Abstract

The magnitude of the phenomenon is disproportionate in semi-arid or in temperate climates. Thus Algeria is one of the most affected countries by this phenomenon and its consequences. To enable a rapid response to the request of engineers and managers to quantify sediment transport at the outlet of a watershed, a simple, easy tool to implement was developed. The principle adopted is based on hydrometric data sets from gauging stations with seasonal and annual time steps to define a suitable method for estimating sediment production. The sediment study was conducted by analysing the daily flows. Pierre du Chat station at the outlet of the Tafna basin served as an application. The obtained results are entirely satisfactory because the correlation coefficients of model $Q_s = f(Q)$ range between 72 and 95%. This method, once refined can be generalized to all watersheds in northern Algeria.

Key words: erosion, sediment transport, statistics, suspension, Tafna basin, watershed