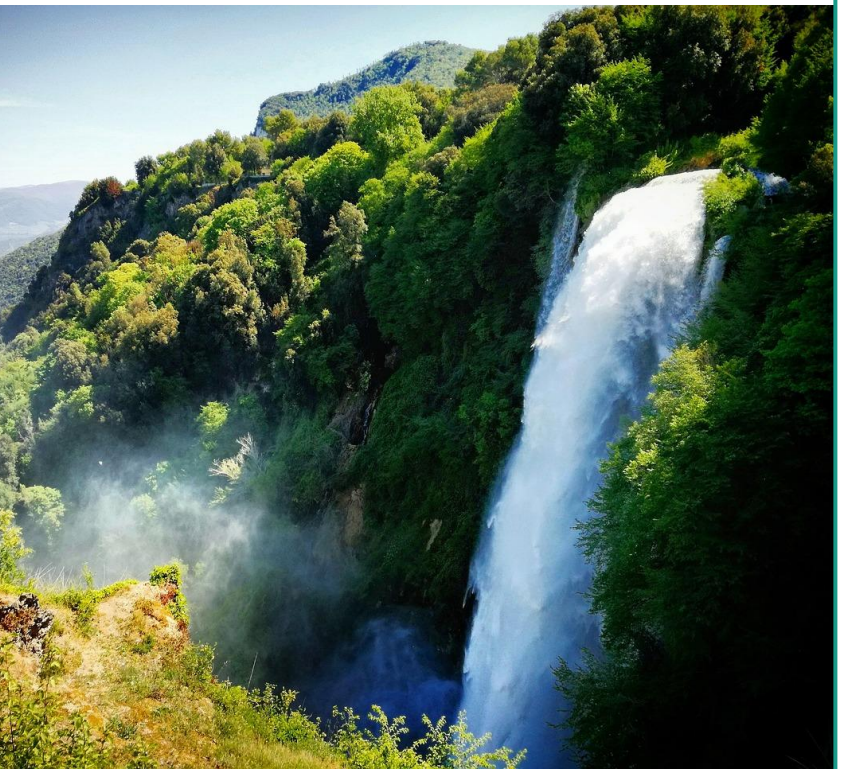
HYDRA

Museo Multimediale
Cascata delle Marmore

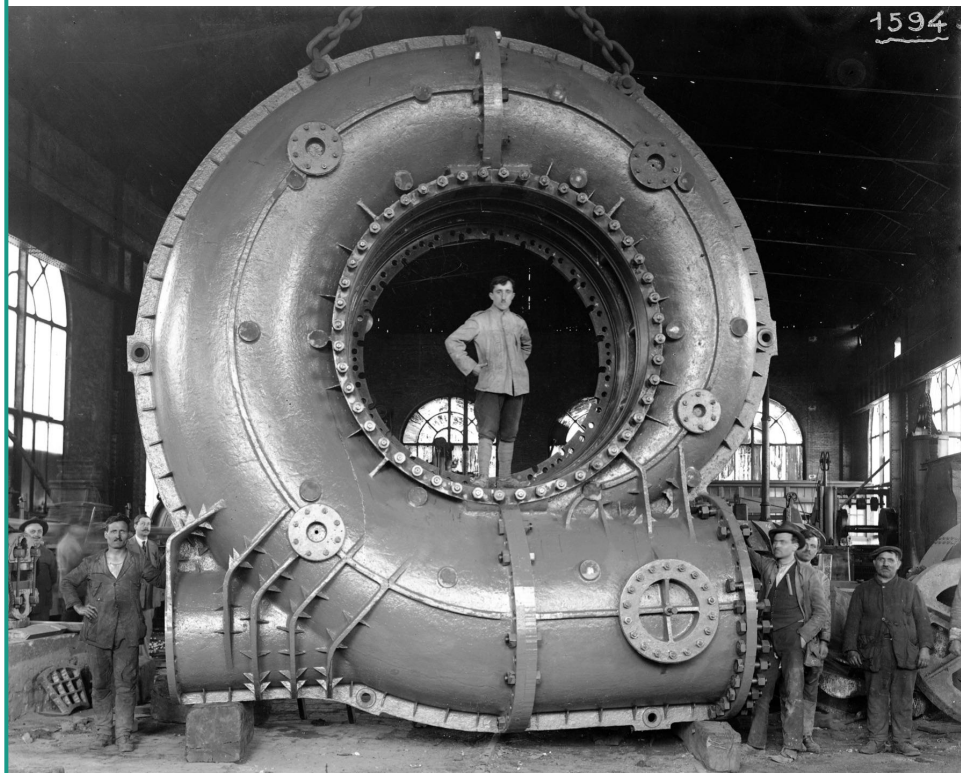


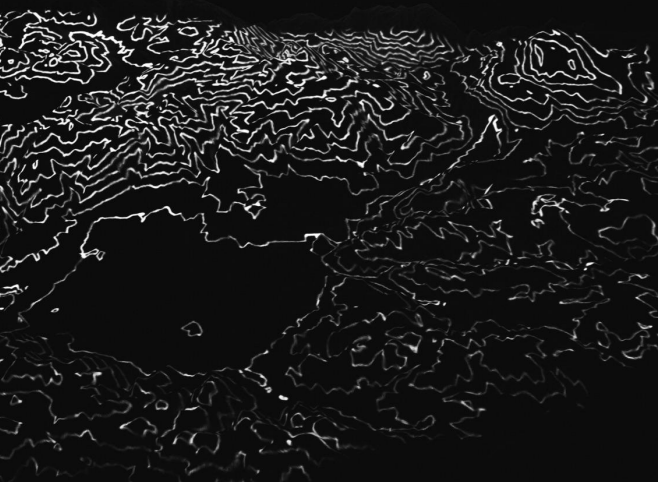
Marmore Waterfall

- The **highest** and **oldest artificial waterfall** in Europe
- In **271 BC the Romans began the excavations** of a canal to transform the upper plain and reclaim the land
- For many centuries it has been the subject of **projects and interventions by the best engineers and architects** of the age, like a great medieval cathedral
- It is currently managed and maintained by the **greatest hydroelectric nucleus in centre Italy**
- One of the most visited sites in Italy by tourists, with **500,000 visitors / year**

Context

- A unique and millennial **example of the relationship between Man and Water**.
- In these days constitutes a **complex system** of interaction that occupies a vast territory, **two rivers and three lakes**
- Today's complex water management system is still in a **delicate balance between nature and anthropogenic activities**

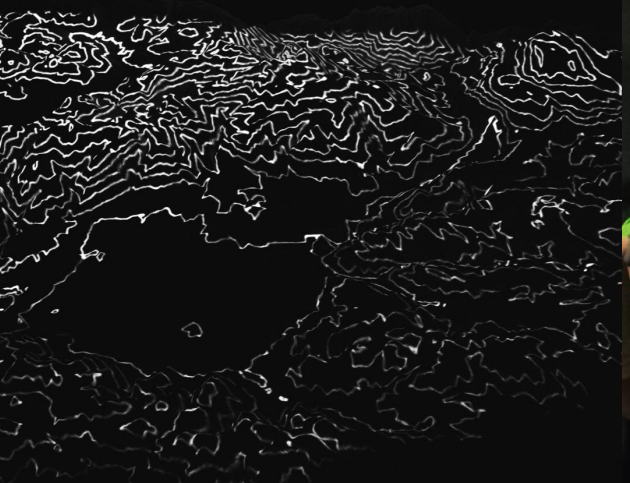




Hydra Museum

- **Multimedia exhibition** to enhance the story of this site
- **Immersive experience with extensive use of technology** (3D printed three-dimensional models, videomapping, augmented/virtual reality, digital app, audiovisual and multimedia content)
- **Activator of cultural, tourist and commercial processes** in the surrounding area
- **Center for education** on environmental sustainability
- **Innovative merchandising** projects
- **Format** replicable in other contexts

in the last 100,000 years and,

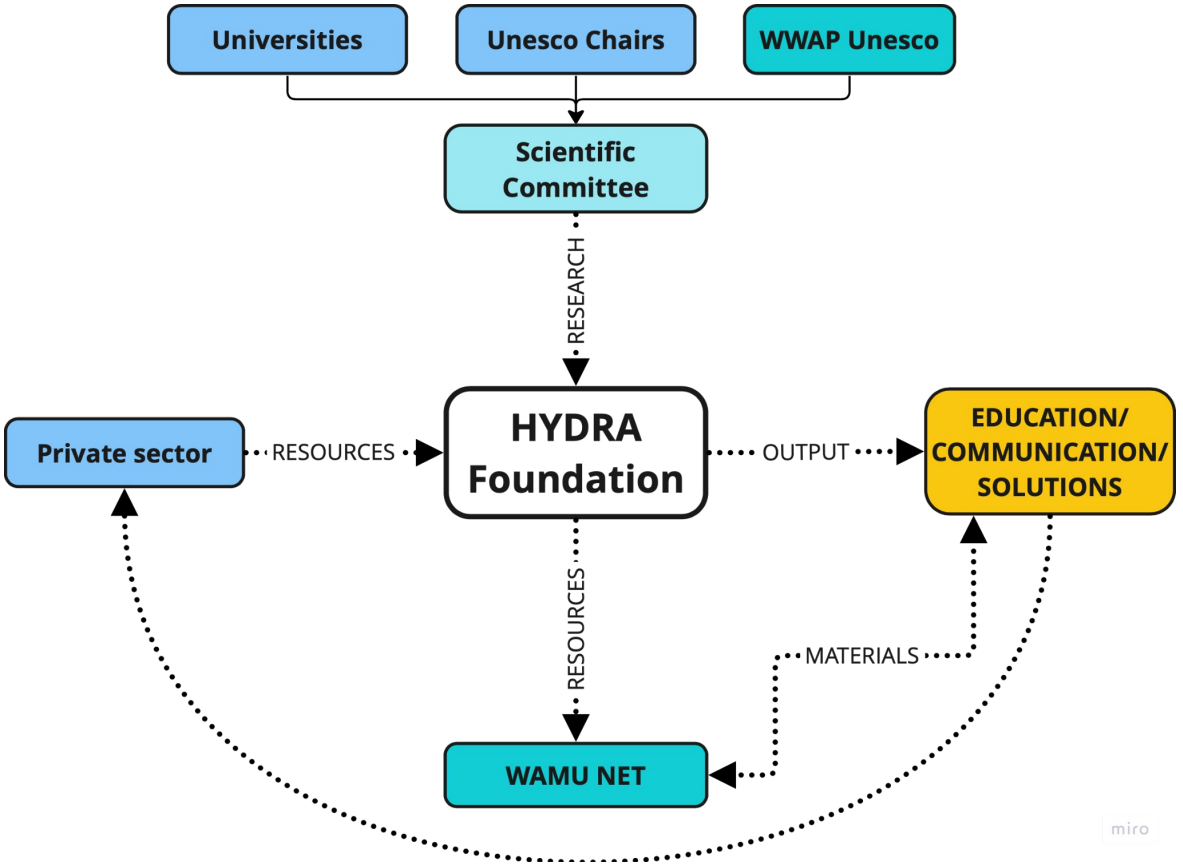


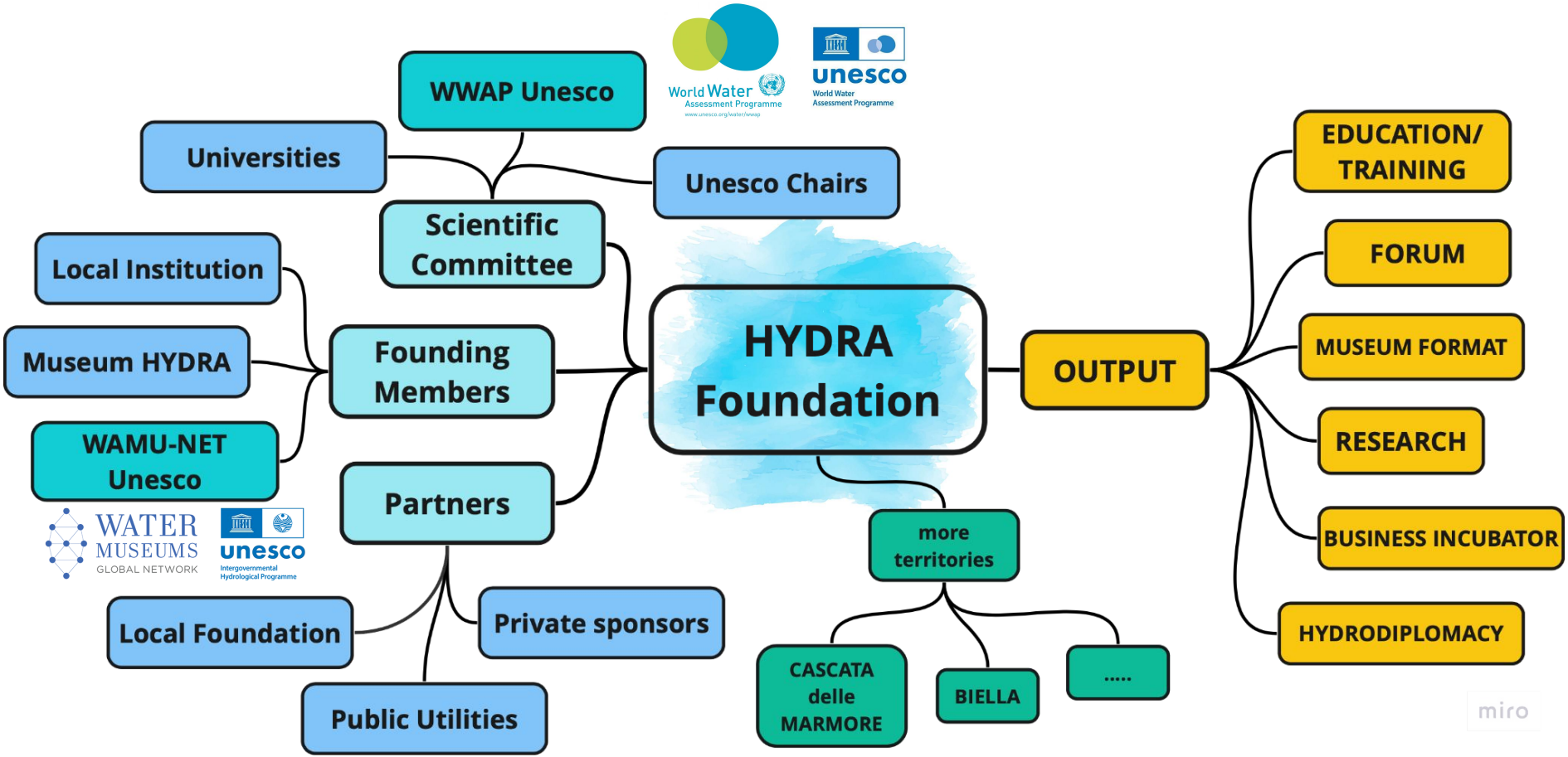
The Water Forum

- **Meeting and coordination of the Italian water museums** belonging to WAMU NET
- Identification of **best practices for the environment** of the Marmore and neighboring territories
- Global spread of **previous experiences** on behalf of the WAMU NET
- Presentation of the **annual world report** drawn up by WWAP Unesco
- Next edition: **22-23-24 June 2023**

The Foundation

- A **public-private entity of study and research** on the topic of Fresh Water
- Attract **private capitals for communication and education** on sustainability
- Scientific Committee attended by the **Italian UNESCO Water Family**
- Participation of **local Universities and Institutions**
- Generate **resources and materials for WAMU NET**




WWAP Unesco
World Water Assessment Programme
unesco
World Water Assessment Programme
Universities
Unesco Chairs
Scientific Committee
Local Institution
Museum HYDRA
WAMU-NET Unesco
Founding Members
Partners
HYDRA Foundation
OUTPUT
EDUCATION/ TRAINING
FORUM
MUSEUM FORMAT
RESEARCH
BUSINESS INCUBATOR
HYDRODIPLOMACY
WATER MUSEUMS GLOBAL NETWORK
unesco
Intergovernmental Hydrological Programme
Local Foundation
Private sponsors
Public Utilities
more territories
CASCATA delle MARMORE
BIELLA
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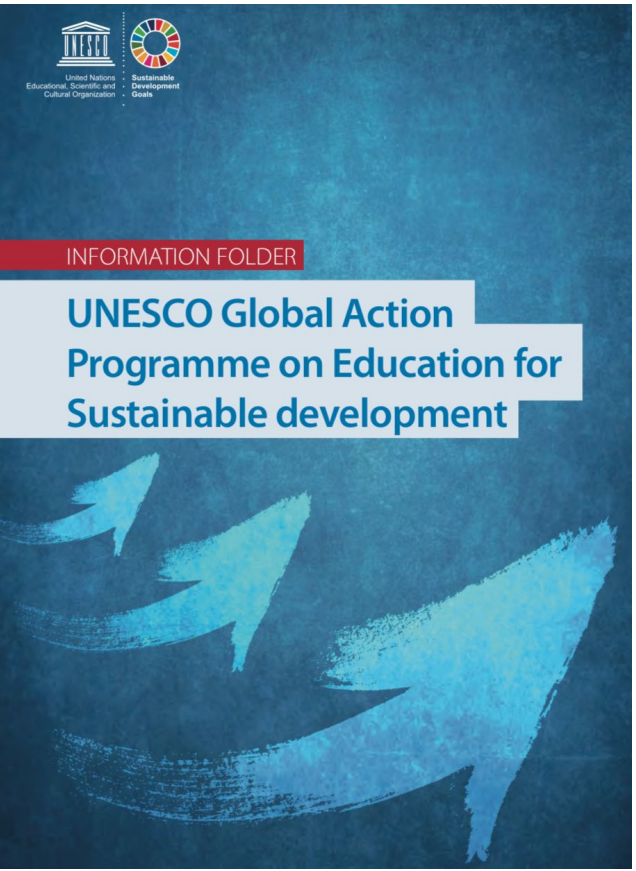
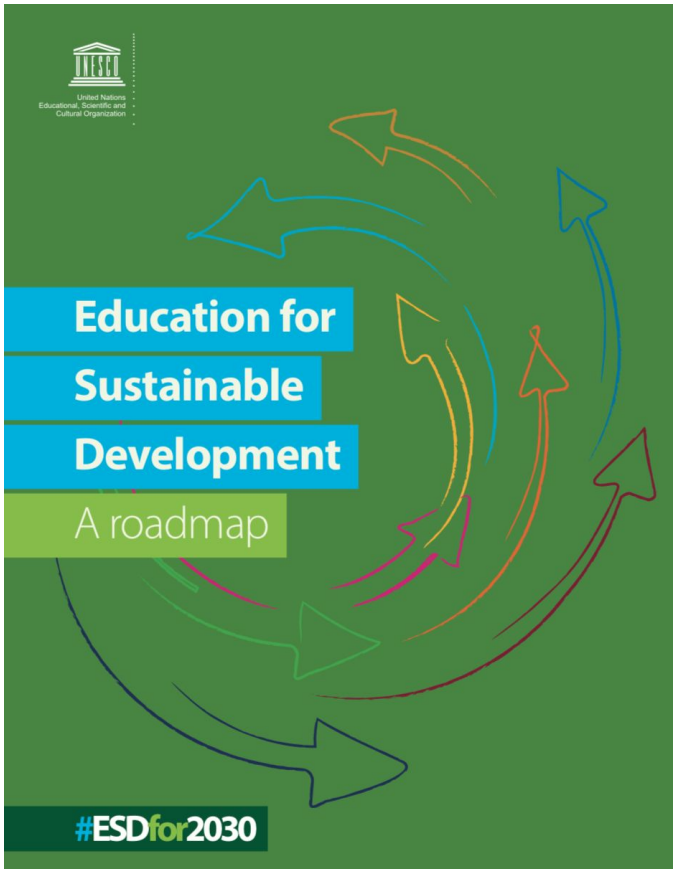
miro

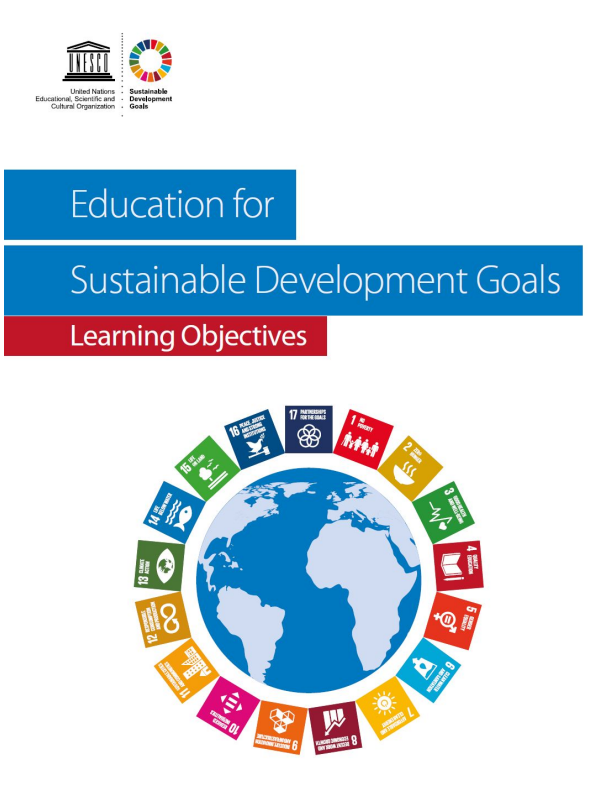
Educational program

EDUCATION for SUSTAINABILITY

- **Education as the key for a new future**
- **Education as first target of our mission**
- **Tools and manuals on education for sustainability by UNESCO**
- **Regional Centre for Expertise on Education for Sustainable development**







UNESCO guidelines and manuals on Education for Sustainable Development

Education for

Sustainable Development Goals

Learning Objectives

6 CLEAN WATER AND SANITATION

1.2.6. SDG 6 | Clean Water and Sanitation

Ensure availability and sustainable management of water and sanitation for all

Table 1.2.6. Learning objectives

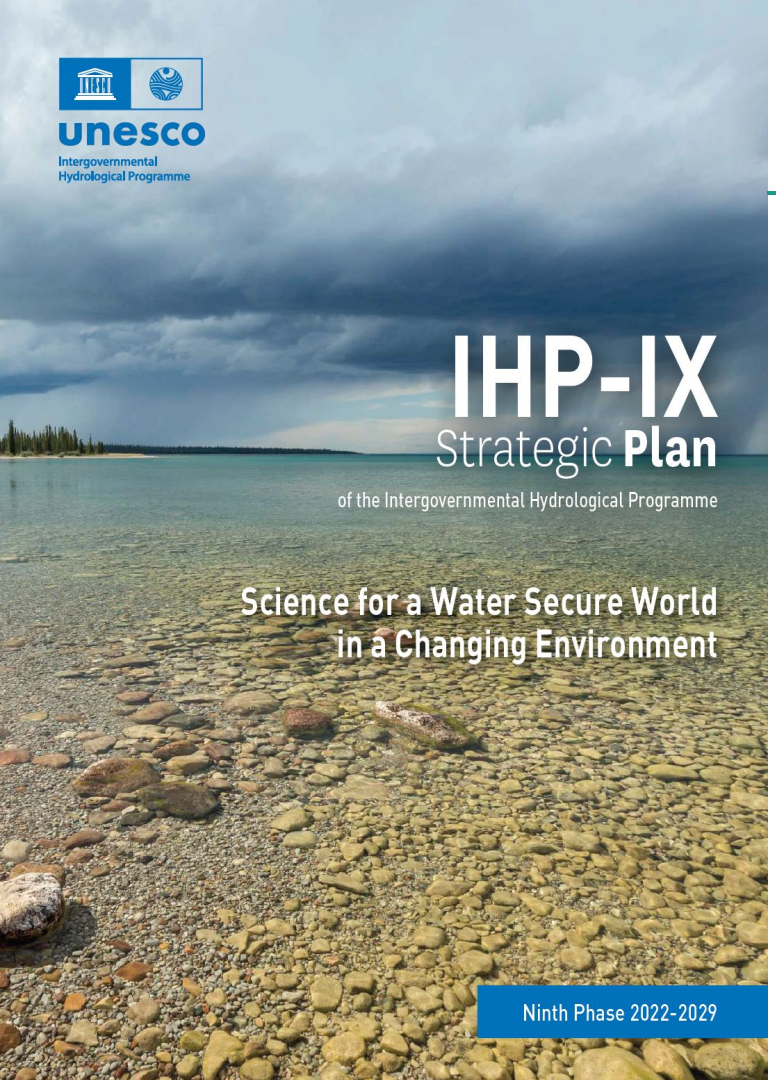
- ***Cognitive learning objectives***
- ***Socio-emotional learning objectives***
- ***Behavioural learning objectives***

Box 1.2.6a. Suggested topics

Box 1.2.6b. Examples of learning approaches and methods

Table 1.2.6. Learning objectives for SDG 6 "Clean Water and Sanitation"

Cognitive learning objectives	1. The learner understands water as a fundamental condition of life itself, the importance of water quality and quantity, and the causes, effects and consequences of water pollution and water scarcity. 2. The learner understands that water is part of many different complex global interrelationships and systems. 3. The learner knows about the global unequal distribution of access to safe drinking water and sanitation facilities. 4. The learner understands the concept of "virtual water"[3]. 5. The learner understands the concept of Integrated Water Resources Management (IWRM) and other strategies for ensuring the availability and sustainable management of water and sanitation, including flood and drought risk management.
Socio-emotional learning objectives	1. The learner is able to participate in activities of improving water and sanitation management in local communities. 2. The learner is able to communicate about water pollution, water access and water saving measures and to create visibility about success stories. 3. The learner is able to feel responsible for their water use. 4. The learner is able to see the value in good sanitation and hygiene standards. 5. The learner is able to question socio-economic differences as well as gender disparities in the access to safe drinking water and sanitation facilities.
Behavioural learning objectives	1. The learner is able to cooperate with local authorities in the improvement of local capacity for self-sufficiency. 2. The learner is able to contribute to water resources management at the local level. 3. The learner is able to reduce their individual water footprint and to save water practicing their daily habits. 4. The learner is able to plan, implement, evaluate and replicate activities that contribute to increasing water quality and safety. 5. The learner is able to evaluate, participate in and influence decision-making on management strategies of local, national and international enterprises related to water pollution.



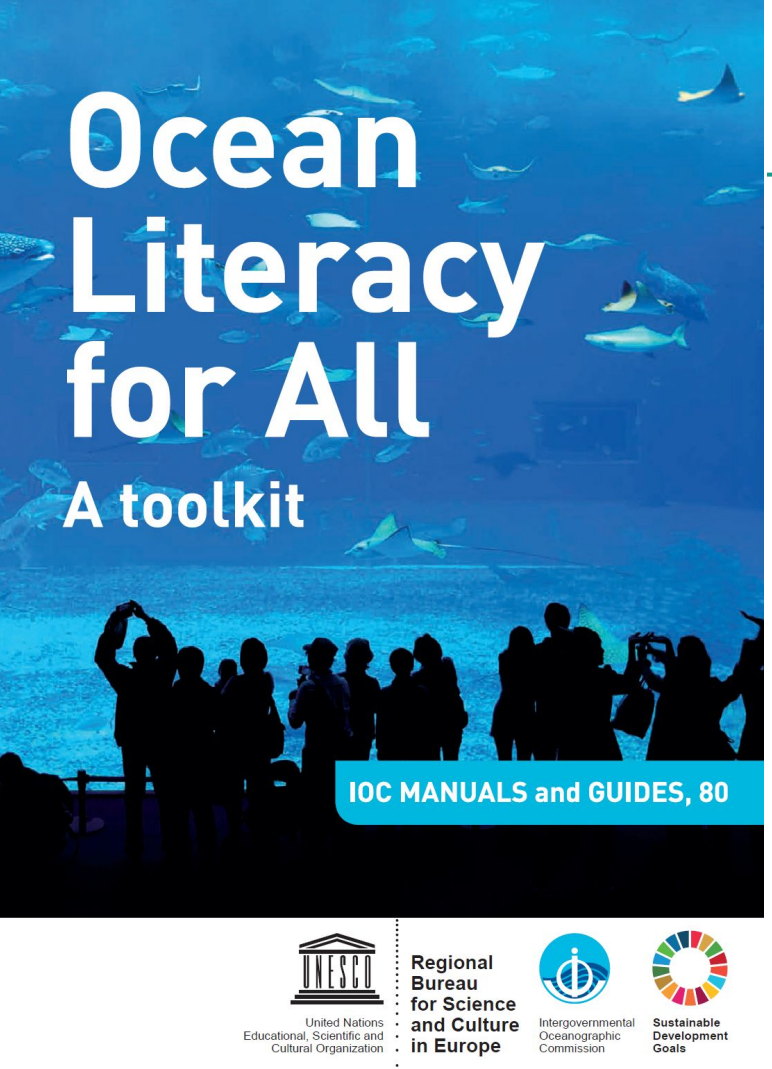
PRIORITY AREA 2:
WATER EDUCATION IN THE FOURTH INDUSTRIAL REVOLUTION INCLUDING SUSTAINABILITY

- **Education is still the foundation upon which behaviours can change and consensus can be built** for sustainable decisions on water resources…Enhanced capacity and public awareness towards a sustainable water culture and water management are required *(point 28)*

- IHP-IX will support the development of **interdisciplinary materials, such as guidelines, briefing papers, and case studies** on leading practices in water education for mass media… **the network of water museums will be mobilized** in raising awareness and improving water culture of citizens *(point 119)*

- Education needs to employ **the most relevant technology and to ensure the quality of outputs** as well as reaching all people (point 122)…**using new technologies and innovative learning processes** *(point 124)*

- IHP IX will mobilize and strengthen partnerships among the **UNESCO Water Family, WWAP, UNESCO Chairs** and Category 2 Centres such as IHE-Delft and also ICTP *(point 133)*



Toolkit

Work together on...

NEW GUIDELINES on WATER EDUCATION

- **Toolkit on education for sustainability on FRESH WATER**
- **Open Educational Resources (OER)**
- **Format facilitating education, decision-making and policy formulation**
- **Networking opportunity for WAMU-NET**
- **Water Museum as local megaphone spreading a new Water Culture**

understand the world,
make a change,
together

Grazie!
Merci!
Thank you!

October 2022
HYDRA - Museo Multimediale Cascata delle Marmore
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