

## Borehole use and management in agro-silvo-fishery settlements around Lake Victoria, Kenya: water use rules

UEDA, Gen<sup>1\*</sup> ; OTSUKI, Yoshinori<sup>2</sup>

<sup>1</sup>Graduate School of Environmental Studies, Tohoku University, <sup>2</sup>Graduate School of Science, Tohoku University

This study is an interim report on the use and management of boreholes, whose importance as a domestic water source becomes greater as one goes far from Lake Victoria, in the sub-area (former Suba District) of Homa Bay County, Nyanza Province, Kenya. As for one of the boreholes outlined in 2013, the water level rose during the rainy season, the daily change in the water level corresponded to control by the water users' association, and not all member households could fetch water within the daily stipulated time table. Water use of this particular borehole was on the "first come, first served" basis, and it alternated between one queue for those who transported water with a donkey and the other queue for those carrying by human power. Individual boreholes scattered in the research area had a variety of "queueing system" rules reflecting different geographical and other conditions. The water use rule of each borehole can be seen as a historical product of people's attempt to level off inequality in water use in each settlement. It is indispensable for a better understanding of sustainable water use and livelihood security to investigate such rules.

Keywords: water resources, rule, Kenya, Tropical Africa