

Environmental Impact Assessment of OMI Irrigation Scheme, Nigeria

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Abstract : A study was carried out to assess the environmental impact of Kampe (Omi) irrigation scheme with respect to public health hazards, the rising water table, salinity and alkalinity problems on the project site. A structured questionnaire was used as the main tool to gather information on the effect of the irrigation project on the various communities around the project site. The different sections of the questionnaire enabled the gathering of information ranging from general to more specific information. The results obtained from the study showed that the two effects are obvious: the 'positive effects' which include increasing the socioeconomic development of the entire communities, resulting in an increase in employment opportunities and better lifestyle and the 'negative effects' in which malaria (100% occurrence) and schistosomiasis (66.7%) were found to be active diseases caused by irrigation activities. Increase in height of water table and salinity is eminent in the irrigation site unless adequate drainage is provided. The collection and experimental analyses of representation soil and water samples from each scheme were used to assess the current status of each receptor. Results obtained indicate the absence of soil with sodium adsorption ration (SAR) values ranging from 3.0 to 3.89, exchangeable sodium percentage (ESP) ranged from 3.8% to 5.5% while pH values ranged from 6.60 to 7.00. Drainage facilities of the project site are inadequate, therefore making it difficult to leach the soil and flood history is occasional.

Keywords : irrigation, impact, soil analysis, Nigeria

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