



United Nations  
Educational, Scientific and  
Cultural Organization



International  
Hydrological  
Programme

# IHP-VIII Thematic Area 6

## Water Education, Key for Water Security

### Activities and Outcomes 2014-2015

**International Hydrological Programme  
Division of Water Sciences**

# THE CONTEXT

Water education at school level plays a key role in strengthening capacity and improving water management and access to water in a sustainable manner. Millions of people, mostly children and women, are severely affected by water-related issues, particularly floods, droughts and a lack of access to clean water. In most cases, this “water crisis” is not the result of lack of water resources, but rather the lack of capacity to deal with water.

Water education is linked to poverty eradication, adaptation to climate change, provision of basic human rights, gender equality and traditional knowledge. Many communities in the world rely on their traditional socio-cultural habits. As a result, these communities have problems adapting to new methodologies linked to water management, sanitation, and infectious and waterborne diseases. It is necessary to reformulate and teach water education at the primary school level, as well as involving and raising awareness among other members of the community.

To meet the challenges identified in the previous five themes, efforts should continue to improve and update water education at all levels. In this context, water education must be interpreted in a broader sense than the teaching of hydrological sciences and related scientific disciplines. Water education within the eighth phase of the International Hydrological Programme (IHP-VIII) includes a multidisciplinary and interdisciplinary approach to advance scientific knowledge through the training of scientists, as well as strengthening and enhancing the water sector through the formation of water professionals and decision makers. It also involves working with mass and community media professionals to improve their capacities so that water issues are communicated accurately and effectively. In addition, IHP-VIII includes education strategies to promote community-wide water conservation as well as skills in local co-management of water resources. Finally, actions to make water a significant component of the K-12 curriculum are an integral and important part of the water education agenda.

“Theme 6 Water Education, Key for Water Security” is the last of the six themes that structure IHP-VIII (2014-2021), which focuses on “Water Security: Responses to Local, Regional and Global Challenges”.





Theme 6 revolves around five focal areas:

- Focal area 6.1 - Enhancing tertiary water education and professional capabilities in the water sector
- Focal area 6.2 - Addressing vocational education and training of water technicians
- Focal area 6.3 - Water education for children and youth
- Focal area 6.4 - Promoting awareness of water issues through informal water education
- Focal area 6.5 - Education for transboundary water cooperation

The first two years of IHP-VIII coincided with the 2014-2016 biennium of UNESCO. During this period, the International Hydrological Programme (IHP) implemented several activities and projects in different regions of the world to support adaptation to hydrohazards in a changing environment.

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# HIGHLIGHTS FROM KEY IHP ACTIVITIES (2014-2015)

## ► North America and Europe

### H2Ooooh!

The UNESCO Office in Venice, Italy, promotes a project called H2Ooooh!, with the support of Gruppo Alcuni, aimed at raising public awareness on issues related to responsible water use.



### Related UNESCO Chairs and Category 2 Centres in the region

- UNESCO Chair/International Network of Water-Environment Centres for the Balkans on 'Sustainable Management on Water and Conflict Resolution', Aristotle University of Thessaloniki, Greece.

## ► Latin America and the Caribbean

### Conferences and Capacity Building Courses in Latin America and the Caribbean

In September 2015 the UNESCO Office in Montevideo and the Argentine Council for International Relations (CARI) organized the conference «Water Diplomacy in Latin America and the Caribbean: the contribution of UNESCO's cooperation on water» in Villa Ocampo, Buenos Aires. The conference

covered UNESCO's contribution to the development in water resources, focusing on concrete examples in the region. With the support of the Spanish Agency for International Development Cooperation (AECID), UNESCO joined forces with the Conference of Ibero-American Directors of Water (CODIA) to provide capacity building training courses for technicians and decision-makers. These included "Water Economy" (Montevideo, Uruguay, in August 2015) "Gender Mainstreaming in Water Resources Management" (Santa Cruz de la Sierra, Bolivia, in November 2015), and "Water Diplomacy" (Santa Cruz de la Sierra in November-December 2015).

### **Regional Water and Education Programme for Formal and Informal Educators in the Caribbean**

A training workshop on the Water and Education Programme for the Caribbean was held in Kingston, Jamaica, in April 2015. It trained representatives from ten island states in strengthening and improving responsible water management among youth and children.

### **South-South Cooperation Strengthening Integrated Management and Sustainable Use of Water Resources**

Several courses were held in São Paulo, Brasilia and Rio de Janeiro, Brazil, in relation to the South-South cooperation project, which aims to strengthen the integrated management and sustainable use of water resources in the context of Latin America and the Caribbean, and the Community of Portuguese Language Countries (CPLP).

### **"Water for Women, Women for Water"**

Within the framework of the UNITWIN/UNESCO Chairs Programme, UNESCO established five Chairs promoting the engagement of women in sustainable development and integrated water resource management (IWRM). Located in Morocco, Côte d'Ivoire, Brazil, Togo and the Dominican Republic, the Chairs are based in higher education and research institutions and collaborate with other academic bodies as well as public and private organizations. In 2014, the network welcomed the UNESCO Chair on Water, Gender and Governance from the Dominican Republic. In December 2015, a meeting entitled «Integrative approaches to security and water management», followed by a training course, was held in Santo Domingo.

#### **Related UNESCO Chairs and Category 2 Centres in the region**

- UNESCO Chair in Water and Education for Sustainable Development, the Universidad Nacional del Litoral, Argentina.
- UNESCO Chair in Water in the Knowledge Society, the Instituto Mexicano de Tecnología del Agua, Mexico.
- HIDROEX International Centre for Education, Capacity Building and Applied Research in Water, Brazil.

## **► Asia and the Pacific**

### **Integration of ESD into Water Education Processes**

Integration of Education for Sustainable Development (ESD) and Water Education processes was fostered at the UNESCO Conference on ESD in Japan in November 2014 with the participation of government officials, UNESCO Chairs and youth networks.

### **Water Law and Cooperation Course for Young Civil Servants**

On 23-25 September 2015, regional training for young civil servants involved in water governance in Central Asia and Afghanistan was held in Almaty, Kazakhstan. The primary objective of the course was to promote cooperation among the representatives of water-related ministries and departments across the region in order to improve water resources management. Approximately twenty young specialists from five Central Asian countries and Afghanistan took part in the workshop.

### **Changing Perspectives on Water Management**

An educational toolkit on “Changing Perspectives on Water Management” was created for distribution to UNESCO Associated Schools Network (ASPnet) educational institutions in India.



#### **Related UNESCO Chairs and Category 2 Centres in the region**

- UNESCO Chair in Water Economics and Transboundary Water Governance, the Australian National University, Australia

## **► Africa**

### **Water for Schools in Cape Verde**

In partnership with the National Commission of Cape Verde to UNESCO and the country’s Ministry of Education, the project “Água nas Escolas” (“Water at Schools”) focuses on the provision of water education and drinking water in the country’s schools. A private donation from the Brazilian artist Cleo Pires was received for the reinforcement of water education in Cape Verde and the provision of drinking water at school level, leading to a safe water supply for children from three schools. The project was presented at the COP21 “50 Years, 50 Movies on Water” event in Le Bourget on 2 December 2015.

### **Water Education for Sustainable Development in PALOP**

In collaboration with the UNESCO National Committees of Cape Verde, Angola, Guinea-Bissau, Mozambique, Sao Tome and Principe, “Education on Water for Sustainable Development in the

PALOP” seeks to strengthen water education for sustainable development in PALOP (Portuguese-speaking African countries). The project consists of two phases. The first is based on UNESCO’s global experience in strengthening the capacities of teachers and educators in relation to water, through workshops, preparing training materials and organizing the regional “trainers of trainers” course. This resulted in the development of a manual. The second phase consists in monitoring teacher education at the school level.

### **“Leçons d’eau”: School Manual for Cameroon**

A school manual on water education entitled “Leçons d’Eau” (“Water Lessons”) was published by UNESCO Publications and “Afrique Vivante”, a local NGO specialized in water projects for Francophones in Cameroon. The manual covers water education and key issues with water use in everyday situations. It provides theoretical and practical information on water education and environmental sciences for primary school students, as well as raising awareness on the subject for the whole community. The manual will be distributed in five schools in Cameroon.

### **Enhancement of Human Capacities for Transboundary Water Security and Cooperation in West Africa**

A regional sensitization workshop was organized on transboundary Water Security and cooperation in the West African Sub-Region in November 2014. Forty eight IHP National Committee members, policy makers and researchers participated in the workshop, held in Nigeria. Following up, UNESCO and the Regional Centre for Integrated River Basin Management (RC-IRBM) organized a three-day workshop in December 2015 on “Developing Effective Transboundary Water Management Educational and Awareness Materials to Promote Water Cooperation and Security in the Sub-region” in Kaduna, Nigeria. Approximately thirty IHP Committee members and water experts from Nigeria, Ghana, Republic of Benin, and Togo participated.

### **Water Policy and Instruments for Water Management**

UNESCO organized a training workshop in April 2015 on water policy and instruments for water management for twenty participants from water-related ministries, agencies and universities from Cape Verde and Guinea Bissau. The meeting took place in Praia, Cape Verde and enabled the two countries to closely examine their current policies in relation to the implementation of water policies, including the extent to which the integrated water resources management approach had been adopted.



## ► Arab States

### **UNESCO and Queen Rania Teachers Academy Regional Cooperation Initiative**

A meeting was held in March 2015 between the UNESCO Office in Cairo (UCO) and the representatives of the Queen Rania Teachers Academy (QRTA) to initiate a regional collaboration between UCO and the Academy in the context of the UNESCO Water Education Project for Teachers in the Arab region.

### **Workshop on Water Education Guidelines for Teachers in the Arab Region**

A regional workshop on “Water Education Guidelines for teachers in the Arab region” was successfully organized in Amman, Jordan in August 2015 thanks to a collaboration between UCO, the Arab League’s Educational, Cultural and Scientific Organization (ALECSO) and QRTA,. The draft version of a General Guide on water education for teachers was thoroughly discussed.

### **Working Group Sessions and Water Education Booklet**

In December 2015, Working Group Sessions on the “Water Education Project for Teachers in the Arab region” were held in Cairo, Egypt, and attended by experts from Jordan, Egypt, Sudan, Tunisia, UAE and Oman. The sessions finalized the preparation of the activities (for six to twelve year-old schoolchildren) and prepared supporting educational illustrations of the Water Education guidelines for teachers.

### **General Guide for Teachers of the Arab Countries**

A technical document on “Water and Education: General Guide for Teachers of the Arab Countries” was developed in 2014 for Arab Countries using the three main themes of the water education teaching guidelines and twenty four activities. Six experts from Egypt, Lebanon, Tunisia, UAE, Sudan and Jordan contributed to the guidelines. The technical document is an educational tool comprising general guides and materials for teachers.





## ► Global Initiatives

### 7th World Water Forum

Sessions on Water Education were conducted at the 7th World Water Forum, held in April 2015 in Daegu and Gyeongbuk, Republic of Korea. UNESCO participated in the design group for the water education theme of the Forum and involved youth groups.

### Advocacy for Youth

UNESCO organized a side event on Career Prospects in the Sciences, including the water sector, at the 3rd World Conference on SIDS (Samoa, September 2014). The side event focused on advocacy for youth.

The delegates of the Youth Forum for the Americas, Europe and Africa also participated in the session “Women for Water: Agents of change for a new culture of water” and coordinated “Captivating the Attention of the Global Population on Water Issues with Innovative Tools”.

### Celebration of 50 Years of Hydrological Programmes at UNESCO

IHP organized the “50 Years, 50 Movies on water” short film screenings that took place every two weeks from 25 June 2015 to 12 November 2015 at UNESCO Headquarters in Paris. Each of the 50 movies focused on different water-related challenges and solutions, with various sessions on water education.





IHP is the only intergovernmental programme of the United Nations system devoted to water research and water resources management, as well as education and capacity building. Since its inception in 1975, the programme has evolved from an internationally coordinated hydrological research programme into an all-encompassing, holistic programme to: mobilize international cooperation in order to improve knowledge and innovation to address the challenges related to water security; strengthen the science-policy interface to achieve water security at the local, national, regional and global levels; and facilitate education and capacity development to improve the management and governance of water resources. Today, IHP facilitates an interdisciplinary and integrated approach to sustainable watershed and aquifer management, including the social and economic dimensions of water.

As part of the current Eighth Phase of IHP (IHP-VIII) centred on “Water Security: Responses to Local, Regional and Global Challenges”, IHP defined Water Security as: “The capacity of a population to safeguard access to adequate quantities of water of acceptable quality for sustaining human and ecosystem health on a watershed basis, and to ensure efficient protection of life and property against water-related hazards – floods, landslides, land subsidence and droughts.”

International Hydrological Programme  
Division of Water Sciences  
UNESCO  
7, Place de Fontenoy  
75352 Paris 07 SP France  
Tel: (+33) 1 45 68 40 01  
E-mail: [ihp@unesco.org](mailto:ihp@unesco.org)  
[www.unesco.org/water](http://www.unesco.org/water)

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