

County, scientists differ over fish project in alkaline lake

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By Caroline Chebet



A view of Lake Solai in Nakuru County. [Kennedy Gachuhi, Standard]

A colony of flamingos gracefully forages by the shores of the expansive Lake Solai. Metres away, a flock of hottentot teals glide elegantly as they are shoed by children swimming close by the shores. Here, unlike some lakes that share almost similar alkaline features strapped across the Rift Valley belt, it is less vibrant except for distinctive sounds of birds and sights that crowns the lake, also luring

bird-watchers. “There are a number of water birds including these graceful flamingos. We often enjoy the sight of quite a number especially during peak season. Some are migratory while some are native,” John Kigen, a resident said. According to county Tourism and Trade Executive Raymond Komen, Lake Solai will be part of the rigorous activities to boost trading and tourism activities while opening up the rural Solai as part of the tourism circuit. But just like many other residents, he too, is quick to raise fears. “We do not drink water from this lake, it is too salty. Water from some bore holes in this area is salty but it's a mystery how fish has managed to survive here since the county introduced the fingerlings. If they do survive for the long term, then we will explore fishing opportunities,” Kigen said. This is one of the first-ever initiatives to exploit tourism in Lake Solai and more so open up the area. “We are exploring options of Lake Solai being a food habitat following the pilot project in March where we released 30,000 fingerlings into the lake and the fish have thrived. In our last visit in July, we discovered that the fish have grown bigger, a realisation that the lake is a good spot,” Komen said. He said the county put in mud fish and tilapia into the lake in a move to encourage fishing, an initiative that will also birth boating activities in the lake.

Nakuru County Principal Fisheries officer Kiharie Kahareri said the project is an initiative to stock all water bodies in the county with fish for several purposes including consumption, environmental indicators and also to control mosquitoes. Mr Kahareri said 30,000 fingerlings were stocked at Lake Solai as part of trials to see if the project would be viable. “The project entailed stocking all water bodies with fish and we did a trial in Lake Solai. So far, the fish have grown and it is an indicator that they can thrive well. We have also written to Kenya Marine and Fisheries to help in conducting researches to ascertain whether the fish can also thrive in Lake Elementaita,” Kahareri said. He said the project of restocking dams in Kuresoi, Gilgil, Lake Solai and Lake Elementaita is estimated to have cost Sh2 million where Lake Naivasha took the bulk of 100,000 fingerlings. “Restocking fish in water bodies does not mean it is only for consumption. Fish will also play a role as indicators of water quality in the lakes. Survival of fish in Lake Solai indicates water is becoming diluted but the challenge of siltation in the lake might pose risk to tilapia adaptation. Mud fish can easily adapt,” he said. But researchers have argued that possibilities of fish thriving in the lake will be slim given the lake’s history of fluctuating water levels over years, its alkalinity and siltation in the lake.

According to Jack Raini, researcher, scientist and Director of FlamingoNet, a conservation organisation, siltation in the lake is high and fish requires light to thrive. Introduction of fish into new environments, said Mr Raini, should be also be handled with care so as not to interfere with the natural environments.

“Currently, siltation levels at Lake Solai is high and one can barely see through and that will rule out successful breeding of fish. History of water level trends in the lake has also been fluctuating and some point almost drying up entirely. Water quality should also be considered while undertaking projects,” Raini said.

He said although fish has been introduced to other lakes including Lake Elementaita and Lake Nakuru, the fish are meant for consumption of birds that prey on fish. “Although Lake Solai has been experiencing dilution, exploiting fishing as a commercial activity may not thrive, given the conditions but other activities should have been explored including bird watching,” Raini added.

Alkaline levels

A senior researcher with Kenya Marine and Fisheries Research Institute (KMFRI), Dr Jembe Tsuma, noted that fish can grow in alkaline environment and are good for consumption but alkaline levels should be regulated. Dr Tsuma said fish adaptation to alkaline environment remains a factor that restricts fish production in such environments. “Fish grow in alkaline environments but the key issue is adaptation. Among key fish species that have managed to thrive in a mixture of fresh and marine water environments is tilapia. Alkalinity does not harm human health except in its extremity,” he said. Another researcher from Nakuru said adaptation of the fish in alkaline environment will result in stunted growth and might not sustain commercial activities..