Geophysical Research Abstracts
Vol. 17, EGU2015-2406, 2015
EGU General Assembly 2015

Water Quality Assessment of Ayeyarwady River in Myanmar

Thanda Thatoe Nwe Win, Thom Bogaard, and Nick van de Giesen

Delft University of Technology, Department of Water Management, Delft, Netherlands
(T.T.N.W.ThandaThatoeNweWin@tudelft.nl)

Myanmar's socio-economic activities, urbanisation, industrial operations and agricultural production have increased rapidly in recent years. With the increase of socio-economic development and climate change impacts, there is an increasing threat on quantity and quality of water resources. In Myanmar, some of the drinking water coverage still comes from unimproved sources including rivers. The Ayeyarwady River is the main river in Myanmar draining most of the country's area. The use of chemical fertilizer in the agriculture, the mining activities in the catchment area, wastewater effluents from the industries and communities and other development activities generate pollutants of different nature. Therefore water quality monitoring is of utmost importance.

In Myanmar, there are many government organizations linked to water quality management. Each water organization monitors water quality for their own purposes. The monitoring is haphazard, short term and based on individual interest and the available equipment. The monitoring is not properly coordinated and a quality assurance programme is not incorporated in most of the work. As a result, comprehensive data on the water quality of rivers in Myanmar is not available. To provide basic information, action is needed at all management levels. The need for comprehensive and accurate assessments of trends in water quality has been recognized. For such an assessment, reliable monitoring data are essential.

The objective of our work is to set-up a multi-objective surface water quality monitoring programme. The need for a scientifically designed network to monitor the Ayeyarwady river water quality is obvious as only limited and scattered data on water quality is available. However, the set-up should also take into account the current socio-economic situation and should be flexible to adjust after first years of monitoring. Additionally, a state-of-the-art baseline river water quality sampling program is required which will take place during the low water season of March, 2015. The water quality information available for the Ayeyarwady as well as the baseline sampling of March 2015 will be presented. Furthermore, the specific scientific ideas but also organisational challenges for the future surface water quality monitoring network of the Ayeyarwady will be discussed.