

Fish Hatchery

Hatchery is a facility designed for fish breeding & incubation where fish eggs are incubated and hatched out in to hatchlings and reared up to spawn stage.



Implemented by
giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH



Components of a Hatchery System: 1. Broods stock pond | 2. Breeding tank | 3. Hatching/ incubation tank | 4. Spawn receiving chamber | 5. Conditioning tank | 6. Overhead water tank | 7. Packing & storage unit | 8. Power source with backup | 9. Security fencing with gate

Power Source & Backup:

1. Facilitate power source with backup for uninterrupted operation.
2. Cost (5HP generator): 0.3 lakh

Breeding Tank:

1. Breeding tank is fitted with overhead shower & 14-16 inclined water inlets on periphery to create water flow to create an artificial riverine condition for fish breeding
2. Concrete circular tank (RCC) of inner diameter 5.2 m with depth of 1.2 m at periphery sloping down to 1.5 m at centre.
3. Cost: 1.5 lakh

Packing & Storage Unit:

1. A room of 50 x 30 ft should be provided near the conditioning tank to store materials and packing the seed.
2. Cost (with 5HP pump): 1.5 lakh

Fencing & Gate

Provide fencing around the perimeter for security.

Conditioning/ Rearing Tank:

1. Concrete tank with water supply and hooks on the sides to tie hapa/net for spawn.
2. Spawns are kept here for conditioning before sending to packing & transportation.

Overhead Water Tank:

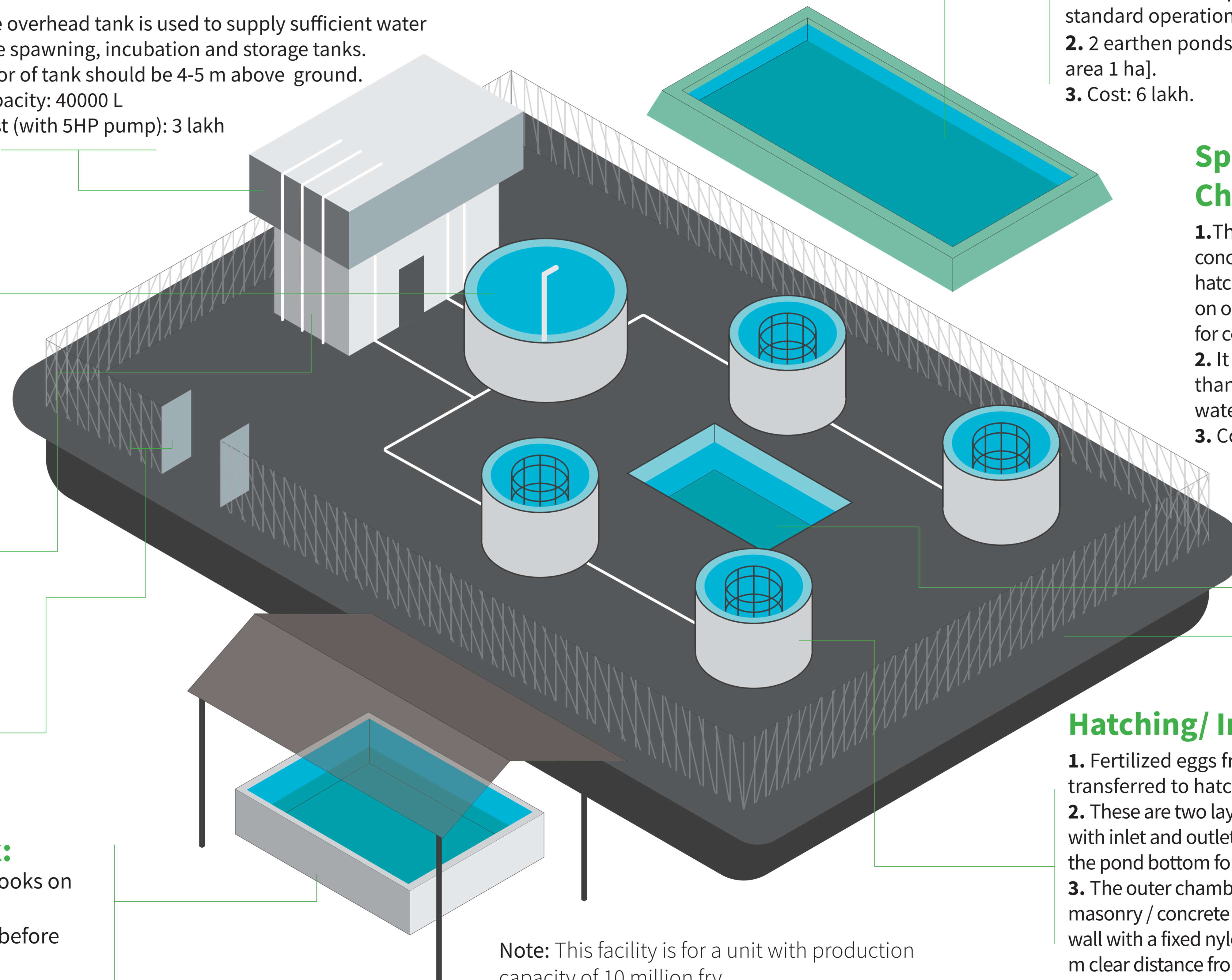
1. The overhead tank is used to supply sufficient water for the spawning, incubation and storage tanks.
2. Floor of tank should be 4-5 m above ground.
3. Capacity: 40000 L
4. Cost (with 5HP pump): 3 lakh

Brood Stock Pond:

1. Brood tanks are used for managing brood for about 4-5 months prior to Breeding by following standard operational procedure(SOP).
2. 2 earthen ponds of 100x40x2 m each [land area 1 ha].
3. Cost: 6 lakh.

Spawn Receiving Chamber/ Tank:

1. This is a rectangular masonry concrete tank connected to hatching tanks. Hooks are provided on opposite sides to fix hapa/ net for collecting spawns.
2. It is located at lower elevation than incubation tank to drain out water with gravity
3. Cost: 0.5 lakh



Note: This facility is for a unit with production capacity of 10 million fry

Hatchery Unit

Hatching/ Incubation Tank:

1. Fertilized eggs from breeding tank are transferred to hatching tanks for hatching
2. These are two layered circular concrete tanks with inlet and outlet and duck mouth openings at the pond bottom for water circulation.
3. The outer chamber is 3.6 m having an outer masonry / concrete wall with another circular wall with a fixed nylon screen is provided at 0.76 m clear distance from the outer wall.
4. Cost for 4 units: 1 lakh