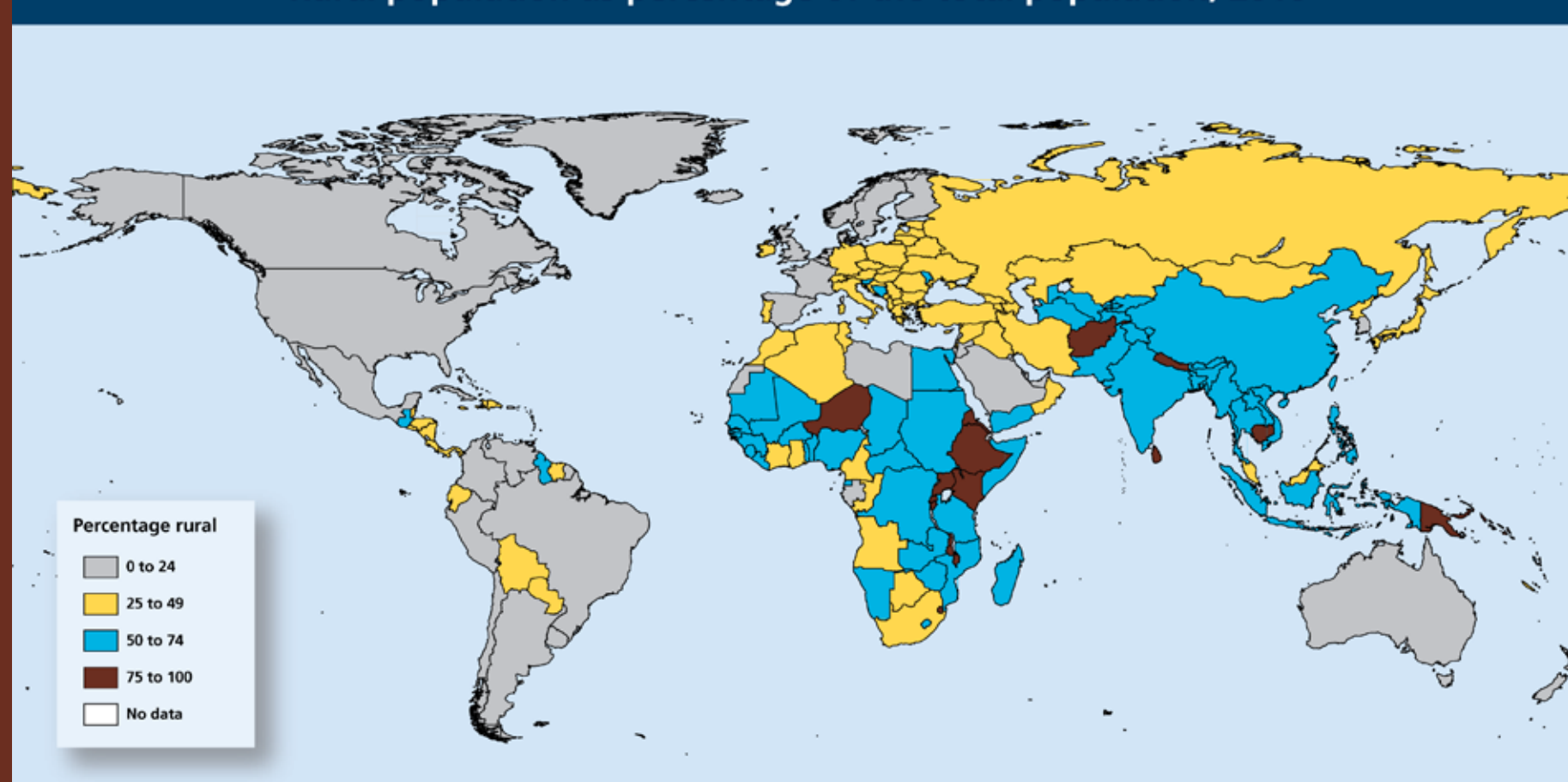


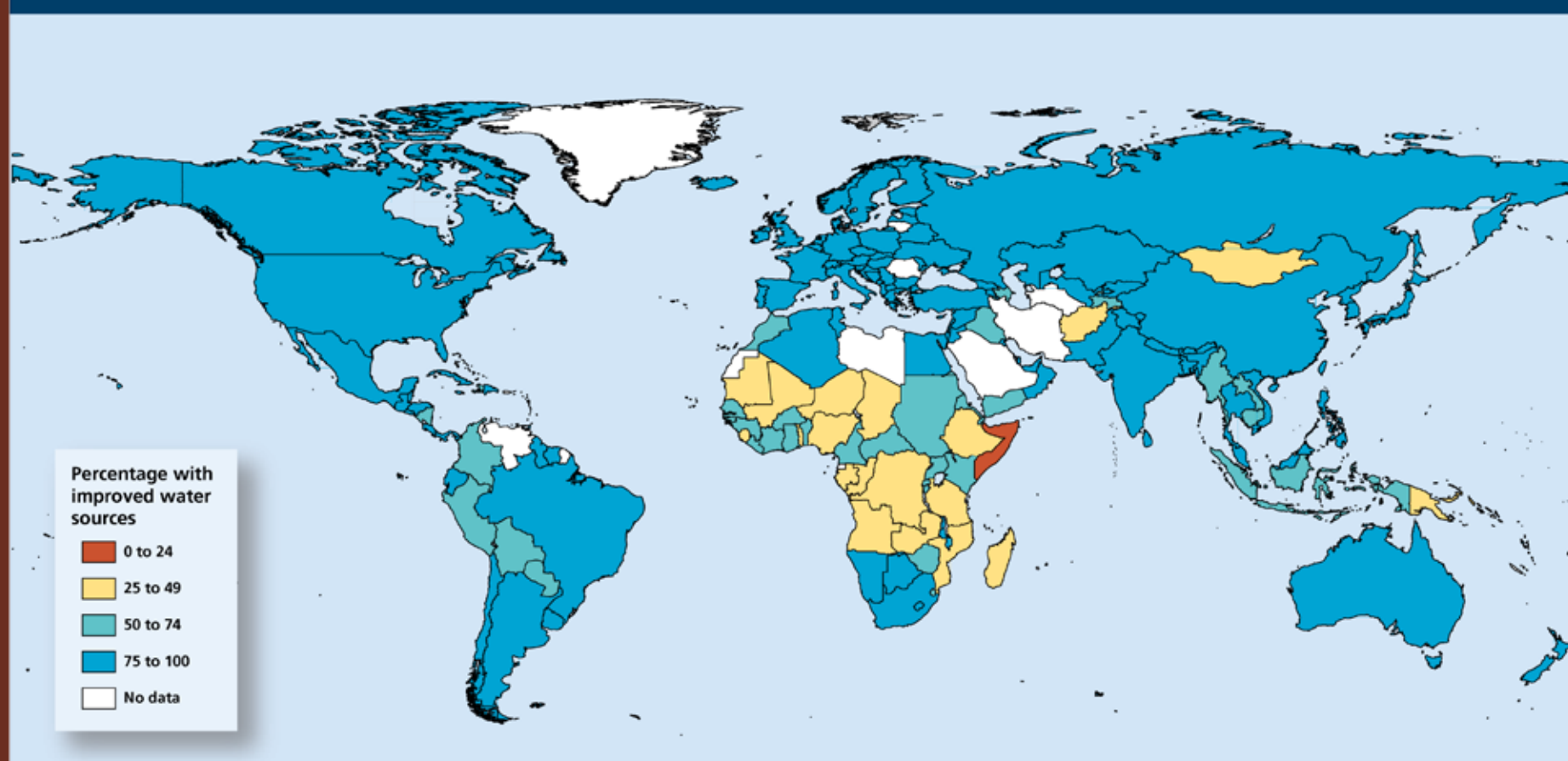


Rural population as percentage of the total population, 2010



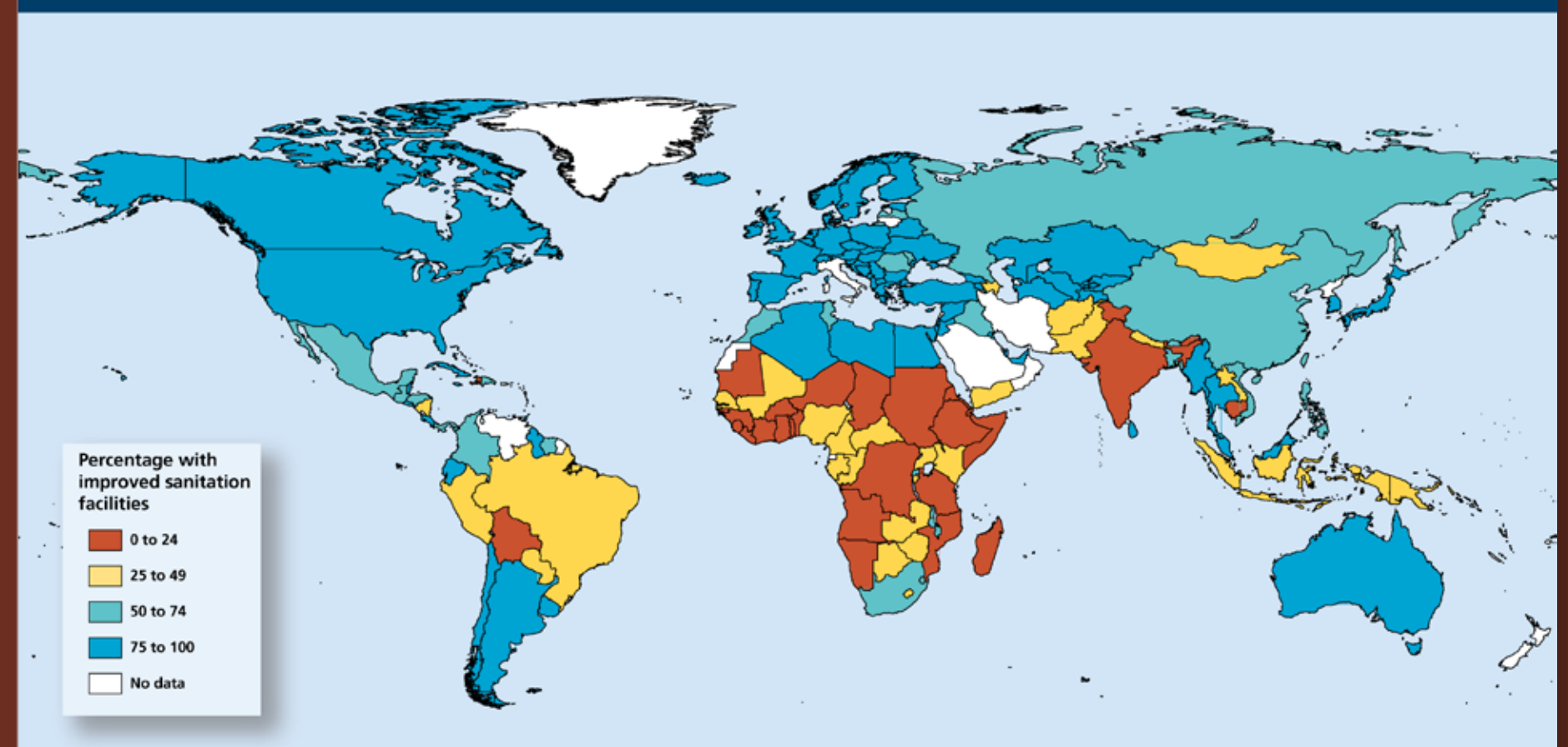
Note: The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations.

Rural population using improved drinking-water sources (percentage), 2008



Note: The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations.

Rural population using improved sanitation facilities (percentage), 2008



Note: The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations.

## Rural Population, Development and the Environment 2011

**Total population.** In 2010, the world's population reached 6.9 billion people. It is expected to reach 8.0 billion in 2025, 9.3 billion in 2050 and 10.1 billion in 2100. Nearly all of this growth will be absorbed by the less developed regions. Between 2010 and 2100, the population of the least developed countries will be more than triple, passing from 0.8 billion to 2.7 billion. In contrast, the population of the more developed regions is expected to grow slowly, from 1.2 to 1.3 billion.

**Rural population.** In 2010, the world's rural population stood at 3.4 billion, a little less than a half of the global population. Over 90 per cent of the world's rural residents (3.1 billion) lived in the less developed regions. Almost three quarters of the population of the least developed countries resided in rural areas, compared to only one fourth of the population of the more developed regions. Africa and Asia remained mostly rural, with 60 per cent and 58 per cent of their respective populations living in rural areas. Between 2005 and 2010, the global rural population grew at

a rate of 0.5 per cent per year, as a result of an annual increase of 1.6 per cent in the less developed regions and an annual decrease of 0.7 per cent in the more developed regions. Within the developing regions, Africa had the highest growth in rural population (1.6 per cent per year), whereas Latin America and the Caribbean experienced a decrease comparable to that of the more developed regions (0.7 per cent per year). The growth rate of the rural population has been declining since 1970 and, in the more developed regions, the number of rural dwellers has been decreasing slowly for many years. The rural population of the less developed regions is projected to reach a maximum of 3.2 billion by 2020 and then start a slow and prolonged decline.

**Agricultural population.** In 2010, 2.6 billion persons, or 38 per cent of the world's population, depended on agriculture, hunting, fishing and forestry for their livelihood. Almost the entire agricultural population lived in the less developed regions, especially in Asia (2.0 billion) and Africa (0.5 billion).

**Land area.** Land use and land cover are among the issues central to the monitoring of global environmental change. In 2008, the world's total land area, excluding the areas under inland water bodies, was 13 billion hectares. The less developed regions occupied two thirds of this total area.

**Agricultural area and cropland.** Rapid population growth during the twentieth century resulted in large-scale conversion of wild habitat to agriculture, the largest single use of land. Currently, 38 per cent of the world's total land area is occupied by agriculture, of which 12 per cent is under cropland and 26 per cent under permanent pastures. On average, the share of agricultural land is higher in the less developed regions (43 per cent) than in the more developed regions (28 per cent). However, the share of cropland is the same between the less and more developed regions (12 per cent), while in the least developed countries, the average share is lower (9 per cent). The world's farmers are still expanding croplands at the expense of native ecosystems such as forests.

**Forest area.** Forests provide vital resources and services, including wood products habitat for wildlife, water and soil conservation, and a filter for pollutants. In addition, intact forests play an important role in sequestering atmospheric carbon, which could aid in mitigating the negative effects of climate change. Today, with a total area of 4 billion hectares, forests cover 31 per cent of the Earth's land surface. The extent of forest area is greater in the more developed regions (37 per cent of land area) than in the less developed regions (28 per cent). Deforestation, caused mainly by the conversion of tropical forests into agricultural land, has decreased over the past decade at the global level, but has continued at a rapid pace in many countries. During 2005-2010, the world's annual net loss of forests was around 6 million hectares — an area about the size of Costa Rica. The regions suffering from the largest relative loss of forest area were Oceania (just over 0.5 per cent of its forest area per year, due partly to severe drought in Australia), Africa (0.5 per cent per year), and Latin America and the Caribbean (0.4 per cent per year). By contrast, Asia, Europe and Northern America experienced gains in forested land as a result of large-scale afforestation programmes in countries such as China, India, the United States and Viet Nam, combined with natural forest expansion in some European regions.

**Irrigated area.** Irrigated agricultural land in 2008 comprised only one fifth of the total cropped area of the world but produced two fifths of all crop production and close to

three fifths of cereal production. The proportion of cropland equipped for irrigation was particularly high in Asia, especially in Eastern Asia, where over a half of the cropland was irrigated. Excessive and poorly managed irrigation can degrade soils through erosion and salinization. According to the United Nations Environment Programme, over 10 per cent of the world's irrigated lands are severely degraded.

**Rural population using improved drinking-water sources and sanitation facilities.** Access to safe drinking water and adequate sanitation improves health, well-being and economic and social productivity. Access to safe water and adequate sanitation are also among the indicators used to monitor progress towards environmental sustainability. While safe water supply and adequate sanitation were easily accessible to the great majority of the rural population of the more developed regions, they remained limited in the rural parts of the less developed regions where about one quarter of the population lacked access to safe drinking water and almost two thirds were without basic sanitation in 2008. The situation was worse in the least developed countries, where almost one half of the rural population did not have access to an improved water supply and more than two thirds lacked adequate sanitation.

**Economically active population in agriculture.** A fundamental aspect of economic development is the increasing concentration of activity in high value added sectors, including industry and services. Currently, only a trivial part (4 per cent) of the economically active population is engaged in or seeking work in agriculture in the more developed regions. By contrast, the ratio of the economically active population in agriculture to the labour force is 1 in 2 in the less developed regions and 2 in 3 in the least developed countries in particular (two-thirds).

**Fertilizer use.** The use of fertilizers, especially synthetic ones, is the most effective means of increasing crop production and of improving the quality of food. About one-half the world population is currently fed as a result of synthetic nitrogen fertilizer use. However, heavy applications of fertilizer also put pressure on the environment. Currently, the amount of fertilizer applied per unit of arable land is slightly higher in the less developed regions (131 kilograms per hectare) than in the more developed regions (115 kilograms per hectare). Fertilizer use is lowest in the least developed countries (15 kilograms per hectare) and highest in Singapore (18,950 kilograms per hectare).

### Conferences

The International Conference on Population and Development (ICPD) adopted the Programme of Action<sup>1</sup> in 1994, which recommended, inter alia, the following actions to address the interactions between population, environment and development:

- integrate demographic factors into environmental impact assessments and other planning and decision-making processes aimed at achieving sustainable development;

- implement measures for poverty eradication, with special attention to income-generation and employment strategies directed at the rural poor and those living within or on the edge of fragile ecosystems;

- utilize demographic data to promote sustainable resource management, especially of ecologically fragile systems;

- modify unsustainable consumption and production patterns through economic, legislative and administrative measures, as appropriate, aimed at fostering sustainable resource use and preventing environmental degradation;

- implement policies to address the ecological implications of future population increases, particularly in ecologically vulnerable areas and urban agglomerations.

The United Nations Conference on Environment and Development, which adopted Agenda 21<sup>2</sup> in 1992, identified a number of key objectives relative to population, including:

- to incorporate demographic trends in the global analysis of environment and development issues;

- to develop a better understanding of the relationships among demographic dynamics, technology, cultural behaviour, natural resources and life support systems;
- to assess human vulnerability in ecologically sensitive areas and centres of population to determine the priorities for action at all levels;
- to implement population programmes along with national resource management and development programmes at the local level to ensure the sustainable use of natural resources, improve the quality of people's lives and enhance environmental quality.

The key actions for the further implementation of the ICPD Programme of Action<sup>3</sup>, the Programme for the Further Implementation of Agenda 21<sup>4</sup> and the Plan of Implementation of the World Summit on Sustainable Development<sup>5</sup>, adopted in Johannesburg in 2002, made further recommendations for changing unsustainable patterns of consumption and production as well as for promoting sustainable development. The recommendations contained in those documents set priorities for action to eradicate poverty, combat environmental threats to health and promote sustainable development in the rural and urban areas of the world.

<sup>1</sup> Report of the International Conference on Population and Development, Cairo, 5-13 September 1994 (United Nations Population Division, Sales No. E/90/XII.18).

<sup>2</sup> Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E/92/XI.8).

<sup>3</sup> Resolution S-21/2.

<sup>4</sup> Resolution S-19/2, annex.

<sup>5</sup> Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002 (United Nations publication, Sales No. E.03.11.A.1 and corrigendum), chap. I, resolution 2, annex.

### Participation in multilateral treaties

To address global environmental issues, many Governments have signed and ratified<sup>1</sup> international treaties launched in the wake of the 1972 United Nations Conference on the Human Environment and the 1992 United Nations Conference on Environment and Development. The following are some of the major multilateral environmental treaties currently in force:

The Vienna Convention for the Protection of the Ozone Layer (1985), ratified by 196 countries, aims to protect human health and the environment by promoting research on the effects of changes in the ozone layer and on alternative substances and technologies, monitoring the ozone level and taking measures to control the activities that produce adverse effects.

The Montreal Protocol on Substances that Deplete the Ozone Layer (1987), ratified by 196 countries, requires that countries help protect the earth from excessive ultraviolet radiation by cutting chlorofluorocarbon consumption by specific amounts and target dates, with allowances for increases in consumption by developing countries. The Protocol contained flexible implementation schemes and evaluation procedure and recognized the principle of "common but differentiated" responsibilities for developed and developing countries. The Protocol has contributed to reducing levels of ozone-depleting substances.

The United Nations Framework Convention on Climate Change (1992), ratified by 195 countries, aims to stabilize atmospheric concentrations of greenhouse gases at levels that will prevent human activities from interfering dangerously with the global environment. The Convention was not binding and did not establish targets or deadlines.

The Kyoto Protocol to the United Nations Framework Convention on Climate Change (1997), ratified by 192 countries, entered into force in 2005. It commits 36 developed countries to reduce their greenhouse gas emissions by

2012 to at least 5 per cent below emission levels of 1990. In December 2007 in Bali, Indonesia, the United Nations Climate Change Conference adopted Bali roadmap, which charts the course for a new negotiating process to be concluded by 2009 that will ultimately lead to a post-2012 international agreement on climate change.

The United Nations Convention on the Law of the Sea (1982), ratified by 162 countries, went into effect in 1994 and created a comprehensive legal regime for seas and oceans. Rules were established for environmental standards and enforcement provisions, while international rules and national legislation to prevent and control marine pollution were developed. The Convention afforded all countries the right to manage marine resources within their 200 nautical mile Exclusive Economic Zone. For many developing countries, however, it is difficult to enforce regulations over such a vast expanse.

The Convention on Biological Diversity (1992), ratified by 193 countries, promotes conservation of biodiversity among nations through scientific and technological cooperation, access to financial and genetic resources and transfer of ecologically sound technologies. The major objectives are to conserve biodiversity, ensure its sustainable use and guarantee the fair and equitable sharing of its benefits.

The United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (1994), ratified by 194 countries, entered into force in 1996. The only international legally binding framework stemming from a direct recommendation of the Agenda 21, the Convention promotes national action programmes supported by international cooperation and partnership arrangements.

Source: United Nations Treaty Collection. Status as of 22 August 2011. Data available online at: [untreaty.un.org](http://untreaty.un.org)

<sup>1</sup> Ratification including acceptance, approval, accession or succession. Ratification is the act whereby a State indicates its consent to being bound to a treaty if the parties intend to show their consent by such an act.



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