ABSTRACT

Detailed Soil Survey of Alagappanagar panchayat in Thrissur district 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.

Alagappanagar panchayat located in Mukundapuram taluk of Thrissur district extend over 1838 ha. Present wetland area of the panchayat is 264.2 ha which constitutes about 14.37% per cent of the total geographic area of the panchayat. 322.42 ha of wetland area has already been converted for cultivation of perennial crops and construction purpose. Garden lands occupy 1233.81 ha of the panchayat. Coconut, rubber and other tree crops are the major crops grown in the garden lands.

Six types of soil series namely Koottala, Kozhukully, Anjur, Koratty, Kizhapallikara and Mulayam were identified of which Koottala, Kozhukully, Anjur and Koratty series are the garden land series identified in the panchayat. 322.42 ha of wetlands converted for miscellaneous purposes are classified as miscellaneous soils. The land capability class encountered in the panchayat is IIw in wetland area, IIe, IIes, IVe and Vle in the gardenland area and IIe in the converted lands. The land irrigability class observed is 2d in wetland region, 2t, 2st, 3t, 3st, 4t, and 6t in the gardenland region and 2t in the converted lands.

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 clay loam in the wetlands and gravelly sandy clay loam in the 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 were collected and tested for major plant nutrients. Ninety samples were analyzed for evaluating surface soil fertility. Majority of samples collected from the gardenlands and wetlands are medium to strongly acidic in reaction. Surface samples collected from units of majority of the soils have medium to high in availability of Nitrogen, low to high in the availability of Phosphorus and medium to high in the availability of Potassium. All series of the panchayat are adequate in available sulphur content and all the wetland and gardenland series are deficient in magnesium status. All the series are adequate in the availability of all micro nutrients. All the series of the panchayat have far above adequate levels of available iron. Information on level of plant nutrients in each land parcel may be gathered from the soil fertility map. The major problems encountered in the panchayat and suggestions for improvement are also included in the report.