

INLAND AQUATIC RESOURCES

15 CHAPTER

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Abstract

*Sri Lanka is rich in inland aquatic resources which includes 103 rivers with a cumulative basin area of 59,245 km², accounting for 90% of the country's land area. The total extent under inland reservoirs is about 200,000 ha. Most of the reservoirs in the country that include minor irrigation reservoirs and seasonal reservoirs are less than 100 ha in surface area, but are biologically very productive. The inland fishery production from reservoirs of Sri Lanka is essentially a secondary utilization, producing a cheap source of animal protein to the rural communities, which contributes to their nutritional requirements and food security. The inland aquatic resources of Sri Lanka are rich in biodiversity. Introduced fish species, notably the African cichlids, as well as the Chinese and Indian major carps, contribute significantly to inland fishery production which at present is around 75,750 tonnes. There are about 169 species of water birds in Sri Lanka, some of which are resident while others are migrants. These birds assemble in large numbers in wetlands during the migration season, and therefore these locations can be developed into centres of ecotourism. The Country's extensive freshwater and brackish water resources, and the adjoining lowland areas of rivers and reservoirs are potentially a rich resource for food production and income generation for rural populations. There is a vast potential for entrepreneurial investment in inland aquatic resources, such as for value addition of hitherto unexploited or underexploited fishery resources, development of freshwater prawn aquaculture, establishment of 'fish spa' using stone sucker *Garra ceylonensis*, enhancement of ornamental fishing industry, and development of ecotourism and game fishing.*

INTRODUCTION

Inland aquatic resources in most developing countries contribute significantly to livelihoods of people in terms of food security, economic growth and poverty alleviation because they support productive fisheries. In Sri Lanka, the contribution of inland fisheries and aquaculture to GDP in 2013 was 0.1% (<http://www.fisheries.gov.lk>). In 2013 there were 48,170 active fishers in the inland fisheries sector. Due to increasing demand for water, degradation of freshwater habitats, over-exploitation of resources, stream and river flow modification through damming, destruction or degradation of habitats and accidental or deliberate introduction of invasive alien species, inland aquatic resources are highly threatened. Hence, for sustainable development and management of inland

aquatic resources, and for promoting water, food and environmental security, it is necessary that effective measures for sustainable utilization and conservation are implemented to minimize vulnerability to human activities and environmental changes.

INLAND AQUATIC HABITATS

The Convention on Wetlands of International Importance (also called the Ramsar Convention) provides a broad definition for wetlands, i.e. "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres". This definition of wetlands can be simplified as habitats with permanent