

861. **Bansal, R.C., Sikka, A.K. and Rama Mohan Rao, M.S. 1994.** Sustainable land use for controlling land degradation and moderating flood peaks in Shiwaliks. Proc. Vol. I, 8th Intl. Soil Conservation Conference, Dec. 4-8, 1994, New Delhi, India (1997): 394-403.

A watershed (21.3 ha) in the Shiwalik hills with mixed forest species of *Acacia catechu* and *Dalbergia sissoo* under protection since 1956 and treated with conservation measures such as water spreader, debris basins, stone and brushwood checkdams and vegetation supported by contour trenches has been kept under observations. The results indicated that runoff was brought down from 350 to 111 mm and sediment yield reduced from 150 t/ha/yr to negligible (1 t/ha/yr). In similar study conducted at catchment (4207 ha) of Sukhna lake (Chandigarh), the results showed that water yield was reduced from 295 to 65 mm and sediment yield reduced from 141 to 19 t/ha/yr due to substantial improvement in the forest cover. Results from small watershed studies also indicated reduction in peak discharge from over 10 cumec/sq km before treatment to less than 2 cumec/sq km after protection and structural measures.