

Restoring Past Glory

The Regional Fisheries Livelihoods Programme (RFLP) promises a brighter future for fisheries in the Negombo lagoon in Sri Lanka

Sri Lanka's Negombo lagoon has been very much in the news recently, but for all the wrong reasons. Several reports have highlighted the severe environmental degradation in, and around, the lagoon and the concerns of lagoon fishing communities, residents, religious leaders and civil society representatives. However, things may be starting to look brighter following the development and implementation of a lagoon management plan that,

Thousands of homes have been built that encroach onto the lagoon water area, while hundreds of motorized fishing boats pollute it and endanger the once-rich lagoon fishery. As a result, fish caught in some areas of the estuary are reported to be tainted with kerosene and unfit for human consumption.

Lagoon banks are cluttered with temporary wooden jetties used for unloading fish, most built without any approval. These adversely impact water movement, accelerating sedimentation, a situation made worse by illegal land filling for encroachment.

Valuable habitats such as mangrove and seagrasses that provide critical nursery habitats for fishery resources, aquatic fauna and birds have also suffered. Indiscriminate land reclamation has led to significant reduction of mangrove cover, while the advent of shrimp farming in the area in the mid-1980s, the use of certain types of fishing gear, and digging for worms used as a feed in shrimp hatcheries have destroyed much of the seagrass.

Recognizing the scope of the problem, RFLP has worked with the Ministry of Fisheries and Aquatic Resources to bring together a wide range of stakeholders, including government agencies and fishers, to develop a fisheries management plan for the lagoon.

Illegal encroachment

"Fishers were frustrated by their inability to address a host of non-fishery-related issues such as illegal encroachment into the lagoon, destruction of mangroves, effluents

...RFLP has worked with the Ministry of Fisheries and Aquatic Resources to bring together a wide range of stakeholders, including government agencies and fishers to develop a fisheries management plan for the lagoon.

for the first time, has involved all concerned stakeholders.

Since 2010, the Regional Fisheries Livelihoods Programme (RFLP), which is funded by Spain and executed by the Food and Agriculture Organization of the United Nations (FAO), has been working with the Ministry of Fisheries and Aquatic Resources to address some of the problems facing Negombo lagoon.

These challenges are considerable. The high population density of the fast-growing city of Negombo, and a concentration of industries, tourism and fishing and fishery-related activities have combined to make heavy demands on the 3,164 ha lagoon and its environment.

The major problems facing the lagoon include the discharge of sewage and the dumping of solid waste from homes and businesses.

*This article is by **Manoja Liyana Arachchi** (Manoja.Liyanaarachchi@fao.org), Communications Assistant, RFLP Sri Lanka, and **Steve Needham** (steve.needham@fao.org), Information Officer, RFLP Regional Office, Bangkok, Thailand*

and waste discharge, which adversely impacted fish and fisheries,” said RFLP’s Leslie Joseph. “The RFLP concept of wider stakeholder participation in fisheries management was, therefore, seen as an ideal opportunity for all stakeholders to share responsibility, to be accountable and to be actively involved in managing the fishery and conserving the lagoon environment.”

To ensure more representative management of the lagoon, a Fisheries Management Co-ordinating Committee has been formed. As the Fisheries Act limited membership of fisheries committees to fishers only, changes had to be first made so that the legislation would allow the participation of other stakeholders. As a result, in addition to fishers, other institutions or administrations with legal mandate to control or manage activities that may adversely impact the lagoon ecosystem have become more actively involved.

The development of the lagoon fisheries management plan was a priority for the Fisheries Management Co-ordinating Committee. Taking part in discussions to formulate this plan were representatives of the Ministry of Fisheries and Aquatic Resources (MFAR), the Department of Fisheries and Aquatic Resources (DFAR), the District Secretariat, Divisional Secretariats, the Provincial Council, the Coastal Conservation Department (CCD), the National Aquatic Resources Research and Development Agency (NARA), the Central Environmental Authority, the Marine Environment Protection Authority, the Wildlife Department, the Forest Department, the Navy, and fisher representatives from the Negombo Lagoon Fisheries Management Authority.

The plan was agreed upon by all stakeholders at the last Fisheries Management Co-ordinating Committee meeting held on 31 July 2012. It contains measures to protect livelihoods of genuine lagoon fishers through a strictly enforced licensing system, and ensures sustainable utilization of resources through enhanced monitoring, control, and surveillance.

Lagoon fishers have agreed on fishing times and fishing areas for some of the major fishing gears and also to ban some environmentally harmful fishing methods. The plan also features a strong focus on conserving the lagoon environment and biodiversity. Relevant stakeholder agencies in the Fisheries Management Co-ordinating Committee are called upon to establish legalized lagoon boundaries as well as minimize pollution and the adverse impacts from fishing and aquaculture activities. In order to arrest the fast-dwindling mangrove resources that are important for the sustenance of fish resources and other ecosystem services, the plan also recognizes the need to prepare and implement a mangrove management plan for the lagoon, integrated with the fishery management plan.

Elements of the management plan are already being put into place. RFLP has provided the district fisheries office with a boat and an engine to strengthen its monitoring and enforcement capability. NARA has been entrusted with the task of introducing a fish-catch monitoring programme for the lagoon. Furthermore, arrangements are being made to seek approval from relevant stakeholder agencies in the

V VIVEKANANDAN



A boat anchored at the Negombo lagoon. The major problems facing the lagoon include the discharge of sewage and dumping of solid waste from homes and businesses

Fisheries in the Negombo lagoon

Negombo lagoon is a shallow basin estuary covering approximately 3,164 ha, situated about 20 km north of Colombo.

The number of finfish species identified from Negombo lagoon range from 82 to 133. More than half are marine species entering the lagoon from the sea. The composition varies seasonally with dominant finfish varieties including milkfish, catfish, half beaks and grey mullet. Key shrimp species include *Penaeus indicus*, *P. semisulcatus*, *Metapenaeus moyebi*, *M. dobsoni*, and *M. elegans*.

According to 2010 figures, 3,310 fishers fish in the lagoon. Of these 2,581, or 78 per cent, fish full-time, while 728, or 22 per cent, are part-time fishers who move into the lagoon only during the southwest monsoon period from May to October, when sea fishing is difficult because of strong currents and high waves.

In 2010, the fishing fleet of 1,358 was made up of 869 (64 per cent) outrigger canoes and 492 (36 per cent) log rafts.

Over 30 fishing gears and methods are reported in use. Traditional methods include the cast-net, stake-net, brush pile, angling, crab pots, scoop-net, fish krall, and dip-net. Other more modern methods include the hand trawl, drift gillnet, trammel net, and lagoon seine. 

Fisheries Management Co-ordinating Committee on a draft mangrove management plan.

Among the key issues identified is the lack of clearly defined and legally identified lagoon boundaries. This is a critical factor responsible for illegal encroachment into the lagoon and destruction of valuable mangrove resources. In the absence of legally recognized boundaries, authorities have not been able to take violators to court.

Attempts to establish boundaries around Negombo lagoon have been made before. From 2002 to 2004, an Asian Development Bank project demarcated a 10-m land corridor from the high-water mark and installed 2,400 boundary posts fixed 10 m apart around the lagoon perimeter.

However, this land corridor was never acquired by the State and remains in the possession of individual owners. Encroachment has continued, while 686 boundary posts have simply disappeared.

Under the new management plan, efforts are again being made to establish legally defined boundaries for the lagoon. RFLP has signed an agreement with the District Secretary of the Gampaha District for this purpose, and has allocated close to SLR 4 mn for this task.

Work has already commenced and the first batch of boundary poles is being installed by the Negombo Lagoon Fisheries Management Authority, under the guidance of the District Fisheries Office, Negombo.

Once all boundary poles are in place, the Survey Department will conduct surveys using global positioning system (GPS), and prepare a Preliminary Plan. This will detail strategic reference or control points of the lagoon boundaries, and provide a legal basis upon which to identify any future encroachments and to carry out any enforcement measures.

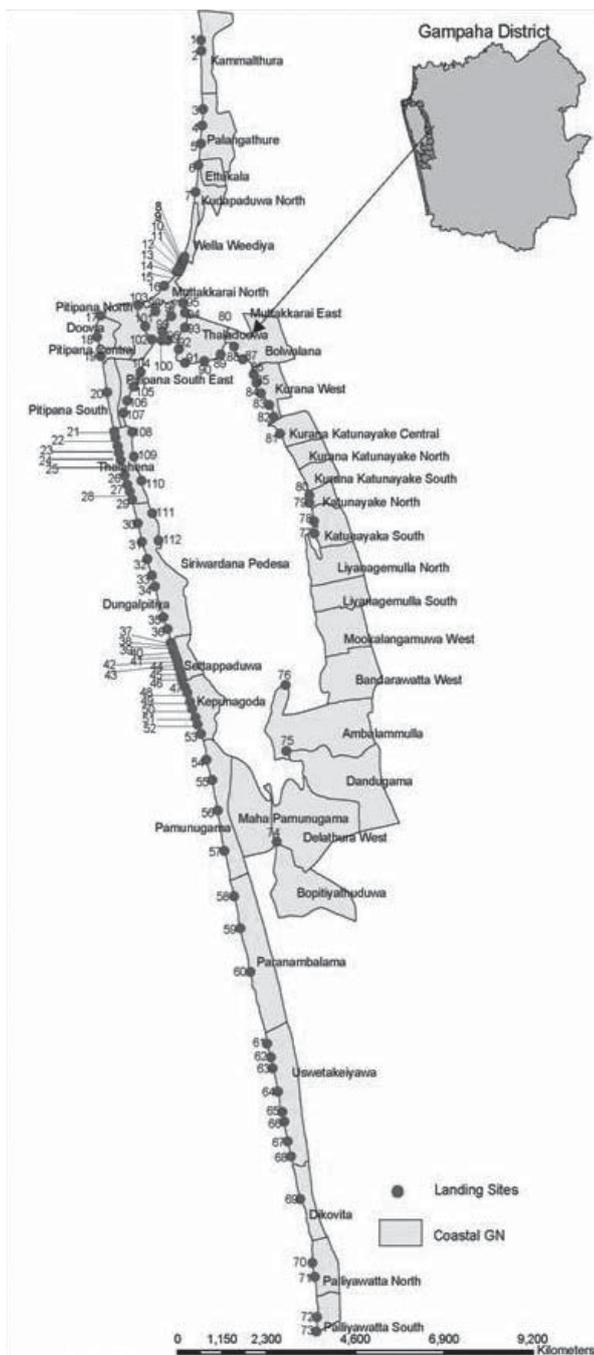
According to RFLP's Leslie Joseph, this will make a major contribution to the protection of the lagoon. "Lack of legally defined boundaries in the past was an impediment to prosecution. With the availability of a Preliminary Plan and legally defined boundaries, the authorities will be able to counter any illegal encroachment even if boundary poles disappear," he said.

Participatory approach

Taking an integrated and participatory approach to the management of Negombo lagoon involving all concerned stakeholders is, without doubt, a positive move. However, the challenges facing Negombo lagoon after decades of mismanagement

remain formidable. Concerted long-term effort, in terms of both financial commitment and stakeholder support, will be needed if these early steps are to be built upon and the lagoon restored to its past glory. 3

Landing Sites of Negombo Fisheries District



Source : Coastal Information, Department of Coast Conservation, Sri Lanka

For more



www.rflp.org/Negombo_fisheries_plan
Fisheries Management Plan for Sri Lanka's Negombo Lagoon takes Shape

www.fisheries.gov.lk/
Ministry of Fisheries and Aquatic Resource Development