Research Paper Engineering

Sediment Observation and it's Analysis

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ABSTRACT

Whenever water flows in a channel (natural or artificial) it tries to scour its surface. Silt or gravel or even large boulders are detached from its bed. These detached particles are swept downstream by moving water. This phenomenon is known as Sediment Transport.
Sediment Transport causes large scale scouring & siltation of irrigation canals, there by increasing their maintenance. Many poorly designed artificial channels gets silted so badly that they become inoperable. So that the artificial Channel should be properly designed & should not fail to carry the sediment load.
Silting of reservoir & rivers is another important aspect of sediment transport. The storage capacity of the reservoir is reduced by its silting, there by reducing its use & life. Sediment deposited in river & harbour my require costly dredgings.

INTRODUCTION
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Sediment Transport.
SEDIMENT LOAD
The total amount of sediment carried by the run off/ stream flow called as sediment Load can be broadly classified into following types.

Contact Load
Saltation Load
Suspended Load
Bed Load

IMPORTANCE OF SEDIMENT TRANSPORT
Sediment Transport causes large scale scouring & siltation of irrigation canals, there by increasing their maintenance. Many poorly designed artificial channels gets silted so badly that they become inoperable. So that the artificial Channel should be properly designed & should not fail to carry the sediment load.

The design and execution of a flood control scheme is governed by the peak flood levels which depend upon the scour & deposition of sediment.

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Conclusion
Sedimentation of reservoir/canal is a well known natural phenomenon and many researches have highlighted the related issueds.generally economic life of Reservoir/ canal is governed by the silt rate that is going to fill the dead storage allocated below the sill level in dam/canal.

Therefore main concern in the past studies were to analysis the encroachment in the storage by the sediment besides some studies related with flood attenuation

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