

## Interview with Lal Emmanuel

### Director of Nagenahiru Foundation - Center for Conservation of Lakes and Wetlands, Sri Lanka

**1. Question:** What are the most severe problems and challenges that Lake Madampe is facing?

**Answer:** Madampe Lake System

Madampe Wetland system, perhaps one of the last remaining tracts of pristine mangrove forest in Sri Lanka with rich biodiversity, now appears to be threatened by increasing human activities. The economy of the people living in this region is largely based on lake fishing and cinnamon cultivation for exports. The deforestation in the Madampe wetland area is the result of several uncontrolled community activities, the foremost of which include:

- Subsistence agriculture
- Infrastructure projects
- Commercial cinnamon cultivation
- Logging

Most parts of the mangroves at the Madampe lake wildlife sanctuary were destroyed in the past due to the above mentioned activities.

As in other parts of the southern coast of Sri Lanka, destruction of the Lake and wetland ecosystem in Madampe Lake Area is mainly caused by agriculture and urban development, as well as community actions such as felling of mangroves for fire wood, reclamation of mangrove wetlands for the construction of houses, etc.

Historically, a large portion of deforestation in Madampe wetland was due to forest clearing for paddy cultivation and commercial cinnamon plantations for export trade. Deforestation surrounding the lake is one of the most serious problems in the Madampe Lake area, as it results in increased water drainage and facilitated pollution due to deforestation and uncontrolled human activities that put the Madampe Lake system in serious danger and at risk, thereby threatening the economic and health benefits it provides for the local communities. The lake also faces the serious issue of a decrease in size with heavy siltation.

It must be noted that despite the mangrove systems displaying great environmental potential as efficient carbon sinks, there is a great need for a proper and efficient project management approach in order to establish a well-grounded lake conservation project.

**2. Question:** What are the main sources of livelihoods for the local population at Lake Madampe?

**Answer:**

#### **i. Artisanal Fishing in the Lake**

The island nation of Sri Lanka enjoys a coastline of 1500km that supports highly productive marine ecosystems. The hidden beauty of this island's aquatic environment is home to rich flora and fauna. The local population is highly dependent on fishing as

a source of income and food. The fishing communities practicing traditional fishing methods, especially the use of kerosene lamps in night fishing, have proven to create a hostile environment for local ecosystems.

## **ii. Commercial Cinnamon Cultivation for Export Market**

Cinnamon is currently the most common spice in Sri Lanka and is one of the staple spices in people's diet is also used as beverages and in the pharmaceutical industry. Besides, it is one of the most commonly used additives in Ayurvedic and Chinese medicine.

The cinnamon industry provides very important livelihood for thousands of families living around Lake Madampe. The cultivation of cinnamon provides revenue and employment to people. Most of the cinnamon farmlands are owned by small holder plantations. In the Madampe Lake area there are around 2500 cinnamon cultivators and 7000 employees; the cinnamon industry is the main source of income in the Madampe Lake region in Sri Lanka.

### **3. Question: Does commercial fishing have any effects on the lake?**

#### **Answer:**

As the Madampe Lake is a shallow lake commercial fishing is not practiced at any part of the lake.

### **4. Question: Where is the fish caught in the Lake Madampe mainly marketed?**

#### **Answer:**

Madampe Lake is about 325 ha shallow Lake with rich biodiversity. The lake fisheries are limited to artisanal fishing - traditional/subsistence small scale, low-technology, low-capital, fishing practices undertaken by individual fishing households. These fishermen make short, overnight fishing trips close to the shore and fish mainly for local consumption. Commercial fishing is not practiced in the Madampe Lake region.

### **5. Question: Is Lake Madampe a drinking water resource?**

#### **Answer:**

No- Madampe Lake is not a drinking water resource.

### **6. Question: Is the local population aware of problems at Lake Madampe?**

#### **Answer:**

Most of the school children and younger generation is aware of the lake issues to a certain extent. To receive successful results it is essential to continue the awareness and educational programmes on the values and importance of protecting this water resource.

### **7. Question: What are possible solutions for the challenges at Lake Madampe?**

**Answer:** Possible solutions for the challenges at Lake Madampe are:

- The cinnamon cultivation in this lake area results in large-scale application of agricultural chemicals, including fertilizers rich in nitrogen and phosphorus, herbicides and fungicides. Water pollution results from runoff of these chemicals into surface waters or from infiltration of these chemicals into ground water, which eventually flows into the lake. Thus, the cinnamon cultivation in the surrounding areas is one of the main sources of pollution for the Madampe Lake and its entire wetland system. Educating the local communities to replace harmful agrochemicals and introduce organic fertilizers will be one option to protect this lake water, reducing the pollution caused by using agrochemicals.
- Raising awareness and educating the lake communities to reduce the disposal of waste material in the lake and its surrounding wetland system is an important strategy for the protection of the Madampe Lake. It's very important to introduce well-grounded waste management projects to facilitate the protection of the lake.
- Conducting a scientific study regarding the environmental impacts of harmful community activities that facilitate pollution and degradation of the lake, and to carrying out soil and water conservation measures such as bio-fencing in the surrounding wetlands and the catchment area.
- Annona grabal - Pond Apple is an invasive weed spreading fast over substantial areas of the Madampe Lake, leading to the degradation of the entire lake wetland system and endangering the valuable mangrove ecosystem. Preventing further spreading of the invasive weed is an important measure to protect the Madampe Lake.
- Aiding policy makers in the development of sustainable policies to protect the Madampe Lake for the benefit of future generations and the implementation of well-planned management measures, is also vital for the protection of this lake.

**8. Question:** What is the role and what are the main activities of the Nagenahiru Foundation of Sri Lanka? Who are other important actors concerning the protection of Lake Madampe?

**Answer:**

- The Nagenahiru Center for Environmental Education which is located at the Madampe Lake region can be viewed as the focal point for the protection of this lake.
- Nagenahiru Foundation will also take an active part in conducting awareness and educational programmes for the local communities, school children, government officers and the policy makers on the values and importance of protecting the Madampe Lake.
- Conducting awareness and educational activities to promote protection of the lake.
- Conducting educational, verifiable and replicable models to encourage the local population for the lake protection.
- Continuous coordination with governmental agencies and civil society actors during the lake conservation process.

**Other actors involved in lake protection/**

- Central Environment Authority of Sri Lanka
- Department of Wild Life Conservation
- Divisional Secretariat - Ambalangoda
- Civil society organisations in the region. Other relevant organisations engaged in nature conservation.

**9. Question:** What do you expect from the proclamation of Lake Madampe as a Threatened Lake of the Year 2018?

**Answer:**

- Learning from past experiences on successful lake protection in different countries throughout the world.
- Cooperate with international communities to protect Madampe Lake for the benefit of future generations.