CHAPTER - II

GEOMORPHOLOGY

2:1 GEOGRAPHICAL SETTING:

The village, Sittampundi (Latitudes 11°14'14" N and Longitudes 77° 54'33" E) is located, 15 kms. south of Tiruchengode Town, Salem Dist. The study area lying between Latitudes 11°10' and 11°25' north and Longitudes 77° 50' and 78°05' east are represented by meta-anorthosite complex in the country rocks of Peninsular gneiss and Younger granite. River Cauvery flows from north to south in the western region and Thirumanimuthar Nadi flows in the eastern region of the study area.

Except for the few hillocks (A814’, A654’, A679’ and A675’, Kunnamalai) the area is generally a plain. On the banks of the Cauvery, cultivation of sugar-cane, maize, tappioca, plantain and coconut is observed.

The geomorphological map along with the drainage pattern is shown in Fig. 12.

2:2 TOPOGRAPHY:

The area exhibits a gently undulating topography
FIGURE 12. GEOMORPHOLOGICAL MAP OF SITTAMUNDI WITH DRAINAGE PATTERN.
and has all the typical characters of an ancient land surface. This gently tilting table land is comprised of a few hillocks due to differential weathering and erosion of a gentle platform. The slight tilting of the land and its mild fluctuation have exerted a directional influence upon the drainage. This explains the nearly north-south and north west to south east flow of the river Cauvery in the area.

The prominent hills in the area include (A 814), (A 654), (A 679), (A 675), Kunnamalai and (A 689).

2:3 CLIMATE AND RAINFALL:

The essential feature of the climate of the area is generally of high temperature with low percentage of humidity. The area is generally dry and sultry and in the summer the mercury touches a maximum of 40.0°C. During December, January, February the climate is generally cool and pleasant. The annual rainfall is about 60 cm., and the north-east monsoon brings rain to this area. March, April, May are generally hot. June, July, August are windy, September, October, November are rainy seasons.
2:4 **VEGETATION:**

Most part of the area in and around Sittampundi is covered with scrubs and thorny tropical plants. The hillocks are generally devoid of any vegetation. Cultivation is limited to the plain country and irrigation is by lake and well water.

2:5 **COMMUNICATION:**

The area is well connected with Salem in the north, Erode in the west, Paramati in the South and Namakkal in the east by State Highways. Almost all villages in the area are connected by district panchayat roads. Further every village is electrified. The area has become more accessible with frequent town buses plying from Tiruchengode covering most of the meta-anorthosite complex.

2:6 **WEATHERING:**

The rocks of meta-anorthosite complex shows a high degree of weathering and due to this fine foliation lamellae is observed (Plate-I, Fig.1). Garnet crystals of size varying from 2 mm to 25 mm occur prominently (Plate I, Fig.2) On weathering meta-anorthosite gives rise to fine glittering powder which are locally used for ornamental purposes. Kankar is used for the manufacture of lime.
EXPLANATION OF PLATE I

Figure

1. Fine foliation lamellae is observed in meta-anorthosite, near Sittampundi.

2. Garnet crystals of size varying from 2 mm to 25 mm occur in meta-anorthosite, near Pamandampalayam.
PLATE I

Figure 1.

Figure 2.