CAGE FISH CULTURE
Bangladesh

This brief outlines the basic construction method used in Bangladesh for fish cages. It provides a step by step guide on how to make them.

Cage culture is one of the best options for women’s groups and non-resource base farmers to cultivate fish using open water or common pool resource (CPR) e.g. rivers and canals, for consumption and income generation.

The River Erosion Project (REP) of Practical Action-Bangladesh used cage culture technology involving women in four sub-district of Gaibandha where 1m$^3$ floating cage were used.

A cage measuring 1 cubic meter, made of black polyethylene net, a bamboo frame, plastic floats, ropes - is used to culture around 200-300 fish for a period of 4 to 6 months and able to produce 20 to 30 kg fish. All cages have a top cover to prevent fish jumping and escaping and to avoid predation by birds.

Cage materials and its costing: (for each 1m$^3$ floating cage)

<table>
<thead>
<tr>
<th>Materials</th>
<th>Amount/pieces</th>
<th>Price (taka)</th>
<th>Total cost (taka)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Black Polyethylene net (2m height)</td>
<td>15 feet</td>
<td>14/foot</td>
<td>210.00</td>
</tr>
<tr>
<td>2. Bamboo pole/split (38 inches, 1m long)</td>
<td>12 pieces</td>
<td>7 / piece</td>
<td>84.00</td>
</tr>
<tr>
<td>3. Cod thread</td>
<td>100 gm</td>
<td>220/kg</td>
<td>22.00</td>
</tr>
<tr>
<td>4. Nylon thread</td>
<td>100 gm</td>
<td>120/kg</td>
<td>12.00</td>
</tr>
<tr>
<td>5. Float</td>
<td>4 pieces</td>
<td>5/piece</td>
<td>20.00</td>
</tr>
<tr>
<td>6. Feeding tray</td>
<td>1 piece</td>
<td>35/piece</td>
<td>35.00</td>
</tr>
<tr>
<td>7. Iron pin</td>
<td>100 gm</td>
<td>100/kg</td>
<td>10.00</td>
</tr>
<tr>
<td><strong>Total (1 $= 70 taka)</strong></td>
<td></td>
<td></td>
<td><strong>393.00</strong></td>
</tr>
</tbody>
</table>
Cage design / construction:
The sequential photographs show a low-cost fish cage being built.

- 12 pieces of bamboo stick / pole (each is 38 inches long and 2 inches wide/diameter) is required.

- 12 pieces bamboo pole were joined through iron pin and make the cage frame.
- Each corner of the frame was bound tightly through thread to make it strong.
- Feeding tray was set at bottom site of the cage.

- 15 feet black polyethylene net were measured and cut.

- Height wise net were pulling.
Then net were cut from the middle part of height and make it two part

Each part of net were equally divided into 3 parts and marked with thread.

One part of net was set on top and rest two side.
Other part of net was cover the bottom and rest two side of cage

Then sewing the net tightly by cod thread and complete the cage
Feeding tray were also sewing with net.
One opening/mouth were made on the top of the cage for fingerling stocking or harvesting or feed application.

Cage sewing by female.

Float/ bottle were bound with the upper part of the cage, so that cage become floating after set in water.

Series of cage were set through two bamboo pole in two end and with nylon thread.
Further Reading

Small Scale Fish Farming Practical Action Technical Brief
Fishing out the Gene Pool Practical Action Technical Brief
Livelihood from Fishing A Le Sann Practical Action Publishing 1998
Fish Processing UNIFEM Practical Action Publishing 1993

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