

What are the sources and solution for siltation of Ketakale wewa

Extended Abstract

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Background

Earliest Sinhalese had a massive irrigation technology. Wewa is one of the wonderful creations of the people who are in the dry zone as a solution for dehydrated climate. By today, most of tanks in north central province are going to death, because, small tanks facing to serious problem of siltation. There are several sources for siltation. For example absence of local management, poor agricultural practices, construction of urban area and sediment spill from drainage channels. Siltation is a process by which water become dirty as a result of fine minerals particles in the water. When sediment, or silt, deposited in the beds of the reservoir sedimentation take place (Darmasena, 1992).

Agricultural practices in rural areas cause for soil degradation and finally it caused for increasing amount of silt and clay in the water bodies that drain the area. 60% of tanks in north central province had destructed by siltation as well as 60% of water capacity of the tanks has reduced by this issue (Darmasena, 1992).

Today siltation is a one of the major issues in Ketakale Wawa at Eppawala. Disequilibrium of this ecosystem, this destruction took place after Mahaweli Programme. Further in this regard in the agricultural practices and agro chemical usage were the main affecting factors for this problem. At the end as a result of this, the density of aggressive plants like Selvinia Japanjabara and Hambusan lotus has increased in “wewa ihaththawa”. That also has caused for increasing siltation even in the low rain fall situation.

Objectives

The main purpose of this study was to examine the sources, causes and root causes for siltation of Ketakale wewa. Moreover, this study used to identify the other external factors of siltation. Furthermore this research find out how people deal

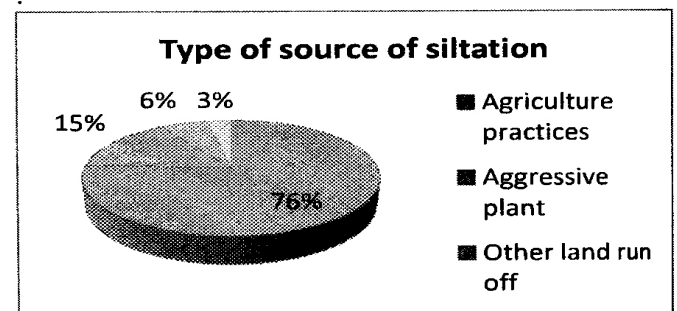
with this problem and also how to manage this problem in Ketakale area.

Methodology

In this study, data were collected through the primary and secondary data collection methods. The secondary data collection method were used by collecting information from the decided on website from the internet, and the primary data collection methods include questionnaires, interviews, discussion and participatory observation. The sample group of the study was 30 families who were key informants and farmers in the village. Finally the data were analyzed through a function of MS excel.

Results

According to this research, harmful sources can be identified as follows chena cultivation and mud land cultivation above the “wewa ihaththawa”. Usage of agro Chemical, unmanaged land use practice, application of new technology are the root causes for damaging the wewa. 65% of the cultivators have paid their attention to law utilization of tank water due to scarcity of water. All farmers are using water management strategy which can be identified as “bethma kramaya”. Some farmers are starting their cultivation at the beginning of the rainy season with the hope of doubt. If it rain time they will fulfill their water requirements from wewa (Thennakoon 1993). At present most of farmers prefer multi cropping such as banana, soya beans, sourghum etc. Because of scarcity of tank water, farmers grow paddy only for daily consumption and due to changing cropping calendar farmers paid their attention to short term paddy cultivation.



In the early time, when the tank capacity 10 feet, 50 acres were cultivated by tank water. By today tank capacity has reduced up to 7 feet therefore cultivable area has reduced up to 10 acres.

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Conclusion and Recommendations

Ketakale wawa is a social and cultural legacy for future generation. The major reason for destructing Ketakale wewa is siltation. It can be desilted by applying eyebrow concept (Darmasena 1992). Today it is considered as the bird island concept. It should be established new methods. i.e water can be pumped to the tank using a channel. Concrete channel systems should be reconstructed in order to convey water efficiently and control mud in to tank should be systematically organized as well as the bund system should be introduce for controlling the erosion and also waste water from the paddy fields should be utilied for a downstream tank.

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