Call for Water Professionals to Fill Out Survey on Water Quality Indicators

Applying water quality indicators and indices is one of the major challenges in addressing poor quality of waters. UNU-FLORES has designed a questionnaire to identify current application challenges in different contexts and help experts in designing tailored capacity development programmes for measuring water quality in the future. Water quality experts from science and practice are called on to share their knowledge within this brief online survey, based on their best knowledge related to one specific case.

Dresden, 10 May 2017. – Good water quality maintains the biodiversity of aquatic and terrestrial species and safeguards human well-being. It is also crucial for achieving the United Nations Sustainable Development Goals (SDGs) and in particular goal 6. However, the quality of surface waters and groundwater is continuously under pressure, given physical modifications and point and diffuse pollution from various sources such as industry or mining. This hinders the use of water for various purposes such as safe drinking water, agricultural production, or fishing.

In order to address poor water quality in practice, natural scientists have come up with important water quality indicators and indices. Indicators refer to single parameters such as pH, total phosphorus, or biological oxygen demand. Indices, on the other hand, are more complex, since they are calculated based on several parameters and set formulas. They are particularly helpful for categorising water bodies into a range of water quality classes. This builds the basis for setting up and evaluating management activities to address poor water quality in practice.

There are at least 470 relevant indicators in practice, referring to physical, chemical, or biological characteristics of water, among others. In theory, their use depends on different water quality targets such as providing drinking water, fishing, navigation, tourism, agricultural, or industrial use. Their use can also depend on different geographical conditions such as different types of water (e.g., groundwater or flowing water) or climate (e.g., tropical or moderate climate), or various capacities and resources such as financial and human resources for monitoring, analytics, and the analysis of data.

While such conditions for applying water quality indicators are well-known in theory, a systematic analysis related to which kind of indicator and index is used for which purpose and under which conditions is, however, missing. What are, in practice, the main driving factors for addressing water quality challenges in various contexts? Which types of indicators and indices mentioned in national guidelines are actually used? And what
are the main challenges in the application of indicator in various contexts? Answering these questions is pivotal for both an effective and efficient application of water quality indicators in order to achieve water quality-related goals and the SDGs in general. It particularly helps international donors to design tailored solutions for addressing the water quality challenge in practice.

The questionnaire on water quality indicators and indices will address these questions, by analysing the application of water quality indicators and indices for measuring water quality in different regional settings. It is a joint effort by an international team of scientists and practitioners from different universities and international organisations. Both scientists and practitioners at different stages of their career are welcome to answer the questions based on their best knowledge in a certain case. Cases can refer here to different types of waters (e.g., groundwater or flowing water) at various scales (e.g., water body, basin, or nation state).

The questionnaire will be online throughout the month of May. Responding to it will take about 30 minutes. The online questionnaire is available in six languages (English, French, Spanish, Arabic, Chinese, and Russian), and is accessible from the links below.

The questionnaire is available in six languages:

- Spanish: http://bit.ly/2qQEzXy
- Russian: http://bit.ly/2q1fHx

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United Nations University Institute on the Integrated Management of Material Fluxes and of Resources

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