ABSTRACT

Detailed Soil Survey of Edavilangu panchayat (760 ha) was undertaken as a part of the New Scheme “Detailed Soil Survey at Panchayat Level” to prepare an inventory of the soil and land resources of the panchayat. This report has been prepared with the objective of providing soil information system consisting of the soil type, depth, slope, erosion status, land capability class, land irrigability class, soil fertility status, soil conservation priority, etc at panchayat level along with the cadastral details so as to serve as an authentic soil and land resource database for the formulation of micro level plans.

Edavilangu panchayat located in Mathilakam block of Kodungallur Taluk of Thrissur district extend over 760 ha. Present wetland area of the panchayat is 52.81 ha. Which constitutes about 6.95 per cent of the total geographic area of the panchayat. 201.13 ha of wetland area has already been converted for cultivation of perennial crops and construction purpose. Garden lands occupy 492.75 ha of the panchayat. Coconut and other tree crops are the major crops grown in the garden lands.

Three types of soil series namely Punnayurkulam, Manathala and Chentrapinni were identified of which Chentrapinni is wetland series and Manathala and Punnayurkulam are garden land series. 201.13 ha of wetland converted for miscellaneous purposes are classified as miscellaneous soils. The land capability class encountered in the panchayat was II w in wetland area, III in gardenland area and IIIws in converted lands. The land irrigability class observed was 2d in wetland region, 2s in gardenland region and 2ds in the converted lands.

Photographs of soil profiles (up to 2m depth) studied for establishing the soil series in the area and landscape of all garden series are included in this report.

The soil management units indicating the soil series, texture, slope and erosion of the entire panchayat are described in this report along with supporting maps. The physicochemical properties including the major and micro nutrient status of the soils of the panchayat are included with this report. The
detailed descriptions of each management units are given with specific recommendations based on soil fertility analysis. The predominant soil texture noticed in the panchayat is sandy loam in the wetlands and garden lands. Various interpretative maps are also prepared for easy understanding. The soils identified in the panchayat are classified as per the USDA Soil Taxonomic Classification System which enables information exchange and better understanding of soils.

Composite surface soil samples from every mapping unit was collected and tested for major plant nutrients. Sixty one samples were analyzed for evaluating surface soil fertility. Majority of samples collected from the gardenlands and wetlands are medium in reaction. Surface samples collected from units of majority of the soils have low to medium in availability of Nitrogen, high availability of Phosphorus and high availability of Potassium. All garden land series of the panchayat are adequate in available sulphur and deficient in magnesium status. The wetland series of the panchayat is deficient in available sulphur content and magnesium. This series is also deficient in manganese content. All the series of the panchayat have far above adequate levels of available iron. Manathala series is deficient in zinc content while Punnayurkulam series is deficient in boron content. Information on level of plant nutrients in each land parcel may be gathered from the soil fertility map.