

ABSTRACT.

The study is concerned with land utilisation in the Improvement Area of the Christiana Area Land Authority, Jamaica. Its purpose is two-fold: first, to evaluate the extent and direction of changes in the patterns of land use that have occurred since the Authority's inception in 1954; second, to analyse the controls on local land use which may have induced such change. Emphasis is placed on the role of the Christiana Area Land Authority vis a vis the Authority's attempts to modify the farming systems. The introductory chapters outline the evolution of soil erosion and rural poverty, twin-problems that stimulated government interest in the Christiana area.

Patterns of land use were mapped from the aerial photographs taken in 1955 and 1961. Regional variations in the 1961 mosaic are evaluated in terms of local physical and cultural controls on the use of land. This evaluation is broadened by a study of detailed maps produced for four selected areas, accompanied by an analysis of farm survey and agricultural census data.

Much of the areal change in land use is attributed to geological and edaphic controls but some variations are explained by the work of the Christiana Area Land Authority and the local framework of the economic infrastructure. Patterns of farming are also linked with size of farms, degree of fragmentation and type of occupancy.

The 1955 land use mosaic was mapped for four selected areas to allow an assessment of temporal change in the agricultural landscape. Certain

common trends are singled out for emphasis. These include an expansion of livestock husbandry and an increase in the acreage of improved pasture, a decline in ginger and yellow yam cultivation and an increase in forest cover. Emphasis is placed on the elimination of large areas of Brazilian Thorn and other regenerated bushland, and on the proportion of farmland lying under rough pasture. These changes reflect an overall up-grading of the farming systems.

The final chapters evaluate the roles played by central government and the Land Authority in promoting innovation. The conclusion is that the greater part of the change in farming technique may be attributed to the implementation of government-sponsored incentive schemes by the Christiania Area Land Authority.

ABSTRACT OF THESIS

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