

## **Water conflict vulnerability of regions**

**NILUPUL GUNASEKARA<sup>1</sup> & SO KAZAMA<sup>2</sup>**

*1 Graduate School of Environmental Studies, Tohoku University, 6-6-6 Aramaki, Aoba, Sendai 980-8579, Japan*  
[nilupul@kaigan.civil.tohoku.ac.jp](mailto:nilupul@kaigan.civil.tohoku.ac.jp)

*2 Department of Civil Engineering, Tohoku University, 6-6-6 Aramaki, Aoba, Sendai 980-8579, Japan*

**Abstract** A combined decision tree and multivariate analysis was utilized, also incorporating countries' water availability and their adaptive capacity to increasing water scarcity. Five country groups having the lowest adaptive capacity indicated by GNI per capita less than 13 195 International Dollars, were capable of addressing the whole Asian, African and South American continents' conflict vulnerabilities. Vietnam and Cambodia in the Mekong basin and the five most downstream countries of the Nile basin proved to be vulnerable to future conflicts due to climate change and population increase.

**Key words** water conflict vulnerability; adaptive capacity; decision tree; multivariate analysis; climate change