

Sediment Deposit in Lake Tuni, Bolivia

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This paper deals sediment deposit in a reservoir with special reference to its response to glacier retreat due to climate change. Figure 1 shows Google Earth image depicting sediment deposit in Lake Tuni, Bolivia formed by sediment transport from Tuni River. The Tuni glacier is located upstream of the river. According to analysis of aerial photographs since 1956, the Tuni glacier has lost 55 percent of its area until 2006, and is estimated to disappear completely by 2025 (Ramirez et al.¹⁾).

In order to understand the relationship between sediment depositional pattern in the lake and sediment yield change due to glacier retreat, experiments were carried out in a laboratory basin. Figure 2 indicates that the aspect ratio of sand deposit is highly dependent on bottom shear stress acting on the river bed.

Keywords: Sediment deposit, reservoir, Lake Tuni, global climate change



Figure 1. Sediment deposit in Lake Tuni

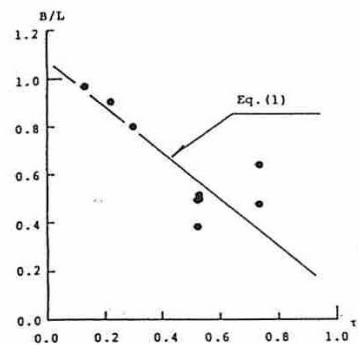


Figure 2. Relationship between width/length ratio with Shields parameter

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References

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