

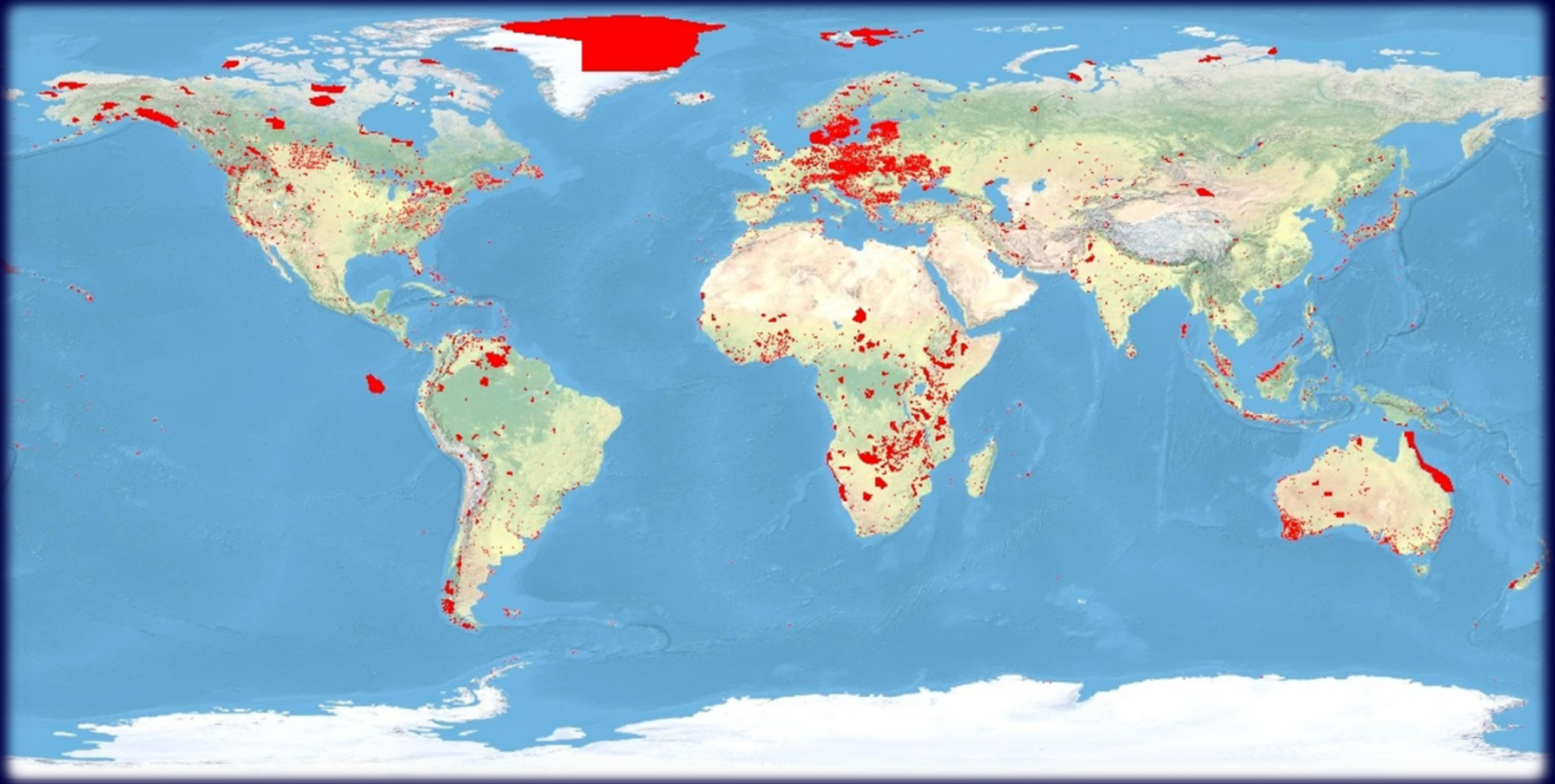


Proteus Objective 1

Improving the World Database on Protected Areas

Presented at Proteus Partners Meeting
June 2009
Madrid, Spain

Charles Besançon
Head of Protected Areas Programme



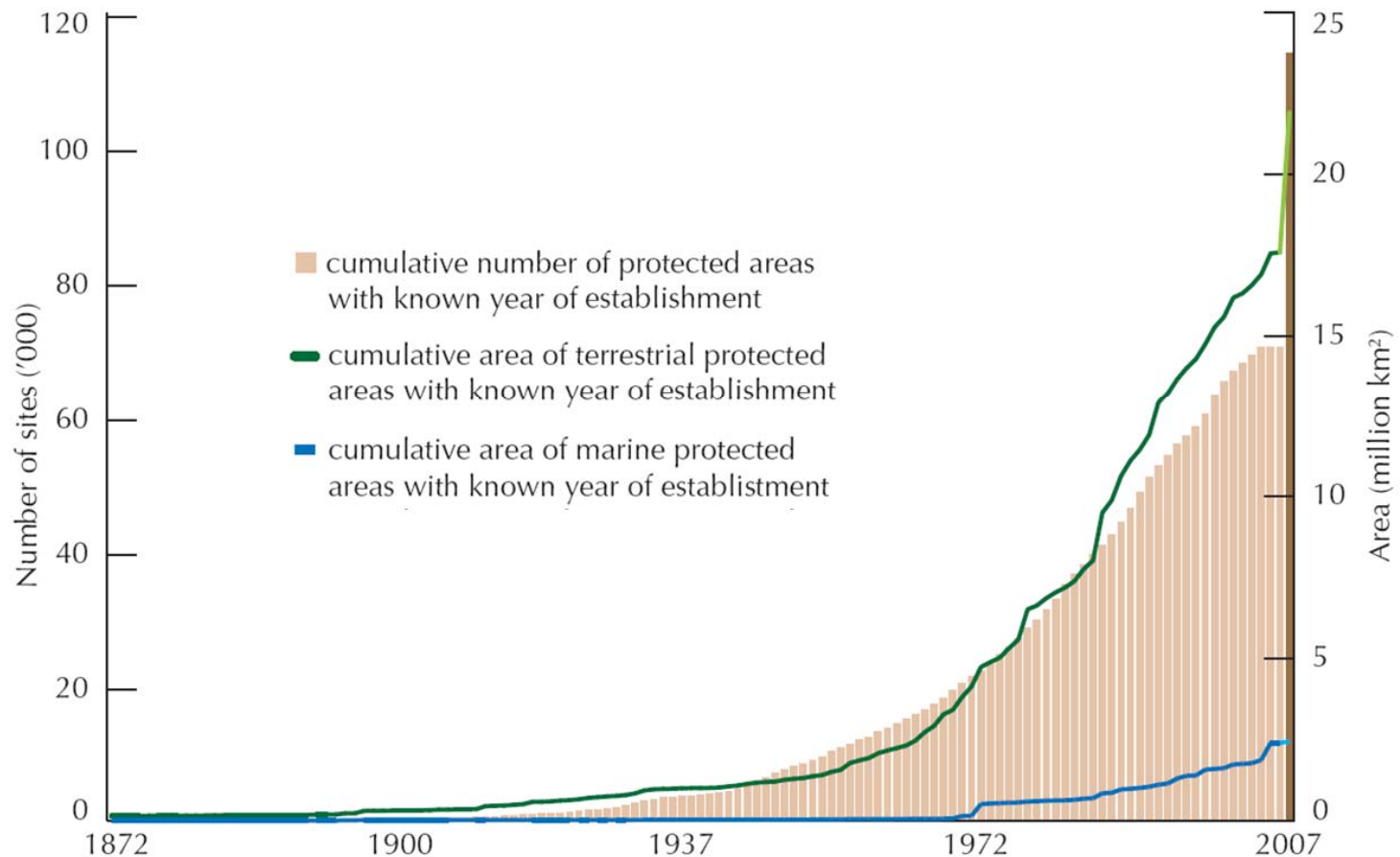
The Worlds Protected Areas

1980: 40,000 protected areas covering 7,000,000 km²

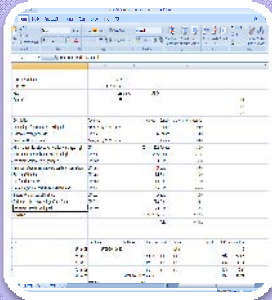
2009: 150,000 protected areas covering 18,000,000 km²

Global Protected Area Coverage Over Time

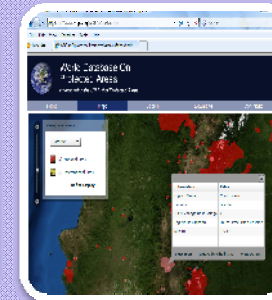
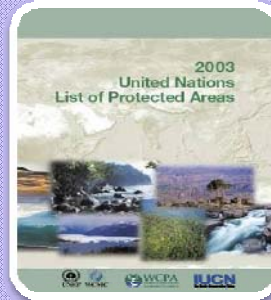
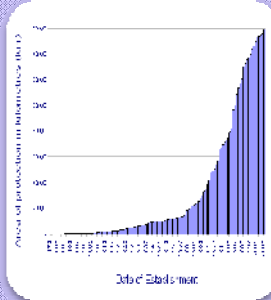
GROWTH OF NATIONALLY DESIGNATED PROTECTED AREAS, 1872-2007 (number and area)



World Database on Protected Areas



| Name | Country | Year | Area (km²) | Category |
|--|---------|------|------------|----------------------------|
| Yellowstone National Park | USA | 1872 | 9631 | National Park |
| Grand Canyon National Park | USA | 1909 | 1218 | National Park |
| Yosemite National Park | USA | 1906 | 3309 | National Park |
| Rocky Mountain National Park | USA | 1903 | 1081 | National Park |
| Denali National Park | USA | 1978 | 1486 | National Park |
| Adirondack Park | USA | 1885 | 2630 | National Park |
| Yukon-Charley Rivers National Preserve | USA | 1978 | 1312 | National Preserve |
| Wrangell-St. Elias National Monument | USA | 1908 | 1312 | National Monument |
| Denali National Monument | USA | 1978 | 1486 | National Monument |
| Denali National Park and Preserve | USA | 1978 | 1486 | National Park and Preserve |



WDPA 25 years old

Today over 150,000 protected areas

Sites from govts, NGOs international conventions

A joint project of UNEP & IUCN managed by UNEP - WCMC

Only global inventory of the world's protected areas

Foundation data layer for conservation and private sector decision making

WDPA as basis for measuring global protection and priority setting

Toward representative protection of the world's coasts and oceans—progress, gaps, and opportunities. *Conservation Letters* 2008

Percentage Ecoregion Protection Under 10% 10 - 25% 25 - 50% 50 - 100%

Working Toward High Seas Marine Protected Areas. An Assessment of Progress Made and Recommendations for Collaboration. UNEP-WCMC 2008

Percentage Forest Protection Under 10% 10 - 25% 25 - 50% 50 - 100% No forest cover

Global Ecoregion Protection. Published in Protected Areas Annual Report: UNEP-WCMC 2008

Under 10% 10 - 25% 25 - 50% 50 - 100%

Global analysis of the protection status of the world's forests. Biological Conservation 2009

Key Terrestrial EEZ
Priority level for High Seas protection 0 1 2 3 4 5

National Geographic

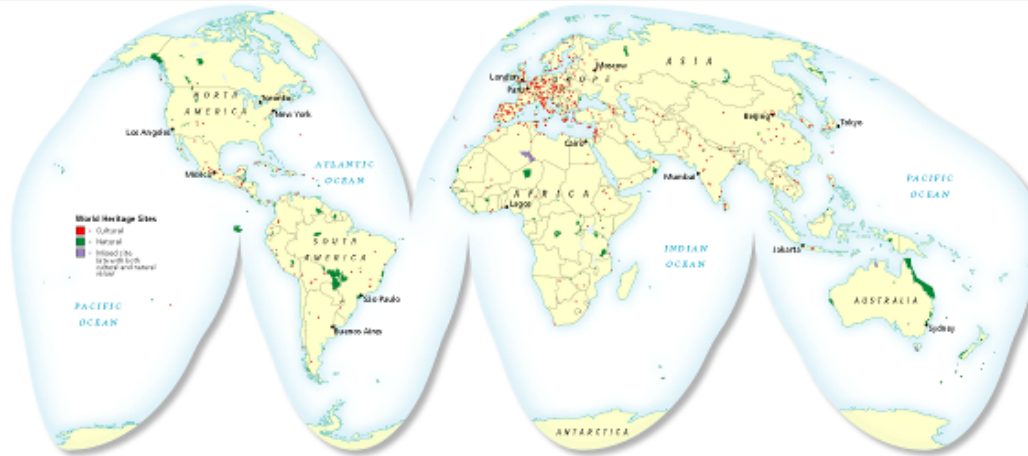
WORLD PROTECTED LANDS

In recent years, environmental groups and world organizations have identified certain sites and land areas whose value is so great and status is so critical, that they require special protection.

This protection takes various forms. UNESCO's World Heritage Committee has identified more than 700 sites that are of great cultural or natural value. Some are very famous: Stonehenge, the Great Wall of China, the Taj Mahal, the Great Barrier Reef, and the Grand Canyon, for example. Others are monuments to important and sometimes tragic chapters in history: Auschwitz in Poland and the Senegalese island of Gorée, which was for 400 years the largest slaving station on the African coast. Some sites are threatened natural features of great value: the Danube Delta in Romania, for instance, and Lake Baikal in Russia.

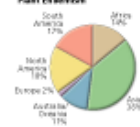
Conservationists have identified 25 world "hotspots" (see World Biodiversity, pp. 40-41) that make up less than 2 percent of Earth's lands but are the only remaining habitats for 44 percent of all plant species and 35 percent of all nonfish vertebrates. About half these sites are now designated protected areas.

Though "protected areas" vary greatly in their objectives, the extent to which they are integrated into the wider landscape, and the effectiveness with which they are managed, they provide powerful evidence of a nation's commitment to conservation.



Endemism

Regional Share of Plant Endemism



Endemism—the presence of species found nowhere else—is a key criterion for determining conservation priorities, as areas with high levels of endemism are the most vulnerable to biodiversity loss. The highest levels of endemism occur on oceanic islands and in mountains regions.



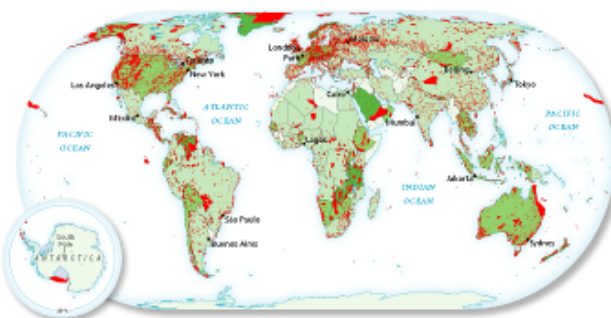
Oceania's orchids are one of thousands of plants unique to Madagascar.

Protected Areas

An array of overlapping conventions designed to preserve everything from wetlands, reefs, and wilderness to birds and biogenic reserves provide a grossly estimated 3 percent of Earth's land area. In contrast, less than one percent of the total ocean area is protected.

Protected Land (% of total land area by country)

- More than 20%
- 10%-20%
- 5%-10%
- Less than 1%
- No data
- Not a land area
- Protected area



| COUNTRY WITH HIGHEST % PROTECTED AREA | Country (with total) | Percentage of protected area (U.S. \$, 1995, \$B) | Pop. density (1995, 1000 sq. mi.) | Pop. density (1995, 1000 sq. mi.) |
|---------------------------------------|----------------------|---|-----------------------------------|-----------------------------------|
| Venezuela | 60.8 | 6,500 | 29 | |
| Denmark | 44.8 | 25,000 | 323 | |
| South Africa | 42.1 | 10,000 | 25 | |
| Democratic Republic of Congo | 21.2 | 5,000 | 495 | |
| Zambia | 20.8 | 880 | 14 | |
| Switzerland | 24.5 | 28,000 | 453 | |
| Tanzania | 23.1 | 700 | 88 | |
| New Zealand | 23.1 | 12,000 | 27 | |
| Botswana | 22.4 | 1,900 | 59 | |
| Norway | 21.2 | 27,000 | 38 | |

| COUNTRY WITH LOWEST % PROTECTED AREA | Country (with total) | Percentage of protected area (U.S. \$, 1995, \$B) | Pop. density (1995, 1000 sq. mi.) | Pop. density (1995, 1000 sq. mi.) |
|--------------------------------------|----------------------|---|-----------------------------------|-----------------------------------|
| Iraq | 0.0 | 2,000 | 739 | |
| United Arab Emirates | 0.0 | 23,000 | 915 | |
| Yemen | 0.0 | 800 | 38 | |
| Syria | 0.1 | 1,200 | 211 | |
| Uganda | 0.1 | 8,000 | 2 | |
| Lesotho | 0.1 | 1,400 | 365 | |
| Uganda | 0.1 | 5,200 | 40 | |
| Swaziland | 0.1 | 4,000 | 958 | |
| Qatar | 0.1 | 4,800 | 2 | |
| Algeria | 0.1 | 800 | 305 | |

| PROTECTED AREAS BY REGION | Continent | Area (sq. miles) | Percentage of total land area |
|---------------------------|-----------|------------------|-------------------------------|
| North America | 1,212,036 | 14.0 | |
| South America | 670,172 | 8.5 | |
| Europe | 1,700,091 | 11.2 | |
| Africa | 806,420 | 6.2 | |
| Asia | 956,107 | 7.8 | |
| Australia/Oceania | 888,755 | 14.4 | |
| Antarctica | 1,421 | 0.00 | |
| World | 5,700,000 | 8.9 | |

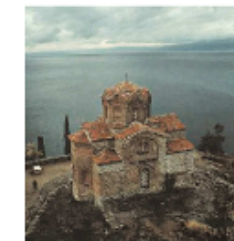
The World Heritage Site System



NATURAL HERITAGE SITE
Canada's Tambora-Aitak Provincial Wilderness is the largest temperate ice cap and hundreds of valley glaciers. It is the last major stronghold for North America's grizzly bear. The park designation averted what would have been a continuous open-pit mine.



CULTURAL HERITAGE SITE
Site of some of the most important monuments of ancient Greece, the Acropolis in Athens, the civilization, myth, and religion that flourished there for a period of over 1,000 years. Europe claims about half of the world's cultural heritage sites, with over 300.



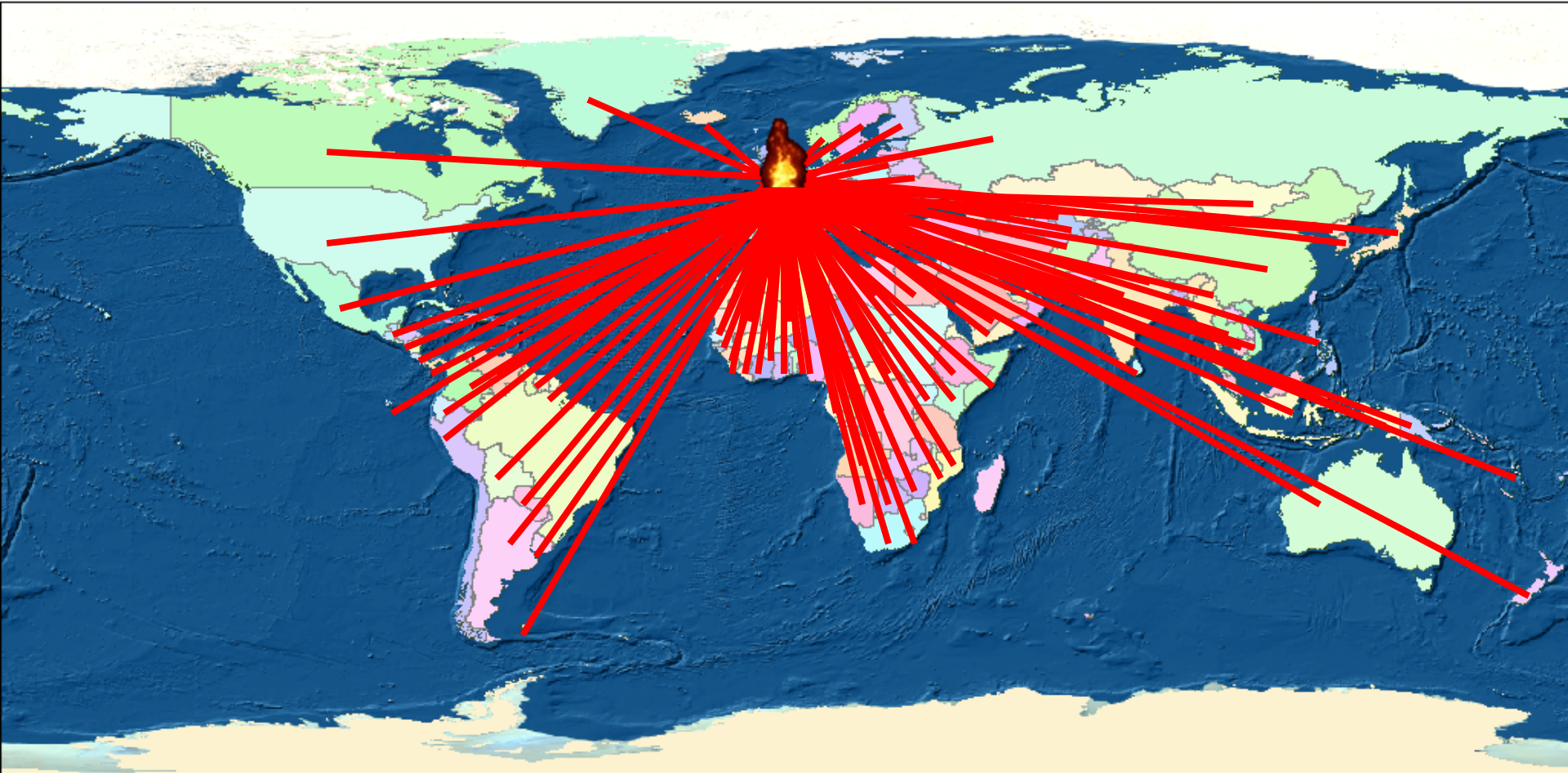
MIXED HERITAGE SITE
The town of Otricoli, on the shores of Lake Orvi in the former Papal Republic of Umbria, exemplifies a mixed heritage site. The town's 1800-year-old lake may be the oldest in Europe, and the town is one of the continent's oldest continuously inhabited sites.

The World Heritage List was established under the terms of the 1972 UNESCO "Convention Concerning the Protection of the World Cultural and Natural Heritage." The first 12 World Heritage Sites were named in 1978, among them were Stonehenge in England, the site of the first Viking settlement in North America, the Galapagos Islands, the cathedral of Aachen, Germany, the historic city center of Cracow, Poland, the island of Genoa in Sardinia, and

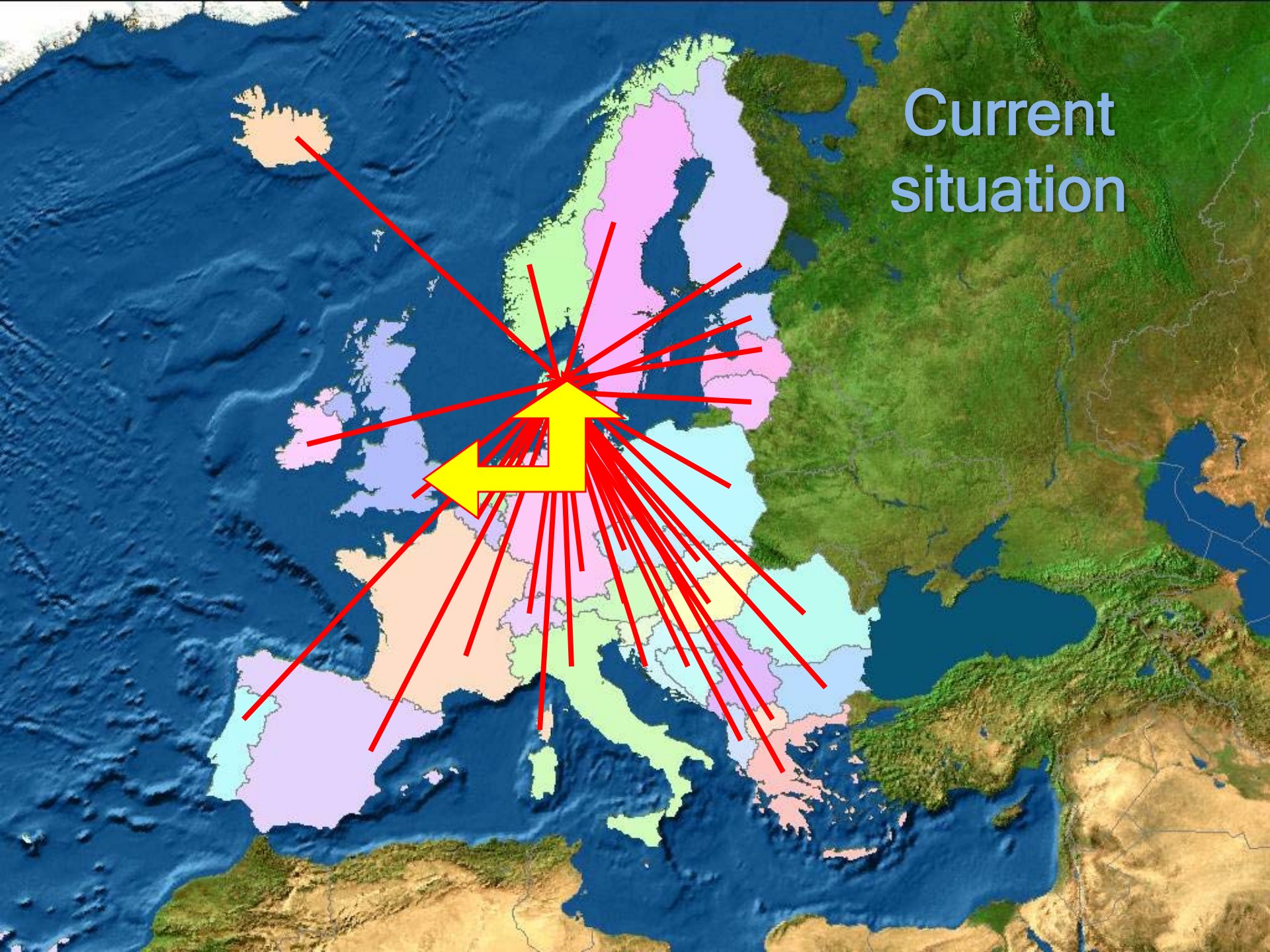
Mea Wadde and Yellowstone National Parks in the United States. Nine have also added areas. By December 2001, the list comprised 722 sites, with 554 cultural (144 natural), and 23 mixed sites. Located in 104 countries, all partly to the Convention. On average, 30 newly designated sites are added to the list each year, but 2000 must have been considered an average since for listings on sites were added that year, the largest number ever.

| MOST VISITED NATURAL HERITAGE SITES | Name | Size (in sq. miles) | Country | Visitors per year |
|---------------------------------------|-------|---------------------|-----------|-------------------|
| Canadian Rocky Mountain National Park | 6,907 | Canada | 6,566,198 | |
| Great Smoky Mountains National Park | 369 | United States | 6,451,155 | |
| Grand Canyon National Park | 2,056 | United States | 4,174,708 | |
| Yosemite National Park | 1,176 | United States | 3,403,186 | |
| Olympic National Park | 1,405 | United States | 3,400,700 | |
| Yellowstone National Park | 2,463 | United States | 2,974,199 | |
| Watkins Gorge and Great Barrier Reef | 3,402 | Australia | 2,890,000 | |
| Glacier National Park | 1,047 | U.S./Canada | 2,124,710 | |

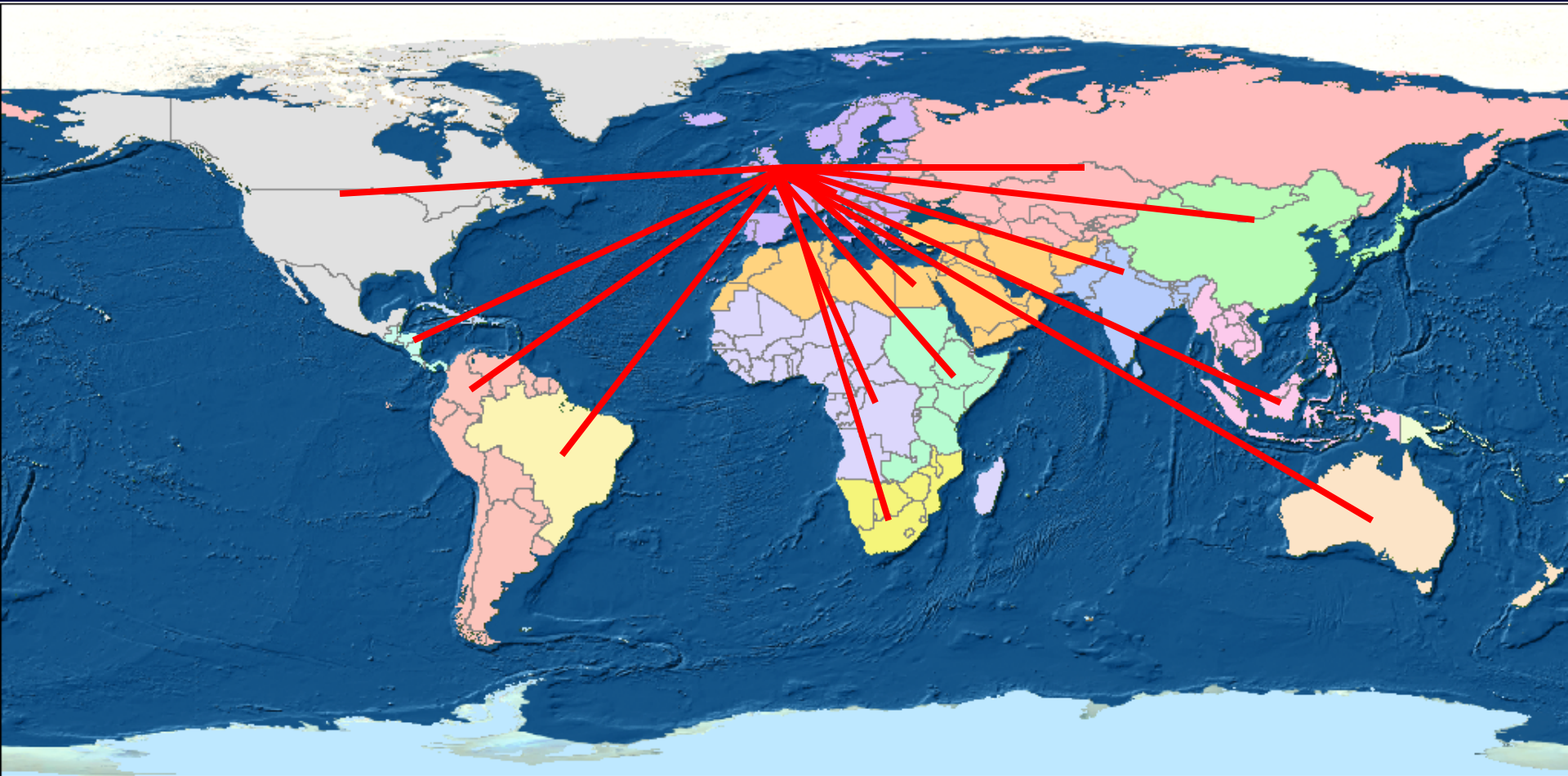
Old System

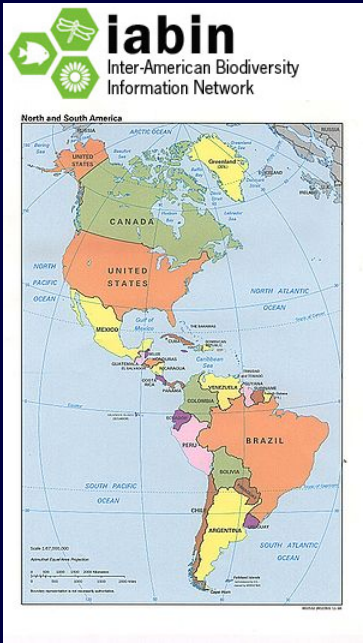


Current situation

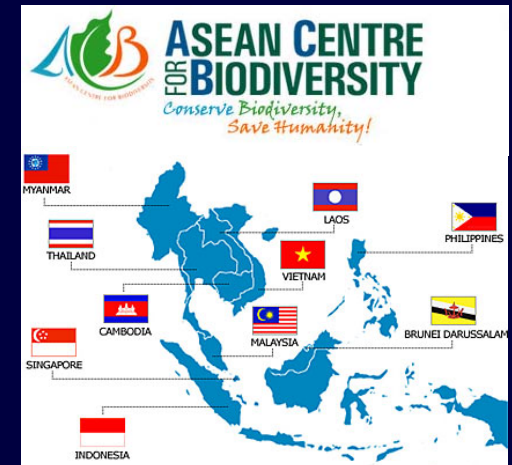


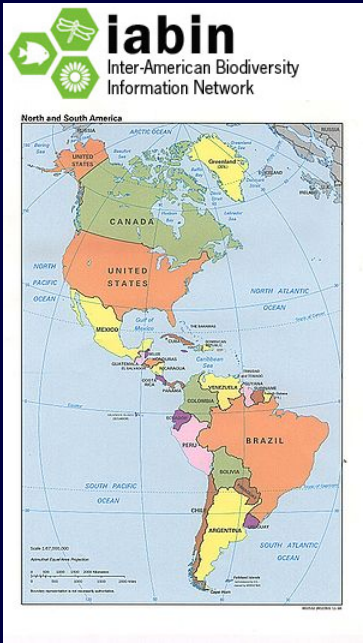
Future: More Regional delivery mechanisms



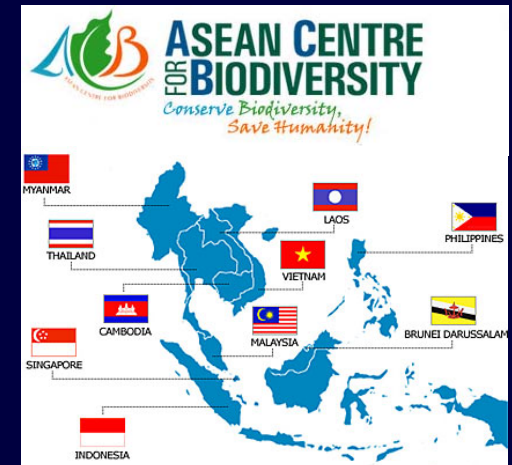


WDPA data flows





WDPA data flows



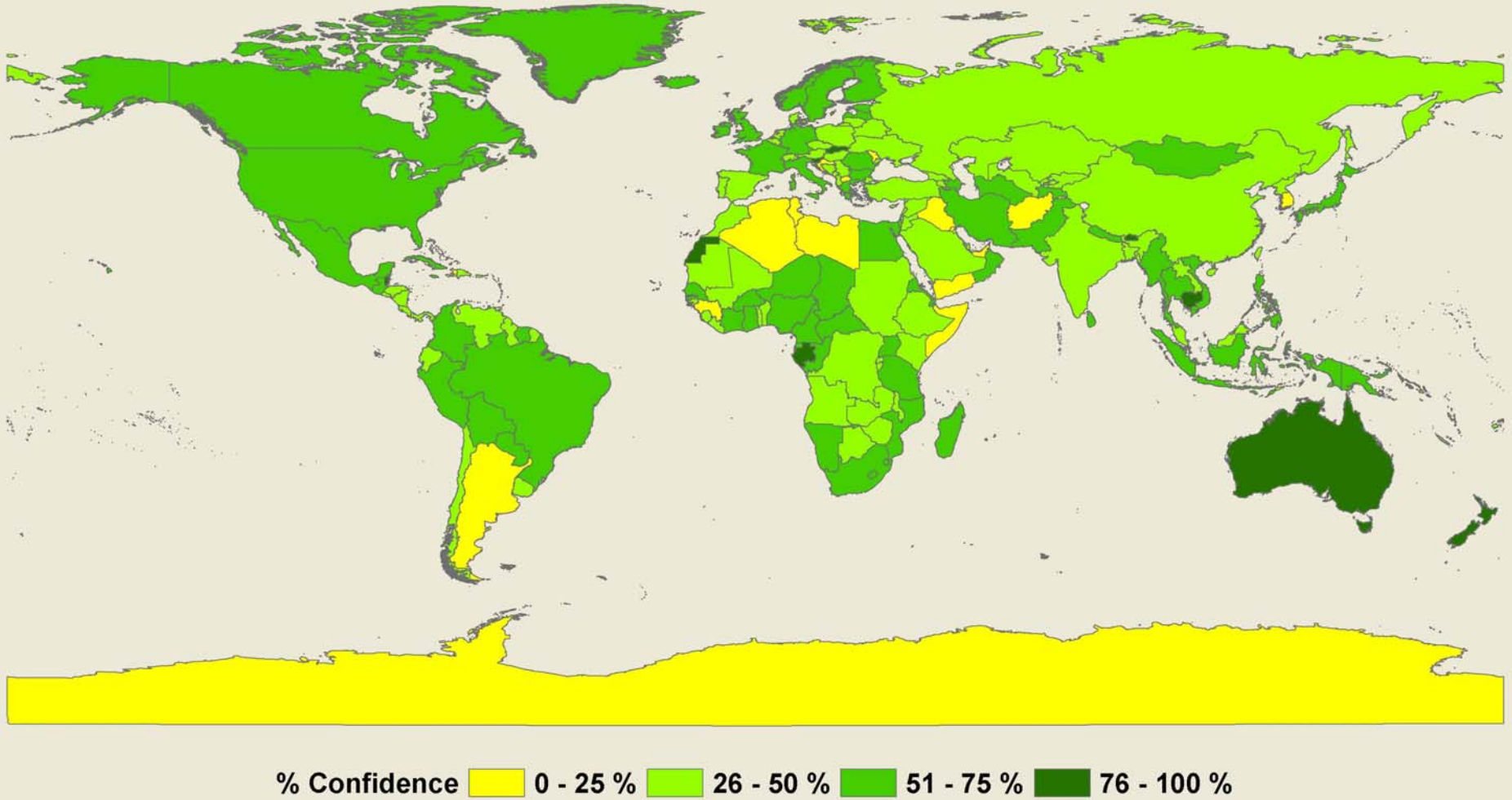
WDPA Completeness Assessment

Criteria:

- 1) How current (recent) is the data?
- 2) How many sites are polygons or points?
- 3) What is the quality (completeness) of boundary data (from GIS staff knowledge)
- 4) What is the quality (completeness) of attribute data (from GIS staff knowledge)
- 5) Which classes of PAs are included?
National, private, community conserved, etc.

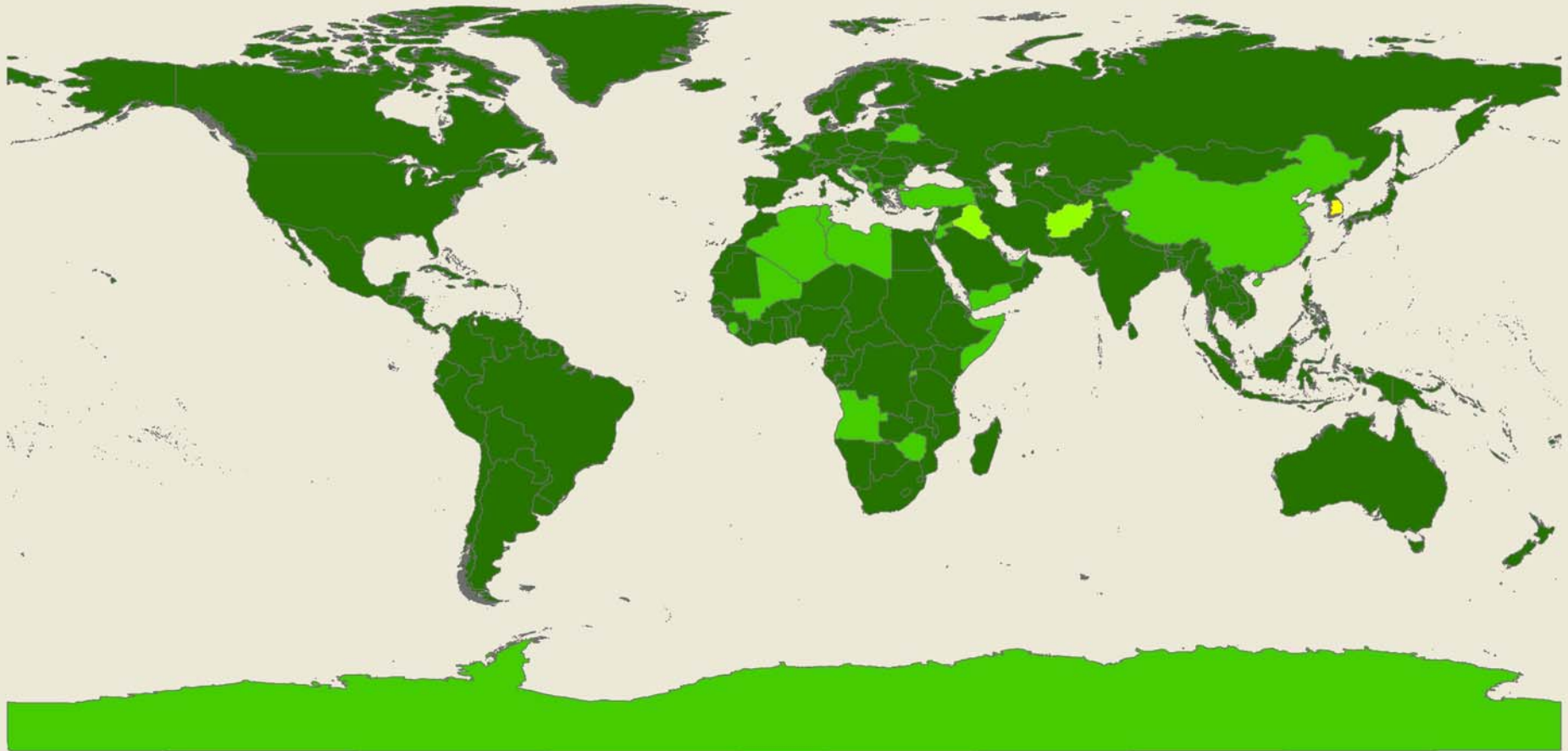


How good is current WDPA coverage?



June 2009

Could full WDPA coverage be achieved within 5 years?



% Confidence 0 - 25 % 26 - 50 % 51 - 75 % 76 - 100 %

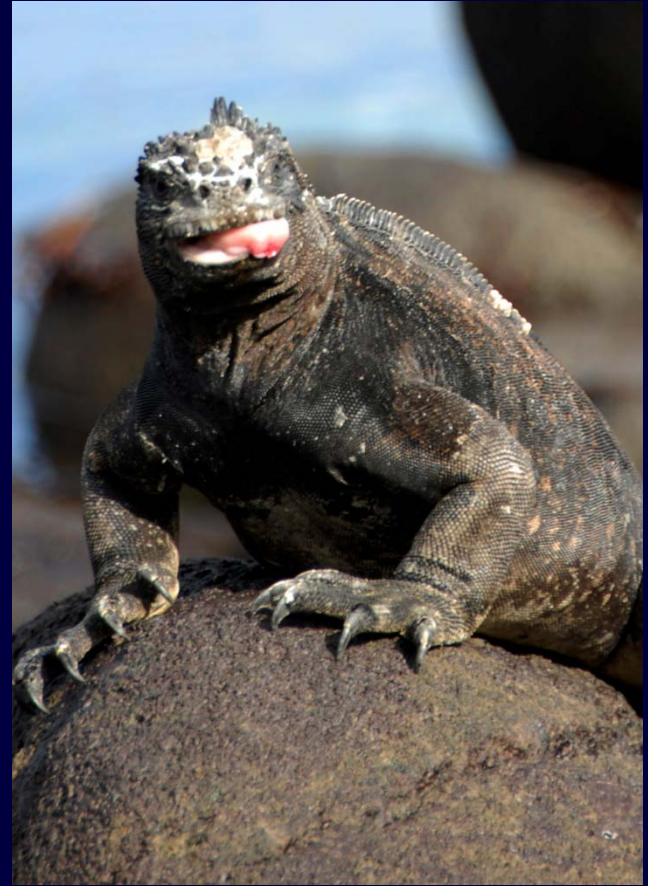
Needs triple the current investment

Improving WDPA Information



In 6 months...

- ◆ Launch of WDPA-Marine
- ◆ Launch of new WDPA overall
- ◆ Expert review process started in Asia
- ◆ Investigating new network for Africa
- ◆ Restructuring of WDPA technology team
- ◆ More engagement with IUCN
- ◆ Greater engagement with Proteus and IBAT partners



Thank you!

