Geographical Distribution of Soil

Degradation Some scientists argue that human activities cause more than 50 per cent of the total erosion. However, man-induced erosion is most dominant in monsoon and tropical arid and semi-arid regions. Even in the Mediterranean regions and temperate grasslands, rampant cutting of trees has accelerated the rate of erosion. The dimensions of soil erosion can be clearly understood from the fact that the rivers all over the world transport about 40,000 cubic km of water as surface runoff. In the USA, the average rate of soil erosion is about 30 tonnes per hectare per annum. The UNESCO report, Nature and Resources, 1983 reveals that soil erosion during the constructional phases in the urban areas is 20,000 to 40,000 times more than those in virgin natural areas. In central China, the rate of soil erosion is about 34,000 tonnes per square km per annum. The

UNESCO studies in selected African countries suggest that the rate of erosion is only 0.9 tonne/ hectare p.a. in dense forest regions, whereas erosion is 320 times greater under crop cover and it increases to 768 times under bare surface conditions. Soil erosion has also been reported from grassland biomass of temperate climate regions, viz., the steppe of Central Asia, the prairies of Canada and the USA, the pampas of South America, the veld of Australia and the downs of Australia. The monsoon climate regions of Asia and, particularly, India experience severe deforestation and overgrazing which leads to heavy loss of soil cover. Approximately 37,00,000 hectares of farm lands have been affected by rill and gully erosion. This type of erosion has assumed alarming dimensions in Uttar Pradesh (12,30,000 hectares), Madhya Pradesh (6,83,000 hectares), Rajasthan (4,52,000 hectares), Gujarat (4,00,000 hectares), Bihar (6,00,000 hectares), West Bengal (1,04,000 hectares) and Punjab (1,20,000 hectares).