ABSTRACT

Soil and land resource inventory of Panavally panchayat was undertaken by the Soil Survey wing of the Department of Agriculture during October - November 2005 to assess the soil and land resources, to identify the problem and to suggest suitable development plans for the area. The report gives a detailed account of the general characteristics and soils of the area, major problems and management requirements, interpretations and recommendations for various uses.

Panavally panchayat comprising an area of 1955 ha is located in Cherthala taluk of Alappuzha district. Physiographically, the panchayat comes under lowland region. The major crops in the panchayat are coconut and paddy. The garden land covers an area of 1026.5 ha and coconut based mixed cropping system is prevalent. The wetland covers an area of 452.0 ha. A single crop of paddy followed by prawn culture is the common practice. Vembanad kaiyal forms the eastern boundary of the panchayat and occupies an area of 428.50 ha. During the survey four soil series have been identified in the panchayat. Kattur (529.5 ha) Kavur (436.0 ha) are the soils identified in the garden land. Cherukole (411.5 ha) and Thuravur (40.50 ha) are the soils identified in the wetland. The soils identified in the converted wetland is grouped as miscellaneous soils and extend over an area of 61.0 ha. The panchayat comes under lowlands and flood is the major problem. Salt water intrusion through Vembanad lake poses hazards to crop production.

The soils of this panchayat are classified into three land capability subclasses such as III w, III s and IV sw and three land irrigability subclasses such as 2d, 3s and 4 sd. The predominant land capability subclass is III s and 3s, the land irrigability subclass. Other interpretative studies like hydrologic grouping, crop suitability, soil fertility and production potential of the soils were made. The main problems that are encountered in the panchayat and its suggested management are dealt with briefly. Interpretative maps are also appended.