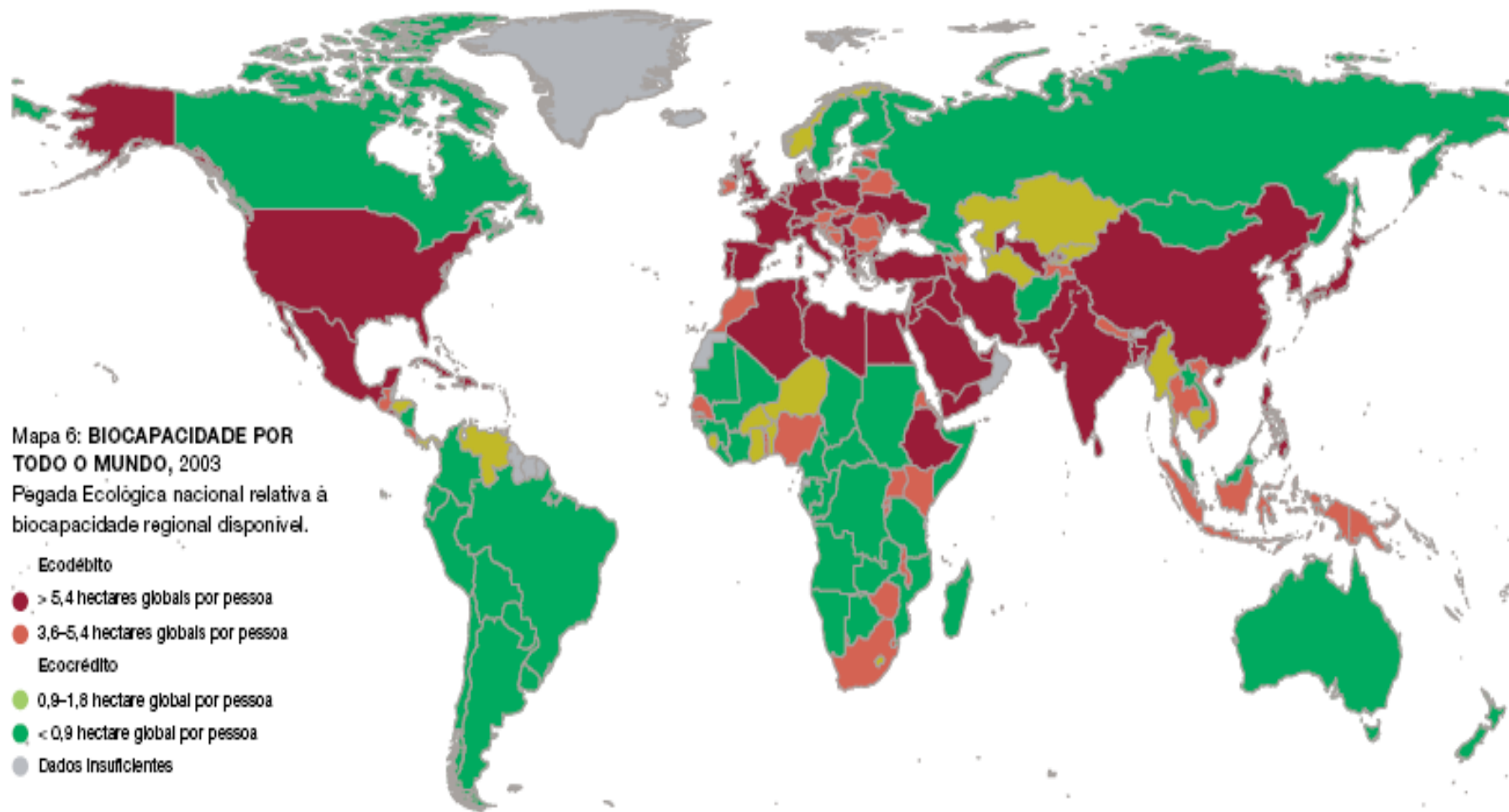


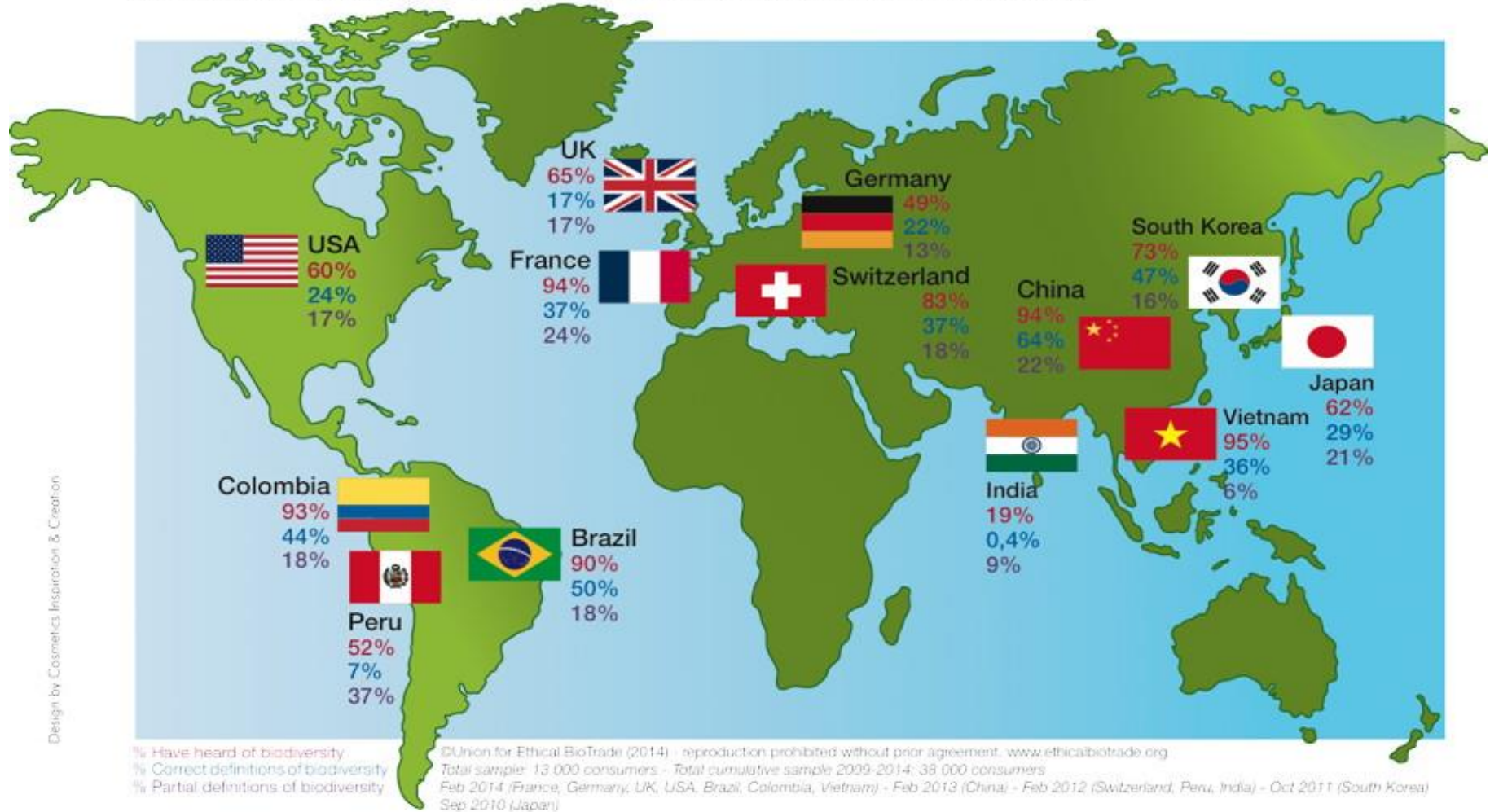
“Consulta Publica do Programa da Sociobiodiversidade”
Rio Branco / Acre – 06 de Novembro de 2018



RECURSOS NATURAIS E PRESSAO MUNDIAL



UEBT Biodiversity Barometer - Biodiversity awareness around the world - IPSOS survey



- **“Consumers in emerging markets** show a good understanding of biodiversity and a high interest in ethical sourcing. With market growth increasingly realized in these countries, these findings are of strategic importance for companies investing in emerging markets,” says UEBT Executive Director Rik Kutsch Lojenga.

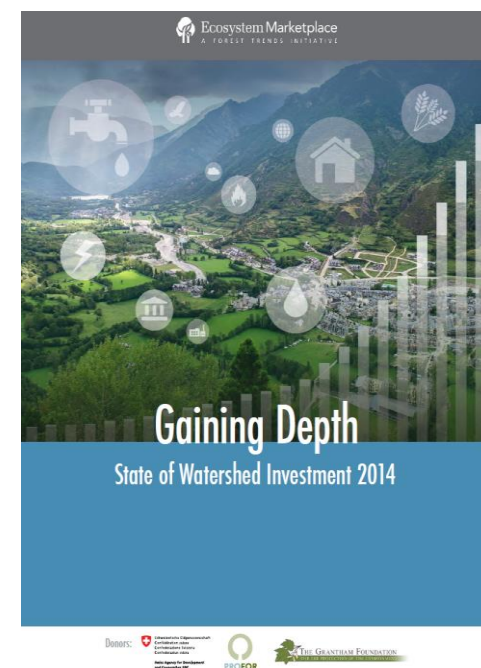
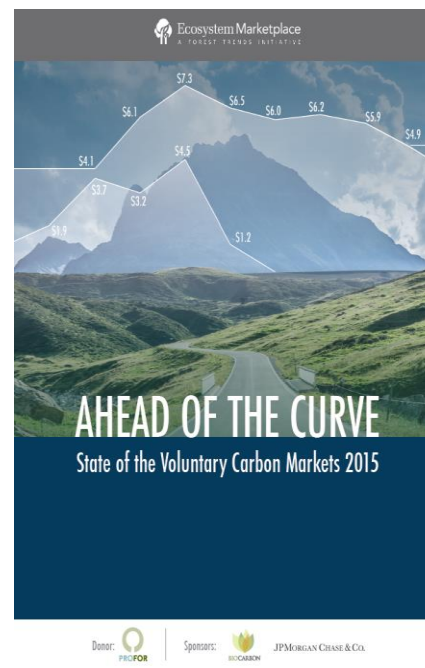
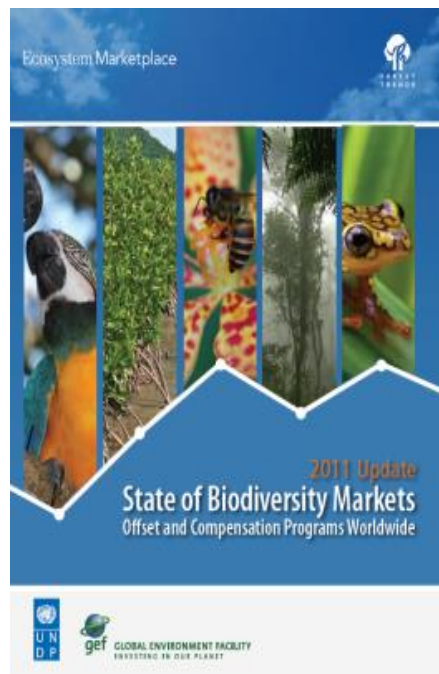
Mercados Ambientais Mundiais

Carbono

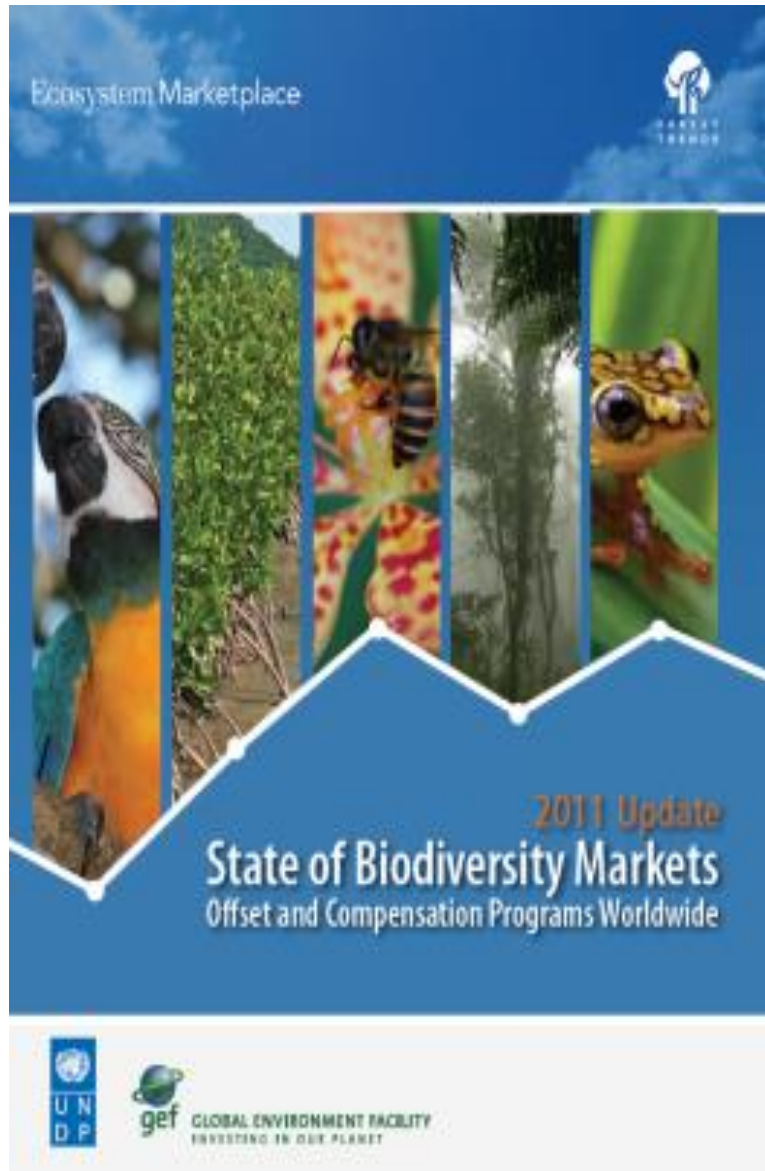
Biodiversidade

Florestas

Agua



Mercados Ambientais Mundiais de Biodiversidade



World Figures -Year 2011

Active Programs

North America	14
Central and South America	5
Africa	0
Europe	4
Asia	4
Australia/New Zealand	12
Total ACTIVE Programs	39

Regional Payments

North America	\$1.4-\$2.5 billion
Central and South America	2.65 million
Africa Unknown	
Europe Unknown	
Asia	>\$390 million
Australia/New Zealand	\$1.3 million

Total known REGIONAL PAYMENTS

per annum **\$1.8 - \$2.9 billion**

Biodiversidade em Numeros

2009 WORLDWIDE

ESTIMATED NUMBER OF SPECIES:

11.3 million

TOTAL NUMBER OF DESCRIBED SPECIES:

1.9 million



NUMBER OF NEW SPECIES DESCRIBED ANNUALLY:

18,000

TOTAL NUMBER OF THREATENED SPECIES*:

16,956

ESTIMATED CURRENT RATE OF EXTINCTION

1000 TIMES

THE NATURAL RATE OF EXTINCTION

PREDICTED SPECIES LOSS OVER THE NEXT 100 YEARS:

20-50%



SEVENTEEN MEGADIVERSE COUNTRIES†

THESE COUNTRIES ACCOUNT FOR:

<10% OF THE WORLD'S SURFACE AREA

>70% OF THE WORLD'S BIOLOGICAL DIVERSITY

- 1 BRAZIL
- 17 MADAGASCAR
- 2 INDONESIA
- 18 INDIA
- 3 SOUTH AFRICA
- 19 MALAYSIA
- 4 COLOMBIA
- 20 VIETNAM
- 5 AUSTRALIA
- 21 PERU
- 6 PAPUA NEW GUINEA
- 22 ECUADOR
- 7 MEXICO
- 23 UNITED STATES
- 8 CHINA
- 24 DEMOCRATIC REPUBLIC OF CONGO
- 9 PHILIPPINES

Are we in the midst of the sixth mass extinction?*

The battle for biodiversity

ALONG WITH climate change, the loss of biodiversity is humanity's great environmental challenge for the 21st century. This graphic snapshot, based on the *Number of Living Species in Australia and the World* report issued last year by Australian Biodiversity Information Services, shows current global and Australian species estimates and gives an indication of the alarming extinction rate eroding the planet's plant and animal species. Australia's federal list of threatened animal species has grown by 6 per cent (27 species) – up from 399 to 426 species – since AUSTRALIAN GEOGRAPHIC last looked closely at the emerging biodiversity crisis just two years ago (*The good fight, AG 88*). It's widely acknowledged, however, that many more species not officially assigned to the list are threatened; with some likely to become extinct

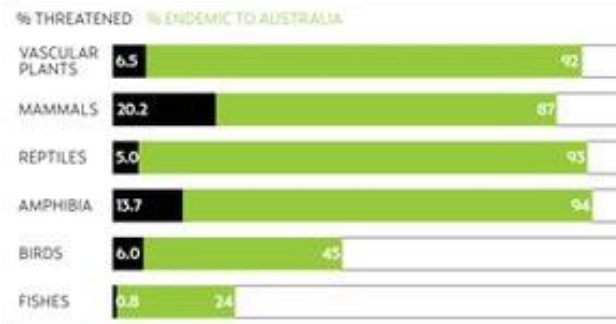
2009 AUSTRALIA

ESTIMATED NUMBER OF SPECIES:

566,398

TOTAL NUMBER OF DESCRIBED SPECIES:

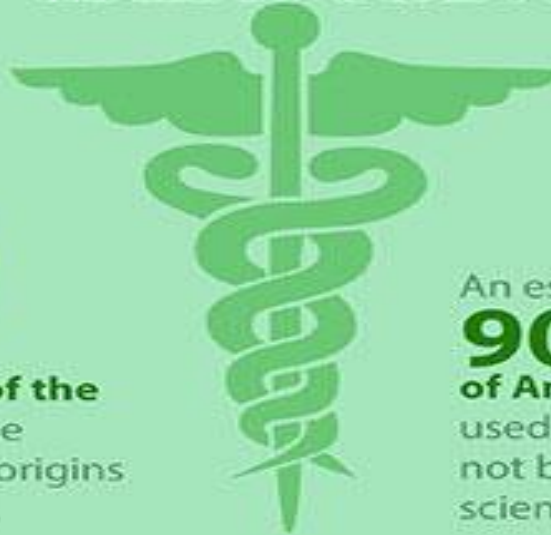
147,579



MEDICINAL PROPERTIES OF THE RAINFOREST



Over a quarter of the medicines we use today have their origins in the rainforests.



An estimated

90%

of Amazon rainforest plants used by Amazon natives have not been studied by modern science.



70%

of plants found to have anticancer properties are found only in the rainforest.

3,000 plants

have been identified by the U.S. National Cancer Institute to be active against cancer cells.

25%

of the active ingredients in today's cancer-fighting drugs come from organisms found only in the rainforest.

The **NASDAQ Biotechnology Index** is a [stock market index](#) made up of securities of [NASDAQ](#)-listed companies classified according to the [Industry Classification Benchmark](#) as

NASDAQ Biotechnology Index



Cannabis
Nano Technology
Saude
Vitaminas



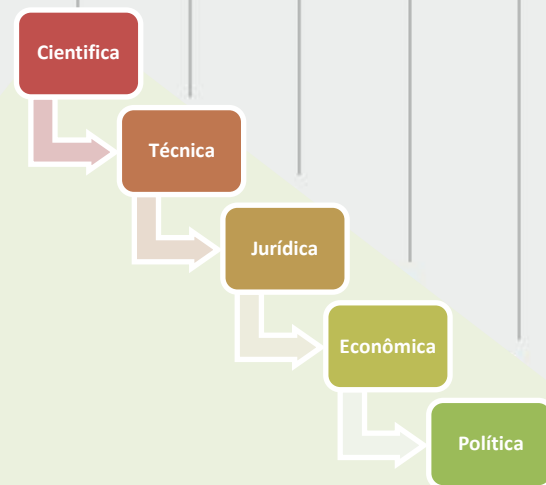
Biotech Markets

Linha do tempo de um medicamento



- Pesquisa e Desenvolvimento - Sequenciamento Genético / DNA
- Testes e Aprimoramento de Produtos
- Licenciamento
- Mercados

Serviços Ambientais ... E suas dimensões...



SERVICOS
AMBIENTAIS

CIENCIA

TECNICA

JURIDICO

ECONOMIA

SERVICOS #
PRODUTOS

POLÍTICAS
PÚBLICAS

Introdução - Cenário Internacional



COP-MOP 9

COP 14
del Convenio sobre la Diversidad Biológica
Máximo órgano de gobierno del Convenio para la toma de decisiones en materia de biodiversidad

COP-MOP 9 del Protocolo de Cartagena
El Protocolo de Cartagena sobre Seguridad de la Biotecnología es el acuerdo internacional que busca asegurar la manipulación, el transporte y el uso seguro de los organismos vivos.

COP-MOP 3

COP-MOP 3 del Protocolo de Nagoya
El Protocolo de Nagoya es un acuerdo internacional que tiene como objetivo compartir los beneficios derivados de la utilización de los recursos genéticos de manera justa y equitativa.


Contexto da Regulamentação Nacional e Estadual

- Base Legal :
- **Constituição da República Federativa do Brasil**, que no artigo 225, tutela do meio ambiente;
- **Código Florestal - Artigo 41**, caput, inciso I, alínea “c”, expresso na Lei Federal nº 12.651/12;
- **Convenção sobre Diversidade Biológica**, prevista no Decreto Federal nº 2.519/98;
- **Princípios e Diretrizes para a Implementação da Política Nacional da Biodiversidade**, descritos no Decreto Federal nº 4.339/02;
- **LEI Nº 13.123, DE 20 DE MAIO DE 2015 que dispõe sobre o acesso ao patrimônio genético**, sobre a proteção e o acesso ao conhecimento tradicional associado e sobre a repartição de benefícios para conservação e uso sustentável da biodiversidade;
- **Artigo 206 da Constituição do Estado do Acre**, que visa à proteção ao meio ambiente;
- **Lei Estadual nº 1.904, de 5 de junho de 2007, que instituiu o Zoneamento Ecológico Econômico do Estado do Acre – ZEE/AC e das diretrizes da Política Estadual de Valorização do Ativo Ambiental Florestal;**
- **Lei de Acesso a recurso Genético do Estado do Acre – Lei 1.235/1997**
- **Lei Estadual de Florestas – Lei 1.426/2001 no seu artigo 14 e**
- **Lei do SISA Artigos 1º, inciso III, e 29 da Lei Estadual nº 2.308, de 22 de outubro de 2010, que prevê a criação de Programa Estadual para Conservação da Sociobiodiversidade:**

• Artigo 41 do Código Florestal

- I - pagamento ou incentivo a serviços ambientais como retribuição, monetária ou não, às atividades de conservação e melhoria dos ecossistemas e que gerem serviços ambientais, tais como, isolada ou cumulativamente:
 - a) o sequestro, a conservação, a manutenção e o aumento do estoque e a diminuição do fluxo de carbono;
 - b) a conservação da beleza cênica natural;
 - **c) a conservação da biodiversidade;**
 - d) a conservação das águas e dos serviços hídricos;
 - e) a regulação do clima;
 - f) a valorização cultural e do conhecimento tradicional ecossistêmico;
 - g) a conservação e o melhoramento do solo;
 - h) a manutenção de Áreas de Preservação Permanente, de Reserva Legal e de uso restrito;





**Programa de Conservação da
Sociobiodiversidade do Estado
do Acre, conforme disposto no
artigo 29 da Lei Estadual n.
2.308 de 2010.**

INSTITUIÇÕES

INSTRUMENTOS ECONOMICOS

PROVEDORES e BENEFICIARIOS

STANDARDS

INSTRUMENTOS ECONOMICOS



“Standards”

1. Opções:
2. a) Standard Próprio – Princípios Basilares / Guidelines
3. b) Adoção de um Standard Internacional ou Privado



IBGE – Contas Econômicas Ambientais

Indicadores de Desenvolvimento Sustentável – IDS

Sistema de Contas Econômicas Ambientais - SCEA.



A long wooden suspension bridge with metal mesh railings stretches across a dense green forest. The bridge is made of wooden planks and is supported by thick cables. The forest is lush and green, with many trees and ferns. The bridge leads from the foreground into the distance, disappearing into the trees.

OBRIGADO

... PROXIMOS PASSOS

**“Consulta Publica do Programa da Sociobiodiversidade”
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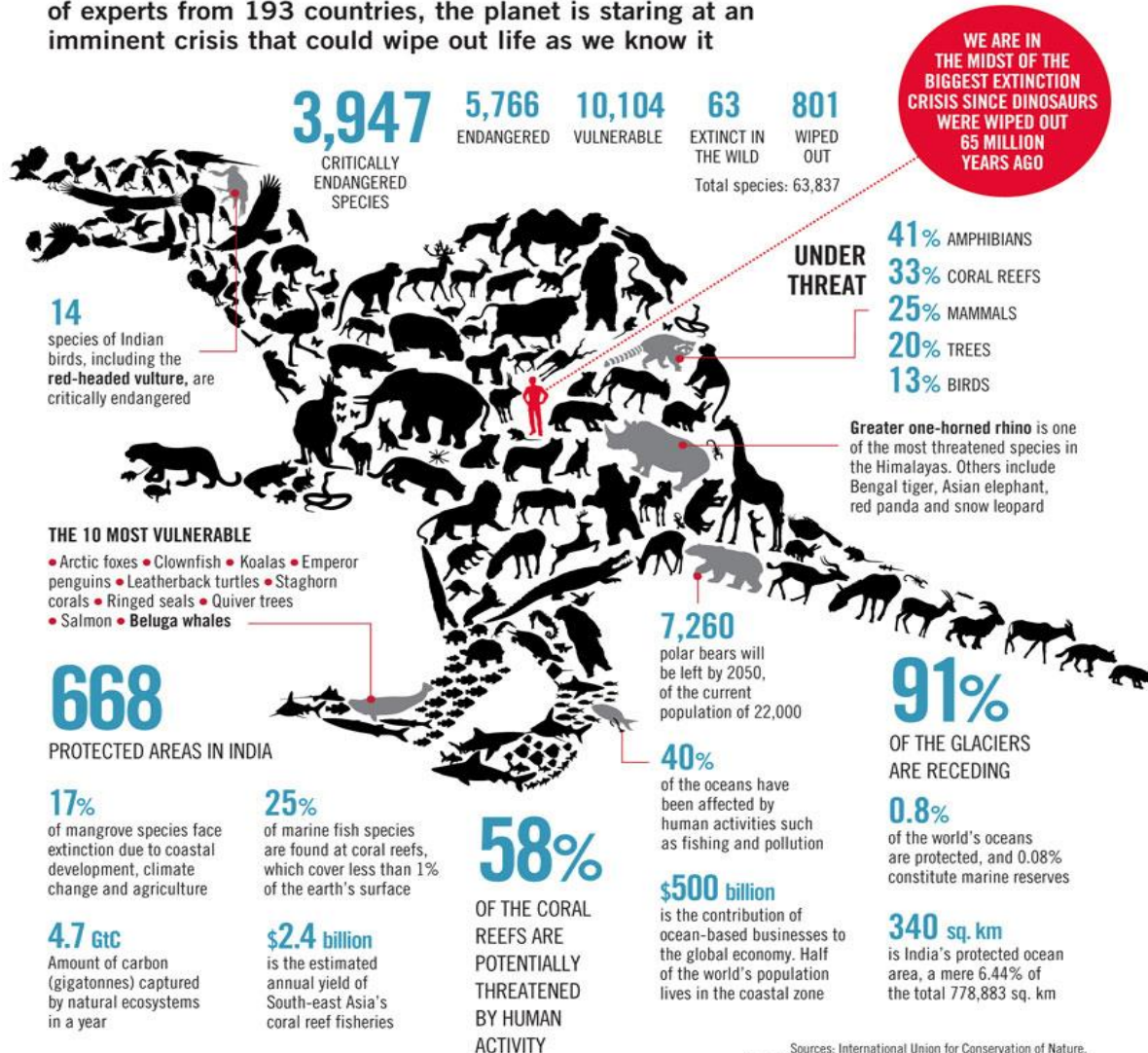
Ludovino Lopes
ludovinolopes@ludovinolopes.com.br



CLIMATE

The Losing World

Even as India bats for biodiversity investments at a UN convention of experts from 193 countries, the planet is staring at an imminent crisis that could wipe out life as we know it



LOSS OF BIODIVERSITY



"No longer do we have to justify the existence of humid tropical forests on the feeble grounds that they might carry plants with drugs that cure human disease. Gaia theory forces us to see that they offer much more than this. Through their capacity to evapotranspire vast volumes of water vapor, they serve to keep the planet cool by wearing a sunshade of white reflecting cloud. Their replacement by cropland could precipitate a disaster that is global in scale."

—James Lovelock

Threat of extinction



1 out of 8 bird species are threatened with extinction.



1 out of 4 mammal species are threatened with extinction.



1 out of 4 conifer species are threatened with extinction.



1 out of 3 amphibian species are threatened with extinction.



6 out of 7 marine turtle species are threatened with extinction.



75% of agricultural crop genetic diversity has been lost.



75% of the world's fisheries are being fully or overexploited



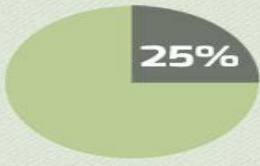
70% of the world's known species may face extinction if the **world's temperature rises by more than 3.5°C**

90% of the wet lowland forests in western Ecuador has been cleared in the past 40 years. The clear-cut former forests used to be home to **10,000 species of plants**, 25% of which existed only in Ecuador.



1/3 of reef-building corals around the world are threatened with extinction. Coral reefs are home to innumerable species.





Climate change and habitat loss threatens the existence of at least 25% of all species on land by the year 2050 if current trends continue.

Some studies even suggest that 25% of all mammal species could be extinct in just the next 20 years.



“Lumpers”

The Great Potato Famine in Ireland is a prime example of the importance of genetic variety and biodiversity.

The famine devastated Ireland’s population and economy between **1845** and **1852**.



one in eight Irish people died of starvation in three years during the Great Famine



The Irish depended on a single variety of potato, “**lumper**”, for most of their diet. A single infestation was able to spread quickly and wipe out large percentages of their food supply because of this lack of biodiversity within their crops.



Over the last 100 years, decreases in biodiversity have been increasingly observed.



Estimates are that up to 30% of all currently living species will be extinct by 2050.



Of these, about 12.5% of known plant species are threatened with extinction



Some credible estimates go so high as **140,000 species lost forever, every year.**

Variety is the spice of life, and biodiversity is the spice of Earth. The intricate web of ecosystems and habitats on the planet inhabit an equilibrium, a fine balance, and when we lose biodiversity we lose possibilities.

Care to spread your eco-friendly knowledge? Start by sharing this infographic.