ABSTRACT

Detailed Soil Survey of Kondazhy panchayat 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.

Kondazhy panchayat located in Thalappilly taluk of Thrissur district extend over 2989 ha. Present wetland area of the panchayat is 630.18 ha which constitutes about 21.08 percent of the total geographic area of the panchayat. 195.96 ha of wetland area has already been converted for cultivation of perennial crops and construction purpose. Garden lands occupy 1766.88 ha of the panchayat. Coconut, rubber and other tree crops are the major crops grown in the garden lands.

Five types of soil series namely Kolazhy, Kizhapallikara, Koottala, Velappaya and Kozhukully were identified of which Koottala, Velappaya and Kozhukully are the garden land series identified in the panchayat. 195.96 ha of wetland converted for miscellaneous purposes are classified as miscellaneous soils. The land capability class encountered in the panchayat is IIw in wetland area, IIle and IIles, IVes and IVe in the garden land area and IIIws in the converted lands. The land irrigability class observed is 2d in wetland region, 3t, 3st, 4t and 4st in garden land region and 2ds 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 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 was collected and
tested for major plant nutrients. One hundred and sixty five samples were analyzed
for evaluating surface soil fertility. Majority of samples collected from the garden
lands and wetlands are medium to strongly acidic in reaction. Surface samples
collected from units of majority of the wetland soils have medium to high in
availability of Nitrogen, low to medium in the availability of Phosphorus and medium
to high in the availability of Potassium. All series of the panchayat except Koottala
are adequate in available sulphur content and all the wetland and garden land series
series are deficient in magnesium status. Except Velappaya series, all the wetland
and garden land series in the panchayat recorded deficiency in the available Boron
content. Apart from this, all the series are adequate in the availability of all
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.