



The Man and the Biosphere Programme of UNESCO: Biodiversity Sustaining and Sustainable Use of Biodiversity for Development

The 2nd Huangshan Dialogue on UNESCO Sites and Sustainable Development
UNESCO Sites – Climate Change – Space Technologies
Institute for Graduate Studies & Research (IGSR)
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MAN AND BIOSPHERE PROGRAMME



The MAB Programme

1. Progress and achievements
2. New context under Agenda 2030 and way forward





1. Progress and achievements





The 38th Session of UNESCO General Conference approved *MAB Strategy 2015-2025*

Ref: <http://unesdoc.unesco.org/images/0023/002346/234624e.pdf>

The MAB Strategy was prepared since 2013 and submitted by the decision of the 27th session of MAB ICC to the General Conference. The approval of the MAB Strategy was accompanied by a strong **Draft Resolution** (ref. 38 C/COM SC/DR.1) of 27 countries.

4th World Congress of Biosphere Reserves 14-17 March 2016 28th MAB/ICC 18-19 March 2016





4th World Congress of Biosphere Reserves: A Vision for the Decade 2016-2025

- Lima, Peru, 14-17 March 2016, followed by the 28th Session of the MAB/ICC 18-19 March 2016
- Around 1,110 participants from 115 countries present, representing governments, biosphere reserves, UN agencies, NGOs, organizations and institutions.
- Discussed progress made related to biosphere issues and work to develop criteria and guidelines for the future.
- Analyze the results of the evaluation of the Madrid Action Plan for Biosphere Reserves 2008-2013
- Assess the progress made and the challenges to be faced in the future.

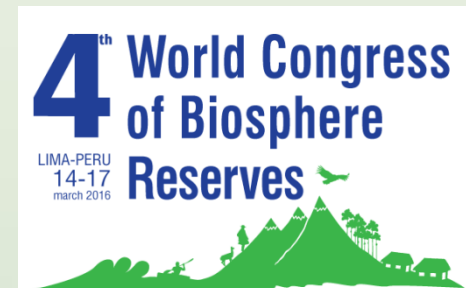




4th World Congress of Biosphere Reserves: A Vision for the Decade 2016-2025

Results achieved:

- The Lima Declaration
- The Lima Action Plan of the World Network of Biosphere Reserves for 2016-2025, which defines the role to be played by biosphere reserves in conservation issues over the next decade, and the use of natural resources for sustainable development.



New Biosphere Reserves

- **20** new BRs countries were approved
- **1** Transboundary site Spain/Portugal
- **2** BRs withdrawn
- **9** extensions
- Total **669** sites in **120** countries



MAB regional meetings:

- EuroMAB 2015 in Haapsalu, Estonia, 19-23 May 2015.
- 14th meeting of EABRN in at the Shiga Highland Biosphere Reserve in Japan 6-9 October 2015.
- 16th meeting of the IberoMAB, at Castellet I la Gornal, Barcelona, Spain, 21-23 October 2015.
- The 4th Session of the General Assembly of AfriMAB in Accra, Ghana 24-27 November 2015.





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World Network of Island and Coastal Biosphere Reserves

"A global network of island and coastal biosphere reserve with special reference to biodiversity conservation, protected areas and sustainable development".

Chronology of events:

10-11 February 2008 in Menorca, Spain (3rd World BR Congress)

25-29 May 2009 in Jeju Island, Korea

1 - 3 September 2010 in Jeju Island, RO Korea

28 June- 1 July 2011, Dresden, Germany

13-16 February 2012 in Menorca, Spain

12-13 September 2012 in Jeju Island, Korea

5 - 8 June 2013 in Estonian Archipelago, Estonia

10-13 June 2014 in Palawan, Philippines

24-27 March 2015, Attard, Malta

14-17 March 2016, Lima, Peru (4th World BR Congress)



UNESCO Website: **World Network of Island Biosphere Reserves:**

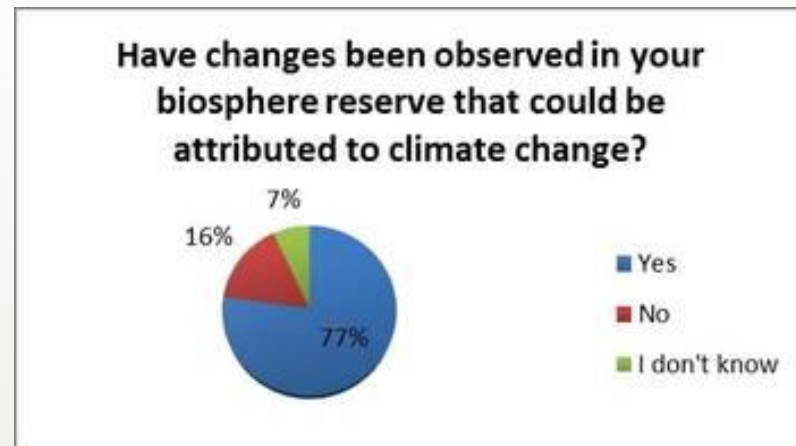
<http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/man-and-biosphere-programme/networks/world-network-of-island-biosphere-reserves>

2016



MAB Survey on Biosphere Reserves and Climate Change - October 2015

- A large majority (77%) confirmed that changes had been observed in their BR which could be attributed to climate change.
- Most of the BR mention seasonal changes such as shorter winters and longer periods of drought.
- 60% confirmed that they are undertaking efforts to monitor climate change.
- Only 38% of the reserves are taking or plan to undertake climate change adaptation efforts.
- 49% stated that they are making efforts to reduce greenhouse gas emissions in their biosphere reserve.





2. New context under Agenda 2030 and way forward



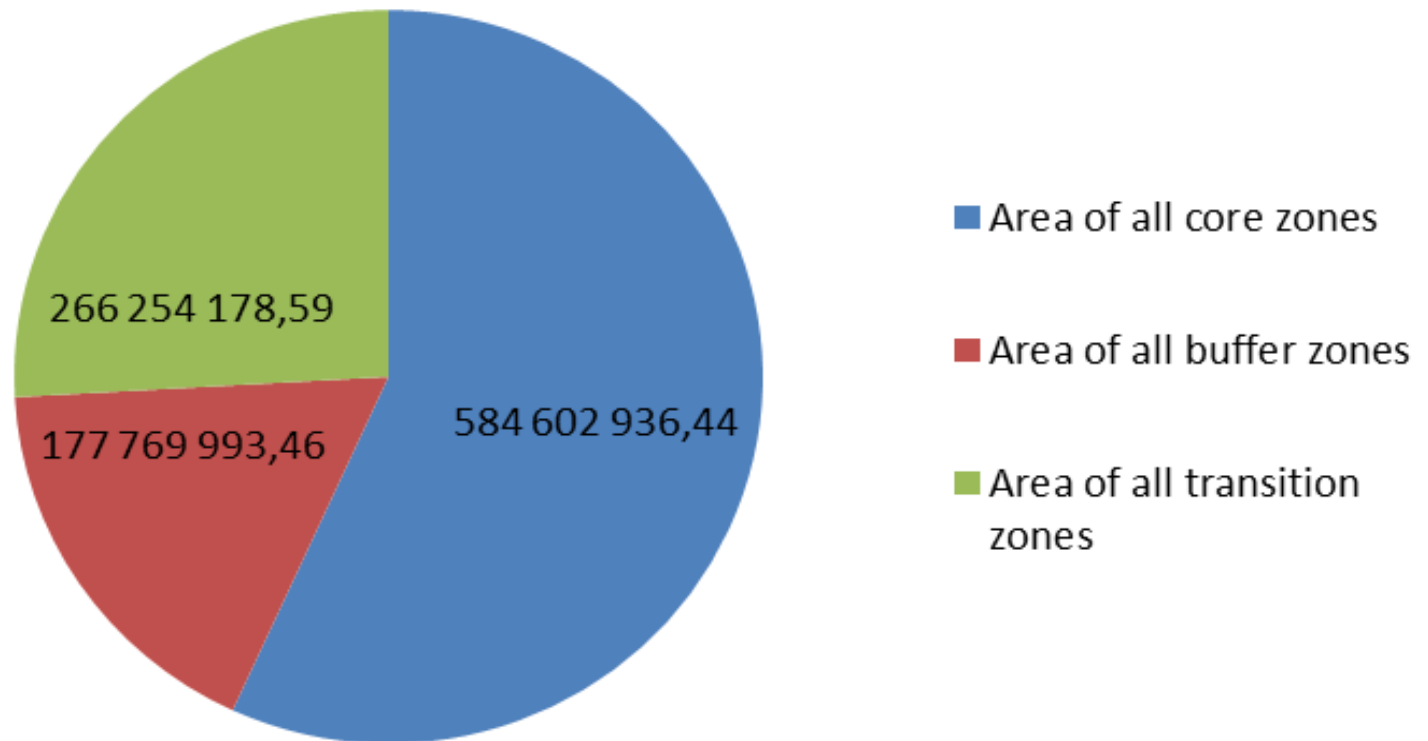
Sustainable Development Goals



WNBR: the places where local development agenda are connected and contributing to Agenda 2030 and specific SDGs and targets



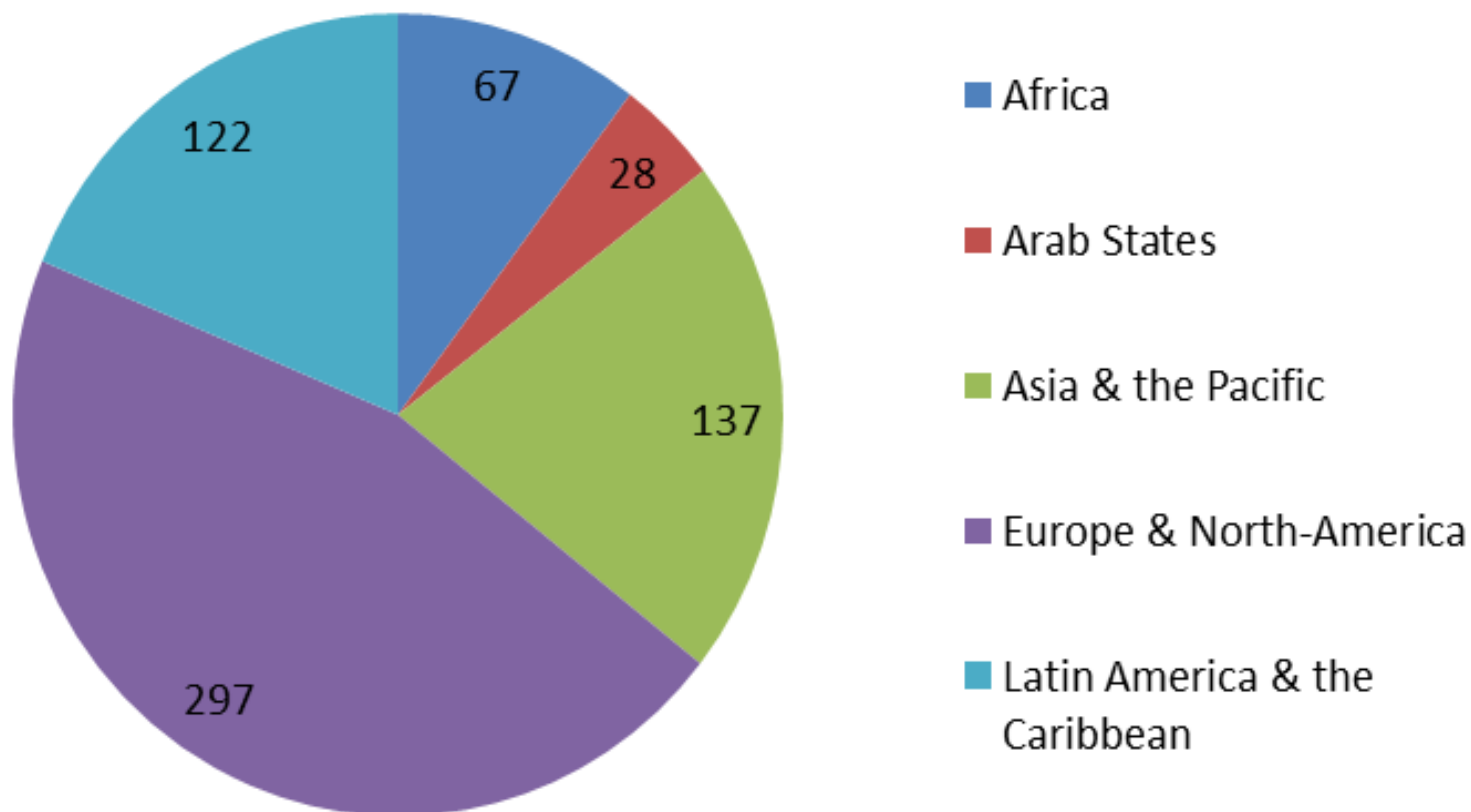
WNBR covers approximately a total area of **1,027,627,000** ha



where biodiversity and ecosystem services directly benefiting approximately **198** million people



Biosphere Reserves per region:



MAB Strategy and Action Plan

1. Conserve biodiversity, **restore** and enhance ecosystem services, and foster the sustainable use of natural resources
2. Contribute to building sustainable, healthy and **equitable** societies, **economies** and thriving **human settlements** in harmony within the biosphere

MAB Strategy and Action Plan

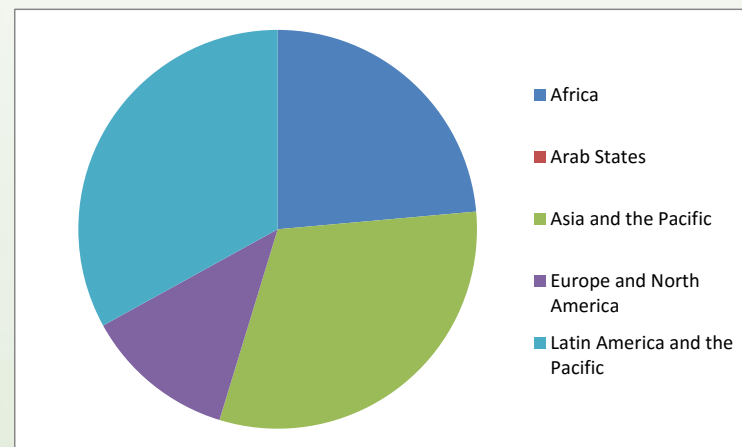
3. Facilitate biodiversity and **sustainability science**, education for sustainable development and capacity building

4. Support **mitigation** and **adaptation** to climate change and other aspects of global environmental change.

SDG 15 - Target 2

promote the implementation of sustainable management of all types of **forests**, halt deforestation, restore degraded forests, and increase afforestation and reforestation globally.

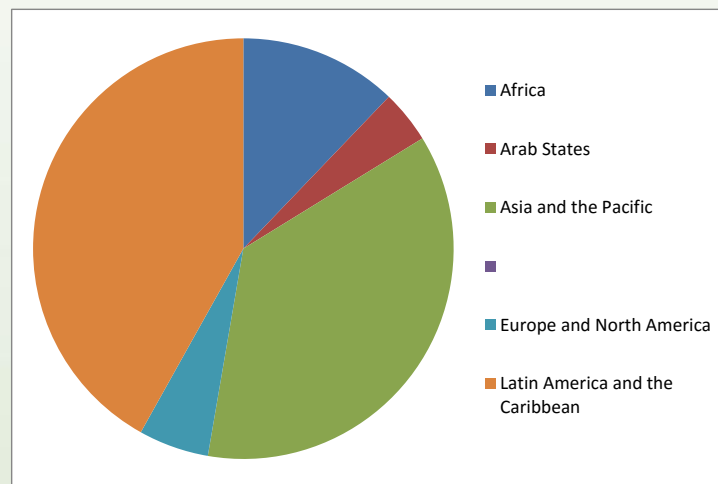
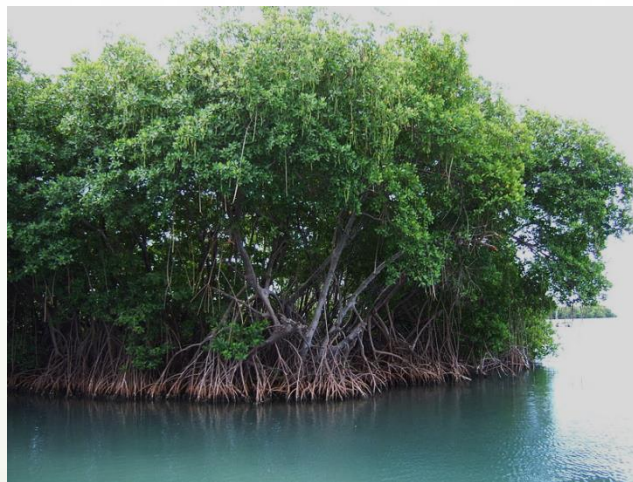
105 Biosphere Reserves are of rainforest ecosystems



16% of WNBR

Indonesia is the country with the highest
number of Rainforest BRs (7)

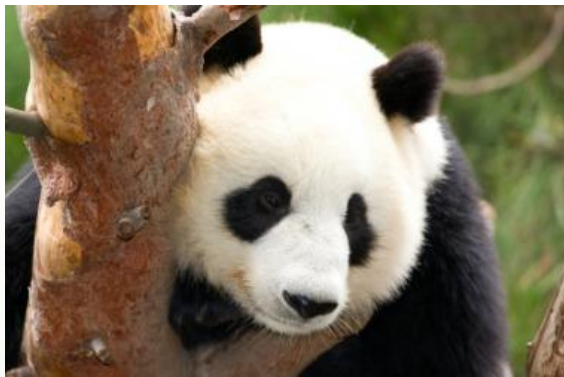
80 BRs contain mangroves



12% of WNBR

SDG 15 - Target 5

take urgent and significant action to reduce degradation of natural habitat, **halt the loss of biodiversity**, and by 2020 protect and prevent the extinction of threatened species.



Giant Panda at Wolong BR, China



Ghost orchid
at Everglades
BR, USA

BRs as home to endangered species

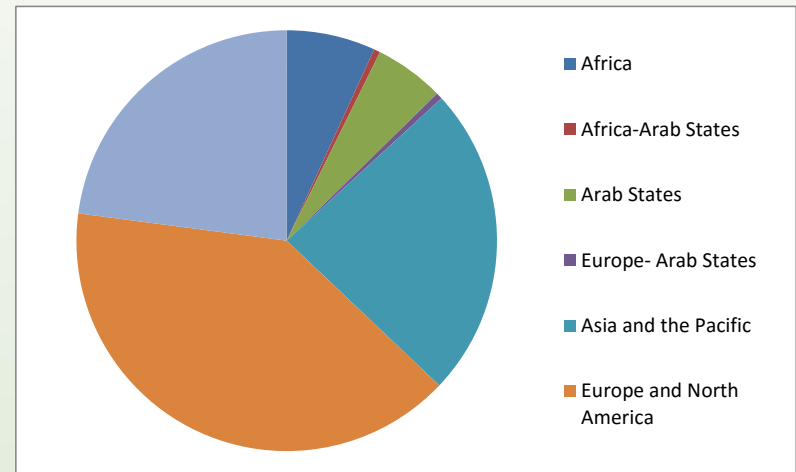


Black Rhinoceros at Serengeti –
Ngorongo BR, Tanzania



Green Sea Turtle at Sian Ka'an BR, Mexico

205 BRs contain Marine, Coastal & Island ecosystems



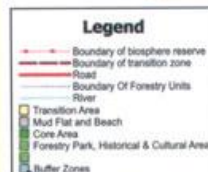
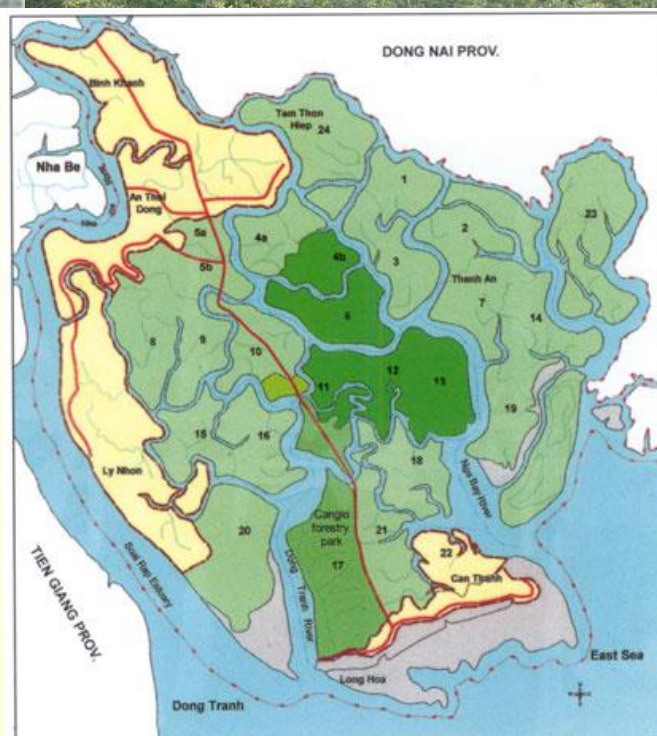
32% of WNBR

SDG 15 - Target 1:

ensure conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.



BRs with successful ecological restoration
- Can Gio mangroves



ZONATION MAP OF CAN GIO
MANGROVE BIOSPHERE RESERVE



Sustainable agriculture in
Bosque Seco BR, Ecuador

BR for sustainable economic activities



Green Economy in Biosphere Reserves project: Ghana, Nigeria and Tanzania

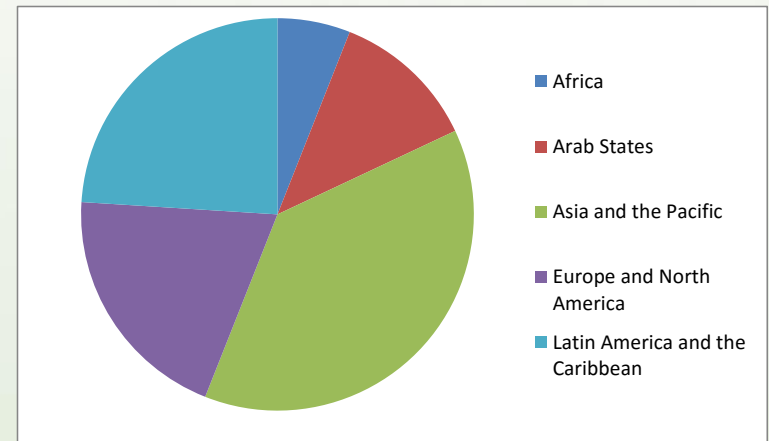
- Three year project being implemented in three sub-Saharan African countries: Ghana, Nigeria, and Tanzania.
- Financed by Korea International Cooperation Agency (KOICA) and implemented by MAB.
- Aim: conservation of biodiversity, poverty reduction, and sustainable development through green economies.



SDG 15 - Target 3:

combat **desertification**, and **restore degraded** land and soil, including land affected by desertification, drought and floods, and strive to achieve a land-degradation neutral world.

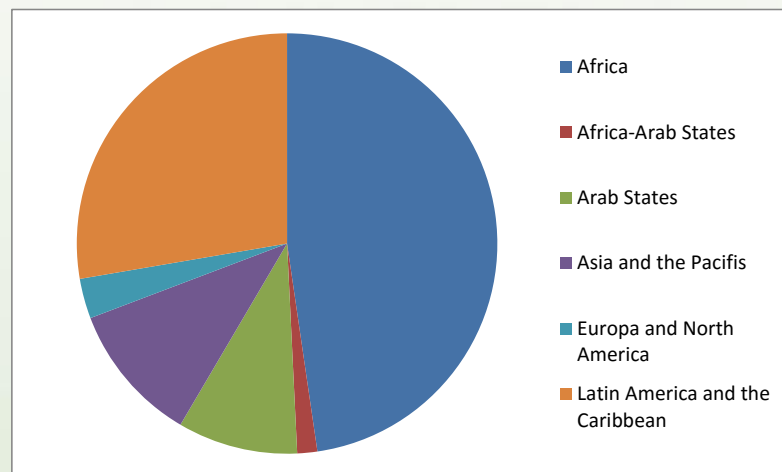
50 BRs are or
contain dryland
ecosystems



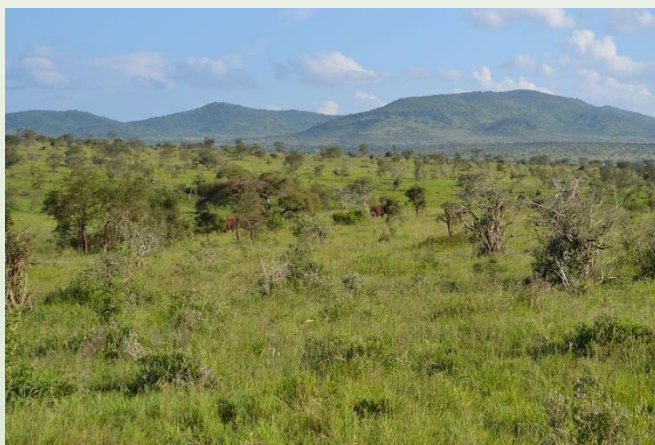
8% of all WNBR



65 Biosphere Reserves contain a savannah ecosystem



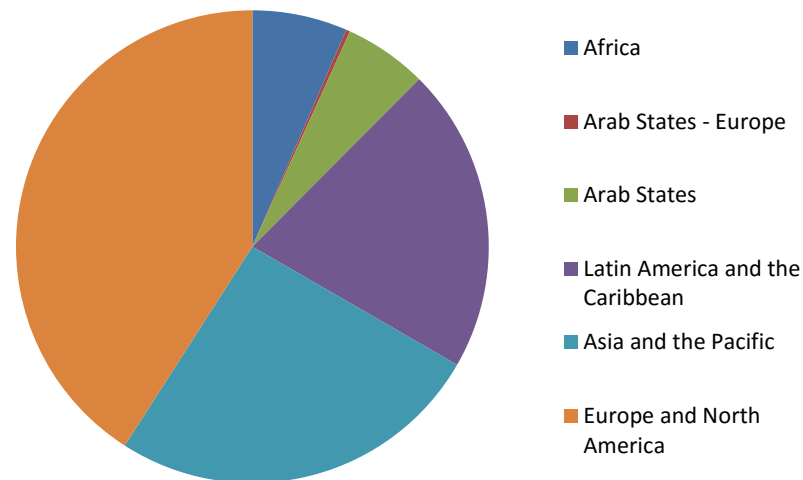
10% of WNBR



SDG 15 - Target 4:

ensure the conservation of **mountain** ecosystems, including their biodiversity, to enhance their capacity to provide benefits which are essential for sustainable development.

369 BRs contain
mountain ecosystem



59 % of WNBR

SDG 13 – Climate Action:

Global **Climate Change** Field Observatory of UNESCO Sites



UNESCO World Heritage Sites and Biosphere Reserves as priority reference sites for understanding the impacts of climate change on human societies and cultural diversity, biodiversity and ecosystems services, the world's natural and cultural heritage, and the possible adaptation and mitigation strategies



Using WNBR for research and monitoring





Additional ideas on way forward



MAN AND BIOSPHERE PROGRAMME

Roles of local governments in MAB and in WNBR





Research Project

Establishment of Strategies Responding to Climate Change on Island and Coastal Biosphere Reserves

- 1) Conservation of original ecological and geological quality of BR for mitigating climate change through their ecological services;
- 2) Establishment of a BR-specific strategy for BR that are more vulnerable site to climate change;
- 3) Establishment of a BR-specific strategy for the sustainable use of the BR;
- 4) Establishment of a BR-based strategy in order to enhance awareness and capacity building at local level as well as from the already existing engagement and motivation from local stakeholders towards the implementation of effective adaptation measures.

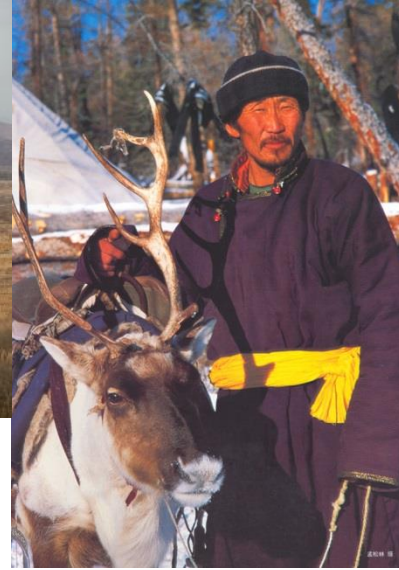
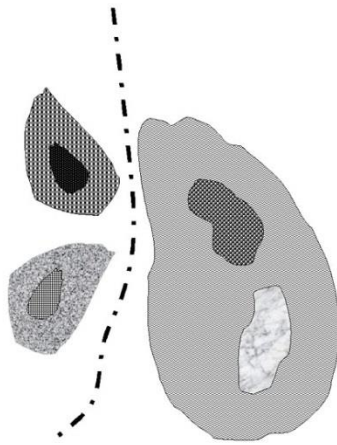
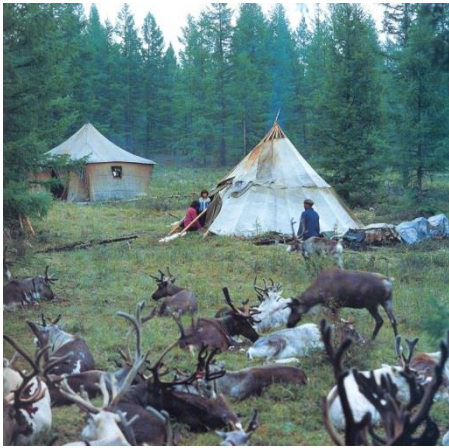
Implemented by

Jeju Secretariat, World Network of Island and Coastal Biosphere Reserves, UNESCO
Division of Ecological and Earth Sciences Man and Biosphere (MAB) Programme,
UNESCO

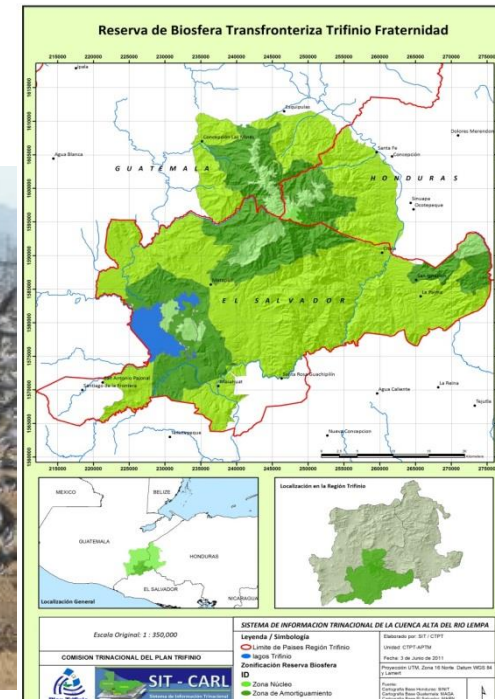
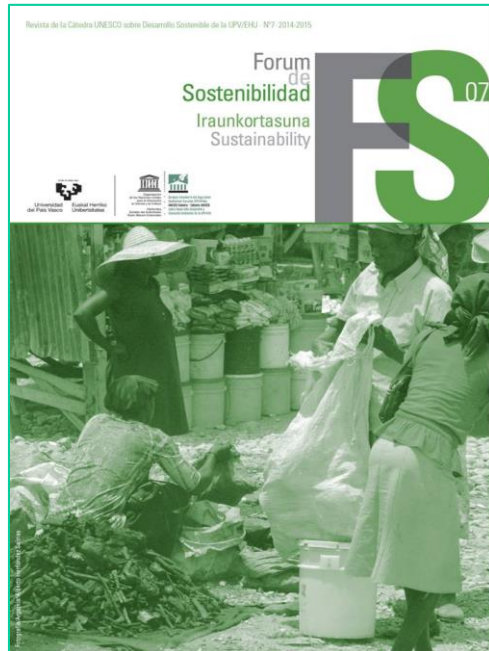
Asia Climate Change Education Center (Jeju, South Korea)



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TBR for confidence, friendship and peace



BR multi-partnership with private sector:

‘No plastic. A small gesture in our hands’

- Island of Principe Biosphere Reserve (São Tome and Principe), MAB, the Spanish Ministry for Agriculture, Food and Environment and HBD group.
- Aim: to reduce plastic waste and promote access to drinking water in the biosphere reserve.
- After a year-long campaign, a total of **300,000** plastic bottles were removed, thirteen water fountains were established, and over 6,000 reusable stainless steel ‘Principe Biosphere Bottles’ were distributed among the local population.





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For additional information, please contact:

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A street scene in Paris, France. In the foreground, a street sign on a black pole reads "7^e Arr." and "PLACE DE FONTENOY". The background features a large, modern, curved building with many windows, partially obscured by trees with autumn-colored leaves. Several cars are parked along the street, and orange traffic cones are visible. The text "Thank you very much!" and "非常感谢你!" is overlaid in the center.

Thank you very much!
非常感谢你！