

UNESCO's Intergovernmental Hydrological Programme (IHP)

Phase Nine (IHP-IX)

Priority Area 2:

Water Education

in the Fourth Industrial Revolution



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Water Education

- is the foundation upon which behaviours can change and consensus can be built for sustainable water resource decisions.
- must therefore begin at an early stage in life and continue to be offered in a variety of ways to build a water stewardship mentality at all ages and in all social classes.
- is an indispensable catalyzer to expand knowledge about the importance of nature conservation and the maintenance of the equilibrium of the web of life.



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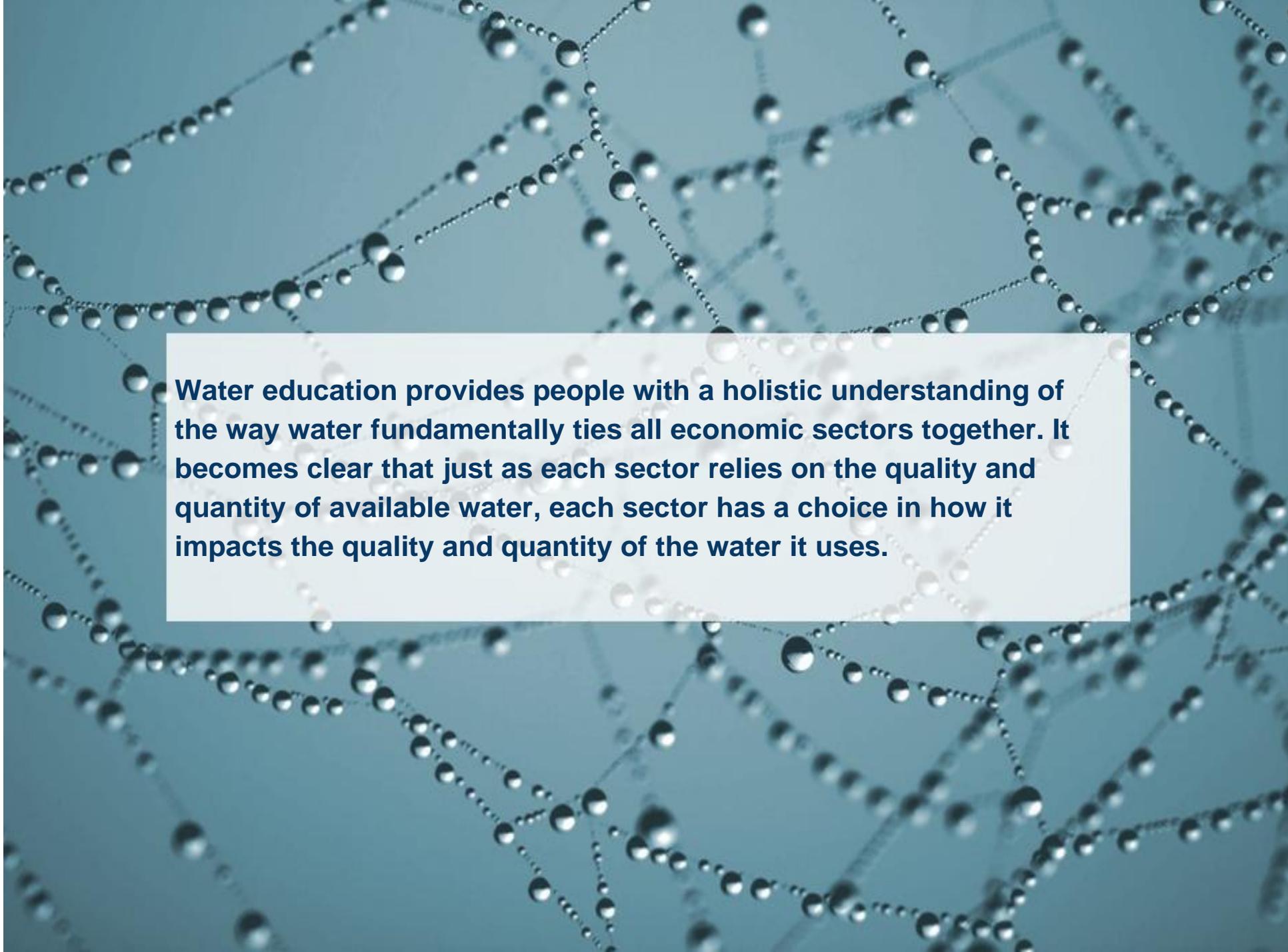
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Water Education is a key tool to detach economic development from environmental degradation. Sustainable production is about decoupling economic growth from environmental degradation, increasing resource efficiency, and promoting sustainable lifestyles, doing more and better with less.

A background image of a spiderweb with dew drops on a blue sky. The web is composed of numerous thin, intersecting lines, and the dew drops are small, spherical, and glistening. The sky is a clear, light blue color.

A profound transformation in human values and, consequently, human actions will directly impact how we live our lives. Society should recognize the need to reintegrate itself with nature in ways that embrace a common understanding of the importance and limits of our natural resource base.



Water education provides people with a holistic understanding of the way water fundamentally ties all economic sectors together. It becomes clear that just as each sector relies on the quality and quantity of available water, each sector has a choice in how it impacts the quality and quantity of the water it uses.

Expected outputs

- 1** - Outreach and awareness raising materials prepared and disseminated via Member States, allowing public at all levels to expand their awareness of the important multi-functions of water in domestic life, ecosystems, and productive development.
- 2**- Water-related tertiary and vocational education and training for enhancing skilled professionals capable of identifying the main gaps for sustainable water management, providing appropriate tools to governments and societies to address those gaps and the Agenda 2030 targets.
- 3**- Capacities of decision makers, water managers and users are enhanced, allowing them to take advantage of new technologies and research to make better decisions, and to design and implement inclusive and efficient water policies.
- 4**- Water education at formal, non-formal and informal, that is tailored for children and young people enhanced, enabling a better ownership and understanding of the importance of water in their lives and in their communities.



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Relation to the Agenda 2030

It is clear that IHP-IX priority area is specially connected to SDG6 (ensure availability and sustainable management of water and sanitation for all), SDG9 (industry, innovation and infrastructure), and SDG4 (quality education).



The behavioural and manufacturing transformation aspects of SDG 12 (sustainable consumption and production patterns) are directly connected with this priority area, once this means to decrease the contamination on water and the increase of efficiency in the use of water.



The lack of clean running water for pubescent girls in large parts of Africa is the principle reason for their not completing primary or middle school. This speaks directly to the connection with SDGs 1-5 (no poverty, zero hunger, good health and well-being, quality education and gender equity).



Water Education in the Fourth Industrial Revolution

This priority area is divided in the following topics:

- **Education for a better understanding of the role of water**
The new broad range of technologies brought with the 4th industrial revolution should be used to help prepare professionals and technicians to make the best management decisions and to better focus needed research and capacity-development activities.

- **Implementation of Water Education for Sustainable Development in the official development agendas of Member States**
Given the complexity of water-related issues confronting society, increasing the number and quality of programs and trainers should be a high priority at all jurisdictional levels.

- **Developing and applying new tools to improve education**
Tools and mechanisms to overcome this challenge can be in the form of short instruction videos, e-classrooms, and meetings, and even potentially including on-line graduate degree programmes.



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Water Education in the Fourth Industrial Revolution

This priority area is divided in the following topics:

→ Understanding the value and difficulty of behavioural transformation towards a more eco-conscious society

IHP-IX will continue to encourage a broad conception of education, along with conditions in the regulatory frameworks of the Member States that favour a change in behaviour towards a society with greater eco-social awareness. The opinions of young people should actively be sought-out as inputs to decision-making processes related to water.

→ Water education in support of governance success

Decision-makers and citizens will be provided with the necessary tools for boosting the transition from an economy based solely on consumption to an economy based on stewardship and conservation. Decision makers will therefore have the necessary societal support to design and implement policies that will associate economic success with the conservation and resilience of the natural resource base, obviously including water resources.



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Thank you!
Ágatha Tommasi - Brazil



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