

Drinking water usage in the mountaineous area of Tanzania

~ Toward sustainable development of Kibogwa Village, Morogoro District ~

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1. PURPOSE AND BACKGROUND

In the discussion over global environmental issues, rural areas in developing countries are often blamed for deforestation, soil and water degradation, and overflowing population into cities. Political and technical measures against such problems may easily ignore the local human-environment relationship that has been developed through a long history of their interactions. It is very important to learn the reality of local livelihood, in order to maintain the carrying capacity of rural areas that dominate the human habitat in the world. The present study aims to understand one of such phases in the mountainous part of eastern Africa, through describing water usage in Kibogwa Village in Morogoro Region, United Republic of Tanzania.

2. OUTLINE OF THE RESEARCH

Field researches were conducted in Sep – Dec 2002 and Jul – Sep 2003, to investigate the condition of drinking-water sources and their usage by individual households. 32 water-drawing points were surveyed and 208 households in 5 sub-villages were interviewed. Location of water points and houses were mapped out using GPS and GIS. Surveyed items at each point include water quality (pH, COD, Mg, Ca, NH₄, NO₂, NO₃, As, total nitrogen, coli form bacteria, viable bacteria), water quantity, structure, and ownership. Household interview covered frequency and amount of water drawing, application of boiling, and human waste disposal. The research did not find particular problems regarding their water usage in general, except that bacteria is detected from almost every water point and frequent occurrence of diarrhea was admitted. The source of contamination is suspected to be human and animal waste from upland fields.

3. CONCLUSION AND SUGGESTIONS ASSIGNMENT

Situated in a steep range with relatively high humidity, the villagers of Kibogwa enjoy abundant water resource in a traditional manner that clearly distinguishes its sources by purpose of use. Their drinking water taken from springs showed suitability in chemical properties but considerable level of bacterial infection was found. However most people are not aware of the situation, which might cause serious health problems in the future.

It is essential to stimulate the villagers' considerations and actions toward proper usage of water for their healthy life, in order to achieve sustainable development of the area with rapidly increasing population.