

The Soil-Land use System in a Sand Spit Area in the Semi-Arid Coastal Savanna Region of Ghana – Development, Sustainability and Threats

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Abstract

The development and sustainability of a horticultural system at the Keta sand spit in south-eastern Ghana is described and discussed. The main crop is shallot grown on pure sandy soils in a semi-arid climate. It is a cash crop system highly dependent on a substantial input of manure and irrigation water from a shallow aquifer. The investigation comprises soil profile descriptions and analyses on the dominant soil type on the sand spit, measurement of electrical conductivity of well water and in the soil, crop experiments and interviews of farmers for local knowledge. The findings show that the farmers have developed a very intensive horticulture system on soils with low nutrient contents and low water holding capacity, and in a climate with a long drought period and a short period of about 3 months where percolation takes place recharging the fresh water lens.