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Domestic Water Management in Rural West Kenya: A Queuing Analysis of Borehole Use

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Kenya initiated the water sector reform by way of enforcing Water Act 2002. The discussion on the reform has centred on wider relationships among different actors, not restricted to local water users alone, thus leaving relatively unexplored the impact of the institutional change on rural self-help water provision. This research question at the micro level also needs to be addressed when approaching the issue of financial sustainability in management of borehole and other water sources. This study is an interim report on the use and management of borehole, in the former Suba District (currently a part of Homa Bay County), former Nyanza Province, Kenya. First, a series of queuing system simulation were employed to know if equitability in waiting time was realised among those using different modes of water transport from the borehole. Second, in addition to this examination of "the exemplary queue", the study through field observation revealed the extent of queue jumping and other deviations from queuing rules. The self-help group under examination has not enjoyed any access to official funds for maintenance of its borehole facilities, and constantly needs to seek agreements among its members on the rule stipulating costs and benefits so as to secure necessary financial resources, thus keeping the queuing rule flexible and negotiable.

Keywords: Borehole, Queuing, Water sector reform, Kenya

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