ABSTRACT:

Pack Test is a series of products of Kyoritsu Chemical-Check Laboratory Cooperation, Japan. It is easy-to-use, anybody can use at anywhere, low cost, nontoxic, safe, and professional-use, onetime use ion-selective color metric water quality checker. The aim of this research is to assess, then next, discuss the significance of applications of this tool. In this order, NH4-Pack Test was selected as an example for the discussions; although there are more than 60 parameters can be detected by pack test such as, COD, Cl-, NO3-, phosphate, hardness, pH, heavy metals, etc.. As for field survey, Ion chromatography was used to measure ammonium concentration of river water in Jakarta. Then detection range of the NH4-Pack Test was compared to the data, and Indonesian and Malaysian national water quality standard. River water quality of Jakarta was weekly degraded at upstream area, but it was seriously degraded at downstream area (up to 5-10 NH4-N mg/L). As for ammonium concentration, obviously the detection range and step of Pack Test was sufficient to assess the ammonium concentrations of rive water in Jakarta. Of course Pack Test is very simplified tool, environmental water quality standard of ammonia for class I in Indonesia and Class I and II in Malaysia were difficult to evaluate. However, it was obviously applicable to check treated effluent and Class III to V water quality of Malaysian environmental standard. Consequently, it is suggested to adopt a double standard policy of water quality monitoring, such as combination of "easy-to-use simplified" and "conventional-accurate". Because of low cost, and professional-convenient design, implementation of Pack Test will significant to empower on-site water quality monitoring in developing country, participative environmental awareness public programs, experience base environmental learning in schools, and other grass-rooted environmental activities..