UNESCO is at the forefront of addressing a new water challenge: A ground-breaking UNESCO project on emerging water pollutants, funded by Sweden for 0.6 million USD, is officially launched and presents its case studies.

Emerging water pollutants present a new global water quality challenge. Strengthening scientific research, developing and disseminating new scientific knowledge, enhancing capacity building and raising awareness on new and emerging water pollutants is urgently needed to support countries to address water quality and wastewater problems. UNESCO is at the forefront of addressing this challenge by mobilizing scientific knowledge and international and local expertise. However, lots remain to be done and national priorities on water resources management need to consider this new challenge, in particular, as the global community is getting ready for the imminent implementation of the post-2015 Sustainable Development Goals.

STOCKHOLM – UNESCO announced today, together with the Swedish International Development Cooperation Agency (Sida), the official public launch of the UNESCO project on “Emerging Pollutants in Wastewater Reuse in Developing Countries”, funded by Sweden for 0.6 million USD for the next three years, at an official event of the annual World Water Week. Selected case studies of the project were also presented at the event, describing various aspects of the problem in different regions of the world such as hydrological modelling of the fate of emerging pollutants, potential ecological and human health risks, and socioeconomic and policy issues.

This ground-breaking global project aims to support UNESCO Member States to strengthen their scientific research and technical and policy capacities to manage human health and environmental risks caused by new and emerging water pollutants and consequently to improve water quality and wastewater management, including safe reuse of wastewater, and enhance water and food security. The project also contributes to the post-2015 Sustainable Development Goals, including the goals on water, health, hunger, ecosystems, chemicals management, among others.

A growing water quality concern facing both developed and developing countries is a wide variety of new and emerging pollutants found in water resources, threatening human health and the environment. New and emerging water pollutants include a broad range of substances, including pharmaceuticals, personal care products, endocrine disrupting compounds, pesticides, domestic- and industrial-use chemicals, etc. These pollutants are released to water bodies and the environment because they are usually not removed in conventional wastewater treatment facilities. Scientific knowledge and understanding on potential human and ecosystem health risks posed by emerging water pollutants is still very scarce, as well as on their presence in water resources and wastewater and their pathways and accumulation in the environment. Most emerging pollutants are not regulated in environmental, water quality and wastewater discharge regulations—even in developed countries with stringent water quality and pollution regulations.

Hence, there is an urgent need to strengthen scientific knowledge and adopt appropriate technological and policy approaches to monitor emerging pollutants in water resources and wastewater, assess their potential human health and environmental risks, and prevent and control their disposal to water resources and the environment. Furthermore, it is essential to enhance
capacity building and awareness raising of water professionals, as well as other stakeholders such as policy-makers and the public, on emerging water pollutants, given the very limited information available.

The UNESCO project responds to these needs and priorities in order to help countries to put in place effective policies and strategies to tackle this new water quality challenge, with specific focus on developing country needs for sharing and disseminating scientific knowledge. Towards this end, the project comprises three specific components aimed at strengthening scientific research and policy (2015-2016), promoting scientific exchange and collaboration (2015-2016), enhancing capacity building and awareness raising on emerging pollutants (2016-2017). The project will conclude by presenting its final results at an international conference (2017-2018).

This project complements core activities of the International Hydrological Programme (IHP) of UNESCO in the area of water quality. Water quality is one of key thematic areas of UNESCO activities in the field of water sciences. During the Seventh Phase of International Hydrological Programme (IHP-VII, 2008-2013), water quality issues were addressed with a renewed focus on “Protecting water quality for sustainable livelihoods and poverty reduction” (IHP-VII Focal Area 4.1). The significant contribution made by UNESCO during IHP-VII in promoting scientific knowledge, research and capacity building in this area has brought water quality issues to the forefront of IHP activities and has led to the prioritization of water quality as one of the main themes of the ongoing Eighth Phase of IHP (IHP-VIII, 2014-2021) through the dedication of IHP-VIII Theme 3 on “Addressing water scarcity and quality”.

The project is implemented under the UNESCO-IHP International Initiative on Water Quality (IWIWQ). Established by endorsement of UNESCO Member States at the IHP Intergovernmental Council of UNESCO at its 20th session in 2012, the Initiative provides a platform to mobilize and promote scientific knowledge, research and science-based policies to respond to water quality challenges, including safe water, wastewater and sanitation issues, towards ensuring water security for sustainable development. It is a comprehensive scientific cooperative programme to address water quality and wastewater issues in a holistic and integrated manner. It also aims to facilitate collaboration on water quality and wastewater issues among researchers, practitioners, policy-makers and other stakeholders in both developed and developing countries.

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