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Pathway towards Improved Water Education Curricula

Penang, Malaysia | 27 - 28 November 2017

Setting the scene: objectives and expectations

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Rationale

- **Water** flows through all around us – giving life to the environment that sustains us, underpinning all human activity;
- **Sustainable Development Goal 6** seeks to ensure the availability and sustainable management of water and sanitation for all;
- While water is the key driver of economic and social development, it also has a basic function in maintaining the integrity of the **natural environment**;
- If we are to **achieve water security** – the theme of UNESCO's International Hydrological Programme's Phase VIII - we must protect vulnerable water systems, mitigate the impacts of water-related hazards such as floods and droughts, safeguard access to water functions and services and manage water resources in an integrated and equitable manner.



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...this requires water education

Water education...

- needs improvement at **all levels**;
- must go beyond the teaching of hydrological sciences, and be both **multidisciplinary and interdisciplinary**;
- should include **advancing scientific knowledge** and understanding through the training of scientists, water professionals and decision-makers;
- Should reach out to **media professionals** so that they can communicate water issues accurately and effectively;
- include **community education** strategies to promote communitywide water conservation;
- enhance skills in **local co-management** of water resources.
- be a significant component of the **school curriculum**.

...a major and complex task!





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How did we get here?

- UNESCO Office Jakarta implements the Malaysia Funds-in-Trust project ***Upscaling Water Security to meet local, regional and global challenges***, which contributes towards UNESCO-IHP's Phase VIII as well as the 2030 Agenda and SDG6 on water and sanitation for all;
- Under this project, the ***Water Management Curriculum using Ecohydrology Principles and IWRM*** has been prepared and published by **HTC-KL**, a UNESCO Category 2 Centre under the auspices of UNESCO - enabling comprehensive understanding of ecohydrology and IWRM, grounded in Malaysia's experience;
- In March 2017, a workshop on ***Comparative Studies of applying Ecohydrology for upscaling Water Security in Asia and Africa*** was held – beginning the process of identifying gaps and priorities for further work towards comprehensive water education curricula that responds to real water security needs in Asia and the Pacific, Africa and beyond.



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What do we need to do?

Having come this far, we are here in Penang to...

- Learn about, discuss and share the newly completed Water Management Curriculum developed by HTC-KL;
- Share experience and practice relating to other existing water management curricula – in order to better understand water education practices in Asia and the Pacific and Africa – with a focus on Ecohydrology and IWRM;
- Create a platform for intra- and inter-regional collaboration among UNESCO Category 2 Centres

By sharing and differences in approaches and technologies between our countries and regions – many of which may be context-specific, we will ***strengthen collaboration and establish a pathway to new and improved water education curricula.***

By tomorrow afternoon, we will have...

- Have compiled and shared best practices on water education curricula;
- Identified gaps in and challenges in the development of improved water education curricula;
- Made recommendations and shared ideas for intra- and inter-regional cooperation.





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How will we do it?

- Keynote presentations followed by launch of HTC-KL Water Management Curricula
- Today: three sessions – three themes:
 1. Water Management Curricula – Ecohydrology and IWRM
 2. IWRM customization and integration into existing curricula
 3. Implementing water education - lessons learned and recommendations from the region
- Tomorrow: one session, panel discussion, outcomes:
 4. Ecohydrology promotion and integration into curricula
 5. Panel discussion on cooperation

Determining the “pathway” forward: best practices and gaps identified, recommendations for cooperation and further exchange.



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A final note of encouragement

- This event is dialogue – all **contributions are welcome**, interactive engagement is encouraged;
- An opportunity to **share, to learn and develop ideas**, inspired by new perspectives;
- We have representatives from centres and institutions across the region and beyond present;
- **Make the most of the opportunity** – both within and outside the formal sessions





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Thank you

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