

English Summary

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The current study revealed the geomorphological dangers in the course of the River Nile in the reach between Aswan Reservoir and Esna barrage on the following facts:

- 1 - The flow of water is one of the more effective factors in the formation of the Earth's surface, because of the vulnerability of the water course due to erosion and its impact on each of the foundations of structures built on the watercourse, as well as pump stations and outlet canals, etc. Landslides in the course of the Nile, lead to erosion of parts of the agricultural land in some places, and add new areas in other parts of the banks of the river. Therefore, it was necessary to examine current morphological characteristics along the Nile and compare the characteristics of morphological course of 1935 and 1991, 2004, in order to identify the natural features of the course, and monitor the changes that have occurred in it, especially after the construction of the High Dam.
- 2 - Sculpture, transport and deposition are among the most important factors of erosion which affect the relief appearance to the surface of the earth's crust. The size of this activity varies by environmental factors prevailing such as climate, vegetation and geology. The River Nile, in Egypt, plays a prominent role in cultural history, which resulted in an attempt to use its water to the full extent possible through the construction of the High Dam, which has led to some geomorphological changes, generated by the oscillation in behavior, and decreasing the suspended load annually. This has led to the occurrence of some geomorphological dangers and also an

attempt of the river access to the new balance. The danger of sculpture in the banks of the course of the study area is a geomorphological phenomenon prior to the establishment of the High Dam, where it appears after each flood, but became more serious after the High Dam, where nearly 91.4% of the total tonnage of the suspended sediment load is blocked resulting in a consequent increase activity of sculpture on the banks of stream, and led to the carving and collapse of the banks. Consequently threatening the foundations of structures built on the watercourse, pump stations and outlet canals, and the resulting reduction in the area of agricultural land in one bank, and add new areas in the other bank.

- 3 - The bottom of the stream is significantly influenced after the High Dam, where changes have occurred in the bottom of the watercourse, whether it is linked to a watercourse, and grain size of deposits of the bottom of the course. The increase of the volume of discharge and the amount of the suspended load form the most important key factors that determine the strength of any river in deepening the waterway, and the sculpture and sedimentation on the bottom of the course. The present study area is among the most important geomorphological hazards faced by the water course and the candidate will deal with the geomorphological hazards posed to the bottom of the river.
- 4 - The course of the River Nile is subject to side migration as it sometimes migrates towards the east and at other times migrates towards the west and as a result some geomorphological risks involve narrowing waterway because the waterways are subjected to

sub-silting and land reclamation. Then turn the water flow to the mainstream in order to reach the stage of equilibrium and hydraulic stability through the processes of sculpture and sedimentation which would result in a threat of the foundations of structures built on the stream including buildings and stations and water intakes and pumps. This in addition to the consequences of the migration flow and the reduction in the area of agricultural land in one bank, and add new areas in the other bank, which creates conflicts between people over the ownership and possession of such agricultural land.