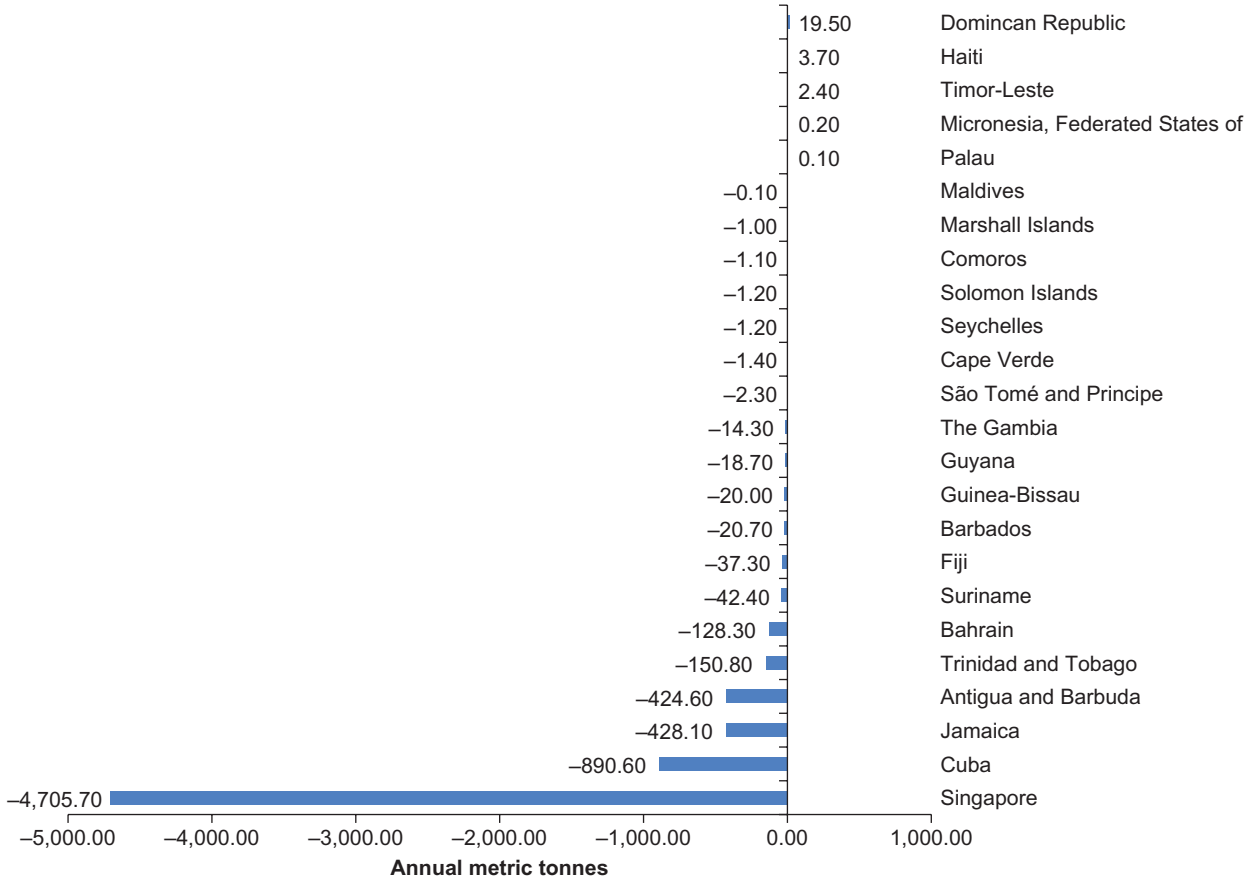
This analysis gives some support to the theoretical potential of decoupling air pollution from economic growth, in line with the Kuznets hypothesis.[5] It also highlights those countries above the trend line, where support may be needed to implement improvements in pollution control.

10.2.3 Indicator 7.3: Ozone-depleting substances

Nineteen (41%) of the 46 small states reduced consumption of ozone-depleting substances. Five (11%) were off-track. For 22 states (48%) missing data inhibited assessment of performance. Thirty-five of the small states (76%) were consuming below 10 metric tonnes of ozone-depleting substances per annum. Five (11%) were consuming between 10 and 49 metric tonnes, and only six states reported consumption of 50 or more metric tonnes.

The major reductions were in Singapore (from 4,855 metric tonnes in 1990 to 150 metric tonnes in 2008), Cuba (from 978 metric tonnes in 1990 to 88 metric tonnes in 2008) and Jamaica (431 metric tonnes in 1990 to 2.9 metric tonnes in 2008). These three states alone accounted for a total annual reduction of 6,024 metric tonnes of ozone-depleting substances from 1990. In contrast, the five states[6] where the emission of ozone-depleting substances increased reported a combined annual total increase of 26 metric tonnes.

Figure 10.7 Change in consumption of ozone-depleting substances, 1990–2008



Source: UN MDG database 2010

10.2.4 Indicator 7.4: Fish stocks within safe limits

No data were available for the 46 small states on this indicator in the UN database.

10.2.5 Indicator 7.5: Total water resources used

Missing data inhibited assessment of performance on this indicator. In one case, the Dominican Republic reduced its percentage usage of water; in four other cases the percentage used increased.

10.3 Target 7B: Reduction in loss of biodiversity

10.3.1 Indicator 7.6: Terrestrial and marine protected areas

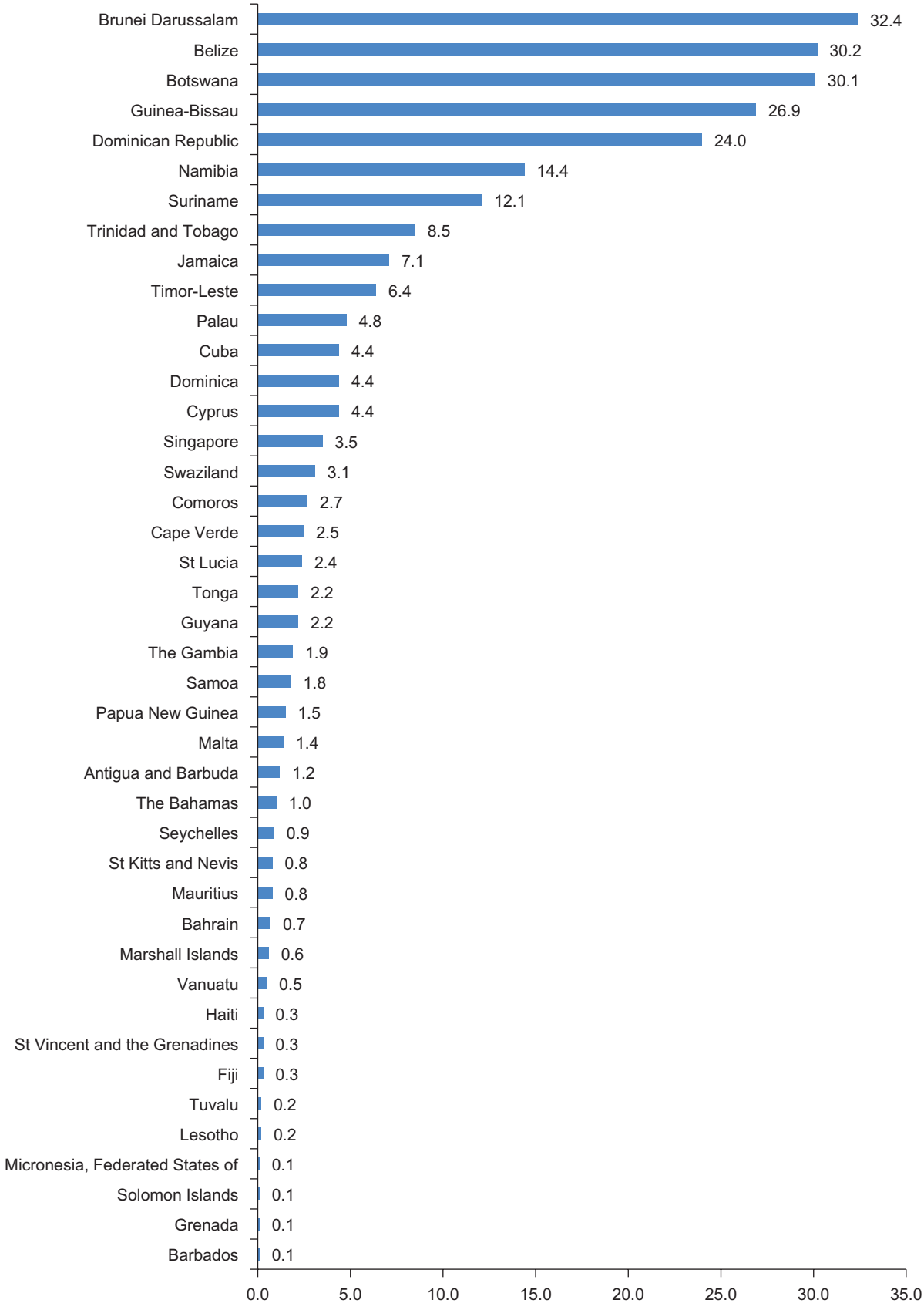
Forty (87%) of the 46 small states maintained or increased the percentage of their territory protected from development under law, for instance as national parklands. No states were rated off-track, although in six countries (13%) missing data prevented assessment of performance. Excluding missing data, progress in the small states was 100 per cent.

In most cases, this was the result of safeguarding or marginally increasing the spread of areas that were already protected. In Belize the proportion of protected territory increased from 14.8 per cent to nearly a third of the country (30.2%). In Guinea-Bissau protected areas grew from 6 per cent to over a quarter of the country (27 per cent). Suriname increased its protected territory from 5 per cent to 12 per cent. Timor-Leste, which had no protected territory in 1990, reported a 6 per cent rise by 2009 (Figure 10.8).

Extent of protected areas

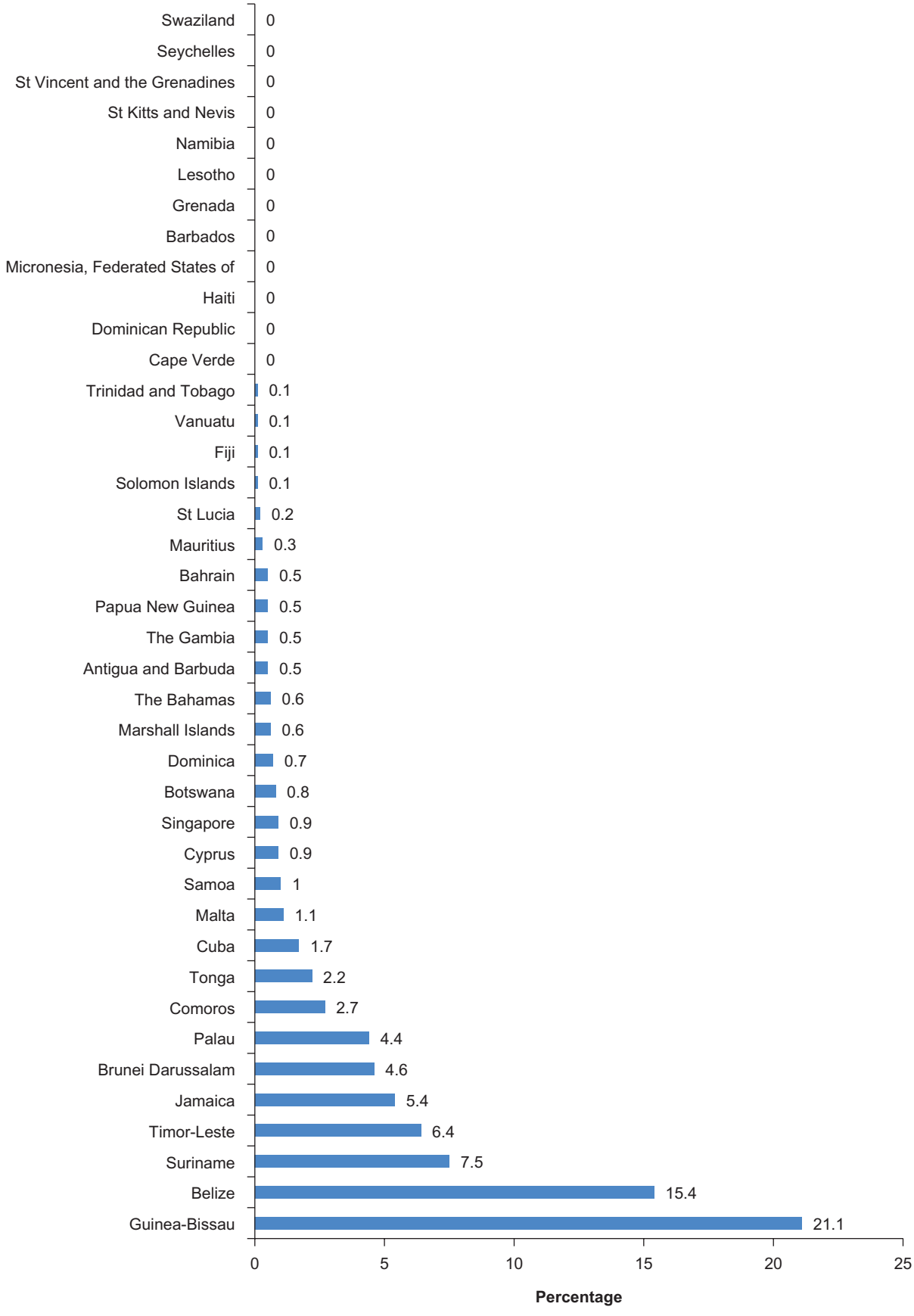
Of concern is the fact that in 33 of the 46 small states (72%) less than 5 per cent of their territory was protected, while in four countries (9%) just 5–9 per cent of territory was safeguarded under law. In six states (13%), 10 per cent or more of their territory was protected. Brunei Darussalam was the best performing country, with 32 per cent of its territory protected, followed by Belize and Botswana, both with 30 per cent. Dominican Republic protected 24 per cent of its territory, Guinea-Bissau 27 per cent and Namibia 14 per cent.

Figure 10.8 Terrestrial and marine areas protected as percentage of total area



Note: Latest data were for 2009; where these were not available, data for 2008 were used.
Source: UN MDG database 2010

Figure 10.9 Change in terrestrial and marine areas protected in relation to total area



Note: Data compared from 1990 and 2009.
Source: UN MDG database 2010

10.3.2 Indicator 7.7: Species threatened with extinction

No data on this indicator were reported for the 46 selected small and island states in the UN MDG database.

10.4 Target 7C: People without access to safe water and sanitation

Safe water is a critical factor for sustainable development. It directly affects health and provides a lever for economic and social development. The fact that water has to be carried long distances, usually by women, is a major burden holding back development in many countries. But this indicator illuminates only part of the issue. The targets set in this MDG are not universal, but are linked to the 1990 level of the indicator in each country.

10.4.1 Indicator 7.8: People using improved drinking water sources

In total 25 (54%) of the 46 small states made progress on halving the proportion of the population without access to improved drinking water sources, while just 5 states (11%) were officially off-track. However, in 16 countries (35%), missing data prevented assessment of performance. Excluding missing data, the overall progress made by 25 states translates into 83 per cent progress by the small states for which data are complete. The Dominican Republic, Fiji, Maldives, Marshall Islands and Samoa were off-track.

Coverage of safe water services

It should be noted that this indicator relates to access to safe water within 1 square kilometre of the place of residence and does not specify continuous water supply. Achieving the indicator does not mean safe water for all, nor indeed safe uninterrupted supply of safe water in each household. It is therefore a measure that must be interpreted with care.

Water scarcity, a common feature in small and island developing states, inhibits development and is set to become a more severe problem through the combined impact of global warming and continued population growth. This indicator takes into account the latter, so that in countries with high birth rates and no improvement in the distribution of access to water provision, it will show a decline in water provision per capita.

Overall, in 10 (22%) of the 46 small states 95 per cent or more of the population have access to safe water, while in seven (15%) under 75 per cent of the population have such access; these states were Timor-Leste (69%), Kiribati (65%), Haiti (63%), Guinea-Bissau (61%), Swaziland (60%), Fiji (47%) and Papua New Guinea (40%).

Coverage of safe water policy

About 16 million people across the small 46 small states were without safe water in 1990, according to the available statistics. By 2006 the number had fallen below 12 million. But even if the MDG target is reached by 2015, 7.8 million people in the 46 small states will still be without access to safe water.

Figure 10.12 shows that over 80 per cent of the people without access to safe water if the 2015 target is reached live in just five of the 46 small states: Haiti (34%), Papua New Guinea (26%), Cuba (13%), Dominican Republic (8%) and Namibia (6%). Efforts to improve safe water distribution should focus extra resources in these countries.

10.4.2 Indicator 7.9: Access to safe sanitation

Safe sanitation is essential for health, particularly child health. It is also important for the protection of safe water and the control of pollution. By 2008, 9 (20%) of the 46 small states had reduced by half the percentage of people without access to safe sanitation. Overall, 16 (35%) of the countries made progress, while ten states (22%) were off-track. However, in 19 states (41%) missing data prevented assessment of performance.

Coverage of safe sanitation

By 2008, 11 (24%) of the 46 small states had provided safe sanitation to 95 per cent or more of their populations. Twelve (26%) had reached 75 to 94 per cent of the population and seven (15%) had reached 50 to 74 per cent of the population. However there were ten small states (22%) providing safe sanitation to less than 50 per cent of the population. Overall six (13%) small states had missing data for 1990, which inhibited assessment of coverage.

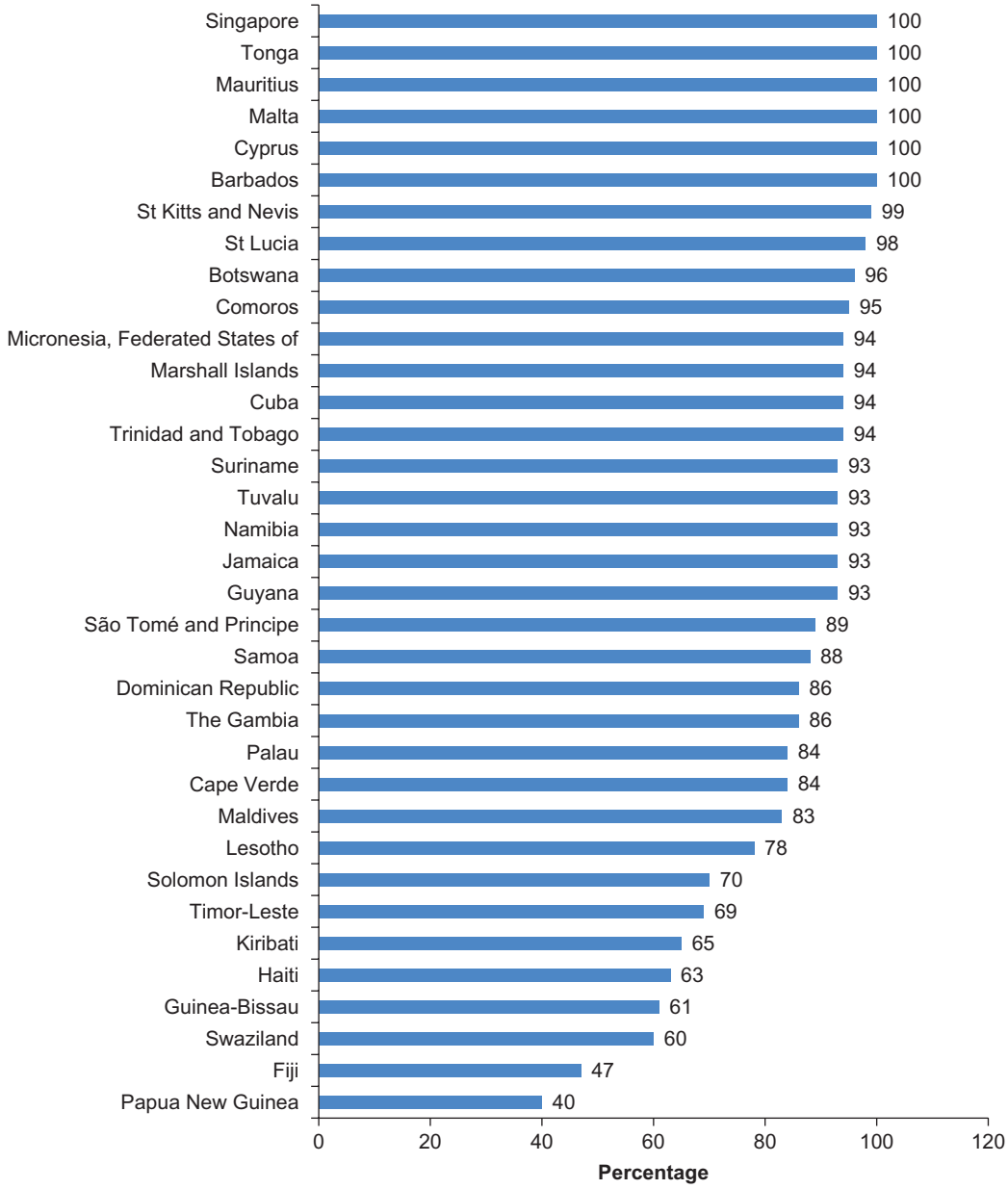
In the 40 small states for which recent data were available, it was found that 35 per cent of the population (amounting to about 22 million people) lacked access to an improved sanitation facility.

10.5 Target 7D: Improve lives of slum dwellers

10.5.1 Indicator 7.10: Proportion of urban population living in slums

Overall, 9 (20%) of the 46 small states made progress towards reducing the urban population living in

Figure 10.10 Proportion of population using improved drinking water



Note: Latest data were for 2008; where these were not available, data for 2006 or 2005 were used.
Source: UN MDG database 2010

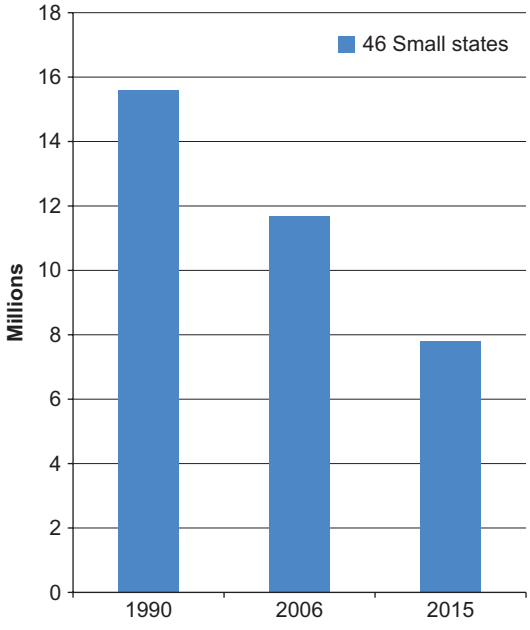
slums. Three countries (6%) were off-track, and in 34 states (74%), missing data prevented assessment of performance. Guyana, Jamaica and Dominican Republic reported increases in their urban slum population.

Extent of urban slum population

The highest levels of urban slum population were reported in Haiti (93%), Dominican Republic (70%), Bahrain (69%), Jamaica (61%) and Belize (47%). The largest decreases were in The Gambia, where the reported urban slum population fell from 67 per cent in 1990 to 45 per cent in 2005. Lesotho achieved a decrease of 50 per cent on the 1990 baseline to 35 per cent in 2005. In Trinidad and Tobago the slum population in urban areas was reported to have decreased from 35 per cent in 1990 to 25 per cent in 2005. Comoros achieved a reduction from 65 per cent in 1990 to 16 per cent in the latest reported year, 2007.

By contrast, in Guyana the urban slum population rose from 5 per cent in 1990 to 34 per cent in 2005; in Jamaica it rose from 29 per cent in 1990 to 61 per cent in 2005; and in Dominican Republic it increased from 28 per cent in 1990 to 70 per cent in 2007.

Figure 10.11 Population without safe water in 1990, 2006 and 2015



Sources: UN MDG database and UNDP 2010

10.6 Action on MDG 7: Environmental sustainability

Many of the 46 small states are taking action to improve environmental sustainability and these programmes are featured in recent budget statements and other government policy announcements. Some examples are given below.

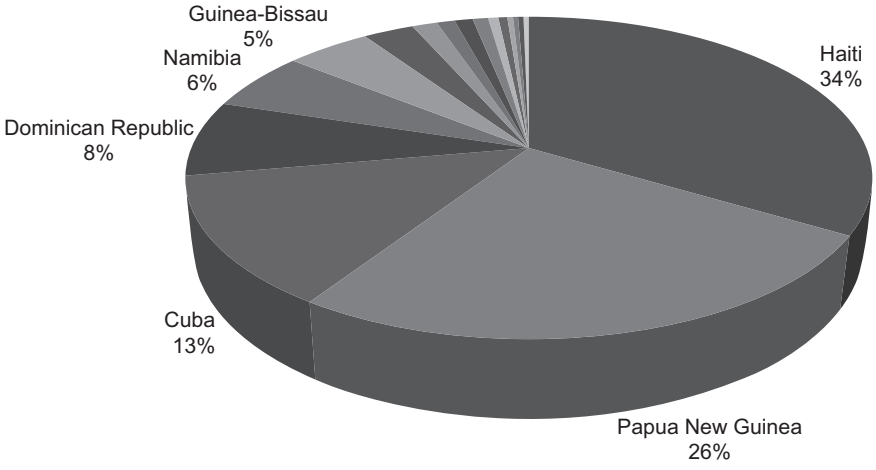
Botswana is working on a new Environmental Management Act by updating its laws on pollution and waste. It is promoting the development of wildlife parks, introducing new regulations for energy efficiency, developing biofuels and increasing its commitment to the provision of safe water.

Cuba has announced an 'Energy Revolution', promoting greater efficiency of energy use and more investment in renewables. It has also announced a new water use efficiency programme.

Fiji has introduced a tax holiday for renewable energy projects and announced a biofuel tax and incentives system. To decrease road congestion it has brought in a road user levy and to facilitate wider continuous provision of safe water it has removed the tax on water storage equipment. It has zero-rated hydro-turbines and energy conservation goods and initiated a project for extracting ethanol from cassava plants. The Fijian government plans to supply 90 per cent of the country's energy from renewable sources by 2011. With diesel costs increasing by 200 per cent over the last four years, it plans to save nearly F$3 million (US$1.7 million) annually and reduce consumption of diesel by 2,500 tonnes a year.

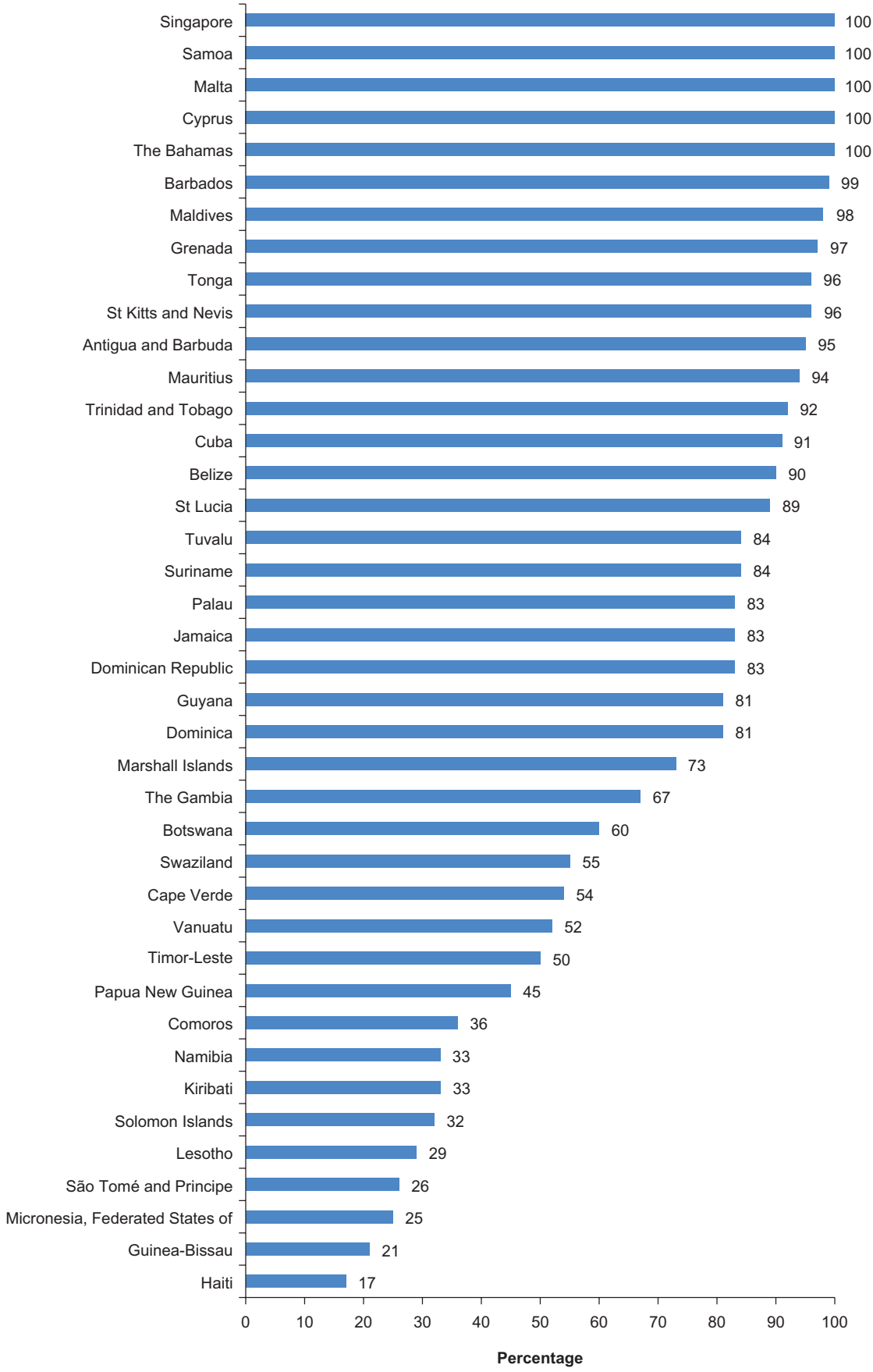
Haiti has seen a joint call by the World Health Organization and UNICEF for improved budget support for the 90 per cent of its population without safe sanitation. It is estimated that for every US$1 invested in sanitation, there is an economic return of US$9.[7] It is recognised that Haitians will continue to die from preventable water-borne diseases, educational access will be limited and economic growth stunted, if the country does not devote sufficient resources to sanitation. These provisions are all the more important following the recent major earthquake disaster. Proposals include a sanitation policy and restructuring governance to include a decentralisation model combined with public-private partnerships,

Figure 10.12 Population without safe water if 2015 target is reached



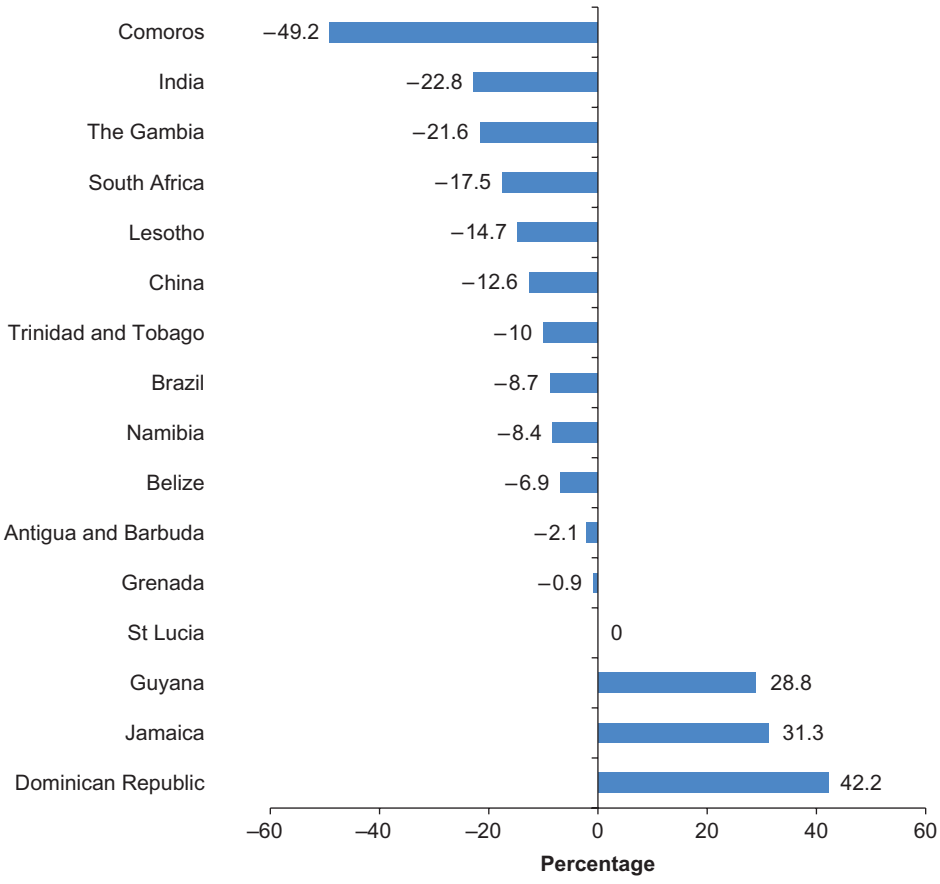
Sources: UN MDG database and UNDP 2010

Figure 10.13 Proportion of population using improved sanitation facility



Note: Latest data were for 2008; where these were not available, data for 2006 or 2005 were used.
Source: UN MDG database 2010

Figure 10.14 Change in slum population as a percentage of the urban population[8]



Note: Data compared from 1990 and 2005.
Source: UN MDG database 2010

with stringent anti-corruption guidelines to increase the accountability of government officials. This, it is claimed, can be done through clear performance indicators, internal and external mechanisms for monitoring and evaluation, and transparent budget lines for financial disbursement schemes. Surprisingly, Haiti ranks relatively high (tenth) in the progress league table (see Table A1.2), but much of its progress relates to movement measured against low baselines and the data reflect its pre-earthquake status.

Jamaica recently set a 20 per cent target for the production of energy from renewable sources by 2030 through the further development of wind and solar sources.

Mauritius has introduced in its major development sector a hotels energy management programme and is developing new regulations to control the impact of tourists, who are encroaching on the natural habitat of whales and dolphins; this has become a risk for these endangered species. To overcome major road congestion, which is estimated to put a 1 per cent drag on economic development, it is introducing a series of town bypass projects. Its renewable energy programme is being expanded through the promotion of solar energy technology. It is also establishing an energy use audit programme for the public and the private sector, and tax incentives for the purchase of hybrid motor vehicles.

Malta introduced a number of tax changes in its 2009 budget to reinforce the country's image as an 'eco-island', including €152 million (US$219 million) investment in environmental projects and alternative energy. With the aim of balancing economic development with sustainability, the 2010 national budget continued to place the environment among the government's top priorities. It established new regulations on the energy performance of buildings and promoted clean and renewable energy. Around €33 million (US$48 million) was allocated from EU funds for environmentally friendly technologies for both the domestic and commercial sectors.

Papua New Guinea has introduced a marine park and established offices to deal with climate change and natural disasters. It has also initiated a carbon trading initiative and a slum clearance programme. However, valuable data related to these targets are missing from the UN MDG database.

St Lucia has given priority to environmental education and has set up a project called 'the safe, clean and beautiful cruise port city'. It has been extending its wetland nature reserves and has introduced an Environmental Management Act. The country has devised new fiscal instruments for water saving and recycling and has a new national land policy for forest conservation. It has also revised its environmental impact regulations. It has set up a wind energy park and is undertaking a sustainable motor transport policy review.

Singapore is promoting a new initiative called 'urban planning for a first class global city'. Its 2010 budget included new policies on climate change economics and mitigation. The JTC Corporation in Singapore has recently unveiled a master plan for CleanTech Park (CTP), Singapore's first eco-business park for companies involved in clean technologies and sustainable urban solutions. The CTP is also a research and development and test bedding centre supported by the government of Singapore through the national Economic Development Board.

Notes

1 46 states x 9 indicators = 414.
2 Data are missing for two countries: Marshall Islands and Nauru.
3 Purchasing power parity figures are produced to adjust national figures in international monetary comparisons, taking into account differences in the cost of living in different countries that are not accounted for by the exchange rate values of the national currencies. The figures are based upon the local cost of a standard basket of goods and services.
4 CDIAC: Carbon Dioxide Information Analysis Centre
5 The adaptation of the Kuznets hypothesis (named after the Nobel Prize winning economist) to environmental economics is as follows: an inverted curve relationship exists between income levels and environmental quality. The effect in an expanding economy is in stages. At first, as incomes increase, so does environmental pollution; then, as income further increases, pollution reaches a peak. In the later stages of increases in income, pollution declines, as technology intervenes to increase efficiency and reduce pollution. This process is stimulated by growing demand for a cleaner environment, which results in the imposition of regulations for constraint on environmental depletion. In addition, with each stage of economic growth there is structural change in the economy with a move first from agriculture to industrial production and then from industrial production to financial and other services giving rise to lower levels of pollution per unit increase in income. (See Nath et al. 2010: 355).
6 Dominican Republic, Haiti, Federated States of Micronesia, Palau and Timor-Leste.
7 See http://esa.un.org/iys/docs/2%20fact-sheet_economic%20benefits.pdf
8 Some data for countries in the UN data base in 2010 were for 2007 and some for 2005. The numbers given in Figure 10.14 are for changes in percentage points from the baseline to the latest value for each country.

Chapter 11

MDG 8: Partnerships

In small states the absence of economies of scale and limited capacity for specialisation inhibit economic, social and environmental progress and make international, regional and global partnerships essential components in development policy and programmes. MDG 8 recognises this and seeks to promote support from developed countries through aid, trade and debt relief.

The Commonwealth Secretariat is a source of policy and technical support for the many small states. Commonwealth members and regional groupings of SIDS have done much to encourage inter-state development, especially in the Caribbean and Pacific regions. The 2005 UN Mauritius Strategy for SIDS further emphasised the role of developed countries through inter-state, regional and global programmes to promote sustainable development.

MDG 8 provides a range of indicators to monitor the process by which developing countries maintain sound programmes for development and developed countries provide a range of specific support. This MDG has six targets and 16 indicators. Not all of these, however, apply to all the 46 small states and the structure of MDG 8 is more complex than that of MDGs 1–7.

Under MDG 8 the 46 small states and 10 benchmark states covered in this report have differing targets and indicators. This affects the denominator for each state used in assessments of progress and percentage achievement. The first 12 indicators (8.1–8.12) are linked to targets 8A–8D; indicators 8.1–8.3 apply only to donor states; indicator 8.4 applies only to landlocked countries; indicator 8.5 applies only to SIDS; indicators 8.6–8.9 apply only to developed states; indicators 8.10 and 8.11 apply only to least developed countries; indicator 8.13 relates to target 8E; and indicators 8.14–8.16 relate to target 8F.

Goal 8. Develop a global partnership for development

Target 8A: *Develop further an open, rule-based, predictable, non-discriminatory trading and financial system*

Target 8B: *Address the special needs of the least developed countries*

Target 8C: *Address the special needs of landlocked developing countries and small island developing states (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the Twenty-second Special Session of the General Assembly)*

Target 8D: *Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term*

Indicators:

Official development assistance

8.1 Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income

8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation)

8.3 Proportion of bilateral official development assistance of OECD/DAC donors that is untied

8.4 ODA received in landlocked developing countries as a proportion of their gross national incomes

8.5 ODA received in small island developing states as a proportion of their gross national incomes

Market access

8.6 Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty

8.7 Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries

8.8 Agricultural support estimate for OECD countries as a percentage of their gross domestic product

8.9 Proportion of ODA provided to help build trade capacity

Debt sustainability

8.10 Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative)

8.11 Debt relief committed under HIPC Initiative and Multilateral Debt Relief Initiative (MDRI)

8.12 Debt service as a percentage of exports of goods and services

Target 8E: *In co-operation with pharmaceutical companies, provide access to affordable essential drugs in developing countries*

8.13 Proportion of population with access to affordable essential drugs on a sustainable basis

Target 8F: *In co-operation with the private sector, make available the benefits of new technologies, especially information and communications*

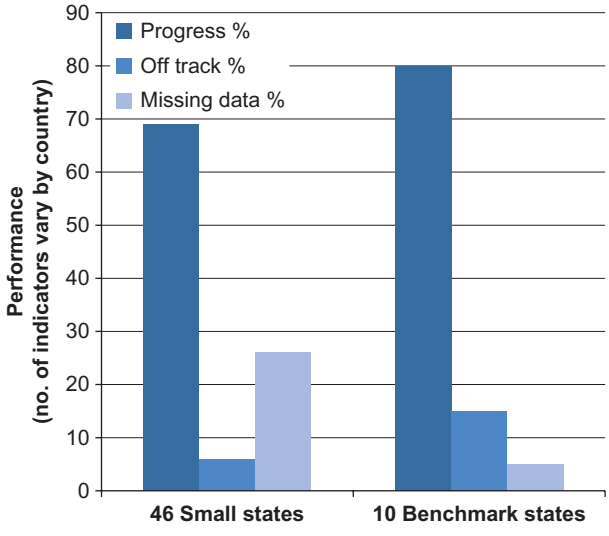
8.14 Telephone lines per 100 population

8.15 Cellular subscribers per 100 population

8.16 Internet users per 100 population

Figure 11.1 summarises the performance of the 46 small states and 10 benchmark states on this MDG.

Figure 11.1 Performance on MDG 8: Partnerships



Source: UN MDG database 2010

11.1 Overall performance

The 10 benchmark states outperformed the 46 selected small and island states on the indicators for this MDG. The latter achieved 194 (68%) of the targets across the indicators in MDG 8 and made 69 per cent progress, including missing data, of which there was 26 per cent.

The 10 benchmark states achieved 46 (78%) of the targets across the indicators in MDG 8 and made 80 per cent progress, including missing data, of which there was 5 per cent. But excluding missing data, the 46 small states made 92 per cent progress and the benchmark states 84 per cent progress. Performance on this MDG is detailed below.

11.2 Target 8D

11.2.1 Indicator 8.4: Official development assistance

The indicator on ODA received by landlocked countries as a percentage of gross national income relates only to Botswana, Lesotho and Swaziland among the 46 small states. In Botswana, ODA increased from 4 per cent of GNI in 1990 to 6 per cent in 2005. In Lesotho, ODA declined from 15 per cent of GNI in 1990 to 7 per cent in 2005. In Swaziland, ODA declined from 5 per cent of GNI in 1990 to 3 per cent in 2005. Therefore the latest range of official development assistance received is between 3 and 7 per cent.

11.2.2 Indicator 8.5: ODA in SIDS as percentage of GNI

Small and island developing states need to reduce the proportion of their national income derived from aid against their 1990 baseline. Twenty-six (68%) of the 38 SIDS in this review achieved this. Only two, Haiti and St Kitts and Nevis, increased their level of dependence on ODA. The highest latest levels of dependence on aid were in the Federated States of Micronesia (35%), São Tomé and Principe (26%) and Seychelles (26%). The lowest levels of receipts as a proportion of GNI were in Barbados (0%) and Dominican Republic (0.35%).

11.2.3 Indicator 8.10: Heavily indebted poor countries

Of the 46 small states, six are heavily indebted poor countries qualifying for debt relief under the IMF's HIPC scheme. These are Comoros, The Gambia, Guinea-Bissau, Guyana, Haiti, and São Tomé

and Principe (Comoros and Guinea-Bissau have yet to reach the completion point for agreement on the special debt relief programme). Within the programme, the four states that have reached completion received in full US$1,191 million. A further US$615 million has been committed to Guinea-Bissau and an additional US$146 committed to São Tomé and Principe.

11.2.4 Indicator 8.12: Debt servicing

Seventeen of the 46 small states (37%) reduced their level of debt servicing as a percentage of exports of goods and services between 1990 and 2008. Nine of these countries (20%) increased their debt servicing in the same period. For 20 of the states (43%), missing data inhibited assessment of progress. For the 46 small states debt servicing in 2008 ranged from 1 per cent of exports of goods and services in Botswana to 17 per cent in St Kitts and Nevis.

11.3 Target 8F: Information and communications technologies

11.3.1 Indicator 8.14: Telephone lines per 100 population

All 46 small states achieved greater provision of ICTs measures against the 1990 baseline. The highest reported level was 59 per cent in Malta and 58 per cent in Barbados. Lagging behind was Timor-Leste on 0.2 per cent, Papua New Guinea on 0.9 per cent and Solomon Islands on 1.5 per cent.

Among the ten benchmark states, seven achieved an increase on the 1990 baseline. The highest level of provision was in Iceland at 61 per cent, while the lowest was in India at 3 per cent.

11.3.2 Indicator 8.15: Mobile cell phones per 100 population

Cellular phone usage increased in all 46 small states measured against the 1990 baseline; however, this baseline was set before mobile phones became a mass market commodity. The latest highest reported level of provision was in Antigua and Barbuda (158%), Barbados (159%) and Bahrain (186%). (Figures in excess of 100 per cent indicate that there is more than one phone per person.) The lowest rates were in Kiribati (1%), Marshall Islands (2%) and Cuba (3%).

The ten benchmark states all achieved this target of increased level of provision on the 1990 baseline. The highest rate of usage was in the UK at 126 per cent, while the lowest level was in India at 29 per cent.

11.3.3 Indicator 8.16: Internet use per 100 population

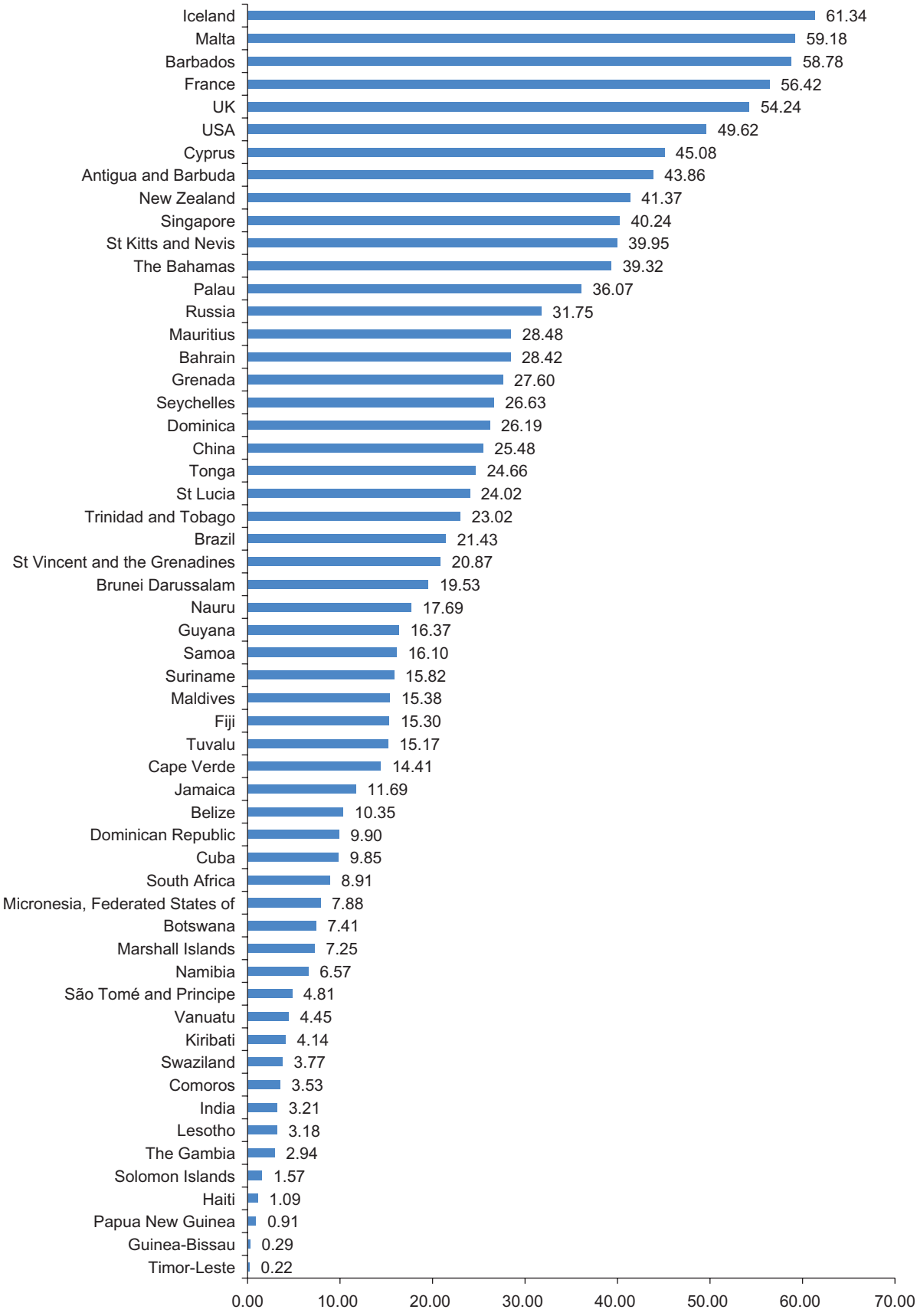
All 46 small states and all benchmark states achieved increased internet usage, measured against the 1990 baseline. Among the former, the highest level in 2008 was in Antigua and Barbuda at 75 per cent and Barbados at 74 per cent. The lowest level was in Timor-Leste at 0.2 per cent, Papua New Guinea at 2 per cent and Solomon Islands at 2 per cent. Across the benchmark states the highest reported level of use was in Iceland at 90 per cent and the lowest was in India at 4 per cent.

11.4 Action on MDG 8: Partnerships

International policy on partnerships has been overshadowed by the global economic crisis. As a result, governments have tended to concentrate budgetary measures on tightening fiscal and monetary policy. Some limited initiatives have been taken to promote the wider themes of international partnerships in the Millennium Development Goals and the 2005 UN Mauritius Strategy for SIDS. For example, Jamaica has continued negotiations through the Caribbean Community (CARICOM) for a free trade area with Canada.

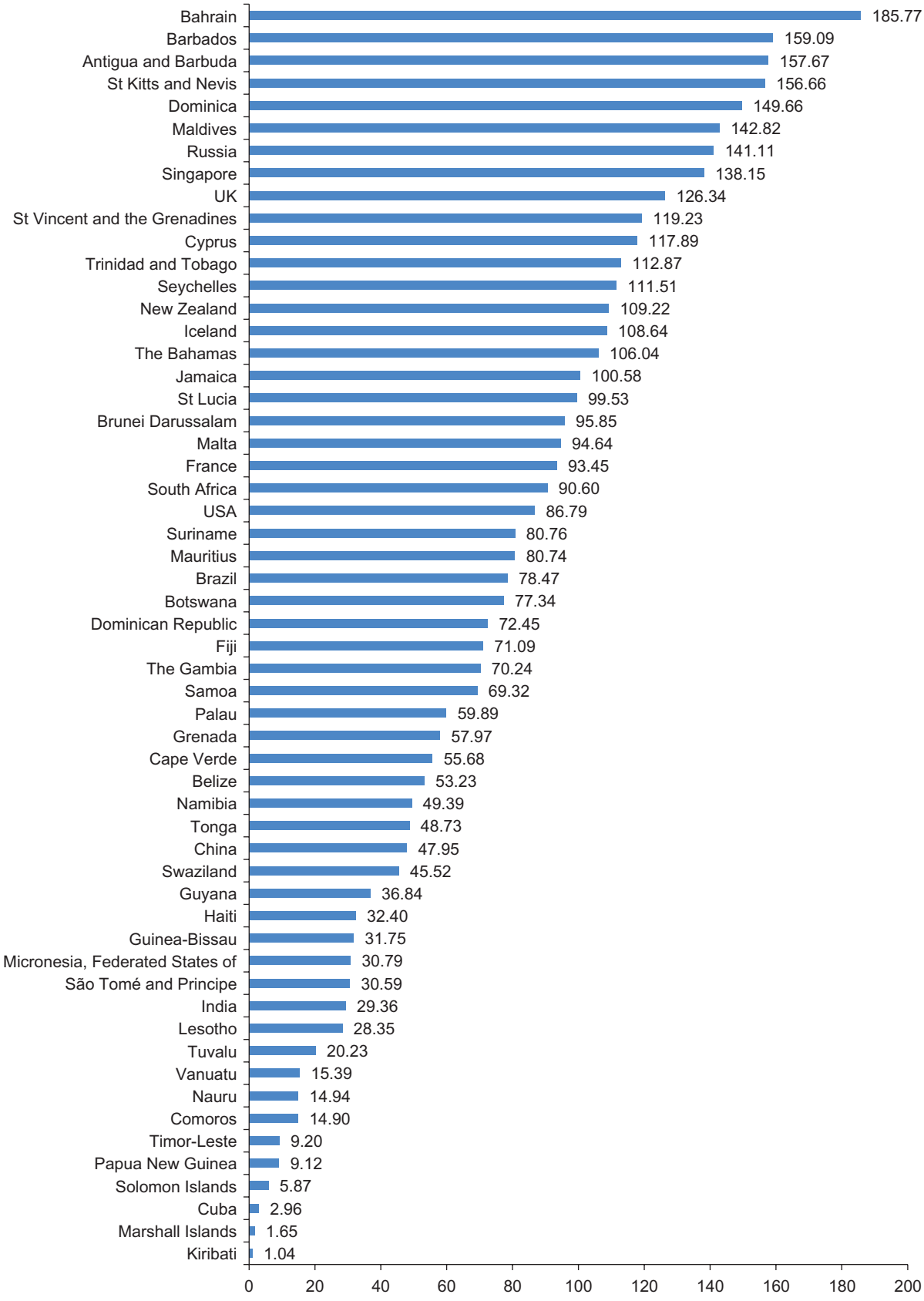
St Lucia has established through CARICOM a catastrophe disaster insurance fund for the whole region. In addition, St Lucia has projects with foreign commercial partners exploring geothermal energy and photovoltaic systems. It is offering concessionary credit and incentives schemes for solar and bio-gas renewable energy and developing tourist energy efficiency schemes.

Figure 11.2 Telephone lines per 100 population



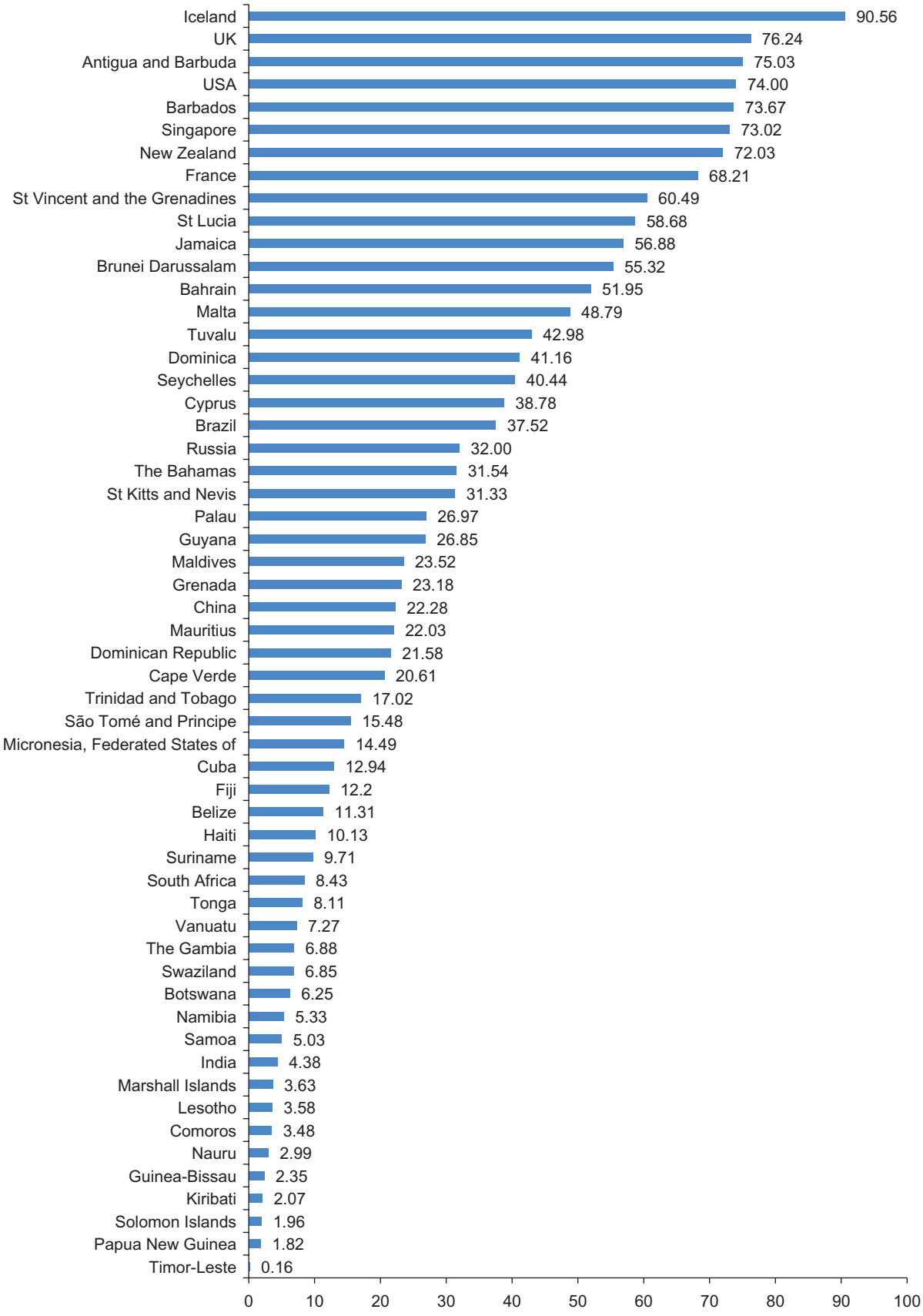
Note: Data from 2008.
Source: UN MDG database 2010

Figure 11.3 Mobile telephone subscriptions per 100 population



Note: Data from 2008.
Source: UN MDG database 2010

Figure 11.4 Internet users per 100 population



Note: Data from 2008.
Source: UN MDG database 2010

Chapter 12

Challenges of the MDG system

Much progress has been made by the 46 selected small states in the pursuit of the Millennium Development Goals. Despite this, however, the 10 benchmark states have by and large surpassed the small states covered in this study. Meanwhile, the microstates with populations of less than 100,000 have been left well behind in the overall league tables. However, this is an incomplete picture, clouded by the fact that a substantial amount of data are missing.

Within the broader context of progress towards sustainable development, the MDG system has severe limitations, in that it excludes much vital macroeconomic and social data. For economically and environmentally vulnerable states this presents fresh challenges to measuring progress. For example, the MDGs do not cover issues relating to climate change and sea level rise, disasters, waste management, coastal and marine management, or tourism.

The MDG system lacks an evidence base relevant to the specific interests of small and island states. Ecological biodiversity is touched on only lightly in reporting, as are the implications of the vulnerability of such states and their limited capacity for economic resilience. In ignoring population size, too, the MDGs defy economic analysis, just as they fail to consider the resources needed for the pursuit of targets. Some SIDS have been developing their own performance indicator systems to overcome such shortcomings in the MDGs and this has been encouraged by the UN.

Examples are given in Annex 3 from Singapore, Malta and Mauritius, but for many small states the MDGs are simply not at the heart of policy review processes or budgetary decision-making. These issues are being explored through the Islands and Small States Institute (ISSI) of the University of Malta, supported by the Commonwealth, and by the EU through a new SIDS project centred in Mauritius,[1] and are closely linked to the work of the UN Department of Economic and Social Affairs (UNDESA) for monitoring implementation of the 2005 UN Mauritius Strategy and identifying and testing models of best practice.

12.1 MDGs back on the menu?

In the early unfolding of the global financial and economic crisis, the response of governments was all about banks and bailouts. But by June 2009 international talk was at last including the MDGs. The UN meeting of 24–26 June 2009 reviewed the goals within the context of the global crisis, and officially reaffirmed the international pursuit of the UN's Millennium Development Goals.

Since then there has been a round of meetings in 2010 on MDGs and sustainable development, including reviews of progress on the Barbados Programme of Action and the implementation of the 2005 UN Mauritius Strategy for SIDS. This report examines progress with the MDGs and explores the implications of national and regional commitments for improved performance, using real numbers and putting the needs of people at the core of policy.

For example, MDG 7 (target 10, indicator 31) is to halve the proportion of the population without access to safe sanitation. Overall, the proportion of people without safe sanitation is about one-third of the world population. But the policy message became so much more direct in an iconic marketing poster for the UN Year of Sanitation 2008, which declared: 'Hurry up! 2.6 billion people want to use the toilet'. The slogan was backed up by a major global campaign and pressure on all governments to take action.

At the core of the next stage of action on MDGs must be the recognition that behind the data there are real individuals who are in need. Across the 46 small states there are over 10 million people without access to safe water and 22 million without access to safe sanitation. The principal problems of provision are in Haiti, Dominican Republic, Papua New Guinea, Cuba and Namibia. Using such numbers, rather than percentages, helps to focus attention on where action is needed to tackle the greatest need.

12.2 Missing data

Missing data are a major obstacle in reporting the facts from the UN database. Downes' (2006) assessment of progress on achieving the MDGs across Commonwealth small states found that 29 per cent of the overall data were missing. In its regional African assessment of 53 states (Chenje et al. 2006), the UNEP found that for the seven indicators examined, covering five of the eight MDGs, missing data ranged from 2 per cent on MDG 4 (child health) to 74 per

cent on MDG 2 (education). In another assessment for the AIMS group of countries,[2] data were missing for 48 per cent of the MDG indicators, inhibiting an assessment of progress (Roberts 2011).

In the present review of small states, 44 per cent of required data are missing, while 27 per cent are absent for the ten benchmark states. The range of missing data for the 46 small states is between 71 per cent on MDG 1 (poverty) to 1 per cent on MDG 4 (child health). For the benchmark states, the range is from 53 per cent missing on MDG 5 (major disease control) to 0 per cent on MDG 4 (child health).

12.3 Waiting for data

MDG data, if not missing, are usually old and out of date. In July 2010 the latest statistics for the MDGs were for 2008, with much data only available for 2006. In contrast, macroeconomic data on growth and employment figures are often available on a six-monthly or quarterly basis. To make things more difficult, updates in the UN MDG database are quite sporadic and sometimes displace previous data, which confuses those trying to track trends and make assessments of progress.

As a consequence of the lag, the latest MDG figures reported here are mostly for the time before the global economic crunch. Today we are only just beginning to track the impact of the crisis on implementation of the MDGs.

12.4 National commitment to the MDGs

National budgets are where government policy is translated both into financial commitments and fiscal instruments for achieving welfare ends. Immediately following the financial crisis, many countries used the 2008 and 2009 budget statements to focus on government taxation and expenditure to get back on-track.

Some governments, such as those of Botswana and St Lucia, have made provision for sustainable development, financing environmental management and investment, covering pollution, waste and nature parks, and fiscal instruments for promoting renewable energy and energy efficiency. Singapore gives priority to its urban planning; Malta is targeting an eco-friendly programme on climate change; and Mauritius has new priorities for environmental sustainability.

Several of the 46 selected small and island states have financially committed to poverty relief. For instance, Cuba has a domestic food production programme using released government surplus land. Botswana has an integrated poverty relief and housing programme, while Mauritius has a policy initiative on saving jobs linked to a sustainable development strategy. St Lucia has a package through the 'Puenti' poverty relief scheme based on experience from Chile.

Nevertheless, few small states specifically mention the MDGs as a priority for government spending. The statistical MDG targets have been largely dropped from political discourse and there is seldom any mention of target dates. But many states are still tackling the same issues covered by the MDGs, only using alternative language to describe them.

Examples of action at state level are presented in the body of this report. After ten years of endeavour, however, this hardly adds up to a systematic global effort with international, national, regional and national activities to reach the targets by the agreed dates, as was intended in New York well over a decade ago.

Set out below are ways in which the MDG system could be adapted and more closely integrated with present day policy-making and resource allocation.

12.5 Adapting the MDG system to the needs of small states

Since the inception of the MDG system and the launch of the 2005 UN Mauritius Strategy of Action for the Further Implementation of the Programme of Action for the Sustainable Development of SIDS, the language of national governance has changed, principally due to the global economic crisis. Discourse now places a greater focus on financial inputs and fiscal control than on social, health and environmental priorities.

One lesson from the crisis is clear. From a global perspective, the MDGs are 'old hat' and we may need a new paradigm for monitoring progress towards sustainable development integrated within the mainstream of political debate. Yet for small and island states the deficiencies of the MDGs go far beyond this.

12.6 A new technical and planning framework

The pursuit of both the MDGs and the Mauritius Strategy for Implementation needs to be structured within an economics framework. The targets need to be understood in terms of concrete numbers to

aid financial commitments and technical delivery. Knowing that there are 2.6 billion people waiting for a toilet illuminates the problem, but we then need to know where these people are, what sort of toilets they need, how this task can be achieved logistically, what physical and human resources are required, and what are the medium-term, as well as the longer-term, economic, environmental and social benefits.

12.7 Inter-state inequality

In this process of planning there are other key issues that must be addressed to resurrect the MDGs, including revisiting equality and resource use efficiency. The lack of an economics framework for the pursuit of targets not only hinders management, but also conceals the perpetuation of interstate inequality.

Take the disparity between infant mortality in Guinea-Bissau and Singapore. A baby born in Guinea-Bissau in 1990 (IMR 142) was 23 times more likely to die in the first year of life than one born in Singapore (IMR 6). This inequality is reinforced in the MDG target for 2015 which is relative to baseline. The target for Guinea-Bissau is IMR 47, while for Singapore it is IMR 2. So even if the goal was achieved, a baby would remain 23 times more likely to die in the first year of life in the former than the latter.

Perpetuation of inter-state inequalities is found in other targets set for MDG 1 (poverty relief), MDG 5 (maternal health), MDG 6 (disease control), and MDG 7 (safe water and sanitation), none of which prescribe universal targets.

12.8 Intra-state inequality

The MDG system relies on reporting by UN member states and does not in general examine demographic variations within state boundaries. The framework does not require reports on variations between regions within countries, or between rich and poor populations.

Exceptions to this are in MDG 3 (gender equality), which covers differences between genders, MDG 6 (disease control), which encompasses specific age groups, and MDG 7 (environmental sustainability), which covers variation between urban and rural populations.

The MDG system is flawed as an aid to international policy development (WHO 2003: 34), as it is unlikely that national improvements in health, for example, have been evenly distributed between rich and poor. The richer are likely to be healthier and the poor to suffer from greater ill health, but it is difficult to substantiate this within the existing framework. MDG 1 (poverty relief) shows the numbers living in poverty, but these data cannot be cross-analysed against performance on other indicators, such as those on education, health and environment.

It is open to states to provide these broader comparisons by developing sub-national databases, but with 44 per cent of national data from the 46 small states missing, this seems at best hopeful. In developed countries there are numerous political obstacles to reporting intra-country inequality, especially on health, education and environmental quality.

12.9 Differing pressures of population growth

Another serious omission is the consideration of population statistics. Across the small states, population growth varies greatly. Mauritius, with an annual population growth rate of 0.8 per cent, is likely to increase its population within the next ten years by as much as the current total population of Seychelles.

Take two Commonwealth small states with similar sized populations in 2006.[3] The Gambia (population 1.7 million) has an annual population growth rate of 4.1 per cent, while Trinidad and Tobago (population 1.3 million) has a growth rate of 0.2 per cent. However, by 2015, assuming the rates of increase continue, The Gambia's population is likely to swell by 724,000 (43%) while that of Trinidad and Tobago is set to increase by only 24,000 (2%).

Meanwhile, some Commonwealth small states have a history of population decline since 1990, such as Dominica and Guyana. Population change is a core element in national budget assessments and so should be central in planning to meet targets for sustainable development and the MDGs.

12.10 Appropriate technology for intervention

The link between technical means and cost is poorly defined, whether delivery is through the market or public works. Assessing the price of poverty relief through education, training and shelter is complex. The practical challenges of extending safe water and sanitation to scattered islands differs greatly from that of delivering it to urban areas and this will be reflected in varying costs.

Disaster recovery, protection from beach erosion and climate change mitigation all require an extension of the evidence base, as well as professional development to design and accomplish the changes required. This is also true within the more restricted field of the MDGs as action points for sustainable development.

Innovations in science and professional work are likely to be best undertaken at local level and must utilise regional partnerships to ensure that remedies are relevant to the specificities of beneficiary countries. Conceptual developments in this field also require new approaches to model building.

12.11 Predicting the impact of economic change

A model is presented in Figure 7.5 for SIDS on the relationship between PPP GDP per capita and the infant mortality rate. This indicates a close association between the two. The point of inflexion at a little over US$5,000 per head suggests a sharply declining fall in IMR as GDP per capita rises.

The model can also be used to predict the impact of the financial crisis on IMR as GDP falls. For richer countries such as Singapore, Cyprus, Barbados and Mauritius, a major fall in GDP per capita of between 50 and 200 per cent would need to occur to increase IMR to above 20 per 1,000. But for the poorer countries closer to the inflection of the curve, such as Jamaica, Fiji and Cape Verde, much smaller reductions in GDP might have a greater impact, producing increases of IMR from 20 per 1,000 to 50 per 1,000 and beyond.

Let us examine the rather bold assumptions inherent in the model. It assumes that the association is causal, operates in both directions and that the cross-sectional data reflect longitudinal relationships. It also predicates that the underlying causal factors affecting IMR would be reversible with falling GDP (i.e. breastfeeding, food security, access to safe water and sanitation, and access to effective primary health care and to emergency care for babies and mothers at risk).

It seems unlikely that in a short recession, falls in GDP per capita would be associated with increases in IMR, especially in the more prosperous countries. But in very poor countries, where food security is seriously affected and where high population growth is reducing GDP per capita, IMR could rapidly increase with small reductions in GDP.

Under the MDG process, an assessment of costs has been undertaken at a global and regional level, but none of the detailed work takes into account the special circumstances of SIDS. For example, infant deaths can be reduced in poor countries with high infant mortality by increasing safe water and sanitation and other low-cost public health measures, rather than through the high-cost technology interventions required in developed countries with a low IMR. Policy-makers, using the MDGs as a tool, need to consider both the technical requirements for intervention as well as marginal and total costs and benefits.

12.12 Models for development

Economic development has long been associated with increasing pressure on the environment. But it has been argued that this process should be decoupled, as the marginal value of natural resources and environmental protection increases with rising income and social development (Roberts 2010).

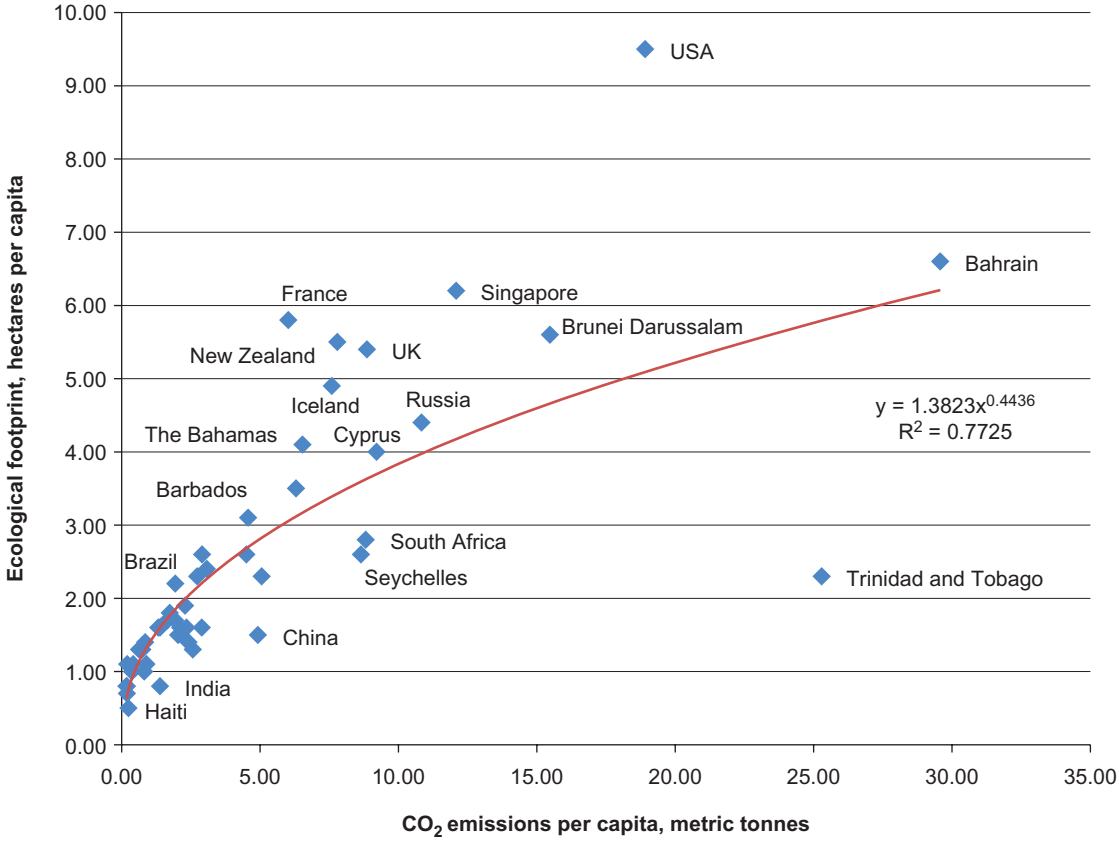
MDG 7 (environmental sustainability) tracks the levels of CO_2 emissions per capita as a marker of environmental pollution and increasing use of fossil fuels as a common feature of economic growth. This review finds that across the 46 small states and the 10 benchmark states, CO_2 emissions per capita are strongly positively associated with GDP per capita (see Figure 10.6). But at the same time certain states have lower levels of emissions than expected from their level of GDP per capita, notably Singapore, UK, Iceland and France.

This indicates a decoupling of development from adverse environmental externalities. In contrast, other states in the review continue to have higher levels of CO_2 emissions than would be expected from their level of GDP per capita, especially Trinidad and Tobago, Bahrain and Russia. Meanwhile, other small and low-income states have low levels of CO_2 emissions. The development model for the future of the planet should be focused on avoiding an increase of environmental pressure as a by-product of economic growth.

The New Economics Foundation has developed new ways of measuring development, welfare and natural resources impacts, including the ecological footprint,[4] in its Happy Planet Index.[5] Combining the data from the first HPI report with latest CO_2 data in this review indicates that a country's ecological footprint is strongly associated with its level of CO_2 emissions (see Figure 12.1).

States such as the USA, Singapore, France and the UK are shown to have heavier ecological

Figure 12.1 CO_2 emissions per capita and ecological footprint



Sources: UN MDG database 2010 and NEF 2006

footprints than would be expected from their CO_2 emissions. This is consistent with the view that they have been relatively successful in decoupling air pollution from economic development, but have yet to attend to other aspects of production and consumption that put adverse pressures on the environment. In this respect, the USA has a lower level of CO_2 emissions per capita than Trinidad and Tobago, but it has nearly five times the ecological footprint.

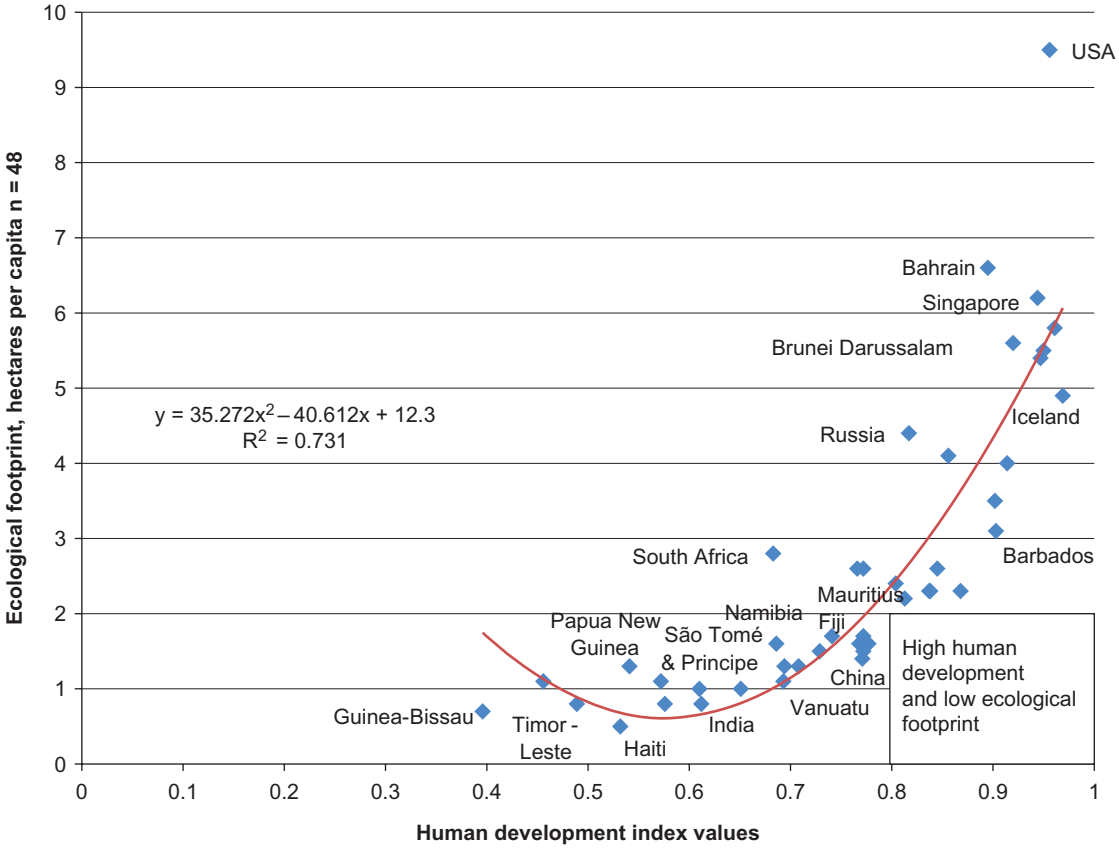
If other states were to follow the pattern of natural resource use of heavier footprint countries the result would be globally unsustainable. The New Economics Foundation recommends that a reasonable target footprint for sustainable development is 1.5 hectares per capita. The more developed small states, such as The Bahamas, Bahrain, Barbados, Cyprus, Seychelles and Singapore, exceed that value. It is important that these countries aim to reduce their ecological footprint, and others restrain any further rise in their footprints in the pursuit of higher levels of economic and social development.

Sustainable development in small states with limited available land depends on two factors: the quality of the environment, especially where tourism is a major sector; and the curtailment of population growth and density. The development model for these countries should therefore embrace ecological integrity and social welfare.

The UNDP Human Development Index,[6] as a measure of human welfare, is strongly associated with the ecological footprint of states (see Figure 12.2). The relationship shown in this review is consistent with the view that in the early stages of development the ecological footprint declines as human development increases. This may be attributable to demographic change in which more children survive but have a lower ecological footprint than adults, reducing the per capita pressure on resources.

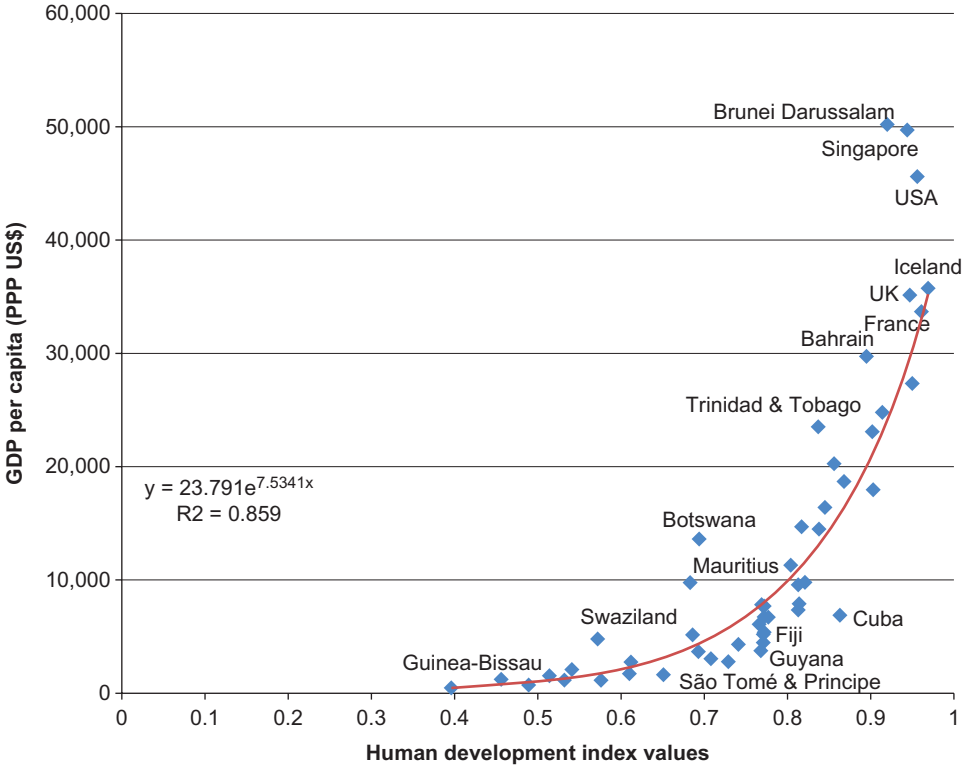
After reaching an HDI of 0.6 – the level of Papua New Guinea and India – the ecological footprint rises steeply with incremental increases in human development. This pattern is consistent with the relationship between HDI and GDP (Figure 12.3), where increasing levels of HDI are associated with a sharply rising level of national income per capita, and with patterns of consumption and production that put increasing pressure on the environment.

Figure 12.2 HDI and ecological footprint



Note: n = number of countries.
Sources: UNDP 2010 and NEF 2006

Figure 12.3 HDI and GDP per capita



Sources: UNDP and UN Statistics Division 2010

In its exploration of the policy issues surrounding the use of natural capital, UNEP has set out a model for the promotion of a 'green economy' in which it highlights the dilemma of matching human development to the bio-capacity of the planet.[7] UNEP sets out the case for the valuation of natural capital and the consequences of misallocation in terms of effects on the potential benefits of well-husbanded natural resources.

It stresses the importance of renewable energy, low carbon technology, waste recycling, resource use efficiency, sustainable urban living, low carbon mobility, and restoration by the ecosystem of animal, plant and pollinator species. In this respect UNEP calls for improved governance and investment in the greening of economic sectors. In stressing the linkage between human development and the ecological footprint, it sets out the target for achieving high human development (≥ 0.8 HDI) and a low ecological footprint (≤ 2 EF).

Applying this target to the 46 small states and 10 benchmark states in this review (as shown in Figure 12.2), it is evident that those countries above the boxed area defined by these target limits have the challenge of reducing their ecological footprint without impairing their level of human development. Those states to the left of the boxed area have the challenge of promoting human development without exceeding the low ecological footprint which they enjoy. Those states that fall within the boxed area have the more enviable challenge of consolidating human development within the target ecological footprint that they have already achieved. These latter states are Cuba, Dominica, Grenada and St Lucia. Others close to this include China, Fiji, Guyana, Maldives, Tonga and Vanuatu.

Vital elements at present fall beyond the scope of the MDG system. For example, assessment of the ecological footprint falls outside its scope, although CO_2 emissions provide a marker. Moreover, of the three elements in the UNDP Human Development Index only education is included in the MDG system, while GDP per capita and life expectancy fall outside its scope. In addition, from a global perspective, demographic change, especially population increase, is a necessary marker for the assessment and projection of the ecological footprint and its consequences for sustainable life on earth.

The MDG system is a distorting lens for monitoring progress and it is hoped that the current World Bank and UNEP project established in 2009 will provide a more comprehensive method of accounting for natural capital as part of the process of tracking sustainable development.[8] This could be a useful index that complements the ecological footprint concept.

However, the model of development pursued by Marks et al. within the New Economics Foundation concept goes beyond the framework of the MDG system, the proposed targets for the HDI and ecological footprint and the use of GDP as markers for human progress. The New Economics Foundation adds to these concepts a measure of human welfare incorporated in the Happy Planet Index. This index combines life expectancy and the ecological footprint with a measure of life satisfaction assessed by social surveys undertaken at state level throughout the world.[9] Figure 12.4 shows the Happy Planet Index and GDP per capita for 35 of the states in this review. It shows that the efficiency with which these states extract human welfare, as defined in the HPI, is inversely related to GDP per capita. Thus small island states such as Vanuatu, St Lucia and Jamaica have a higher level of HPI, but a lower GDP per capita, than benchmark states such as the UK, the USA, Iceland and New Zealand, and a higher level of HPI than more wealthy developed island states such as Singapore and Bahrain.

In further developments in providing indicators for the pursuit of sustainable development, it is important to ensure that measures of human welfare and more comprehensive assessments of the pressure on the environment are matched with the indicators and targets within the MDG system. In doing this it becomes apparent that while this review shows that progress with the MDGs by the small states is below that of the benchmark states, there is much else which, if included in the accounting system, provides good news for the state of human welfare and that of the environment in these small and vulnerable states.

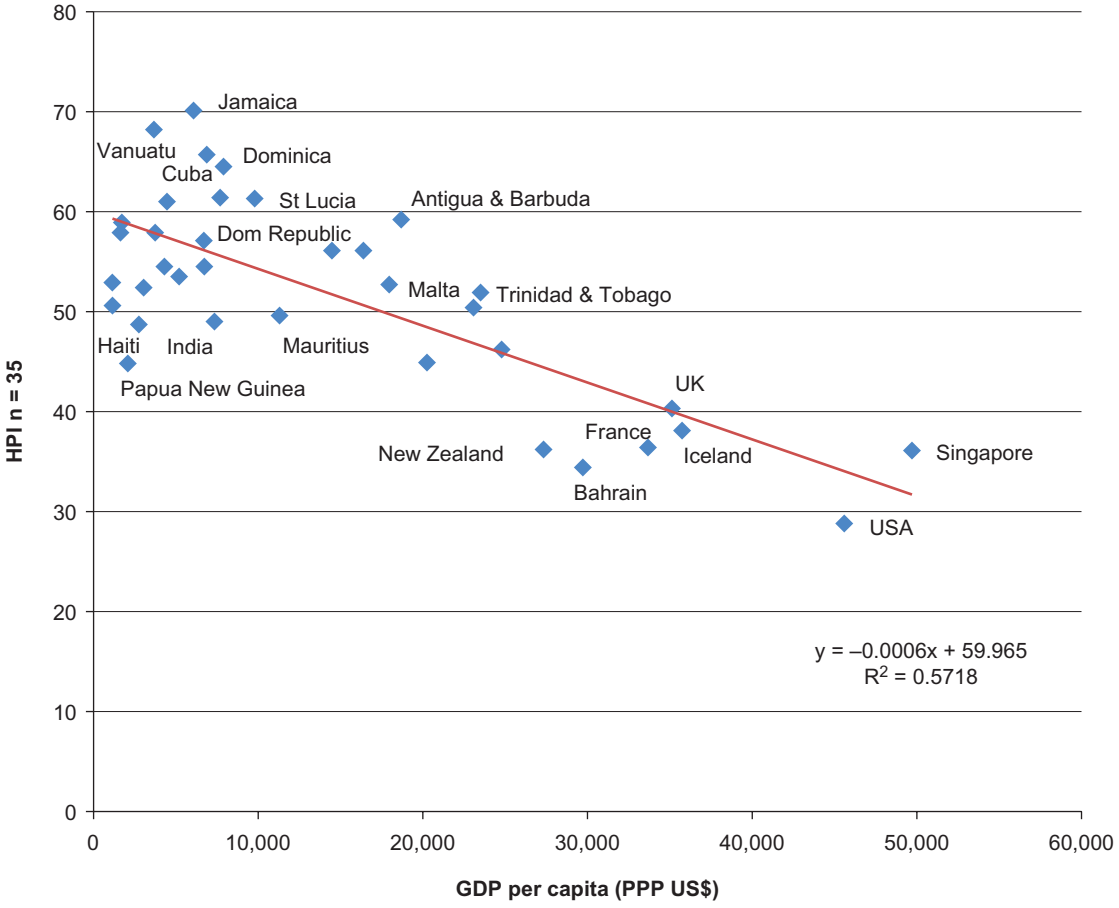
12.13 Tools for planning

The MDG system requires the adoption of specific tools. Some of these are considered below.

12.13.1 Denominators

Many of the indicators in the MDG system and their related targets are expressed as ratios or percentages without reference to the denominators on which they depend.[10] This has the effect of concealing the size of the difference in tasks presented to different countries in achieving their targets.

Figure 12.4 GDP per capita and HPI



Sources: UN data 2010 and NEF 2006

For example, an increase of the ratio of protected areas in Guinea-Bissau by 1 per cent of total land amounts to 361 square kilometres; in Seychelles 1 per cent of land is a mere 6 square kilometres. Where the targets and the denominators also vary greatly, the size of the impact can be further magnified.

A two-thirds reduction in IMR deaths in Guinea-Bissau would save nearly 6,000 lives; in Singapore a two-thirds reduction of IMR would save 40 lives. The identification of the hidden denominators is a key step in the process of policy development in the pursuit of the MDG targets and the assessment of national and regional impacts and relative priorities.

12.13.2 Cultural values and target relevance

The MDGs are indifferent to cultural variation and offer targets for all states that may not be supported in national policies. For example, under MDG 2 (education) all countries are pressed to ensure universal enrolment in primary education. But this may be in conflict with national and local cultural and demographic factors.

In Malta, where only 15 per cent of the population is under 15 years of age and where only 3 per cent of GDP is derived from agriculture, the country has 94 per cent enrolment in primary education. In Guinea-Bissau, where 48 per cent of the population is under 15 years of age and 69 per cent of GDP is derived from agriculture, only 55 per cent of children are enrolled in primary education.

In such countries, helping with farm work is part of cultural education and is used to prepare young boys and girls for their roles in family and community business. Cultural values and demographic factors can therefore affect enrolment at school, acting as constraints on change and limiting the impact of investment in educational facilities.

For cultural reasons, politics in some countries has not been a field of activity for women. Seychelles and Bahrain have nearly identical educational enrolment and literacy levels; however, in the former, 29 per cent of national parliamentary seats are held by women, while Bahrain has none. Here cultural values doubtless have a major effect on

the disparity in representation. These values serve as strong constraints on change and detract from the UN-instituted targets, which may not exist as priorities at national level.

12.14 Policy implications

Some light has been shone on the gaps in service provision for selected targets within the MDG system (for instance, hunger, child health, forest cover, air quality and safe water) (Roberts 2011). This review shows that for the 46 small states to meet the targets (see Table A1.17):

- 7 million undernourished people need to be better fed (MDG 1, target 1C, indicator 9);[11]
- 30,000 infant lives need to be saved each year (MDG 4, target 4A, indicator 2);
- 48,000 square kilometres of forest cover should be re-established (MDG 7, target 7A, indicator 7.1);
- 71 million tonnes of CO_2 emissions should be cut (MDG 7, target 7A, indicator 7.2.1);[12]
- 5 million more people should be provided with safe water (MDG 7, target 7C, indicator 7.8);[13] and
- 13 million people are waiting for a safe toilet (MDG 7, target 7C, indicator 7.9).[14]

The report also shows that within the 46 selected small and island states over 80 per cent of the undernourished people in 2005 were from just six (13%) of the states (Haiti, Dominican Republic, Cuba, Botswana, Guinea- Bissau and The Gambia). Around 80 per cent of the infant lives to be saved to meet the 2015 target were also in only eight (17%) of the 46 countries (Namibia, Papua New Guinea, Haiti, Guinea-Bissau, The Gambia, Dominican Republic, Lesotho, Namibia and Swaziland).

Ninety-nine per cent of the forest cover to be re-established was in just six (13%) of the small states (Papua New Guinea, Botswana, Solomon Islands, Timor-Leste, Guinea-Bissau and Brunei Darussalam). Meanwhile, nearly 80 per cent of the CO_2 emissions needing to be cut came from seven (15%) of the countries (Trinidad and Tobago, Dominican Republic, Bahrain, Singapore, Jamaica, Cyprus and Namibia). Lastly, over 88 per cent of the safe water required was for just five (11%) of the states (Papua New Guinea, Haiti, Dominican Republic, Cuba and Guinea-Bissau).[15]

These statistics bear out the real needs of the people of the 46 small states and the implications of deficiencies in the MDG system. It is hoped that this form of presentation can help to promote reassessment of priorities at national and regional levels.[16] This approach can become integrated into national governance where MDGs are adopted as key indicators for policy development and where an integrated planning and economics appraisal method can be adopted on the lines set out below.

12.15 Next steps in policy development

The next steps in policy development, building on the evidence from the MDGs and related data systems for the 46 small states, should be to:

- Remedy the problem of 44 per cent missing data;
- Integrate the pursuit of MDGs and related policy issues within the mainstream of regional, national and sub-national performance assessment and resource allocation;
- Assess the technical interventions required to deliver the services, including the resources required, financial plans, financial mobilisation, capacity building, management arrangements, involvement of public and private sectors and NGOs, the need for capital infrastructure, equipment, human resources, management and maintenance and environmental, economic and social impacts;
- Calculate the total and marginal costs of development activities, including the expected timescale of expenditure and realisation of benefits;
- Develop strategic and operational plans and monitoring mechanisms within national financial policy timescales required for establishing inter-sector political, financial and social support for the proposals;
- Promote plans through the mainstreaming of annual and medium- term resource allocation; and
- Review progress and revisit policy, resource allocation and technical management procedures in light of the results.

12.16 Adapting the MDGs to local priorities

The MDGs at country level are now being adapted to local national and regional needs. This should

include reviews of the arbitrary nature of the baselines and the arithmetic of target calculation; the absence of an economic context for reviewing priorities; the variation in technical requirements at national level; and the other broader issues of development capacity that are the main constraints on political commitment to implementation.

Despite the modest levels of economic and social development in some SIDS, recent analysis shows that their ecological footprint is generally lower. In addition, their efficiency in securing human welfare, in terms of length of life and satisfaction, exceeds that of many developed countries. In the Happy Planet Index, Vanuatu comes out top, while the UK and USA have poorer results, at 108th and 150th respectively (Marks et al. 2006). If life in SIDS is beautiful but costly,[17] many local people seem to like it that way. So their pathway to development and their policy toolbox should be oriented accordingly.

Most SIDS are facing pressure from increasing population. The population of the 46 small states is expected to increase. But the pattern is uneven. In a few of the small states, including Guyana[18] and Federated States of Micronesia, the population is slightly declining, by about 0.1 per cent per year, while others, including Comoros, Guinea-Bissau, Kiribati and Timor-Leste, have growth rates of 2 per cent a year or more.

Population growth in any small state presents the prospect of an increasingly heavy ecological footprint with increase in population densities, and more physical infrastructure imposing itself in terms of housing, schools, roads, transport, waste production and energy use. Such vulnerable environments make the need to respond to these pressures in an ecologically sustainable manner even more urgent. Demographic change is not included in the MDG system, although it is a fundamental factor in the pursuit of global, regional and national policy on sustainable development.

Notes

1 The EU SIDS project is located at the Indian Ocean Commission in Mauritius and covers Comoros, Madagascar, Mauritius, Seychelles, Zanzibar (Tanzania) and Réunion Island (France). It will focus on climate change, disaster insurance, sustainable development policy and coral reef rehabilitation.

2 The 11 states of the AIMS region defined here include the original SIDS of Malta and Cyprus, which have now joined the EU. The acronym AIMS is derived from the initial letters of the names of the maritime areas in which the 11 AIMS states are located: Atlantic, Indian Ocean, Mediterranean and South China Seas.

3 Commonwealth Secretariat (2009), Small States: Economic Review and Basic Statistics, Vol. 14, Commonwealth Secretariat, London.

4 The ecological footprint is a measure of the per capita use of natural resources, which is expressed in terms of the amount of land per capita required to sustain a given population at its given levels of consumption, technical development and resource use efficiency. It derives from a concept developed by William Reese and Mathis Wackernagel at the University of British Columbia. The principal elements in the ecological footprint are land use to grow food, trees and biofuels, areas for ocean fishing and land required to support plant life to cope with waste such as carbon emissions from fossil fuels. See www.ecologicalfootprint.org and www.redefiningprogress.org

5 See www.happyplanetindex.org. A second report on the HPI was published in 2009, but does not include small and island states with a population under 1 million. The figures used in this review are from the 2006 report.

6 The Human Development Index was established by UNDP as a global measure in 1990. The index combines life expectancy, educational attainment and national income per capita.

7 UNEP (2011), Towards a Green Economy: Pathways for Sustainable Development, and Poverty Eradication, available at www.unep.org/greeneconomy

8 For progress on this project and governmental responses, see www.globeinternational.info/wp-content/uploads/2010/09/GLOBE-Nagoya-Parliamentarians-Forum-Summary-Report-FINAL1.pdf

9 The elements in the Happy Planet Index by country are: mean life satisfaction score x expectation of life/ecological footprint. The function is per capita lifetime wellbeing per unit use of natural resources. See www.neweconomics.org/projects/happy-planet-index

10 For example, if 10 per cent of the population of a country with a population of 4 million is without safe water, 400,000 people are without safe water; if 10 per cent of the population of a country with a population of 100,000 is without safe water, 10,000 people are without safe water. To know the difference in need for planning purposes we need additional information to that found in the MDG system. To translate percentages back to whole numbers of people in need we need to know total population figures, the denominators from which they were derived. (Thus If X x100/y = 10% and y = 100,000; then X = 10,000; where X is the numerator of people in need and y is the denominator of total population.)

11 Data are missing for nine countries: Bahrain, Marshall Islands, Federated States of Micronesia, Nauru, Palau, Papua New Guinea, Singapore, Tonga and Tuvalu.

12 Data are missing for two countries: Lesotho and Tuvalu.

13 Data are missing for eight countries: Antigua and Barbuda, Bahrain, Brunei Darussalam, Nauru, St Vincent and the Grenadines, Seychelles, St Lucia and Timor-Leste.

14 Data are missing for eight countries: Antigua and Barbuda, Bahrain, Brunei Darussalam, Nauru, St Lucia, St Vincent and the Grenadines, Seychelles and Timor-Leste.

15 This analysis is for all 46 states in the denominator, including those which have missing data.

16 See, for example, UNDP (2004), Jamaica MDG Report, Country reports, p. 50, available at www.undp.org/mdg (accessed in February 2007).

17 Winters, L A and Martins, P M G (2004), Beautiful But Costly: Business Costs In Small Remote Economies, Commonwealth Secretariat, London.

18 Guyana is included in the UN list of SIDS as a low-lying state.

Chapter 13

Conclusions and Recommendations

Substantial progress towards the achievement of the MDGs has been made by the 46 small states, although missing data preclude effective assessment of vital aspects, including poverty reduction, improvements in environmental quality and the control of disease.[1]

By and large, it appears that the smaller states have performed less well than the benchmark states. Yet in certain key areas, some of the poorest states have made the greatest relative achievements. Further progress is likely to be constrained by uneven levels of resources, technical capacities, already low economic and social development, population size and the vulnerability of many to exogenous environmental and economic events.

Across all the MDGs, the 46 small states achieved 20 per cent of the targets, compared with the 10 benchmark states, which achieved 32 per cent. The small states made progress towards the target values in 36 per cent of cases (i.e. cases of target 'achieved' plus those 'on-track'), compared with 53 per cent progress by the benchmark states. If missing data are excluded, these figures go up to 72 per cent for the small states compared with 78 per cent for the benchmark states. Across the eight MDGs examined, the 46 small states made most progress towards achieving MDG 4 (child health) and least progress on MDG 1 (poverty relief).

Greatest progress has been made on:[2]

- MDG 4 (child health): 86 per cent
- MDG 8 (partnerships): 69 per cent (especially in the field of technical transfer in telecommunications and computing)
- MDG 3 (gender equality): 48 per cent
- MDG 7 (environmental sustainability): 38 per cent
- MDG 2 (improving education): 33 per cent

Least progress has been made in:

- MDG 6 (disease control): 25 per cent
- MDG 5 (maternal health): 23 per cent
- MDG 1 (poverty relief): 18 per cent

The performance of the 46 small states has been compared with the performance of 10 selected benchmark states.[3] In this comparison it was found that:

The 46 small states:

- Achieved fewer of the targets and made less progress;
- Have a lower percentage of indicators off-track; and
- Have a higher percentage of missing data than the 10 benchmark states.

Missing data:

- For the 46 small states there were 44 per cent missing data
- For the 10 benchmark states there were 34 per cent missing data

Performance by MDG:

- The 46 small states generally made less progress than the benchmark states; but
- The 46 small states performed better on reducing child mortality than the benchmark states.

13.1 Greening the development process

At international and regional levels some of the difficulties in making progress using the basic MDG system could be overcome if policy-makers divided countries into groups in terms of their stages of economic and social development and examined how far they are pursuing a process of green development (see Table 13.1).

For the purpose of this analysis the small states have been divided into four groups characterised by key indicators of development and natural resources impact.

13.1.1 Group A: High income – unsustainable use of natural resources

Antigua and Barbuda, The Bahamas, Bahrain, Barbados, Brunei Darussalam, Cyprus, Malta, Singapore, Trinidad and Tobago

Table 13.1 Greening development (group median values)

Indicators	Group A[4]	Group B[5]	Group C[6]	Group D[7]
Income level 2007	High	Upper-middle	Lower-middle	Low
Income per capita per day (US$ PPP) 2007	78	21	8	3
HDI value 2007	0.902	0.791	0.693	0.489
Life expectancy (years) 2008	77.4	72.6	68.4	61.7
Undernourishment (%) 2005	5	7.5	7	23
IMR 2007	10	16	45	75
CO_2 emissions/cap/year metric tonnes × 10	92	24	9	2
Access to safe water (%)	100	93	84	69
Internet users (%) 2008	51	23	7	3
Ecological footprint (hectares/cap) × 10 2006	40	18	13	8
Happy Planet Index 2006	46	56	57	43
Progress with MDGs (%) 2010	37.3	35.6	35.6	39.3

Source: UN Statistics Division, 2010 and 2011.

This group consists of nine small states with a population of 9 million (14 per cent of the total population of the 46 small states) that have passed through demographic, epidemiological and economic development and continue to progress and diversify. These states have a high income per capita, US$78 per day, a high human development index, an increased life expectancy of 77 years, an infant mortality rate of 10, safe water for all, 50 per cent of the population linked to the internet and only 5 per cent of the population undernourished. The downside, however, is that they are relative high polluters with a heavier ecological footprint than other groups. Moreover, in terms of the efficiency with which they extract welfare from their limited natural resources, their performance is poorer than those states in Groups B and C that have lower per capita income.

If the states in Group A continue on their current development pathway, they are likely to experience increasing pollution, congestion and unsustainable pressure on their natural resources. If other countries were to follow the pattern of development of the countries in Group A, the world would need to be two to three times larger to cope with the prospective global consumption of natural resources. Future development in this group should aim to sustain economic and social development with a lighter ecological footprint, seeking ways to reduce pollution, and protect and improve their natural environment resources of biodiversity, land, water, air and marine life. This group has made less progress with the MDGs than Group D, the economically poorest, which may be taken as a measure of the unsustainable path Group A has been pursuing.

13.1.2 Group B: Higher-middle income – more sustainable use of natural resources

Botswana, Cuba, Dominica, Dominican Republic, Fiji, Grenada, Jamaica, Mauritius, Namibia, Palau, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Seychelles, Suriname

This group consists of 15 small states with a population of 31 million (45 per cent of the total population of the 46 small states), which are transitioning through economic and social development and are now characterised by income levels of US$21 per head per day, and relative to Group A, lower HDI, five years less life expectation, an infant mortality rate 60 per cent higher than Group A, 2 million people without access to safe water, 2 million people undernourished and less than half the population with access to the internet. On the upside, however, Group B has an ecological footprint close to sustainable levels, 60 per cent lower CO_2 pollution than Group A and a higher HPI than Group A.

This group, which includes 12 small island states, has a more sustainable pattern of natural resource usage. It should aim to avoid the development pathway of Group A by adopting policies that protect and enhance natural resources, maintaining low levels of pollution, sustaining its lighter ecological footprint and avoiding patterns of consumption and land use that degrade the quality of services derived from the natural environment. It should focus on improving the health of the people, while maintaining the raised levels of welfare of its population and current low impact patterns of natural resources usage. This group has made less progress with the MDGs than Groups A and D and is equal on this measure with Group C.

13.1.3 Group C: Lower-middle income – sustainable use of natural resources

Belize, Cape Verde, Guyana, Kiribati, Lesotho, Maldives, Marshall Islands, Federated States of Micronesia, Papua New Guinea, Samoa, São Tomé and Principe, Solomon Islands, Swaziland, Tonga, Vanuatu

This group consists of 15 small states with a population of 13 million (19 per cent of the total population of the 46 small states). The group has a median income level of around US$8 per capita per day, substantially below that of Groups A and B, as well as lower life expectancy and a lower HDI than Groups A and B, and an infant mortality rate four times that of Group A and nearly three times that of Group B. It also has 1.3 million population undernourished, 2 million without safe water and only 7 per cent with internet access. On the upside, however, this group has an entirely sustainable ecological footprint, and a level of CO_2 pollution ten times lower than Group A and nearly three times lower than Group B. Moreover, it has the highest HPI of all four groups.

This group, which includes 12 small states, has a greener environmental profile than the two groups with higher income, but it faces many challenges, not least to provide greater food security, extend safe water supplies and improve human health. To do this, it needs to pursue policies that avoid the development pathway of Group A and sustain human welfare within its current light ecological footprint. This group has made progress on the MDGs that is equal to that of Group B and less than that made by Groups A and D.

13.1.4 Group D: Low income and low welfare – most progress with MDGs

Comoros, The Gambia, Guinea-Bissau, Haiti, Timor-Leste

Group D consists of five small states with a population of 14 million (22 per cent of the total population of the 46 small states). The group has a low income of US$3 per head per day, with the lowest HDI and lowest expectation of life of all the groups, with people on average surviving 16 years less than in Group A and 10 years less than in Group B. It has 3 million people undernourished, 4 million without safe water and the lowest level of welfare measured by the HPI of all the groups. The upside is the low ecological impact of the population and the low levels of CO_2 pollution, which are perhaps more a measure of inadequate development than of careful nurturing of the environment. These states need both economic and technical support to advance beyond their current levels of inadequate progress, and the opportunity should be taken to focus support to promote a greener pathway for future development than has been the case with the richest and most economically developed group.

Paradoxically, however, this group, despite having the least economic resources, has made the most progress with the MDGs. Further support to this group would be worthwhile, while keeping a close eye on retaining the light ecological footprint that characterises its pattern of development.

13.2 The MDG system and adaption

Using such structuring and using environmental, social demographic and economic indicators, the MDG framework can be adapted for priority setting, while taking into account the wide variation in marginal and total costs and the results that can be expected from interventions (Roberts 2006). Lists are available of the type of interventions appropriate for each of the targets from the UN and other sources and these are expected to be further developed by the Commonwealth Secretariat and the EU, working with other agencies, such as the Indian Ocean Commission.[8]

Standard costs have been developed from UN studies in the African region which provide an indication of the total resources required for making progress on the MDGs (UN Millennium Project 2005). The range of indicators relevant to SIDS is being extended at country level to include features of their countries which are vital for future sustainable development, many of which are key themes in the 2005 UN Mauritius Strategy for SIDS, which have not yet been incorporated in the basic MDG system. Further work is needed in this area.

The UN data system has begun to present data for SIDS as a defined region. But not all states are included in each indicator and many data are missing. When this process is completed it will be more helpful for policy-makers. It will also be furthered if UN agencies such as WHO, UNEP and UNDP consistently give a special place to SIDS in their programmes and in the composition of advisory bodies and reporting systems, as required under UN mandates following the 2005 UN SIDS Mauritius Conference.

A movement to adapt the MDG system has been progressing, urged on by the UN Expert Group on MDGs and by action at country and regional level. The UN Expert Group has been promoting capacity

building of statistical services and mainstreaming MDG data systems through focal points such as each country's central statistics office.

In some countries closer links are being made between MDG data and national policy and budget systems. This is particularly evident in the more developed SIDS, such as Malta, which is now part of the EU; Mauritius, which is working with a variety of regional organisations;[9] Barbados, which is part of the Caribbean SIDS region;[10] and Singapore.

13.3 Technical development and support

This report spotlights specific areas for action to assist small states in overcoming problems connected to sustainable development and the MDGs. These are examined below.

13.3.1 MDG 1: Poverty relief

Undernourishment is a prevalent feature of life in many small states and resolving it remains a persistent problem. Eighteen (39%) of the 46 small states have not reduced the percentage of their population that is undernourished since 1990. However, the effective assessment of progress on poverty relief is adversely affected by a substantial data gap on the majority of the nine indicators in this MDG. The review found that in the 46 small states, 71 per cent of data were missing, indicating an urgent need to build the technical capacity to collect and report poverty statistics in the 46 small states and to re-examine strategies for poverty relief where they have been proved to be ineffective.

13.3.2 MDG 3: Gender equality

The push for equality for woman has seen some success, especially in education and non-agricultural employment. But equality in political representation continues to present challenges for many small states. In six of the small states the index declined, with fewer women holding parliamentary seats in 2008 than in 1990. Among these six the percentage fell from 20 to 13 per cent in Belize; from 6 to 0 per cent in Nauru; from 7 to 0 per cent in Tuvalu; and from 12 to 9 per cent in São Tomé and Principe. The highest level of parliamentary seats achieved by women in the latest reports from the 46 small states was in Cuba with 43 per cent, Guyana with 30 per cent, Namibia with 27 per cent, Trinidad and Tobago with 27 per cent and Lesotho with 25 per cent. Latest data show that in six of the 46 small states no women held parliamentary seats: Belize, Federated States of Micronesia, Nauru, Palau, Solomon Islands and Tuvalu.

The high performance in parliamentary gender equality in certain states shows what can be achieved, despite the decline in representation in some and the zero values in others. This is not so much an issue of finance, but rather of political and social commitment in which progress may be influenced by greater publicity for those states moving towards this target. The variation in performance should also stimulate studies of the impact of gender bias on social development and on progress with other gender related policies.

13.3.3 MDG 5: Maternal health

The risk of a mother dying in childbirth is over 100 times greater in Guinea-Bissau than in Cyprus. In Guinea-Bissau only 38 per cent of births are attended by a skilled health professional, while in Cyprus there is complete coverage. In Guinea-Bissau 600 mothers die in childbirth every year; in Cyprus, however, such deaths are rare. These are the extreme points in performance on these indicators in the 46 small states. The extreme performance in Guinea-Bissau is reflected in its poor relative levels of service provision, service use and other factors for reducing maternal risk such as skilled birth attendance, contraceptive practice, high adolescent birth rate, low antenatal care and undernourishment.

The 2010 Africa Maternal Health Scorecard[11] and the 2010 Africa Health Financing Scorecard[12] both indicate that African states are slow in achieving three of the MDGs: MDG 4 to reduce child mortality; MDG 5 to improve maternal health; and MDG 6 to combat HIV/AIDS, tuberculosis and malaria. There is an absence of skilled workers at birth, which is the leading cause of maternal death.

There was a call for governments to adopt innovative health financing systems to increase access to health services. The achievements of Cyprus, Malta, Singapore, Mauritius, Antigua and Barbuda, and Barbados in securing low levels of maternal deaths, show what is possible with comprehensive measures focused on this and related goals. This should serve as a stimulus to action and offer models of good practice. Maternal care is a well-established technical field and its principles should be rapidly extended to reduce the unacceptable risk of maternal death in certain small states[13] where the maternal mortality ratio is more than 20 times that of the best performing states.

13.3.4 MDG 6: Disease control

A sharper focus is needed on action against tuberculosis to direct resources to those countries in greatest need. Comparative death rates should be used as a guide here. For instance, the report found over 11,000 deaths from tuberculosis in the 46 small states, with an 800-fold variation in the risk of death between the lowest rates in the benchmark states and the highest in the small states.

13.3.5 MDG 7: Environmental sustainability

The report found a 30-fold variation in the level of CO_2 emissions across the 46 small states. Some, such as Brunei Darussalam and Singapore, have begun to decouple environmental pollution from the process of economic growth, as is the case with reported levels from the USA, the UK, Iceland and France. More support is needed to promote commitment and technical developments in this field in the small states.

Protecting the natural environment remains a serious issue. Since 1990 some 48,000 square kilometres of forest cover has been lost in the 46 small states. While 870,000 square kilometres of cover remains, most of this is in four (9%) of these states. Nine of the small states[14] have less than 5 per cent of forest cover remaining. Guidelines for planning the physical environment and technical support for implementation should be directed to those states with the lowest levels of forest cover remaining, but political commitment is essential to avoid urban expansion stretching from shore to shore. Urban and road planning that gives consideration to protecting and replanting the natural environment has economic, social and ecological benefits.[15]

Inadequate living conditions is another major issue. In the 46 small states there were over 12 million people without access to safe water and over 22 million without access to safe sanitation. The most serious problems of provision were in Haiti, Papua New Guinea, Cuba, Dominican Republic and Namibia. Extremely high percentages of people living in urban slums were reported in Haiti (93%), the Dominican Republic (70%), Bahrain (69%), Jamaica (61%) and Belize (47%). In Guyana, the urban slum population rose from 5 per cent in 1990 to 34 per cent in 2005, while in Jamaica the index rose from 29 per cent in 1990 to 61 per cent in 2005. Focused support for urban regeneration is needed in these states, using methods of planned development achieved elsewhere.

13.3.6 MDG 8: Partnerships

All 46 small states increased provision of mainline and mobile telephones, as well as internet access, compared with the 1990 baseline. However, there remains a wide range in provision. Mainline telephones per capita vary from 0.2 per cent to 59 per cent; mobile phones vary from 1 per cent to 159 per cent; internet access ranges from 0.2 per cent to 75 per cent. Support should focus on those states with the lowest access, as this is a key element in improving economic competitiveness and social participation.

13.4 Recommendations

Policy-makers and implementing partners in small and island developing states at both regional and national level require the following types of support to make further progress with the MDGs.

Technical assistance should be required to:

- Provide greater support in the monitoring and pursuit of the MDGs in the smallest states;
- Differentiate the technical and financial investments required, in line with stages of economic and social development;
- Assess priorities, taking into account the environmental impact (ecological footprint) of development, social welfare gains and economic growth;
- Assess the marginal and total costs and benefits of making progress toward specific targets on each indicator and identify priorities;
- Improve systematic documentation of the scientific and technical evidence basis for interventions within an economics framework that includes social and environmental costs and benefits; and
- Integrate the MDG process within planning, investment and governance systems at national and regional levels.

Research and development on ‘best practices’ and the evidence base for intervention to:

- Develop a more systematic documentation of the scientific and technical evidence base for interventions within an economics framework that includes social and environmental costs and benefits; and

- Establish methods for developing standards of best practice for interventions for the pursuit of MDGs and systems of exchange of technical information and resources.

Focus on documentation by UN agencies in line with Mauritius Strategy Implementation[16] to:

- Promote comprehensive international documentation of MDG and related data from SIDS and the extension of this into the programmes and publications of UN agencies (e.g. UNEP, WHO, UNICEF and UNDP, as well as the Commonwealth);
- Support UN system agencies working with SIDS countries to develop credible methodologies and accurate datasets on MDG goals; and
- Build mainstream commitment and capacity at national level, with regional support where necessary, within central national statistics offices, linking the process of data collection and dissemination of analyses to economic and social policy and to medium-term financial budget systems.

Further development of UN and national data and indicator systems to meet the requirements of the MSI to:

- Extend the MDG framework for 46 small states and SIDS to cover priority areas in the Barbados Programme of Action and the Mauritius Strategy for Implementation; and
- Establish methods for developing standards of best practice for interventions for the pursuit of the MDGs and systems of exchange of technical information and resources.

Notes

1 See Table A1.7 of Annex 1.
2 This analysis includes missing data.
3 Brazil, China, France, Iceland, India, New Zealand, Russia, South Africa, UK and USA.
4 Group A: Antigua and Barbuda, The Bahamas, Bahrain, Barbados, Brunei Darussalam, Cyprus, Malta, Singapore and Trinidad and Tobago.
5 Group B: Botswana, Cuba, Dominica, Dominican Republic, Fiji, Grenada, Jamaica, Mauritius, Namibia, Palau, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Seychelles and Suriname.
6 Group C: Belize, Cape Verde, Guyana, Kiribati, Lesotho, Maldives, Marshall Islands, Federated States of Micronesia, Papua New Guinea, Samoa, São Tomé and Principe, Solomon Islands, Swaziland, Tonga and Vanuatu.
7 Group D: Comoros, The Gambia, Guinea-Bissau, Haiti and Timor-Leste. (Two other small states, Nauru and Tuvalu, have not been classified within the groups because of missing data.)
8 UN MDG Handbook (2005), available at http://mdgs.un.org
9 Ganoo, M (2008), *MDGs: The Mauritius Experience*. Available at: mdgs.un.org/…/MAURITIUS%20-%20Country%20experience.ppt
10 Binger, A (2008), *Vulnerability of Caribbean SIDS, High Level Roundtable on International Co-operation for Sustainable development in Small Island Developing States*, emphasises the importance for SIDS of data on renewable energy production, waste management and food security, which are not embraced in the basic MDG system. Available at: www.un.org/esa/sustdev/sids/2008_roundtable/presentation/session1_binger.pdf
11 Detailed assessments are provided in this report, but it is prefaced by caution on the availability of data, stating: 'Tracking progress on MDG achievement is an immense challenge due to a lack of sufficient, reliable, and updated data. There are also inconsistencies between national and global tracking efforts that make it difficult to compare progress across countries and regions but commendable efforts have been made'. Available at: www.africaprogresspanel.org/index.php/download_file/view/1254/
12 The review found that 'Globally countries with higher government per capita investment in health – in addition to separate higher per capita investment on social determinants such as clean water, sanitation and environment, nutrition, gender equity in health; pharmaceutical capacity and better access to medicines; and higher numbers of health workers equitably distributed geographically – utilise health resources more efficiently and have overall higher life expectancy'. Available at: www.who.int/pmnch/media/press_materials/pr/2011/health_financing_scorecard.pdf
13 Guinea-Bissau (MMR 1,100); The Gambia (MMR 690); Haiti (MMR 670); Comoros (MMR 400); Timor-Leste (MMR 380); Cape Verde (MMR 210).
14 Data are missing for two countries: Marshall Islands and Nauru.
15 See: www.sustainablecitiesinstitute.org/view/page.basic/class/feature.class/Lesson_Benefits_Urb_Forest_Trees
16 Mauritius Strategy for Implementation: the UN General Assembly commitment to the delivery of the 2005 UN SIDS Mauritius Strategy.

Annex 1

League and Performance Tables

Table A1.1 Progress league table for the selected 46 small states (includes missing data)

Small and island states (46)	MDGs 1–8 (mean average)	
	Value (includes missing data)	Rank
Dominican Republic	0.644	1
Cuba	0.542	2
Namibia	0.500	3
Gambia, The	0.492	4
São Tomé and Principe	0.484	5
Haiti	0.468	6
Barbados	0.458	7
Lesotho	0.424	8
Swaziland	0.424	8
Jamaica	0.407	10
Cyprus	0.397	11
Guinea-Bissau	0.393	12
Bahamas, The	0.390	13
Kiribati	0.390	12
Mauritius	0.390	13
St Lucia	0.390	13
Trinidad and Tobago	0.390	13
Guyana	0.387	18
Solomon Islands	0.373	19
Cape Verde	0.373	19
Singapore	0.373	19
Malta	0.362	22
Belize	0.356	23
Botswana	0.356	23
Suriname	0.356	23
Comoros	0.350	26
Bahrain	0.339	27
Fiji	0.339	27
Antigua and Barbuda	0.322	29
Grenada	0.322	29
Maldives	0.322	29
Tonga	0.322	29
Brunei Darussalam	0.310	33
St Vincent and the Grenadines	0.305	34
Samoa	0.305	34
Seychelles	0.288	36
Papua New Guinea	0.271	37
Vanuatu	0.271	37
Marshall Islands	0.271	37
Micronesia, Federated States of	0.271	37
St Kitts and Nevis	0.254	41
Timor-Leste	0.254	41
Tuvalu	0.237	43
Palau	0.237	43
Dominica	0.220	45
Nauru	0.203	46

Note: The number of indicators with missing data is included in the denominators. The statistic is thus the number of indicators on which progress has been made, across all MDGS, divided by the total number of indicators relevant to each country, expressed as a proportion. For more information see section 2.4.

Table A1.2 Progress league table for the 46 selected small states and the 10 benchmark states (includes missing data)

All states (56)	MDGs 1–8 (mean average)	
	Value (includes missing data)	Rank
Brazil	0.667	1
India	0.667	1
Dominican Republic	0.644	3
China	0.614	4
Russia	0.607	5
Cuba	0.542	6
UK	0.532	7
Namibia	0.500	8
Gambia, The	0.492	9
São Tomé and Principe	0.484	10
Haiti	0.468	11
USA	0.468	11
Barbados	0.458	13
South Africa	0.446	14
New Zealand	0.435	15
France	0.435	15
Lesotho	0.424	17
Swaziland	0.424	17
Jamaica	0.407	19
Iceland	0.404	20
Cyprus	0.397	21
Guinea-Bissau	0.393	22
Bahamas, The	0.390	23
Kiribati	0.390	23
Mauritius	0.390	23
St Lucia	0.390	23
Trinidad and Tobago	0.390	23
Guyana	0.387	28
Solomon Islands	0.373	29
Cape Verde	0.373	29
Singapore	0.373	29
Malta	0.362	32
Belize	0.356	33
Botswana	0.356	33
Suriname	0.356	33
Comoros	0.350	36
Bahrain	0.339	37
Fiji	0.339	37
Antigua and Barbuda	0.322	39
Grenada	0.322	39
Maldives	0.322	39
Tonga	0.322	39
Brunei Darussalam	0.310	43
St Vincent and the Grenadines	0.305	44
Samoa	0.305	44
Seychelles	0.288	46
Papua New Guinea	0.271	47
Vanuatu	0.271	47
Marshall Islands	0.271	47
Micronesia, Federated States of	0.271	47
St Kitts and Nevis	0.254	51
Timor-Leste	0.254	51
Tuvalu	0.237	53
Palau	0.237	53
Dominica	0.220	55
Nauru	0.203	56

Table A1.3 Breakdown of targets achieved across MDGs 1–8 (includes missing data)

	MDG 1 %	MDG 2 %	MDG 3 %	MDG 4 %	MDG 5 %	MDG 6 %	MDG 7 %	MDG 8 %	MDGs 1–8 % (mean average)
32 CSS	3	0	24	3	11	12	31	70	19
14 Other UN SIDS	4	2	21	2	11	11	38	63	19
Sub-total 46 CSS and other UN SIDS	3	1	23	3	11	12	33	68	19
Sub-total benchmark states	10	0	48	3	15	19	63	78	28

Table A1.4 Missing data league table for the 46 selected small states and the 10 benchmark states (includes missing data)

All states (56)	MDGs 1–8 (mean average)	
	Value (includes missing data)	Rank
Nauru	0.712	1
Tuvalu	0.712	1
Micronesia, Federated States of	0.678	3
Palau	0.627	4
Timor-Leste	0.627	4
Antigua and Barbuda	0.610	6
Vanuatu	0.610	6
Marshall Islands	0.610	6
Brunei Darussalam	0.603	9
Dominica	0.593	10
Kiribati	0.593	10
Papua New Guinea	0.576	12
St Vincent and the Grenadines	0.576	12
Seychelles	0.576	12
Bahamas, The	0.559	15
St Kitts and Nevis	0.559	15
Samoa	0.559	15
Solomon Islands	0.559	15
Tonga	0.559	15
Singapore	0.542	20
Grenada	0.525	21
Maldives	0.525	21
St Lucia	0.525	21
Bahrain	0.525	21
Malta	0.500	25
Comoros	0.500	25
Fiji	0.492	27
Barbados	0.458	28
Lesotho	0.458	28
Suriname	0.458	28
Guyana	0.452	31
Cyprus	0.448	32
Cape Verde	0.441	33
São Tomé and Principe	0.441	34
France	0.435	34
Belize	0.435	34
Iceland	0.421	37
New Zealand	0.419	38
Botswana	0.407	39
Mauritius	0.407	39

Table A1.4 (Continued)

All states (56)	MDGs 1–8 (mean average)	
	Value (includes missing data)	Rank
Cuba	0.407	39
UK	0.403	42
Guinea-Bissau	0.393	43
Swaziland	0.390	44
Trinidad and Tobago	0.373	45
USA	0.371	46
Haiti	0.355	47
Gambia, The	0.344	48
Russia	0.304	49
South Africa	0.304	49
China	0.298	51
Namibia	0.293	52
Jamaica	0.288	53
Brazil	0.211	54
Dominican Republic	0.186	55
India	0.175	56

Note: This table shows the number of indicators with missing data for each country divided by the total number of relevant indicators for each country, including missing data, expressed as a proportion. For example, Nauru has 42 indicators with missing data out of a total of 59 relevant indicators; 42/59 = 0.712.

Table A1.5 Progress league table for 46 selected small states and 10 benchmark states (excludes missing data)

All states (56)	MDGs 1–8 (mean average)	
	Value (excludes missing data)	Rank
Kiribati	0.958	1
UK	0.917	2
Cuba	0.914	3
Bahamas, The	0.885	4
Antigua and Barbuda	0.864	5
São Tomé and Principe	0.857	6
China	0.854	7
Russia	0.850	8
Solomon Islands	0.846	9
Barbados	0.844	10
Micronesia, Federated States of	0.842	11
Brazil	0.826	12
Tuvalu	0.824	13
St Lucia	0.821	14
Singapore	0.815	15
India	0.792	16
Brunei Darussalam	0.783	17
Lesotho	0.781	18
Dominican Republic	0.776	19
France	0.771	20
Gambia, The	0.750	21
New Zealand	0.750	21
USA	0.744	23
Tonga	0.731	24
Haiti	0.724	25

Table A1.5 (Continued)

All states (56)	MDGs 1–8 (mean average)	
	Value (excludes missing data)	Rank
Malta	0.724	26
St Vincent and the Grenadines	0.720	27
Cyprus	0.719	28
Swaziland	0.714	29
Bahrain	0.714	29
Namibia	0.707	31
Guyana	0.706	32
Nauru	0.706	32
Comoros	0.700	34
Iceland	0.697	35
Vanuatu	0.696	36
Marshall Islands	0.696	36
Samoa	0.692	38
Timor-Leste	0.682	38
Seychelles	0.680	40
Grenada	0.679	41
Maldives	0.679	41
Cape Verde	0.667	43
Fiji	0.667	43
Mauritius	0.657	45
Suriname	0.656	46
Guinea-Bissau	0.649	47
Papua New Guinea	0.640	48
Palau	0.636	49
South Africa	0.625	50
Trinidad and Tobago	0.622	51
Belize	0.618	52
Botswana	0.600	53
St Kitts and Nevis	0.577	54
Jamaica	0.571	55
Dominica	0.542	56

Table A1.6 Progress by 56 states by MDG: Differences in results based on optimistic (excludes missing data) and pessimistic (includes missing data) assessments of progress

MDG 1	% Progress	% Progress
	Includes missing data	Excludes missing data
CSS and other UN SIDS		
32 CSS	17	60
14 Other UN SIDS	20	63
Sub-total 46 selected small states	**18**	**61**
Benchmark states		
2 other island states	11	25
3 other large states	15	33
4 BRIC states	69	86
South Africa	11	20
Sub-total 10 benchmark states	**36**	**59**
Grand total 56 states	**21**	**61**
MDG 2	**% Progress**	**% Progress**
	Includes missing data	**Excludes missing data**
CSS and other UN SIDS		
32 CSS	33	71
14 Other UN SIDS	33	74
Sub-total 46 selected small states	**33**	**72**
Benchmark states		
2 other island states	0	0
3 other large states	22	50
4 BRIC states	67	89
South Africa	33	100
Sub-total 10 benchmark states	**37**	**65**
Grand total 56 states	**34**	**70**
MDG 3	**% Progress**	**% Progress**
	Includes missing data	**Excludes missing data**
CSS and other UN SIDS		
32 CSS	51	74
14 other UN SIDS	41	71
Sub-total 46 selected small states	**48**	**73**
Benchmark states		
2 other island states	90	90
3 other large states	100	100
4 BRIC states	85	89
South Africa	60	75
Sub-total 10 benchmark states	**88**	**92**
Grand total 56 states	**55**	**78**
MDG 4	**% Progress**	**% Progress**
	Includes missing data	**Excludes missing data**
CSS and other UN SIDS		
32 CSS	83	83
14 other UN SIDS	93	95
Sub-total 46 selected small states	**86**	**87**
Benchmark states		
2 other island states	67	67
3 other large states	89	89
4 BRIC states	92	92
South Africa	0	0
Sub-total 10 benchmark states	**77**	**77**
Grand total 56 states	**85**	**85**

MDG 5	% Progress	% Progress
	Includes missing data	Excludes missing data
CSS and other UN SIDS		
32 CSS	19	73
14 other UN SIDS	32	82
Sub-total 46 selected small states	**23**	**76**
Benchmark states		
2 other island states	17	100
3 other large states	22	50
4 BRIC states	63	100
South Africa	67	100
Sub-total 10 benchmark states	**42**	**89**
Grand total 56 states	**26**	**79**

MDG 6	% Progress	% Progress
	Includes missing data	Excludes missing data
CSS and other UN SIDS		
32 CSS	24	68
14 other UN SIDS	27	71
Sub-total 46 selected small states	**25**	**69**
Benchmark states		
2 other island states	32	92
3 other large states	31	100
4 BRIC states	40	82
South Africa	24	44
Sub-total 10 benchmark states	**34**	**83**
Grand total 56 states	**27**	**71**

MDG 7	% Progress	% Progress
	Includes missing data	Excludes missing data
CSS and other UN SIDS		
32 CSS	36	56
14 other UN SIDS	43	61
Sub-total 46 selected small states	**38**	**57**
Benchmark states		
2 other island states	62	81
3 other large states	70	88
4 BRIC states	68	69
South Africa	90	90
Sub-total 10 benchmark states	**69**	**79**
Grand total 56 states	**43**	**62**

MDG8	% Progress	% Progress
	Includes missing data	Excludes missing data
CSS and other UN SIDS		
32 CSS	70	92
14 other UN SIDS	66	92
Sub-total 46 selected small states	**69**	**92**
Benchmark states		
2 other island states	85	85
3 other large states	67	75
4 BRIC states	100	100
South Africa	75	75
Sub-total 10 benchmark states	**80**	**84**
Grand total 56 states	**70**	**91**

Note: For more information see section 3.7.

Table A1.7 Missing data across MDGs 1–8

	MDG 1 %	MDG 2 %	MDG 3 %	MDG 4 %	MDG 5 %	MDG 6 %	MDG 7 %	MDG 8 %	MDGs 1–8 % (mean average)
32 CSS	72	53	31	0	73	64	36	24	44
14 other UN SIDS	68	55	41	2	61	61	29	29	43
Sub-total 46 selected small states	71	54	34	1	70	63	34	26	44
Sub-total 10 benchmark states	40	43	4	0	53	59	12	5	27
All 56 states	65	52	29	1	67	63	30	22	41

Table A1.8(i) Off-track league table for 46 selected small states and 10 benchmark states (excludes missing data)

All states (56)	MDGs 1–8 (mean average)	
	Value (includes missing data)	Rank
Jamaica	0.305	1
South Africa	0.268	2
Botswana	0.237	3
Trinidad and Tobago	0.220	4
Guinea-Bissau	0.213	5
Namibia	0.207	6
Belize	0.203	7
Mauritius	0.203	7
Dominica	0.186	9
Cape Verde	0.186	9
St Kitts and Nevis	0.186	9
Suriname	0.186	9
Swaziland	0.186	9
Haiti	0.177	14
Dominican Republic	0.169	15
Fiji	0.169	15
Guyana	0.161	17
USA	0.161	17
India	0.158	19
Iceland	0.158	19
Cyprus	0.155	21
Grenada	0.153	22
Maldives	0.153	22
Papua New Guinea	0.153	22
Comoros	0.150	25
Gambia, The	0.148	26
New Zealand	0.145	27
Malta	0.138	28
Seychelles	0.136	29
Bahrain	0.136	29
Palau	0.136	29
Samoa	0.136	29
France	0.129	33
Brazil	0.123	34
Lesotho	0.119	35
St Vincent and the Grenadines	0.119	35
Tonga	0.119	35
Vanuatu	0.119	35
Marshall Islands	0.119	35
Timor-Leste	0.119	35

Table A1.8(i) (Continued)

All states (56)	MDGs 1–8 (mean average)	
	Value (includes missing data)	Rank
Russia	0.089	41
China	0.088	42
Brunei Darussalam	0.086	43
Barbados	0.085	44
Nauru	0.085	44
St Lucia	0.085	44
Singapore	0.085	44
São Tomé and Principe	0.081	48
UK	0.081	48
Solomon Islands	0.068	50
Antigua and Barbuda	0.068	50
Tuvalu	0.068	50
Bahamas, The	0.051	53
Cuba	0.051	53
Micronesia, Federated States of	0.051	53
Kiribati	0.017	56

Table A1.8(ii) Off-track league table for the selected 56 countries (excludes missing data)

All states (56)	MDGs 1–8 (mean average)	
	Value (includes missing data)	Rank
Dominica	0.458	1
Jamaica	0.429	2
St Kitts and Nevis	0.423	3
Botswana	0.400	4
South Africa	0.375	5
Palau	0.364	6
Papua New Guinea	0.360	7
Belize	0.353	8
Guinea-Bissau	0.351	9
Suriname	0.344	10
Mauritius	0.343	11
Cape Verde	0.333	12
Fiji	0.333	12
Trinidad and Tobago	0.324	14
Grenada	0.321	15
Maldives	0.321	15
Seychelles	0.320	17
Timor-Leste	0.318	18
Swaziland	0.314	19
Samoa	0.308	20
Vanuatu	0.304	21
Marshall Islands	0.304	21
Comoros	0.300	23
Guyana	0.294	24
Nauru	0.294	24
Namibia	0.293	26
Bahrain	0.286	27
Cyprus	0.281	28
St Vincent and the Grenadines	0.280	29
Malta	0.276	30
Iceland	0.273	31
Tonga	0.269	32

Table A1.8(ii) (Continued)

All states (56)	MDGs 1–8 (mean average)	
	Value (includes missing data)	Rank
USA	0.256	33
Haiti	0.256	34
New Zealand	0.250	34
Tuvalu	0.235	36
France	0.229	37
Gambia	0.225	38
Lesotho	0.219	39
Brunei Darussalam	0.217	40
Dominican Republic	0.204	41
India	0.188	42
Singapore	0.185	43
Antigua and Barbuda	0.182	44
St Lucia	0.179	45
Micronesia, Federated States	0.158	46
Barbados	0.156	47
Solomon Islands	0.154	48
Brazil	0.152	49
Sao Tome and Principe	0.143	50
UK	0.139	51
Russia	0.125	52
China	0.122	53
The Bahamas	0.115	54
Cuba	0.086	55
Kiribati	0.042	56

Table A1.9 Summary of performance on MDG 1

	Achieved	On track	Off track	Missing data	Total	% Progress	% Off track	% missing data	% Progress (excludes missing data)
CSS and other UN SIDS									
32 CSS	9	40	32	207	288	17	11	72	60
14 Other UN SIDS	5	20	15	86	126	20	12	68	63
Sub-total 46 selected small states	**14**	**60**	**47**	**293**	**414**	**18**	**11**	**71**	**61**
Sub-total % performance	**3**	**14**	**11**	**71**	**100**	**–**	–	**–**	**–**
Benchmark states									
2 Other island states	0	2	6	10	18	11	33	56	25
3 Other large states	0	4	8	15	27	15	30	56	33
4 BRICs	9	16	4	7	36	69	11	19	86
South Africa	–	1	4	4	9	11	44	44	20
10 benchmark states	**9**	**23**	**22**	**36**	**90**	**36**	**24**	**40**	**59**
Sub-total % performance	**10**	**26**	**24**	**40**	**100**	**–**	**–**	**–**	**–**
Grand total 56 states	**23**	**83**	**69**	**329**	**504**	**21**	**14**	**65**	**61**
Grand total % performance	**5**	**16**	**14**	**65**	**100**	**–**	**–**	**–**	**–**

Table A1.10 Summary of performance on MDG 2

	Achieved	On track	Off track	Missing data	Total	% Progress	% Off track	% missing data	% Progress (excludes missing data)
CSS and other UN SIDS									
32 CSS	0	32	13	51	96	33	14	53	71
14 Other UN SIDS	1	13	5	23	42	33	12	55	74
Sub-total 46 selected small states	**1**	**45**	**18**	**74**	**138**	**33**	**13**	**54**	**72**
Sub-total % performance	**1**	**33**	**13**	**54**	**100**	**–**	**–**	**–**	**–**
Benchmark states									
2 Other island states	–	–	3	3	6	0	50	50	0
3 Other large states	–	2	2	5	9	22	22	56	50
4 BRICs	–	8	1	3	12	67	8	25	89
South Africa	–	1		2	3	33	0	67	100
Sub-total 10 benchmark states	**0**	**11**	**6**	**13**	**30**	**37**	**20**	**43**	**65**
Sub-total % performance	**0**	**37**	**20**	**43**	**100**	**–**	**–**	**–**	**–**
Grand total 56 states	**1**	**56**	**24**	**87**	**168**	**34**	**14**	**52**	**70**
Grand total % performance	**1**	**33**	**14**	**52**	**100**	**–**	**–**	**–**	**–**

Table A1.11 Summary of performance on MDG 3

	Achieved	On track	Off track	Missing data	Total	% Progress	% Off track	% missing data	% Progress (excludes missing data)
CSS and other UN SIDS									
32 CSS	39	43	29	49	160	51	18	31	74
14 Other UN SIDS	15	14	12	29	70	41	17	41	71
Sub-total 46 selected small states	**54**	**57**	**41**	**78**	**230**	**48**	**18**	**34**	**73**
Sub-total % performance	**23**	**25**	**18**	**34**	**100**	**–**	**–**	**–**	**–**
Benchmark states									
2 Other island states	6	3	1	–	10	90	10	0	90
3 Other large states	9	6	–	–	15	100	0	0	100
4 BRICs	8	9	2	1	20	85	10	5	89
South Africa	1	2	1	1	5	60	20	20	75
Sub-total 10 benchmark states	**24**	**20**	**4**	**2**	**50**	**88**	**8**	**4**	**92**
Sub-total % performance	**48**	**40**	**8**	**4**	**100**	**–**	**–**	**–**	**–**
Grand total 56 states	**78**	**77**	**45**	**80**	**280**	**55**	**16**	**29**	**78**
Grand total % performance	**28**	**28**	**16**	**29**	**100**	**–**	**–**	**–**	**–**

Table A1.12 Summary of performance on MDG 4

	Achieved	On track	Off track	Missing data	Total	% Progress	% Off track	% missing data	% Progress (excludes missing data)
CSS and other UN SIDS									
32 CSS	3	77	16	0	96	83	17	0	83
14 Other UN SIDS	1	38	2	1	42	93	5	2	95
Sub-total 46 selected small states	**4**	**115**	**18**	**1**	**138**	**86**	**13**	**1**	**87**
Sub-total % performance	**3**	**83**	**13**	**1**	**100**	**–**	**–**	**–**	**–**
Benchmark states									
2 Other island states	1	3	2	–	6	67	33	0	67
3 Other large states	–	8	1	–	9	89	11	0	89
4 BRICs	–	11	1	–	12	92	8	0	92
South Africa	–	–	3	–	3	0	100	0	0
Sub–total 10 benchmark states	**1**	**22**	**7**	**0**	**30**	**77**	**23**	**0**	**77**
Sub–total % performance	**3**	**73**	**23**	**0**	**100**	**–**	**–**	**–**	**–**
Grand total 56 states	**5**	**137**	**25**	**1**	**168**	**85**	**15**	**1**	**85**
Grand total % performance	**3**	**82**	**15**	**1**	**100**	**–**	**–**	**–**	**–**

Table A1.13 Summary of performance on MDG 5

	Achieved	On track	Off track	Missing data	Total	% Progress	% Off track	% missing data	% Progress (excludes missing data)
CSS and other UN SIDS									
32 CSS	21	16	14	141	192	19	7	73	73
14 Other UN SIDS	9	18	6	51	84	32	7	61	82
Sub-total selected small states	**30**	**34**	**20**	**192**	**276**	**23**	**7**	**70**	**76**
Sub-total % performance	**11**	**12**	**7**	**70**	**100**	**–**	**–**	**–**	**–**
Benchmark states									
2 Other island states	2	–	–	10	12	17	0	83	100
3 Other large states	2	2	3	11	18	22	17	61	57
4 BRICs	4	11	–	9	24	63	0	38	100
South Africa	1	3	–	2	6	67	0	33	100
Sub-total 10 benchmark states	**9**	**16**	**3**	**32**	**60**	**42**	**5**	**53**	**89**
Sub-total % performance	**15**	**27**	**5**	**53**	**100**	**–**	**–**	**–**	**–**
Grand total 56 states	**39**	**50**	**23**	**224**	**336**	**26**	**7**	**67**	**79**
Grand total % performance	**12**	**15**	**7**	**67**	**100**	**–**	**–**	**–**	**–**

Table A1.14 Summary of performance on MDG 6

	Achieved	On track	Off track	Missing data	Total	% Progress	% Off track	% missing data	% Progress (excludes missing data)
CSS and other UN SIDS									
32 CSS	67	65	62	350	544	24	11	64	68
14 Other UN SIDS	27	38	27	146	238	27	11	61	71
Sub-total 46 selected small states	**94**	**103**	**89**	**496**	**782**	**25**	**11**	**63**	**69**
Sub-total % performance	**12**	**13**	**11**	**63**	**100**	**–**	**–**	**–**	**–**
Benchmark states									
2 Other island states	6	5	1	22	34	32	3	65	92
3 Other large states	9	7	–	35	51	31	0	69	100
4 BRICs	15	12	6	35	68	40	9	51	82
South Africa	2	2	5	8	17	24	29	47	44
Sub-total 10 benchmark states	**32**	**26**	**12**	**100**	**170**	**34**	**7**	**59**	**83**
Sub-total % performance	**19**	**15**	**7**	**59**	**100**	**–**	**–**	**–**	**–**
Grand total 56 states	**126**	**129**	**101**	**596**	**952**	**27**	**11**	**63**	**72**
Grand total % performance	**13**	**14**	**11**	**63**	**100**	**–**	**–**	**–**	**–**

Table A1.15 Summary of performance on MDG 7

	Achieved	On track	Off track	Missing data	Total	% Progress	% Off track	% missing data	% Progress (excludes missing data)
CSS and other UN SIDS									
32 CSS	100	14	90	116	320	36	28	36	56
14 Other UN SIDS	53	7	39	41	140	43	28	29	61
Sub-total 46 selected small states	**153**	**21**	**129**	**157**	**460**	**38**	**28**	**34**	**57**
Sub-total % performance	**33**	**5**	**28**	**34**	**100**	**–**	**–**	**–**	**–**
Benchmark states									
2 Other island states	13	–	3	5	21	62	14	24	81
3 Other large states	21	–	3	6	30	70	10	20	88
4 BRICs	23	4	12	1	40	68	30	3	69
South Africa	7	2	1		10	90	10	0	90
Sub-total 10 benchmark states	**64**	**6**	**19**	**12**	**101**	**69**	**19**	**12**	**79**
Sub-total % performance	**63**	**6**	**19**	**12**	**100**	**–**	**–**	**–**	**–**
Grand total 56 states	**217**	**27**	**148**	**169**	**561**	**43**	**26**	**30**	**62**
Grand total % performance	**39**	**5**	**26**	**30**	**100**	**–**	**–**	**–**	**–**

Table A1.16 Summary of performance on MDG 8

	Achieved	On track	Off track	Missing data	Total	% Progress	% Off track	% missing data	% Progress (excludes missing data)
CSS and other UN SIDS									
32 CSS	135	0	11	47	193	70	6	24	92
14 Other UN SIDS	59	2	5	27	93	66	5	29	92
Sub-total 46 selected small states	**194**	**2**	**16**	**74**	**286**	**69**	**6**	**26**	**92**
Sub-total % performance	**68**	**1**	**6**	**26**	**100**	**–**	**–**	**–**	**–**
Benchmark states									
2 Other island states	11	–	2	–	13	85	15	0	85
3 Other large states	17	1	6	3	27	67	22	11	75
4 BRICs	15	–	–	–	15	100	0	0	100
South Africa	3	–	1	–	4	75	25	0	75
Sub-total 10 benchmark states	**46**	**1**	**9**	**3**	**59**	**80**	**15**	**5**	**84**
Sub-total % performance	**78**	**2**	**15**	**5**	**100**	**–**	**–**	**–**	**–**
Grand total 56 states	**240**	**3**	**25**	**77**	**345**	**70**	**7**	**22**	**91**
Grand total % performance	**70**	**1**	**7**	**22**	**100**	**–**	**–**	**–**	**–**

Table A1.17 Small states: MDG targets to be met

	Goal 1	Goal 4	Goal 7	Goal 7	Goal 7	Goal 7
	Target 1C	Target 4A	Target 7A	Target 7A	Target 7C	Target 7C
	Indicator 1.9	Indicator 4.2	Indicator 7.1	Indicator 7.2.1	Indicator 7.8	Indicator 7.9
	Malnourished to be fed	Infant lives to be saved	Forest cover to replace	CO_2 emissions to reduce	Safe water for more people	Safe toilets for more people
Countries/Units	**Population x 1,000**	**Infants**	**Square kms**	**Million tonnes**	**Population x 1,000**	**Population x 1,000**
Antigua and Barbuda	19	7	0	0.1	..	..
Bahamas, The	10	22	0	0.2	..	..
Bahrain	..	80	0	10.6	..	..
Barbados	6	20	0	0.3	0	3
Belize	10	87	0	0.5	..	..
Botswana	339	923	17,569	2.6	10	423
Brunei Darussalam	12	32	348	0.0	..	..
Cape Verde	45	78	0	0.2	35	0
Comoros	217	1,227	67	0.0	0	0
Cuba	293	148	0	0.0	0	..
Cyprus	25	0	0	3.1	0	0
Dominica	2	4	41	0.1	..	..
Dominican Republic	986	2,058	0	11.2	796	3,931
Fiji	12	178	0	0.8	228	110
Gambia, The	349	2,345	0	0.1	..	..
Grenada	17	9	0	0.1	..	..
Guinea-Bissau	352	3,877	1,434	0.0	236	..
Guyana	0	374	0	0.4	..	..
Haiti	3,172	4,946	110	1.4	1,037	4,543

Table A1.17 (Continued)

	Goal 1	Goal 4	Goal 7	Goal 7	Goal 7	Goal 7
	Target 1C	Target 4A	Target 7A	Target 7A	Target 7C	Target 7C
	Indicator 1.9	Indicator 4.2	Indicator 7.1	Indicator 7.2.1	Indicator 7.8	Indicator 7.9
	Malnourished to be fed	Infant lives to be saved	Forest cover to replace	CO_2 emissions to reduce	Safe water for more people	Safe toilets for more people
Countries/Units	**Population x 1,000**	**Infants**	**Square kms**	**Million tonnes**	**Population x 1,000**	**Population x 1,000**
Jamaica	0	771	65	4.2	81	228
Kiribati	2	60	0	0.0	9	27
Lesotho	177	1,999	0	..	..	..
Maldives	10	0	0	0.7	46	..
Malta	11	3	0	0.3	0	..
Marshall Islands	..	27	..	0.1	2	..
Mauritius	37	101	20	2.4	0	38
Micronesia, Federated States of	..	42	0	..	1	0
Namibia	170	1,662	9	2.8	0	596
Nauru	..	..	..	0.0	..	..
Palau	..	2	0	0.0	1	7
Papua New Guinea	..	4,957	20,832	2.5	1,940	1,776
St Kitts and Nevis	5	5	0	0.1	0	1
St Lucia	7	20	0	0.2	2	..
St Vincent and the Grenadines	0	20	0	0.1	..	..
Samoa	2	42	0	0.0	13	0
São Tomé and Principe	0	205	0	0.1	0	0
Seychelles	3	9	0	0.6	..	..
Singapore	..	0	0	7.3	0	895
Solomon Islands	2	304	5,962	0.0	74	166
Suriname	12	89	0	0.6	13	41
Swaziland	149	1,490	0	0.6	..	..
Timor-Leste	159	1,136	1,680	..	..	..
Tonga	..	30	0	0.1	0	2
Trinidad and Tobago	64	382	87	16.6	0	60
Tuvalu	..	..	0	..	0	0
Vanuatu	5	66	0	0.0	..	..
Totals	6,682	29,836	48,224	71.0	4,524	12,847

Table A1.18 Progress by country group (% and includes missing data)

	MDG1	MDG2	MDG3	MDG4	MDG5	MDG6	MDG7	MDG8
10 Benchmark states	36	37	88	77	42	34	69	88
37 Small states	22	41	52	87	24	26	39	70
9 Micro states	2	0	33	81	19	23	31	57

For those wishing to undertake further analysis, the complete data sets, featuring detailed results on each indicator for each of the 46 small states and the 10 benchmark states covered in this report, are available on the Commonwealth Secretariat website: www.thecommonwealth.org/bigdividedata

Annex 2

Millennium Development Goals, Targets and Indicators

Official list of MDG indicators

Millennium Development Goals	
Goals and targets (from the Millennium Declaration)	**Indicators for monitoring progress**
Goal 1: Eradicate extreme poverty and hunger	
Target 1A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1.1 Proportion of population living below $1 (PPP) per day[1] 1.2 Poverty gap ratio 1.3 Share of poorest quintile in national consumption
Target 1B: Achieve full and productive employment and decent work for all, including women and young people	1.4 Growth rate of GDP per person employed 1.5 Employment-to-population ratio 1.6 Proportion of employed people living below $1 (PPP) per day 1.7 Proportion of own-account and contributing family workers in total employment
Target 1C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	1.8 Prevalence of underweight children under five years of age 1.9 Proportion of population below minimum level of dietary energy consumption
Goal 2: Achieve universal primary education	
Target 2A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	2.1 Net enrolment ratio in primary education 2.2 Proportion of pupils starting Grade 1 who reach last grade of primary 2.3 Literacy rate of 15–24 year-olds, women and men
Goal 3: Promote gender equality and empower women	
Target 3A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	3.1 Ratios of girls to boys in primary, secondary and tertiary education 3.2 Share of women in wage employment in the non-agricultural sector 3.3 Proportion of seats held by women in national parliament
Goal 4: Reduce child mortality	
Target 4A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	4.1 Under-five mortality rate 4.2 Infant mortality rate 4.3 Proportion of one-year-old children immunised against measles
Goal 5: Improve maternal health	
Target 5A: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	5.1 Maternal mortality ratio 5.2 Proportion of births attended by skilled health personnel
Target 5B: Achieve, by 2015, universal access to reproductive health	5.3 Contraceptive prevalence rate 5.4 Adolescent birth rate 5.5 Antenatal care coverage (at least one visit and at least four visits) 5.6 Unmet need for family planning

Goal 6: Combat HIV/AIDS, malaria and other diseases	
Target 6A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	6.1 HIV prevalence among population aged 15–24 years 6.2 Condom use at last high-risk sex 6.3 Proportion of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS 6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10–14 years
Target 6B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs
Target 6C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	6.6 Incidence and death rates associated with malaria 6.7 Proportion of children under five years old sleeping under insecticide-treated bednets 6.8 Proportion of children under five years old with fever who are treated with appropriate anti-malarial drugs 6.9 Incidence, prevalence and death rates associated with tuberculosis 6.10 Proportion of tuberculosis cases detected and cured under directly observed treatment short-course
Goal 7: Ensure environmental sustainability	
Target 7A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources Target 7B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	7.1 Proportion of land area covered by forest 7.2 CO_2 emissions, total, per capita and per $1 GDP (PPP) 7.3 Consumption of ozone-depleting substances 7.4 Proportion of fish stocks within safe biological limits 7.5 Proportion of total water resources used 7.6 Proportion of terrestrial and marine areas protected 7.7 Proportion of species threatened with extinction
Target 7C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	7.8 Proportion of population using an improved drinking water source 7.9 Proportion of population using an improved sanitation facility
Target 7D: By 2020, have achieved a significant improvement in the lives of at least 100 million slum dwellers	7.10 Proportion of urban population living in slums[2]

Goal 8: Develop a global partnership for development	
Target 8A: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system Includes a commitment to good governance, development and poverty reduction – both nationally and internationally Target 8B: Address the special needs of the least developed countries Includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction Target 8C: Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second Special Session of the UN General Assembly) Target 8D: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	*Some of the indicators listed below are monitored separately for the least developed countries, Africa, landlocked developing countries and small island developing states.* *Official development assistance* 8.1 Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income 8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation) 8.3 Proportion of bilateral official development assistance of OECD/DAC donors that is untied 8.4 ODA received in landlocked developing countries as a proportion of their gross national incomes 8.5 ODA received in small island developing states as a proportion of their gross national incomes *Market access* 8.6 Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty 8.7 Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries 8.8 Agricultural support estimate for OECD countries as a percentage of their gross domestic product 8.9 Proportion of ODA provided to help build trade capacity *Debt sustainability* 8.10 Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative) 8.11 Debt relief committed under HIPC and MDRI Initiatives 8.12 Debt service as a percentage of exports of goods and services
Target 8E: In co-operation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	8.13 Proportion of population with access to affordable essential drugs on a sustainable basis
Target 8F: In co-operation with the private sector, make available the benefits of new technologies, especially information and communications	8.14 Telephone lines per 100 population 8.15 Cellular subscribers per 100 population 8.16 Internet users per 100 population

Notes: The Millennium Development Goals and targets come from the Millennium Declaration, signed by 189 countries, including 147 Heads of State and Government, in September 2000 , available at: www.un.org/millennium/declaration/ares552e.htm and from further agreement by member states at the 2005 World Summit (Resolution adopted by the General Assembly – A/RES/60/1, www.un.org/Docs/journal/asp/ws.asp?m=A/RES/60/1. The goals and targets are inter-related and should be seen as a whole. They represent a partnership between the developed countries and the developing countries 'to create an environment – at the national and global levels alike – which is conducive to development and the elimination of poverty'.
Source: http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm (effective 15 January 2008).

Annex 3

New Development of Indicators Relevant to SIDS

Box A3.1 Singapore: Sustainable development – ten goals by 2030

Improving resource efficiency

1. Achieve 35 per cent reduction in energy intensity (consumption per dollar GDP) from 2005 levels.
2. Achieve domestic water consumption of 140 litres per person per day, down from 156 litres per person per day.
3. Raise overall recycling rate to 70 per cent.
4. Increase public transport share to 70 per cent through doubling rail network and developing a more integrated and seamless public transport system.

Enhancing our urban environment

5. Improve air quality by reducing ambient PM 2.5 (fine particles) levels to an annual mean of 12 μg/m^3 and capping ambient SO^2 (sulphur dioxide) levels at an annual mean of 15 μg/m^3.
6. Reach a park provision of 0.8ha per 1,000 persons and increase sky-rise greenery by 50ha. Park connectors will be lengthened from 100 km to 360 km.
7. Increase blue spaces by opening up 900ha of reservoirs and 100 km of waterways for recreational activities.
8. Increase accessibility and convenience for pedestrians and cyclists by expanding our covered link-ways and cycling networks.

Building capability and expertise

9. Build Singapore into an international knowledge hub in sustainable development solutions.

Building an environmentally responsible community

10. Achieve a community in Singapore where environmental responsibility is a part of the culture of people and business.

Box A3.2 Malta 2009: The Malta eco-friendly budget

The Malta eco-friendly budget statement of 2009 provides financial commitment to Malta *Vision 2015* for sustainable development relevant to MDG 7. Set out below are some of the many elements providing incentives and promoting initiatives to combat climate change, increase energy efficiency, develop renewable energy sources, reduce pollution, implement the polluter pays principle and meet EU environmental standards.

Environmental education and awareness

- Education for the environment
- Green Challenge award scheme

Taxation

- Higher tax on environmentally unfriendly items
- Investments in energy conservation and renewable energy
- Polluter pays tax for vehicles (related to age, size, and emissions) to meet EU emissions standard of 5 mg/km
- 15 per cent eco-tax on plastic bags and free-mail printed matter
- Swimming pool licence fees

Energy efficiency schemes

- More efficient energy generation
- Energy performance certificates for building
- National Action Plan for energy audit
- Vouchers for energy saving lighting
- Incentives for solar water heating
- Incentives for heat insulation
- Energy efficiency advisory service
- Energy use labelling of electrical appliances
- Energy management plans required for all major building projects
- Business energy efficiency scheme with subsidies for audits
- Net metering for private renewable energy production
- Public sector energy audit

Investment in renewable energy

- National investment in renewable energy production (offshore wind farms supplying 21,000 households and saving 80,000 tons of CO_2 emissions per year)
- Public transport reform for eco-friendly service (replacement of all vehicles by 2010)

Other funded national programmes

- Recycling plant for disused vehicles
- Traffic congestion bypasses
- Recycling (paper, cardboard, plastics) for energy production
- Waste water purification
- Carbon off-setting initiative
- National tree planting scheme

Box A3.3 Mauritius sustainable consumption and production (SCP) indicators

In June 2010 the Ministry of Environment and Sustainable Development in Mauritius published a new set of indicators for the years 1990–2008 which supplement the MDGs for the pursuit of a 'green and sustainable' Mauritius. The 30 indicators in the set include data and graphs showing trends back to 1990, the baseline date for the MDGs. They were printed as a pocket book for free distribution to policy-makers, key stakeholders, tertiary students, research institutions, academia, NGOs, industry and business. They are also available in electronic version at: http://environment.gov.mu

Many of the indicators are intended to show how far the country is decoupling the link between economic growth and environmental degradation, such as the decline in energy intensity, which shows the decoupling of energy use with the rise in GDP. The set of 30 indicators is divided into four groups:

Efficiency, including:

- Energy intensity √
- Greenhouse gas emissions per capita √
- Water utilisation per sector
- Waste sent to landfills per unit GDP
- Domestic material consumption per capita √
- Consumption of fertilisers and pesticides √
- Number of vehicles per km of road
- Private cars per 1,000 inhabitants.

Critical stock, including:

- Economic growth
- Water balance
- Percentage of renewable sources per total supply of primary energy √
- Land use by category
- Annual fish catch – artisanal fishing
- Population growth rate
- Respiratory diseases

Compliance, including:

- Number of environmental complaints

- Penalties for contravention notices issued by the environmental police
- Number of offences against forest laws

Connectivity, including:

- Human development Index √
- Gini coefficient
- Adult literacy √
- Total public transport journeys

The trends from 1990 come with a policy commentary and an assessment of status in terms of their contribution to sustainable development.

√ = sustainable development trend identified

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Data sources

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UN Statistics Division: http://unstats.un.org; http://mdgs.un.org

UNDP Human Development Index: http://hdr.undp.org/en/media/PR3-HDR10-HD1-E-rev4.pdf

UNDP MDG country reports: www.undp.org/mdg

World Bank: http://data.worldbank.org/about/sources-of-data-and-info-about-mdgs