



ECONOMIC AND SOCIAL
COUNCIL

Distr.
LIMITED
E/ESCWA/SDPD/2004/WG.5/2
18 November 2004
ORIGINAL: ENGLISH

Economic and Social Commission for Western Asia

Expert Group Meeting on Upgrading Environmental Monitoring
Systems in the ESCWA Region
Beirut, 29 November - 1 December 2004

ENVIRONMENTAL ISSUES AND SUSTAINABLE DEVELOPMENT IN THE OIC COUNTRIES

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ENVIRONMENTAL ISSUES AND SUSTAINABLE DEVELOPMENT IN OIC AND ESCWA COUNTRIES

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ABSTRACT

The relationship between sustainable development and environmental protection is at the core of a relatively new debate that considers the latter an indispensable component of the former. Needless to say, such a relationship constitutes a challenge for both the developing and developed countries and represents a key subject of investigation worldwide. Attaining satisfactory environment conditions while, at the same time, attempting to reach a sustainable level of development have become a prime objective of all international institutions, including the OIC which incorporated it into its Plan of Action as one of the aspirations of the peoples of its member countries. The paper attempts to assess the status and determinants of the environmental conditions in those countries and investigate the relationship between the progress they made on both the environmental and sustainable development tracks.

I. INTRODUCTION

The issue of environment is a relatively recent one in the literature on sustainable development. The debate on and the discussion of the relationship between different environmental aspects and the process of sustainable development started in the late 1980s and early 1990s. This new concept in the literature of development economics has also been emphasised by the efforts of the United Nations (UN) in this direction, particularly in 1991 when the UN Statistics Division introduced the new version of the UN System of National Accounts (SNA 1991), in place of the old version of 1986. The most important development in this new version was the integration of environmental accounts into the national income accounts. This was followed in 1992 by the UN Conference on Environment and Development (Rio Conference) with the main theme of sustainable development and environmental aspects.

Since the ultimate goal of sustainable development is to attain a healthy and productive life while preserving the environment and natural resources, environmental protection constitutes an integral and essential part of the development process. Although economic growth contributes to higher levels of economic well-being, it can lead in the long run and in the absence of appropriate environmental strategies to serious problems of environmental and natural resources degradation. Therefore, achieving sustainable development requires sustainable economic growth together with sound environmental strategies and policies that integrate the different environmental aspects into the economic development process.

Environment is a broad issue that comprises many aspects. Different environmental problems may face different countries with different levels of income and/or development. Environmental degradation is the problem of both the rich and the poor. While deterioration in the environmental conditions may be reflected in the lack of access to clean water and sanitation in low-income and least-developed countries, the high level of carbon dioxide emissions is an indicator on deterioration in the environmental conditions in high-income and/or industrialised countries. Securing sustainable development while considering the environmental aspects is, therefore, a challenge facing not only the developing and least-developed countries but also the developed and industrialised ones and even the whole international community.

This has been also a matter of concern for the member countries of the OIC, including the ESCWA members countries¹. Despite the fact that environment has been defined as one of the ten areas of

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TABLE 1: Population Statistics

	Average Annual Growth Rate (%) 1980-2002	Urban Population (% of total)	
		1980	2002
OIC countries	2.3	30.9	44
OIC-LIC	2.3	22.9	36.2
OIC-MIC	2.3	48.2	61.2
OIC-HIC	3.9	81.3	90.6
ESCWA countries	2.9	50	56.2
World	1.5	39	48
Developing countries	1.9	28.8	41.2
Developed countries	0.6	69.8	73.5
LIC	2.1	22	31
MIC	1.3	39	53
HIC	0.7	75	78

Sources: Table A.1 in the Annex and FAOSTAT Database.

On the other hand, Table 1 shows that urbanisation has been globally increasing rapidly during the last two decades, particularly in the developing countries, including the OIC and ESCWA members countries. Although the average urbanisation rate of the OIC countries was lower than that of the world in 1980 and 2002, the OIC sub-groups recorded higher rates than their world counterparts, with the exception of OIC-LIC in 1980. In the same years, the average urbanisation rate in the ESCWA countries was higher than that of the OIC and world averages. In both the OIC and their world counterpart sub-groups, urbanisation rates were recorded in a descending order in the HIC, MIC and LIC. This suggests that many environmental problems in the industrialised and high-income countries could, to a large extent, be explained by reasons related to rapid urbanisation. However, the significance of such reasons decreases as we move down the income scale.

Another negative impact of rapid urbanisation on the environment is the conversion of agricultural land to urban uses. In this context, the figures in Table 2 show the clear transformation of agricultural and arable land areas to non-agricultural use in the developed and industrialised countries. While agricultural and arable land areas were decreasing in these countries during the last two decades, they were increasing in all other groups and sub-groups, including the OIC and ESCWA countries. However, this increase was slower in the OIC-HICs, as these countries already have very limited shares of their total land areas slated for agricultural purposes due to their climatic conditions.

Table 2: Agricultural and Arable Land Area

	Agricultural Area (Million hectares)		Arable Land (Million hectares)	
	1980	2002	1980	2002
OIC countries	932.3	1366	206.6	266.8
OIC-LIC	608.8	706.1	131.2	161
OIC-MIC	323	659	75.4	105.7
OIC-HIC	0.4	0.8	0.02	0.1
ESCWA countries	140.6	229.4	17.5	19.9
World	4731.2	5019.6	1342.8	1404.1
Developing countries	2847.2	3185.9	691.5	792.5
Industrialised countries	1261.7	1202.2	378.8	366.5
Developed countries	1884	1833.8	651.3	611.5
LIC	1273.8	1423.8	379.4	405.3
MIC	n.a.	n.a.	547.1	640.6
HIC	n.a.	n.a.	375.1	359.6

Sources: Table A.2 in the Annex and FAOSTAT Database.

The figures in Table 3 indicate that the OIC countries have a modest forest area compared to the world average and the averages of other groups of countries around the world. It is observed that the ESCWA members have the smallest forest areas compared with other OIC countries (0.8% of total land area). This is due to their warm climates and large desert areas. However, it is worth noting that many OIC countries, including the ESCWA members countries, particularly the OIC-HICs, have high reforestation (or low deforestation) rates. In contrast, it is observed that although they have a relatively large forest areas, the LICs, particularly the OIC ones have the highest deforestation (or the lowest reforestation) rates. Yet, the average annual deforestation rate of the OIC countries in the period 1990-2000 (0.2%) was equal to that of the world.

2. Excessive Use of Fertilisers

The excessive use of substances containing toxic trace elements and heavy metals such as fertilisers and pesticides has enormous negative effects on soil. Salinisation (excess of salts at toxic levels to plants), loss of organic matter and decrease in soil biological diversity are typical examples in this regard. The extensive use of fertilisers, particularly the mineral ones with heavy metals, can weaken the biological composition of the soil, thereby inhibiting the biological processes that naturally add fertility.

Table 4: Fertiliser Consumption

	Total Fertiliser Consumption (Thousand metric tons)	
	1979-1981	2000-2002
OIC countries	7063.4	16312.7
OIC-LIC	3084.6	8457.4
OIC-MIC	3973.8	7818.6
OIC-HIC	5.0	36.7
ESCWA countries	989.6	2677.7
World	114779.7	138327.8
LIC	10305.0	29001.1
MIC	34472.8	66962.2
HIC	48898.7	42823.3
Developed countries	77571.4	50401.5
Developing countries	372083.22	87926.3
Industrialised countries	49143.0	42783.9

Source: Table A.4 in the Annex and FAOSTAT database.

In fact, fertilisers are not inherently dangerous but need to be used with care and knowledge. When misused or overused, fertilisers can induce soil fertility degradation and lead to adverse environmental impacts on water, soil, and the atmosphere and eventually affect human health. Farmers must, therefore, have the necessary knowledge of how to use fertilisers efficiently since the maintenance and enhancement of soil fertility is an important factor for the conservation of natural resources and environmental preservation.

The figures in Table 4 shows that the use of fertilisers during the last two decades has increased worldwide, particularly in the developing and least developed countries including the OIC and ESCWA member countries. Consumption of fertilisers is now more than twice its level in 1980 in the OIC group and almost three times in the ESCWA region. In contrast, it has decreased in the groups of HICs, developed and industrialised countries. However, similar decrease in the consumption of fertilisers was not observed in the OIC-HICs. This may be due to the fact that there are only five countries in this group with limited

2. Release of Chlorofluorocarbons (CFCs)

Spray cans, discarded or leaking refrigeration and air conditioning equipment and burning plastic foam products release CFCs into the atmosphere. Depending on their type, CFCs stay in the atmosphere from 22 to 111 years. They move up to the stratosphere gradually over several decades. Under high-energy ultraviolet (UV) radiation, they break down and release chlorine atoms, which speed up the breakdown of ozone (O_3) into oxygen gas (O_2). Chlorofluorocarbons (CFCs) are, therefore, responsible for the decrease in the average concentration of ozone in the stratosphere and contribute to global warming. "Since 1978, the use of CFCs in aerosol cans has been banned in the United States, Canada and most Scandinavian countries. Aerosols are still the largest use, accounting for 25% of global CFCs use" (Miller 1990, p.448).

In a descending order, the figures on CFCs consumption in Table 5 show that the highest levels of CFCs are consumed in the world's MICs group followed by the LICs and the HICs. Similar pattern of CFCs was also observed in the case of the OIC-sub-groups. In 2002, the OIC countries accounted for 40% of the world total consumption of CFCs in absolute terms (ODP metric tons). The bulk of the OIC countries' consumption of CFCs was consumed in the OIC-MICs group (53% of the OIC total). It is also observed that the OIC-LICs accounted for 88% of the total consumption of CFCs in world LICs.

3. Smog

Photochemical air pollution, which is commonly referred to as "smog", is a contraction of the words smoke and fog. Smog has been caused throughout recorded history by water condensing on smoke particles, usually from burning coal. With the introduction of petroleum to replace coal, photochemical smog has become predominant in many cities, especially in those located in sunny, warm and dry climates with plenty of motor vehicles. Smog's unpleasant properties result from the irradiation by sunlight of hydrocarbons caused primarily by unburned gasoline emitted by automobiles and other fuel combustion sources. But it also appears in tropical and subtropical regions where savanna grasses are periodically burned. The products of photochemical reactions include many dangerous matters such as various oxidants, ozone, organic particles and acids.

Industrial smog is created by burning coal and heavy oil in power or industrial plants. Large-scale problems were witnessed when large amounts of coal and heavy oil were burned without control of the output in some industrial cities. Today, coal and heavy oil are burned only in large boilers and under reasonably good control so that industrial smog is less of a problem. However, some countries such as China and some eastern European countries still burn large quantities of coal without using adequate controls. In this context, it is worth mentioning that burning oil releases about 50% more CO_2 than burning natural gas, and burning coal releases about twice as much.

Despite the lack of sufficient relative data, the figures in Table A.7 show that the level of emissions of organic water pollutants per day in the OIC countries was almost doubled in the last two decades. An increasing trend was also observed in the case of ESCWA members and in both the OIC-LICs and the OIC-MICs sub-groups. This increase was particularly significant in the OIC-LICs sub-group which in 2000 accounted for 59% of the total OIC countries' emissions of organic water pollutants per day. Although, due to lack of data, it is difficult to draw a conclusion regarding the sub-group of the OIC-HICs, a small decrease is observed in the emissions of organic water pollutants per day in Kuwait, the only country in this sub-group, for which the data are available.

III. SUSTAINABLE DEVELOPMENT: THE ROLE OF ENVIRONMENTAL ELEMENTS

Sustainable and environmentally sound development requires, among other things, the good management of natural resources and all ecosystem services in terms of both quantity and quality in areas of farmlands, forests, water bodies, etc. The Report "Our Common Future" of 1987 of the World Commission on Environment and Development (also known as the Brundtland Commission) defines sustainable development as "*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*". This implicitly implies the necessity and the importance of environment protection role in sustainable development. The rest of this section attempts to shed light on some environmental aspects and elements that should be considered in the sustainable development process.

A. RESOURCE ALLOCATION AND NATURAL RESOURCE MANAGEMENT

Resource allocation is an important aspect in the economic theory of growth as natural resources are in fact factors of production and at the same time economic assets that are subject to trade in world markets. Interruption in one of the natural resources, especially the non-renewable resources, would constitute setbacks in the development process. Land degradation or climate change, for example, hampers agricultural activity, which in turn leads to a decrease in the agricultural output and income gained therefrom. Overuse of natural resources (e.g., water for irrigation, overfishing, forestland for agriculture, etc.) would drain countries of their potential income sources. Deforestation may have a severe impact on the economy by leading to a boost in the prices of fuel-wood and construction materials.

Natural resources, which encompass animals, plants, water, minerals and air, provide the raw materials necessary for economic activity and are all important for one or more aspects of sustainable development. At the same time, those resources are scarce. Therefore, a development strategy that ignores their depletion would not be a sustainable one. In other words, sound natural resource management strategies are necessary for countries to secure their future needs. Natural Resource Management can be defined as the responsible and broad-based management of the land, water, forest and biological resources in order to sustain agricultural productivity and avert the degradation of potential productivity. A comprehensive natural resource management programme would employ several tools such as the adoption of new legislations, improvement of the knowledge base, subsidisation of natural resources and their products, adequate supply of environmental services, improvement of resource efficiency and reduction of waste. Cooperation between different governments as well as between governments and international institutions is essential in this regard.

The United Nations Statistics Division (UNSD) has come up in 1991 with a new method called the "United Nations System of National Accounts (SNA)" which integrates environmental accounts into the national accounts. The framework for SNA calls for an environmentally adjusted gross domestic product which is calculated by subtracting from conventional GDP all identifiable expenditures on environmental protection by households and governments, thus treating those accounts as intermediate costs rather than final expenditures. It constructs a measure of "sustainable GDP" by further subtracting the estimate of the

D. HEALTH PROBLEMS AND THE ROLE OF SOCIAL CAPITAL

The detrimental effects of environmental degradation on humans mainly present themselves in the form of health problems. For example, as a result of water resource depletion associated with rapid population growth, water availability per person would decline and, when this is accompanied by water pollution, water-related diseases spread out. Environmental damage may already be responsible for 2-6 percent of the total disease burden in OECD and for 8-13 percent in non-OECD countries (OECD 2001, p.16). Health problems that stem from environmental degradation result in decreasing labour force productivity and thus reductions in household income. A better understanding of the disease burden imposed by environmental degradation on the well-being of societies could be crucial in drawing more effective environmental policies in the long term.

Social capital is defined as "networks, shared norms, values and understandings that facilitate cooperation within and among groups" (OECD 2001, p.18). In other words, social capital is the level of public awareness or improvement of knowledge base and information by setting up sufficient communications channels. Countries with high levels of social capital possess the ability to take collective action against environmental degradation. Many developing countries are still lack the knowledge and information that would enable them to challenge the outcomes created by policies which lead to environmental degradation. Those countries lack adequate information on the environmental risks entailed during the establishment of industries and infrastructure. The difficulty in reaching comprehensive and concise information in those countries may be attributed mainly to the lack of social capital.

E. ENVIRONMENTAL IMPACT ASSESSMENT AND PRICE MECHANISM

In the sustainable development, environmental protection requires understanding and incorporating cost-effective measures to restore, sustain and protect natural systems and maintain environmental quality at the very early stages of planning. This brings us to the subject of Environmental Impact Assessment (EIA) which is the information gathering and analytical process that helps ensure an environmentally sound development. The EIA process attempts to identify potential problems so that the economic feasibility and environmental impact of alternative approaches can be assessed while there is still time to make changes.

For a successful use of EIA, a number of important procedures and stages should be considered. These include identification of projects requiring EIA, identification of the key issues to be addressed in an EIA, impact assessment and evaluation, impact mitigation and monitoring, review of the completed EIA by competent authorities with public participation. To give example, land-use planning is an important component of the EIA. Unfortunately, land-use planning processes are not well-developed in most developing countries. To a large extent, this is due to the fact that land-use planning tends to be seen as an "advisory" function only and not an integrated and important element in environmental management infrastructure.

Environmental policies and measures should also work through the price mechanism and natural resources should be priced at their social costs. In so doing, countries should adopt some principles to help them combine a high degree of economic growth and environmental quality. To reach such a goal, the OECD countries, for example, have adopted two important principles: Polluter Pays Principle (PPP) and Resource Pricing or User Pays Principle (UPP) and applied them in an economically efficient and coordinated manner. PPP has two principal objectives: (a) to promote microeconomic efficiency in the pollution control policies, and (b) to minimise the potential trade distortions arising from environmental measures (Juhász, p.36). UPP, on the other hand, suggests that those who benefit should pay. UPP is expected to reduce conflicts over resource use, minimise environmental and social impacts and improve resource use efficiency. By imposing the economic and environmental cost as the price, the use of the resource would be limited to an economically and environmentally acceptable level.

economic and social development programmes. International organisations also make recommendations and outline the policies, legislation and arrangements necessary for the implementation of such action plans.

Measures at the international level are also needed to minimize the costs of domestic policies. As far as the costs are concerned, for common resources like biodiversity, climate, fresh water, marine life, etc., any one country has little incentive to take unilateral action, as the costs would be born by the country involved whereas the benefits shared by all. Cooperation among countries is, therefore, required for the effective implementation of environmental policies. In this context, it is worth mentioning that Principle 16 of the Rio Declaration states that *"National authorities should endeavour to promote the internalisation of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment"*.

C. ACTIONS BY THE GENERAL PUBLIC AND CIVIL SOCIETY

Though the governments should carry the bulk of the responsibility of attaining sustainable and environmentally sound development, the national efforts towards this goal would be enhanced if the general public and civil society take part in this responsibility. In this context, Principle 10 of the Rio Declaration states that *"Environmental issues are best handled with the participation of all concerned citizens, at the relevant level"*. The private sector, for example, can play an important role in adopting and diffusing new clean technologies. Organised groups in civil societies may have their shares in the ultimate purpose of attaining sustainable development by identifying new challenges and facilitating adaptation. Providing the society with information on the environmental effects of the goods and services they consume may change the decisions of the consumers and consequently the consumption patterns of the public in general. Transparency and adequate information would improve the capacity to better address environmental problems.

V. CONCLUSION

Environment protection has become a major world agenda as a serious and complicated challenge facing both the developing and developed countries in their continuous efforts towards achieving sustainable and environmentally sound development. The relationship between sustainable development and protection of the environment implies that each need and could harm the other. Sustainable development is possible if countries can make use of their natural resources efficiently and without critically harming the environment.

Achieving the desired level of development while at the same time preserving the environment is the core of the issue which is required to keep our planet habitable for future generations. To achieve such a goal, governments should adopt the necessary measures which would help them implement sound environmental policies. They should carry out EIA methods which lead to positive steps in the fight against environmental degradation. Citizens, the private sector and local communities have a vital role to play in environmental management and development. Governments should, therefore, encourage and support their efforts and enable them effectively participating in the achievement of better environmental conditions. In so doing, it is also important for governments to cooperate with each other and with the international organisations.

Like many other developing countries, the OIC countries, including the ESCWA member countries are still facing enormous challenges in their efforts to reach sustainable and sound environmental development. The available relevant data on various environmental indicators in these countries indicate the extent of such challenges.

The high and rapid average population and urbanisation growth rates in the OIC and ESCWA countries, compared to the world average and the averages of other groups of developing countries, is the

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Table A.2: Agricultural Land

	Agricultural Area (1000 hectares)		Arable Land (1000 hectares)	
	1980	2002	1980	2002
Afghanistan	38049	38054	7910	7910
Azerbaijan	...	4692	...	1783
Bangladesh	9758	9029	8892	8019
Benin	2027	3365	1500	2550
Burkina Faso	8785	10400	2745	4348
Cameroon	8930	9160	5910	5960
Chad	48150	48630	3137	3600
Comoros	110	147	75	80
Côte d'Ivoire	17255	19900	1955	3100
Gambia	559	714	155	250
Guinea	11842	12240	702	900
Guinea-Bissau	1385	1628	255	300
Indonesia	38000	44877	18000	20500
Kyrgyz Rep.	...	10776	...	1345
Mali	32050	34700	2010	4660
Mauritania	39464	39750	210	488
Mozambique	47100	48435	2870	4200
Niger	13220	16500	3544	4487
Nigeria	70385	72200	27850	30200
Pakistan	25300	27120	19994	21448
Senegal	8050	8150	2341	2460
Sierra Leone	2703	2800	450	535
Somalia	44000	44071	982	1045
Sudan	110460	133835	12360	16233
Tajikistan	...	4255	...	930
Togo	3035	3630	1950	2510
Uganda	10680	12312	4080	5100
Uzbekistan	...	27046	...	4484
Yemen	17528	17734	1366	1538
OIC-LIC	608823	706148	131245	160963
Albania	1118	1140	585	578
Algeria	43830	40065	6875	7665
Djibouti	1301	1301	1	1
Egypt	2445	3400	2286	2900
Gabon	5152	5160	290	325
Ghana	1715	1740	480	480
Iran	57713	61088	12981	15020
Iraq	9439	10090	5250	5750
Jordan	1127	1142	299	295
Kazakhstan	...	206769	...	21535
Lebanon	311	329	210	170
Libya	15080	15450	1753	1815
Malaysia	5059	7870	1000	1800
Maldives	8	13	4	4
Morocco	28930	30285	7530	8396
Oman	1051	1081	23	38
Palestine	375	381	104	113
Saudi Arabia	86962	173794	1890	3600
Suriname	69	88	40	57
Syrian Arab Republic	14062	13759	5230	4593
Tunisia	8700	9763	3191	2771
Turkey	38579	41690	25354	25938
Turkmenistan	...	32615	...	1850
OIC-MIC	323026	659011	75376	105694
Bahrain	10	10	2	2
Brunei	14	19	3	9
Kuwait	135	151	1	13
Qatar	55	71	4	18
United Arab Emirates	223	571	16	75
OIC-HIC	437	822	20	117
OIC countries (*)	932.3	1336	206.6	266.8
ESCWA countries (*)	140.6	229.4	17.5	19.9

Source: FAOSTAT Database.

(*) Million hectares.

Table A.4: Fertiliser Consumption

	Fertilisers Consumption (Metric tons)	
	1979-81	2000-2002
Afghanistan	48850	14733
Azerbaijan	...	11231
Bangladesh	408024	1397807
Benin	1653	38047
Burkina Faso	7123	12422
Cameroon	33199	44495
Chad	1833	17500
Comoros	0	300
Côte d'Ivoire	50822	81600
Gambia	2206	800
Guinea	1099	3200
Guinea-Bissau	619	2400
Indonesia	1160811	2707936
Kyrgyz Rep.	...	28134
Mali	12341	41282
Mauritania	1133	1933
Mozambique	30967	21367
Niger	3354	4825
Nigeria	165133	191567
Pakistan	1048686	2956577
Senegal	24233	33864
Sierra Leone	2595	250
Somalia	867	500
Sudan	63295	64799
Tajikistan	...	16300
Togo	2637	18698
Uganda	467	7248
Uzbekistan	...	723267
Yemen	12648	14366
OIC-LIC	3084604	8457452
Albania	91067	24252
Algeria	190551	98533
Djibouti	1022	0
Egypt	658537	1278961
Gabon	583	300
Guyana	10318	14488
Iran	590337	1336910
Iraq	90367	549733
Jordan	12055	25488
Kazakhstan	...	50767
Lebanon	35600	50085
Libya	62539	63367
Malaysia	429167	1182997
Maldives
Morocco	203375	375539
Oman	1092	9464
Palestine
Saudi Arabia	43431	383753
Suriname	3300	5667
Syria	131080	329213
Tunisia	68697	104433
Turkey	1350671	1834207
Turkmenistan	...	100467
OIC-MIC	3973787	7818623
Bahrain	109	249
Brunei	229	0
Kuwait	533	908
Qatar	747	467
United Arab Emirates	3403	35033
OIC-HIC	5021	36657
OIC countries (*)	7063.4	16312.7
ESCWA countries (*)	989.6	2677.7
World (*)	114779.7	138327.8

Source: FAOSTAT.

(*) 1000 metric tons.

Table A.6: Use of Coal and Oil as Sources of Energy

	Share of electricity Generated by:			
	Coal (%)		Oil (%)	
	1980	2001	1980	2001
Afghanistan
Azerbaijan	28.4
Bangladesh	26.6	9.4
Benin	100	97.7
Burkina Faso
Cameroon	6.1	1.9
Chad
Comoros
Côte d'Ivoire	22.7	0.3
Gambia
Guinea
Guinea-Bissau
Indonesia	...	28.9	84	23.6
Kyrgyz Republic	...	4.5
Mali
Mauritania
Mozambique	17.5	...	17.3	0.5
Niger
Nigeria	0.4	...	45.1	8.2
Pakistan	0.2	0.4	1.1	36
Senegal	100	100
Sierra Leone
Somalia
Sudan	30	51.7
Tajikistan
Togo	86.7	93.8
Uganda
Uzbekistan	...	4.2	...	11.4
Yemen	100	100
OIC-LIC	0.6	13.7	33.8	23.4
Albania	20.6	3.7
Algeria	12.2	2.9
Djibouti
Egypt	27.7	14.7
Gabon	50.9	20.6
Guyana
Iran	50.1	21.2
Iraq	93.9	98.2
Jordan	100	89.2
Kazakhstan	...	69.9	...	4.9
Lebanon	69.1	95.9
Libya	100	100
Malaysia	...	3.4	84.9	8.6
Maldives
Morocco	19.5	72.2	51.6	21.1
Oman	21.5	17.7
Palestine
Saudi Arabia	58.5	63.5
Suriname
Syrian	31.9	19.9
Tunisia	64.5	9.8
Turkey	25.6	31.3	25.1	8.5
Turkmenistan
OIC-MIC	24.5	34.3	49.7	29.9
Bahrain
Brunei	0.9	0.9
Kuwait	20.1	76.6
Qatar	2.7	...
United Arab Emirates	3.7	7.9
OIC-HIC	11.7	37.8
OIC countries	13.9	24.6	43.1	28.7
ESCWA countries	N.A.	N.A.	45.1	48.9
World	33.0	38.8	28.5	7.4

Source: World Bank, World Development Indicators 2004 and the Little Green Data Book 2004.

Table A.8: Government Commitment to International Environmental Treaties

	Status of National Environmental Action Plans	Ratification of Environmental Treaties			
		Cartagena Protocol on Biosafety	Framework Convention on Climate Change	Kyoto Protocol	Convention on Biological Diversity
Afghanistan	n.a.		•		•
Azerbaijan	Completed		•	•	•
Bangladesh	Completed	o	•	•	•
Benin	Completed	o	•	•	•
Burkina Faso	Completed	o	•		•
Cameroon	Completed	o	•	•	•
Chad	n.a.	o	•		•
Comoros	Completed		•		•
Côte d'Ivoire	Completed		•		•
Gambia	Completed	o	•	•	•
Guinea	Completed	o	•	•	•
Guinea-Bissau	Completed		•		•
Indonesia	Completed	o	•	o	•
Kyrgyz Rep.	Completed		•		•
Nali	Completed	•	•	•	•
Mauritania	Completed		•		•
Mozambique	Completed	•	•		•
Niger	Completed	o	•	o	•
Nigeria	Completed	•	•		•
Pakistan	Completed	o	•		•
Senegal	Completed	o	•	•	•

• Ratification, acceptance, approval, accession or succession.

o: Signature.

Table A.8: Government Commitment to International environmental Treaties (continued)

	Status of National Environmental Action Plans	Ratification of Environmental Treaties			
		Cartagena Protocol on Biosafety	Framework Convention on Climate Change	Kyoto Protocol	Convention on Biological Diversity
Turkmenistan	Under Preparation		•		•
Gabon	Completed		•		•
Lebanon	Completed		•		•
Libya	n.a.		•		•
Malaysia	Under Preparation	•	•	•	•
Oman	n.a.		•		•
Saudi Arabia	n.a.		•		•
Bahrain	n.a.		•		•
Brunei	n.a.				•
Kuwait	n.a.		•		•
Qatar	n.a.		•		•
UAE	Completed		•		•

Source: World Bank, World Development Indicators 2003 and UNDP, Human Development Report 2003.

•: Ratification, acceptance, approval, accession or succession.

o: Signature.