

## MBM-CARI-XII

### Marine Ornamental Fishes (Damsels)

#### Rationale

The reef waters of A & N Islands harbor a variety of exportable and valuable ornamental fishes. Due to the continuous exploitation, natural resources are also threatened. In this juncture there is a need to develop proper marketing strategies and channels for marine ornamental fishes to promote their export as well as to exploit the available natural resources of these islands in a judicious way. There is now a big business in ornamental fishes on a global scale. The global trade value of exported ornamental fish & related products in terms of their production and maintenance costs was estimated at over US \$ 15,000 million. The world trade of ornamental fish has been estimated to be around US \$ 8.5 billion on 2005 and in making further strides with an annual growth rate of about 10 % per year. The annual global marine ornamental fish trade is estimated at US \$ 200 – 330 million in 2001.

The export of ornamental fishes from the country at present is mainly confined to freshwater varieties and the export is limited to the fishes from the North – Eastern state (83 %) and few metro cities like Chennai, Cochin, Mumbai & Hyderabad, in spite of the

availability of rich fauna in and around coral reef areas of Lakshadweep, Andaman and Nicobar Islands and Mandapam area. The country could not make any headway in the export of marine ornamental fishes so far due to the non-availability of required infrastructure facilities. Even Sri Lanka's exports of marine ornamental fishes worth Rs. 100 crore during 2001. USA, European Union and Japan are the main importers of ornamental fishes. The above-mentioned data indicates that the ornamental fish rearing is having great prospects in A & N Islands in the following means:

#### **Lucrative business opportunities:**

Due to high demand of ornamental fishes, in USA, E.U. & Japan. This business can be started as a high profit business.

#### **Employment generation to rural youth:**

Unemployed youth can start their own ornamental fish-breeding center or may work in big aquarium house or ornamental fish breeding & rearing units if private entrepreneurs in A & N Islands establish it.

#### **Rehabilitation of Tsunami affected people:**

Those who lost their livelihood due to tsunami can start ornamental fish breeding & rearing unit as a cottage industry by finan-

cial assistance from Govt. Semi Govt. or N.G.Os. & technical assistance from Govt. Research Institutes like CARI.

**Establishment of export oriented units:** Once the ornamental fish breeding & rearing will become functioning,

many private entrepreneurs should come in this lucrative business & they may establish export oriented ornamental fish industry.

**Source of foreign exchange:** Exporting these high demanding fishes, we can earn valuable foreign exchange.

### Area

AREA	0.1 ha	1000 m <sup>2</sup>
Hatchery	Brooder tanks and associated paraphernalia	400 m <sup>2</sup>
Rearing tanks	FRP tanks and aeration system with algal tanks and rotifer tanks	600 m <sup>2</sup>
Total		<b>2000 m<sup>2</sup></b>

### Investment

Capital cost (Fixed investment)	Rate (Rs.)	Amount(Rs.)
Hatchery shed with glass aquariums (2.5x2x1) m each with lids and fittings	60,000	60,000
Rearing area with cement cisterns (5 x 3 x 2) m/ FRP tanks (1.5 t)	10,000	30,000
Aerators/ blowers (2 nos)	5,000	10,000
Other equipments like hand net, buckets, pipes		5000
Sub total		1,05,000
<b>Culture cost (Variable cost)</b>		
50 female (wild collection)	@ Rs.100/female	5000
50 male (wild collection)	@ Rs.100/male	5000
Feed for one year		17,000
Others		2,000
Sub total		29,000
Total cost (Rs.)		1,34,000
<b>Production</b>		
Monthly production of 1000young		
Yearly production of 12000 young		
<b>Sale</b>		
1200 ornamental fishes	@ Rs.200	2,40,000

### Net Returns from Marine Ornamental Fishes (Rs.)

Particulars	Gross returns (Rs.)	Cost (Rs.)	Net returns (Rs.)*
Net income of I year	2,40,000	1,34,000	1,06,000

\* Please note the income may vary depending upon the rate and market of ornamental fishes