

Assessment of rural behavior towards integrated water management for domestic uses in rural areas – western Eddoeium locality – White Nile state Sudan

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Abstract

This study was conducted during the period (2015-2017) to assess rural families' behaviour according to social gender participation on integrated water management for domestic uses in rural sector of western Eddoeium Locality – White Nile State- Sudan. The objectives of this study were to reflect water situation in the study area, highlighted gender role in water resources management, determine training needs assessment for social gender in water management and reinforcement the concept of water extension a among rural people. Data was collected from the study population that consists of five villages (*Goze Keneina, Idd Alode, Allauta Wad Alburr, Wad Sareh and Khour Almotrag*) while secondary data and information were collected from references, previous studies, organizations reports and documents.. A multi-stages sampling procedure was used to select a random sample sized of 185 families (10%) of the total population of 1860 families; each family was presented by house hold. Data was achieved through the use of questionnaire instrument. The data was obtained and analyzed (processed) using Statistical Package for Social Sciences (SPSS) and chi-square test cross tabulation tables at level of 0.05 was used, also mathematics equations was used to estimate individual consumption rate of water in liters per day. Then data was presented and interpreted in summarized frequency tables and percentages cross tables and histograms.

The most important results of the study show 90.3% of respondents replied the males (youth) had the great role of water collection while 97.2% of the respondents announced water management in house was the responsibility of the females (women), 48.6% of respondents collected water from canals, 34.1% of respondents faced diseases by water pollution a among their families, 70.0% of respondents use nothing for water treatment also the results show significance relations between level of education of house hold and the selection of water source, family size and selection of water source, collection responsibility by gender and water source location and family size and the amount of collected water. Results show no significance relation between treatments used to prevent water pollution and family size. The individual rate of water was in the limit of water shortage just 28 litres /day. The study recommended that the necessity to provide water sources among villages' boundaries and they should be safety. Confirm

training programs for women in water management also mainstreaming gender in raising water awareness programs to reinforcement the concept of water extension and encourage establishment of water user association in the study area.