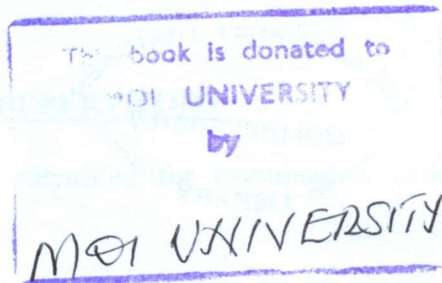


**FACTORS LIMITING THE ADOPTION OF SMALL-SCALE IRRIGATION
AND ITS EFFECTS ON HOUSEHOLD FOOD SECURITY IN BONDO
DISTRICT, LAKE VICTORIA REGION OF KENYA**

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ABSTRACT

The Lake region of Kenya has irregular rainfall patterns and persistent drought. The region has been experiencing a steady decline in agricultural productivity resulting in persistent food insecurity. Although irrigation farming is thought to be a likely means of solving the above problem, it has not been considered as a sustainable means of food production. The objective of this study was to determine the factors limiting the adoption of small-scale irrigation and its effects on household food security in Bondo District. The study examined socio-economic factors affecting adoption of small scale irrigation in Bondo District, the study also established factors causing low agricultural productivity in the Lake Victoria Region. The formulated null hypotheses assumed no significant difference in food security status of farm households that practice small scale irrigated farming and those who do not. The hypotheses were tested using various statistical techniques to establish what explains the persistence of food insecurity and the prevalence of rural poverty in the study area. Research design for the study was descriptive survey method where questions were designed to ensure that the survey research met high standard of quality. Target population in this study was 600 farmers and a sample size of 150 farmers which was again sub-divided into two categories of 75 farmers each for irrigated and rain fed categories were interviewed. Primary data for the study was collected through administration of 150 questionnaires to randomly selected farmers who practice small scale farming both irrigated and rain fed in all the 3 divisions of Bondo District. Spread survey with multi-stage random sampling method was used in the selection of locations, sub-locations and homesteads. Secondary data were captured through a review of existing literatures from the Ministry of Agriculture, Ministry of Water and Irrigation, Kenya Agricultural Research Institute (KARI), published and unpublished reports, journals and other relevant materials including updated information from the Internet. Comparative data analysis was done using excel, chi-square and gross margin for two major crops grown in the area. Gross margin analysis was carried out to measure profitability of irrigated farming in comparison to other farming practices. Farmer's socio-economic characteristics were considered in finding out adequate explanations for the disparity that occurred in household farm income and expenditure between irrigated and rain fed farming practices. This was also done to ascertain if there were other factors that were closely associated with irrigation that might also have had an effect on agricultural productivity in the region and that may require further investigation. The study concluded that small-scale irrigation is the most sustainable means of attaining household food security. Further, in order to minimize the impact of drought on household food security, drought resistant crops should be encouraged, while also prioritizing planning and constructions of earth dams and other water harvesting facilities in the area. The results of this study are recommended for adoption by the Kenya government through relevant ministries, other development agencies, the farming communities, researchers, and public universities for further research.