

Evolution of Fisheries and Aquaculture in India



N.G.K. Pillai & Pradeep K. Katiha

Evolution of Fisheries and Aquaculture in India

N.G.K. Pillai

Central Marine Fisheries Research
Institute, Kochi

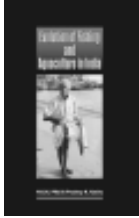
Pradeep K. Katiha

Central Inland Fisheries Research
Institute, Barrackpore



NCAP





Evolution of Fisheries and Aquaculture in India

N.G.K. Pillai and Pradeep K. Katiha*

Published by

Prof. (Dr.) Mohan Joseph Modayil

Director

Central Marine Fisheries Research Institute, Kochi - 682 018

Pillai, N.G.K and Pradeep K. Katiha 2004. *Evolution of Fisheries and Aquaculture in India*, p 240. Central Marine Fisheries Research Institute, Kochi - 18, India

© 2004, Central Marine Fisheries Research Institute, Kochi

ISBN : 81-901219-4-4

Printed at

Niseema Printers and Publishers

Kochi - 18

* authorship in alphabetical order

Catalogue of existing freshwater aquaculture and fisheries technologies

Inland

The existing aquaculture technologies can be categorised into technologies for fish seed production and for grow-out. Seed production and grow out technologies are available for different categories of fishes, *i.e.* carps and catfishes including air-breathing fishes, prawn and ornamental fishes. An overall catalogue of these technologies is mentioned below:

Freshwater aquaculture

The current freshwater aquaculture technologies may be classified into:

Polyculture of Indian carps or Indian and exotic carps together (Composite carp culture)

- Mono - and polyculture of catfishes and air-breathing fishes
- Mono - and polyculture of freshwater prawns
- Integrated fish farming
- Paddy-cum-fish culture
- Fish-cum-cattle farming
- Pig-cum-fish farming
- Duck-cum-fish culture
- Poultry-cum-fish farming
- Ornamental fish culture
- Freshwater pearl culture
- Giant freshwater prawn farming (Scampi)
- Spirulina farming

Based on the level of inputs polyculture of Indian major carps or Indian and exotic carps together (Composite Carp Culture) may be classified as :

- Low input fertiliser based system or sewage fed culture system or
- Aquatic weed-based system

Medium input or fertiliser and feed based system
High input or intensive feed and aeration based system
Aqua Feed Technologies
Finfish-carps

Brackishwater:

Shrimp farming
Mud crab fattening
Clam culture
Finfish farming
Aqua Feed Technologies

Inland capture

The inland capture technologies are primarily the fishing practices in rivers, estuaries and floodplain wetlands.

Crafts

The crafts or boats in the aquatic systems of India are:

Raft
Boat
 Dug-out boat
 Plank built boat
 Dinghi and *Nauka*
 Musula Boat
 Dug-out canoes
 Coracle
 Built up boats
 Bassien type
 Satpati type
 Broach type
 Batchary and *chot* type

Gears

The gears operated in the open and aquaculture waters include:

Dragnet
 With pocket
 Chanta
 Without pocket
 Mabajal
 Chaundbi
 Ghanali
 Dodandi

Gillnet

Phasla

Current

Gochail

Ranga jal

Kamel,

Hook and Line

Cast net

Traps

Culture-based technologies for Fisheries enhancement

Stock enhancement

Species enhancement

Environment enhancement

Hatchery technologies

Freshwater

Technologies for fish breeding and seed production may be categorised as under :

Induced breeding of carps and strain development

Intensive carp seed rearing

Breeding and seed production of air breathing catfishes

Breeding and seed production of giant freshwater prawn

Breeding and seed production of ornamental fish

Freshwater mussel hatchery

Brackishwater

Bivalve hatchery

Clam

Shrimp hatchery

Hatchery input technologies :

Live feed

Micro-algae

Rotifer

Brine shrimp (*Artemia*)

Processing and post-harvest

Supply of fresh fish

Icing

Canning

Transport of live fish / prawn fry

