

Reviewing Effluent and Estuarine Water Quality in View of Introducing Effluent Standards for Coastal Aquaculture in Sri Lanka

A.S.L.E. Corea

National Aquatic Resources Research and Development Agency, Crow Island,
Colombo 15, SRI LANKA

Corresponding Author:
E-mail: scorea@nara.ac.lk

ABSTRACT

Coastal aquaculture commenced in the 1980's in Sri Lanka with the shrimp farming industry. The major coastal aquaculture activity even at present is shrimp culture. However, it has caused pollution in the coastal areas due to its untreated effluents being discharged to coastal water bodies. Although effluent treatment prior to release is recommended, it is not practiced. The pollution caused by the industry has not only affected the other aquatic organisms, but has affected the industry itself through disease spread.

Many countries in the world have recognized shrimp culture as a highly polluting industry, and are taking measures to control pollution. Therefore, it is time that Sri Lanka also introduced methods to control coastal area pollution from aquaculture effluents. The present paper reviews the available water quality in the estuarine systems, and the effluent quality discharged from farms to suggest standards for the aquaculture effluents with a view of reducing the pollution to coastal areas.

Key words: Aquaculture Effluent quality, Effluent limits, Effluent standards

Introduction

The coastal pollution caused by the shrimp culture industry is a threat to the coastal aquatic diversity as well as to the sustainability of the industry. (Corea et al 1998, Phillips 1995)This has been recognized in most parts of the world and mitigation methods have been introduced. In Sri Lanka farm approval was granted with a regulation that the effluents need to be treated prior to release. But since there is no monitoring mechanism, this regulation has been violated since the beginning of the