ABSTRACT

Soil Survey of Kottukal panchayat in Thiruvananthapuram district was undertaken to collect information on the resource base in the panchayat in the year 1993. The panchayat extends over an area of 1360ha. These are then classified and interpreted to arrive at ameliorative suggestions for the holistic development of the area, with special emphasis on sustainability and eco-restoration. The garden land covers an area of 1310 ha and the wet land 50ha. Five Soil Series have been identified in the panchayat. They are Vellayani, Vizhinjam, Neyyattinkara, Vilappil and Marukil.

Coconut, tapioca, vegetables, banana etc are the major crops of the garden land and the paddy in the wetland. The major area in the garden land is occupied by Vellayani series. The wetland soils of the panchayat comes under Marukil series and paddy is the main crop.

The soils of Kottukal panchayat are classified into land capability subclasses such as IIIw, IIIe, IVe and IVes. The predominant subclass identified in the panchayat is IVe with erosion as limiting factor and occupies an area of 698.17ha under Vellayani, Neyyattinkara and Vilappil series. The land irrigability subclasses noticed in the panchayat are 2d, 2t, 3t and 4st, of which the major area of 1198.37ha comes under subclass 3t with topography as limitation. Studies on hydrologic grouping, fertility status and crop suitability have also been undertaken. Based on the interpretative studies conducted, ameliorative measures to be undertaken in different landscapes are detailed in this report.

The soil, land capability and land irrigability map and other interpretative maps such as soil fertility, soil conservation priority, present land use and proposed land use are also appended with this report.