Megadiverse Countries

ACRONYMS | AREAS | COUNTRIES | MARINE | TERMS

DEFINITION

17 countries which have been identified as the most biodiversity-rich countries of the world, with a particular focus on endemic biodiversity: United States of America, Mexico, Colombia, Ecuador, Peru, Venezuela, Brazil, Democratic Republic of Congo, South Africa, Madagascar, India, Malaysia, Indonesia, Philippines, Papua New Guinea, China, and Australia.

DESCRIPTION

Megadiversity Countries is a term used to refer to the world's top biodiversity-rich countries. This country-focused method raises national awareness for biodiversity conservation in nations with high biological diversity, with many species unique to a specific country. This concept complements that of Biodiversity Hotspots and High-Biodiversity Wilderness Areas to achieve significant coverage of the world's biological resources and was first proposed in 1988. [1] Together, the Megadiversity Countries account for at least two thirds of all non-fish vertebrate species and three quarters of all higher plant species. [2] This classification primarily aims to demonstrate how a small number of countries hold a large portion of global diversity and therefore have a disproportionate political responsibility for conservation and biodiversity management. The Megadiversity Country concept is based on four premises: [2]

1. The biodiversity of each and every nation is critically important to that nation's survival, and must be a fundamental component of any national or regional development strategy;
2. Biodiversity is by no means evenly distributed on our planet, and some countries, especially in the tropics, harbour far greater concentrations of biodiversity than others;
3. Some of the most species rich and biodiverse nations also have ecosystems that are under the most severe threat;
4. To achieve maximum impact with limited resources, conservation efforts must concentrate heavily (but not exclusively) on those countries richest in diversity and endemism and most severely threatened; resources invested in them for conservation should be roughly proportional to their overall contribution to global biodiversity.

SUPPORTED BY

Conservation International

YEAR OF CREATION

1988 [1]

COVERAGE

The identified Megadiverse Countries are: United States of America, Mexico, Colombia, Ecuador, Peru, Venezuela, Brazil, Democratic Republic of Congo, South Africa, Madagascar, India, Malaysia, Indonesia, Philippines, Papua New Guinea, China, and Australia.

CRITERIA

The principle criterion is endemism, first at the species level and then at higher taxonomic levels such as genus and family. To qualify as a Megadiverse Country, a country must: [2]

1. Have at least 5000 of the world's plants as endemics
2. Have marine ecosystems within its borders.

The focus on endemism is in line with the IUCN's "doctrine of ultimate responsibility", which holds that a country with the only populations of an endangered species has ultimate responsibility for ensuring the survival of that particular species. Other secondary criteria have also been taken into consideration, such as animal and invertebrate endemism, species diversity, higher-level diversity, ecosystem diversity and presence of tropical rainforest ecosystems. [2] Despite endemism being the main criterion, thresholds for the criteria are flexible and countries have been considered individually based on all criteria.

MANAGEMENT

While there is no specific management associated with this concept, 17 countries rich in biological diversity and associated traditional knowledge have formed a group known as the Like Minded Megadiverse Countries. These include 12 of the above identified Megadiverse Countries. This group was formed in 2002 under the Cancun Declaration [3] to act as a mechanism of cooperation on the conservation of biological diversity and traditional knowledge.

BUSINESS RELEVANCE

Legal and compliance – Since this is a country-focused biodiversity prioritisation approach, mainly to raise awareness, there is no legal protection or compliance associated with the designation itself. The legal and compliance requirements present within these countries will relate to other designations of biodiversity importance present within each country, such as legally protected areas.
Biodiversity importance – These countries are of global biodiversity value based on the number and the level of unique species present. However, these countries all contain areas of high biodiversity importance as well as degraded land and urban areas. Detailed information is needed on the distribution of biodiversity within these countries for site-scale assessment and decision making.
Socio-cultural values – As these countries include a variety of human land-uses, rural and urban, as well as protected areas under a range of possible governance types, many social and/or cultural values are likely to be present in some parts.

REFERENCES & WEBSITE

1. Mittermeier, R. A. Primate Diversity and the Tropical Forest: Case Studies from Brazil and Madagascar and the Importance of the Megadiversity Countries. in Biodiversity (ed. Wilson, E. O.) (National Academy Press, 1988).
2. Mittermeier, R. A., Robles Gil, P. & Mittermeier, C. G. Megadiversity: Earth's Biologically Wealthiest Nations. (1999).
3. Like Minded Megadiverse Countries. Cancun Declaration of Like Minded Megadiverse Countries. (2002).



Rhinoceros beetle (Golofa sp.), Ecuador, one of the megadiverse countries. RobHamm/Shutterstock.com

Category:

Biodiversity designations

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