

DECLARATION BY THE CANDIDATE

"IRRIGATION AND PUBLIC HEALTH: A STUDY OF THE HEALTH PROBLEMS AT BUNYALA IRRIGATION SCHEME, BUSIA DISTRICT, KENYA."

NAT

BY

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ABSTRACT

This study investigated the impacts on public health of the Bunyala irrigation scheme in Western Kenya. The main objective of the study was to investigate the influence of the scheme on prevalence of malaria, schistosomiasis and diarrhoeal diseases in the scheme.

All the 131 tenants in the scheme were interviewed. To facilitate inter-group comparisons between adults and children, an additional number of 80 children were also purposively chosen and interviewed. Other data gathering methods included observation of human behaviour patterns in the scheme, unstructured interviews, and group discussions with the people in the scheme.

The results revealed that the scheme has led to an increase in the prevalence of malaria, diarrhoeal diseases and bilharzia. Malaria was identified by the tenants as the principal public health problem in the scheme. This is due to the fact that the numerous stagnant water surfaces in the scheme have encouraged mosquito breeding and survival enabling them to transmit the infection throughout the year. Also, the poor levels of sanitation involving surface defecation in the rice fields and the use of irrigation water for domestic purposes have encouraged the spread of diarrhoeal diseases such as cholera, typhoid and amoebic dysentery. In addition, the lack of pit latrines in the scheme for tenants use while working in the fields and the peoples' behaviour patterns involving open defecation, poor field sanitation and high water contact levels have encouraged schistosome infection. The high bird population attracted by the rice crop also plays a role in the expansion of biomphalaria snails the intermediate hosts for Schistosoma mansoni.

Conclusions arising from the study are that the public health problems of the scheme are largely due to contaminated water surfaces and the exposure of tenants to such poor environmental conditions while working in the ricefields.

TABLE The study therefore recommends improvement of health conditions in the scheme such as provision of good drinking water, medicine for prophylaxis, safe defaecation points and aggressive public health campaigns and education on primary health care to incorporate management and control of adverse conditions in all sectors that provide potential pathway for the vectors of the diseases in question.

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