

## Replanting mangroves in the Dutch Canal to enhance ecosystem productivity

Replanting mangroves in the Dutch Canal, Sri Lanka © R. Mahindapala



fisheries industry. In recent times, however, the mangroves lining the Canal's banks have been cleared illegally to set up prawn farms.

The consequences of this loss and degradation of forests have included the reduction of finfish and crustacean catches, a decline in biodiversity, irregular water flows, and the drying up of natural springs. Sri Lanka's National Aquaculture Development Authority (NAQDA) obtained a small grant from MFF to restore a section of the degraded mangrove area along the Canal.

As part of the rehabilitation of the prawn aquaculture industry in Puttalam, NAQDA has been implementing a programme to dredge the Dutch Canal, the main source of water for local prawn farmers, to improve its flow. Its long-term objective, to which this project contributed, is to improve the water quality of the canal ecosystem and its associated fish breeding grounds, and so improve the income of the local fishing community.

### Target beneficiaries

The fishing community and water users along the Dutch Canal in Puttalam district.

### Outputs

- ▶ Planting of 11,080 mangrove plants at three different sites.
- ▶ Installation of signboards at the three planting sites.
- ▶ Establishment of a demonstration plot with 75 different species of plants found in mangroves.
- ▶ Delivery of two awareness programmes.
- ▶ Training for 95 farmers.

### Accomplishments and challenges

The project increased community awareness of the importance of mangroves and the



#### LOCATION

Puttalam, Sri Lanka

#### PRIORITY POWS

- Reef to Ridge
- Civil Society Engagement

#### DURATION

Nine months

#### MFF GRANT AMOUNT

US\$4,386

### Objectives

This project had four main objectives:

- ❶ to improve the water quality of Puttalam lagoon;
- ❷ to increase the availability of fish breeding grounds;
- ❸ to increase the income of the local fishing community; and
- ❹ to protect the natural environment of the Dutch Canal.

### Background

The Dutch Canal was constructed during the time of Dutch control over the maritime districts of Sri Lanka (then Ceylon). Once a popular supply route linking Colombo with Puttalam, this 100-km canal is still an important source of water for communities on Sri Lanka's north-west coast from Negombo to Puttalam lagoon. The Canal and the areas around Puttalam lagoon have played an important historical, economic and ecological role in the development of Sri Lanka's

efforts to restore and enhance the canal ecosystem. A total of 11,080 mangrove plants were planted, and by the end of 2009 overall survival rates were around 80%. Most seedlings were planted only in November 2009, however. It is hoped that the establishment of a demonstration plot, the awareness programmes organised for schoolchildren, and the involvement of the community in project activities, will motivate beneficiaries to protect the replanted areas.

### **Challenges**

One problem encountered was that the planting site at Pulidvayal had to be rejected because of social conflict, forcing the project to move to another location. Also, replanting

at the site in Viruthodei was interrupted by flooding.

### **Lessons learned**

The project learned important lessons about planting mangroves. One is that good quality seedlings are scarce. Another is that the timing of seed availability should be considered when planning project activities. Also, for the best results, *Rhizophora* spp. should be planted at a spacing of one metre; *Avicennia marina* at 50 cm.

The time allocated by the project for replanting was inadequate for monitoring of results. Follow-up activities will be carried out by NAQDA prawn farm monitoring units, together with farmers.

### **CONTACT INFORMATION**

National Aquaculture Development  
Authority (NAQDA)

758 Baseline Road, Dematagoda,  
Colombo 9, Sri Lanka

Tel: +94 11 4721676