



## The UNESCO Man and Biosphere Programme

A balance between Man and Nature

"The aims of the UNESCO MAB Programme and its implementation in Italy"





Ministry of

Foreign

**Affairs** 

### The MAB UNESCO Programme in Italy

Implements the Program in Italy

Identifies specific objectives at the national level.

Coordinates international activities

Italian National Commission for UNESCO (CNIU)

Ministry of

Education

Italian National Technical Committee

Ministry of Environment

> Ministry of the University

Ministry of Culture

Ministry of Agriculture



Ministry of Environment and Energy Security

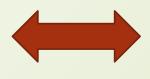


The UNESCO MAB Programme and its Network represent a great idea of a great global community

Connecting people and nature in hundreds of places around the world.

Different cultures, languages, experiences, but a common goal and vision.







green economy



sustainable development policies

nature conservation goals





### Purpose of the Proclamation of Reserves

Promote and demonstrate a balanced relationship between the human community and ecosystems

Create privileged sites for research, training and environmental education

Create experimentation hubs for targeted development and territorial planning policies





### The MAB UNESCO Programme in Italy

National Technical Committee MAB UNESCO

approved in 2017

### National Guidelines for Biosphere Reserves

Consolidate the Italian Network by providing a reference framework for candidacy proposals and defining a methodology for verification and management support for the recognized Reserves

With the aims of:

- Maintaining the high value of national recognition.
- ✓ Increasing and strengthening activities related to the RB's three functions.
- ✓ Encouraging candidatures from territories already suited to the objectives of the MAB Program.





### Role of Biosphere Reserves at national level, through the coordination of the Ministry and the National Technical Committee

### The National Network of Biosphere Reserves

The Italian Biosphere Reserves are constituted in a National Network of Biosphere Reserves.

The Network, permanent in nature, aims to build and foster a system of synergic and coordinated actions and good practices that enhances common projects among the Italian Reserves.

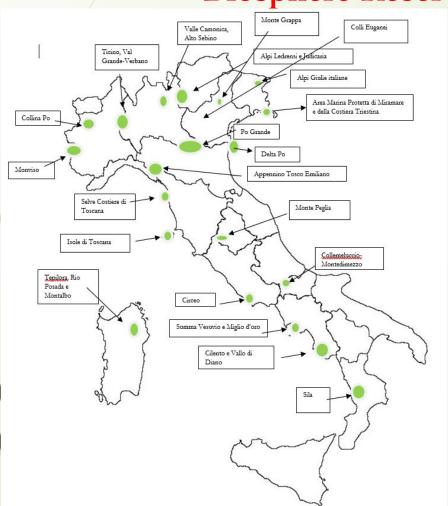
The Network is functional to a more incisive and choral action of the Italian Reserves, but also to facilitate the communication of the value and role of the Reserves, as well as the dialogue with the territories and with the National Technical Committee MAB and its technical components.



### Ministry of Environment and Energy Security



### Biosphere Reserves in Italy



- 1. Collemeluccio-Montedimezzo
- 2. Circeo
- 3. Miramare
- 4. Cilento e Vallo di Diano
- 5. Somma-Vesuvio e Miglio d'Oro
- 6. Ticino, Val Grande Verbano
- 7. Isole di Toscana
- 8. Selve costiere di Toscana
- 9. Monviso
- **10**. Sila
- 11. Appennino Tosco-Emiliano
- 12. Alpi Ledrensi e Judicaria
- 13. Delta del Po
- **14.** Collina Po
- 15. Tepilora, Rio Posada e Montalbo
- 16. Valle Camonica-Alto Sebino
- **17.** Monte Peglia
- **18.** Alpi Giulie
- 19. Po Grande
- 20. Monte Grappa
- 21. Colli Euganei





### Resilience: A Core Concept of Biosphere Reserves

**Definition:** Places where the relationship between humans and their environment is in equilibrium.





**Strategic Role:** Act as open-air laboratories for testing innovative solutions.

#### Models of Advanced Governance:

- Collaboration between institutions, local communities, private sector, and the scientific world.
- Integrated resource management and ecosystem protection.







### The Multifaceted Role of Biosphere Reserves

**Beyond Conservation:** Not limited to conservation and sustainable ecosystem management.

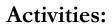


### Traditions

#### **Hubs for:**

- Research
- Education
- Social innovation





- Development of pilot projects.
- Experimentation with new technologies.
- Promotion of participatory governance models involving local communities.









### Strengthening Territorial Resilience

### Active Stakeholder Participation & Knowledge Sharing

- ✓ Strengthens territorial resilience to increasingly frequent extreme events.
- ✔ Promotes social cohesion, quality of life, and a sense of belonging.

### Awareness and Care

✓ This sense of belonging fosters a desire to care for the territory.

## Our motto: You are the Biosphere Reserve Take care of it!







### Biosphere Reserves and Water Resources

**Strong Connection:** The global network of Biosphere Reserves includes many sites with vital links to lakes, rivers, water basins, and water in all its forms.

**Diverse Contexts:** Applying MAB principles in various specific environmental settings.

Unique Opportunity: Addressing water-related challenges in an integrated and multidisciplinary manner.

Inclusive governance is the winning strategy

### **Key Functions:**

- Testing interdisciplinary approaches.
- Developing and exchanging scientific and management information.
- Promoting sustainable social relations to protect water resources.





### Biosphere Reserves: Models for a Water-Resilient Future

- **Synergy:** Combining biodiversity conservation, sustainable development, and local community involvement.
- **Reference Models:** Can become national and international benchmarks for building a water-resilient future.
  - **Mandate:** Born with the mission to promote and exchange information, experiences, and best practices.
- **Demonstrating Possibility:** Showing that sustainable resource management is achievable.





### Water, Ecosystems, and Human Well-being

**Interconnectedness:** The health of aquatic ecosystems, good water resource management, and human well-being are deeply linked to water.

**Ongoing Discussion:** These themes are central to discussions within the MAB community at international and national levels.

### Call to Action:

- o Institutions, the scientific community, the private sector, and civil society must fully recognize and value the potential of Biosphere Reserves in water resource management.
- o Investing in these territories, supporting their projects, and promoting best practice exchange is crucial.





### The Crucial Role in Facing Water Challenges

- The Challenge: Ensuring the resilience of water systems for present and future generations.
- Prøtecting Ecosystems: Safeguarding our natural environments.
- · Promoting Sustainable Development: Centering respect for water resources.

Our Duty: To enhance and support this precious heritage to build a safer and more resilient future for all.





## Italian Biosphere Reserves: A Spectrum of Solutions for Water Resilience

- **Diverse Ecosystems:** From the Alps to the Apennines, from coastal wetlands to islands.
- Offering Natural Solutions: Providing a range of approaches to address issues related to river environment management and enhance their resilience.



- ✓ Fundamental role in regulating the hydrological cycle, water infiltration, and protection from landslides/floods.
- Many BRs conserve valuable forests and promote sustainable forest management, directly benefiting water availability and quality.



# Wetlands

- ✓ Often present in BRs, acting as natural sponges (absorbing excess water, releasing it during droughts).
- Crucial for biodiversity and mitigating extreme events, maintaining stable water flow.

## orests





### Practical Examples of Water Resilience in Italian BRs

Sustainable Forest Management for Hydrological Regulation

Alpi Ledrensi e Judicaria Biosphere Reserve

Promoting tree species diversity and healthy undergrowth.

Benefits: Increased soil water absorption, reduced runoff and erosion, more constant water supply to springs and downstream watercourses.





## Wetland Restoration for Flood Mitigation & Aquifer Recharge

Delta del Po Biosphere Reserve

Practices: Restoring ancient wetlands and disused fishing valleys to recreate natural "sponge" habitats.

Benefits: Restoring wetlands acts like creating natural sponges, reducing flood risks while replenishing vital groundwater reserves.





Energy Security

Maintaining the capacity of river basins to regulate water flow

Tuscan-Emilian Apennines Biosphere Reserve

Proper management of rainwater

Safety and quality of life in the valley territories

Contribute to safeguarding the environment

Actions to protect water resources contain erosive phenomena in order to guarantee water regulation.



Ministry of Environment and Energy Security



### Synergies between Biosphere Reserves: The Po River Biosphere Reserves



Commendable Example: The collaborative work of the 5 Biosphere Reserves along the Po River.

**Geographical Span:** From the Cottian Alps (source of the Po) across 4 regions to the Adriatic Sea.

A Richness of Environments: These 5
Reserves feature extraordinary natural environments, landscapes, cultural values, and best management practices.

**Participating Reserves:** Monviso, Ticino Val Grande Verbano, Po Grande, Collina Po, and Delta Po.





### Changing minds, not the environment!

#### A Testament To:

- The validity of environmental and management choices made.
- The successful outcome of cooperation between people and entities.
- The ability to find common ground, engage in dialogue, and share objectives for the benefit of the territories.

"While World Heritage helps to preserve values, Biosphere Reserves create it."

Irina Bokova, ex General Director UNESCO