

100. Dhruva Narayana, V.V. and Ram Babu. 1983. Estimation of soil erosion in India. *J. Irrigation and Drainage Engg.*. Amer. Soc. of Civil Engineers, 109(4) : 409-434.

In the absence of precise estimates of total erosion in India, this paper presents a method to arrive at a first estimate of soil erosion, sediment loads of rivers and sedimentation in

reservoirs. In this analysis, existing annual soil loss data for 20 different land resource regions of the country, sediment loads of some rivers and rainfall erosivity for 36 river basins and 17 catchments of major reservoirs are utilized and statistical regression equations are developed for predicting sediment yield. Using these expressions and corresponding values of area, rainfall, rainfall erosivity and surface runoff, annual values of total sediment loads of streams, sediment deposition in reservoirs and sediment lost permanently into the sea are estimated. According to this estimate, which is treated as a first approximation, soil erosion is taking place at the rate of 16.35 ton/ha/annum which is more than the permissible value of 4.5-11.2 ton/ha. About 29% of the total eroded soil is lost permanently in the sea. Ten percent of it is deposited in reservoirs. The remaining 61% is dislocated from one place to the other.