

The Issues of Irrigation and Drainage in Kebbi State and Their Effective Solution for a Sustainable Agriculture in Kebbi State, Nigeria

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Abstract : Kebbi State, located in the North-West of Nigeria, is rich in water resources as the major rivers viz. Niger and Rima irrigate a vast majority of land. Besides, there is significant amount of groundwater, which farmers use for agriculture purpose. The groundwater is also a major source of agricultural and domestic water as wells are installed in almost all parts of the region. Although Kebbi State is rich in water, however, there are some pertinent issues which are hampering its agricultural productivity. The low lands (locally called Fadama), has spread out to a vast area. It is inundated every year during the rainy season which lasts from June to September every year. The farmers grow rice during the rainy season when water is standing. They cannot do further agricultural activity for almost two months due to high standing water. This has resulted in widespread waterlogging problem. Besides, the impact of climate change is resulting in rapid variation in river/stream flows. The information about water bodies regarding the availability of water for agricultural and other uses and the behavior of rivers at different flows is seldom available. Furthermore, sediment load (suspended and bedload) is not measured due to which land erosion cannot be countered effectively. This study, carried out in seven different irrigation regions of Kebbi state, found that diversion structures need to be constructed at some strategic locations for the supply of surface water to the farmers. The water table needs to be lowered through an effective drainage system. The monitoring of water bodies is crucial for sound data to help efficient regulation and management of water. Construction of embankments is necessary to control frequent floods in the rivers of Niger and Rima. Furthermore, farmers need capacity and awareness for participatory irrigation management.

Keywords : water bodies, floods, agriculture, waterlogging

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