

Abstract

Water flow and sedimentation processes have been significantly erratic at the Chókwè Irrigation Scheme (CIS) and have affected its hydraulic performance. Given its expansion there is need to understand these processes taking place on-site and along the channels of the scheme. CIS being the biggest project of its kind in Mozambique requires proper management of water flow and sedimentation processes. Therefore, the effect of water flow, sediment transport and deposition parameters on the performance of the CIS is needed. In order to determine the effect of spatial and temporal water flow and sediment distribution trends along the irrigation canals, there is need to establish a correlation between these parameters. Determining the influence of water flow velocity on sediment settling rate at different depths along the canal reaches is important in managing the CIS. In addition, a developed decision-support tool to predict sediment deposition is required. For this reason, it is therefore crucial to carry out a timely assessment of water flow and sedimentation processes in CIS in a review concept. From the current review, some gaps that exist for more focused research on Chókwè Irrigation Scheme have been identified. In this regard therefore, there is need to develop an effective support tool for managing water flow and sediment deposition along the canal reaches with a view to increasing crop production in CIS.