

2.2. Existing Natural and Social Conditions of the Study Area

2.2.1. Topography

The Study Area is located at the foot of the southern slopes of the Alborz Mountain Range. The area can be simply classified into 5 topographic units: (1) mountains, (2) hills, (3) old alluvial fans, (4) young alluvial fans and (5) alluvial plains. The distribution of each topographic unit is shown on Figure 2.2.1 and Figure 2.2.2. Their respective features are summarised below.

(1) Mountains

The Alborz Mountain Range is located in the northern part of the Study Area. The highest point of the Study Area is approximately 1800m above sea level and its average angle of the slope is 30 to 50 degrees. Some small valleys, such as the Darakeh, Farahazad and Sulequan valleys, exist in the area. These valleys are relatively shallow and steep.

The Sepaieh and Bibi-Sharbanu Mountains are located in the eastern part of the Study Area. This eastern mountainous area is relatively flat.

(2) Hills

Many hills are situated at the foot of the Alborz Mountain. Water erosion formed this topographical unit. The highest point in the Study Area is approximately 1500m above sea level. The average angle of slope is 20 to 30 degrees at the top and 30 to 40 degrees at the edge of the hills. These hills can be distinguished from other topographical areas by the high altitude, many valleys and relatively steep slopes at the edge of the area.

(3) Old alluvial fans

Old alluvial fans are widely spread at the foot of the Alborz Mountain Range. The elevation of the old alluvial fan area varies from 1100 to 1500m. This topographical unit can be distinguished from a hill and a young alluvial fan by the smooth gradient slopes measuring 5 to 10 degrees and the relatively deep valleys formed in the fan.

(4) Young alluvial fans

Young alluvial fans are widely spread at the bottom and mouth of the valley in the old alluvial fan. The elevation of the young alluvial fan area varies from 1100 to 1400m. This topographical unit can be distinguished from old alluvial fans and alluvial plains by its less steep slopes and its less eroded surfaces. No remarkable valley can be seen in this topographical unit.

(5) Alluvial plains

Alluvial plains spread widely beyond the young and old alluvial fans. The elevation of the alluvial plain area varies from 1000 to 1100m. The surface of this unit is mostly flat but slightly inclined to the south. No remarkable valley can be seen in this topographical unit, but there exists a topographical discontinuity zone in the southern area. This discontinuity zone is thought to originate from an anticline of pre-tertiary sediments, but it may also be the result of water erosion.

Figure 2.2.1

Topography

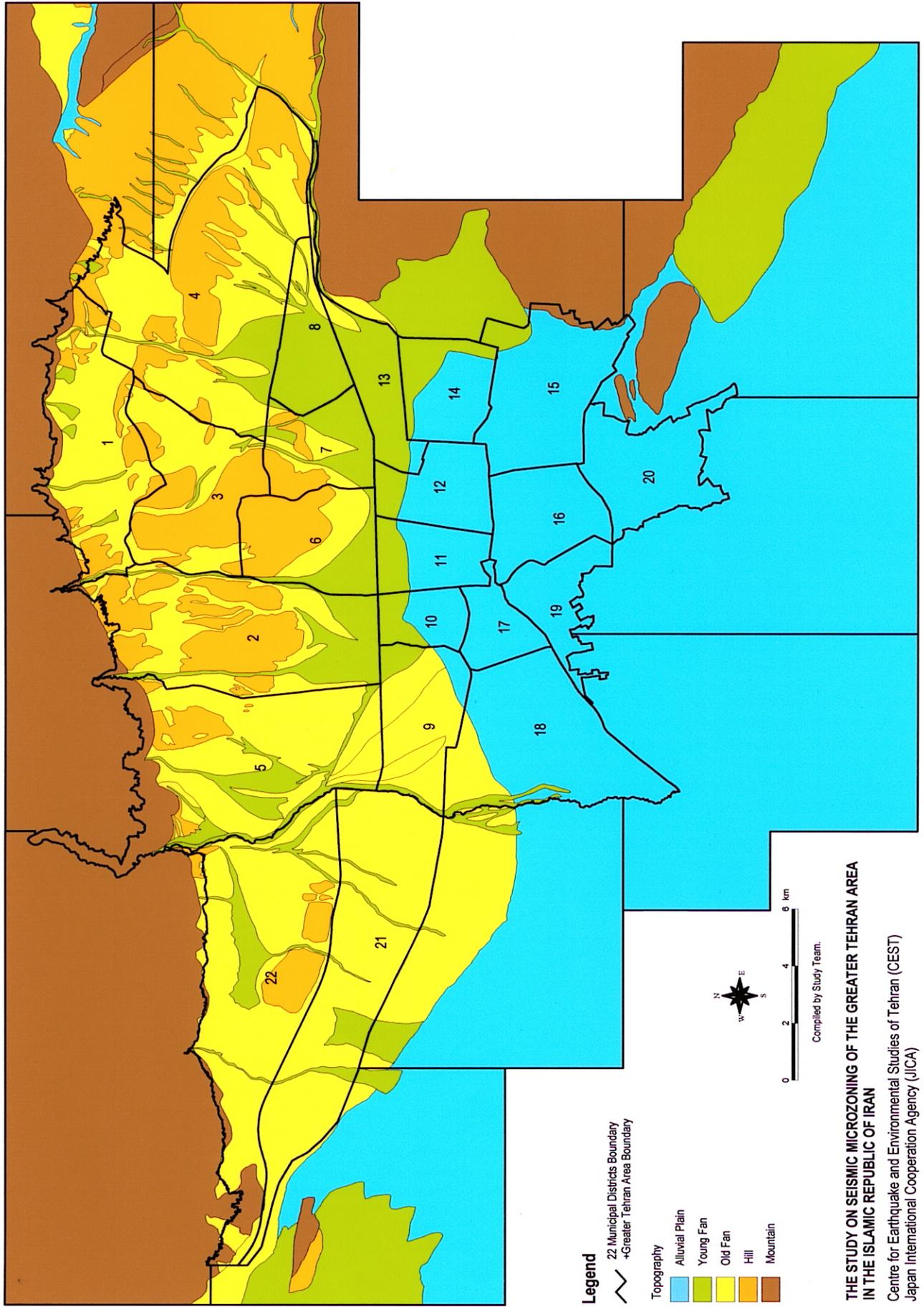


Figure 2.2.2

Slope Gradient

