

Factsheet-4

Water Bodies - Income Creators

Water bodies are the lifeline of a community. They store rainwater, recharge to groundwater and maintain the regional ecosystem. They are the common property of villages. There are about 5,00,000 water bodies in India. Odisha alone has about 42,000 natural and man-made waterbodies!

Waterbodies can also be a source of income generation. In many areas, small waterbodies already support the livelihoods of the marginalized community and generate income for the village common fund through usufructs (fishery, trees etc.). However, their potential as sources of income is underutilized. Today, there are many innovative income generation opportunities linked to waterbodies. Let's look at some that the youth of Odisha might like to explore.

(1) Cultivating edible plants

Some edible plants that can grow in pond waters are Water Fern, Water spinach, Chameleon plant, seeds of lotus, Water caltrop, Wild rice, Chinese water chestnuts, Duckweed, Sweet flag, Water oats, Water cress, Edible taro, Water parsley, Duck potato ...and many more. Lotus especially, sells not just as a prized flower but its roots to stem (kamalkakdi), flowers (as wraps), seeds (makhana) and young leaves too can be consumed.



(2) Providing potable water through ATMs

In many villages, social entrepreneurs, with government support are treating and supplying drinking water at very low prices to communities. In fact, judicious use of pond water is more cost effective, safer and allows for better sustainability planning than use of groundwater.



(3) Aquaculture

Also called Underwater Agriculture, aquaculture is growing at a much faster rate than other branches of food creation. It includes production of food organisms such as fish, crabs, shrimps, prawns, and shellfish. India has about 940 species of fresh inland water fishes from its rivers and lakes that can all be cultivated. Also, aquatic organisms for aquaria, feed for fishing, lake stockings, fishery products for medicines, chemicals, and pharmaceuticals, etc.

(4) Recreational fishing/ Fishery tourism

In addition to the high demand for seafood, there is a growing interest in sport fishing. There is opportunity to create 'Put-grow-and-take' fishery where small fish or those species preferred by anglers are stocked and allowed to produce, and they are harvested by hook and line as a sport.

(5) Products from aquatic plants

Water Hyacinth, a resilient aquatic plant with wastewater treatment ability, can help you earn the goodwill of your

Create livelihood out of waterbodies...

community and also an income - through products made)from it. Such as:

- a. Animal feed** – It has high nutrition content and hence can be used as animal feed.
- b. Compost** - Organic fertilizer – From leaves, stems and roots of water hyacinth. Since it has a high nitrogen content, it is a good fertilizer.
- c. Fibre Products** – Fibre made from the water hyacinth stem is tough yet flexible. It is used as raw material for paper or other products like coasters, slippers, basket, hat, etc. An NGO is even using it to make sarees!



- d. Biogas**- Since the plant has high hemicellulose content, it can be used as a substrate for biogas production.
- e. Biomass briquettes and bedding material** for mushroom cultivation and modified hydroponics.



(6) Water Filters

Many aquatic plants act as excellent water filters. Duckweed is one such plant. It can clean the water from farms that are rearing cows, hogs, chickens, etc. In fact, a constructed wetland system made of a combination of such plants can clean domestic sewage and industrial waste water to the extent of 95%!

(7) Control of vectors like mosquitoes

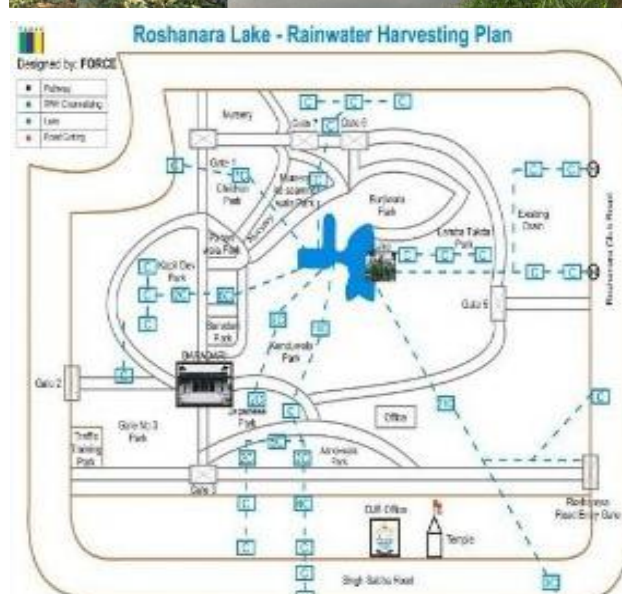
Because plants like duckweed cover the surface like a thick blanket, it blocks the mosquito from laying eggs. Malaria, yellow fever, dengue fever, chikungunya, and the Zika virus are the five main diseases spread by mosquitoes. According to the World Health Organization (WHO) mosquitoes affect 40% of the world's population and kill 2.7 million people per year. With numbers like this, duckweed is a cost-effective way to reduce illness.

(8) Bio-Fuel

Algae like chlorella have huge potential as biofuels. Compared to corn and sugarcane, it not only grows faster but because it grows on water, it keeps land free for farming food crops. Plus, with its water purifying properties, it leaves clean water behind!

(9) Restoring Waterbodies

This is a priority area for the government now and so a lot of funding is available. For dry waterbodies, it involves civil works like restoring catchment flows to ensure runoff enters the lake, increasing pond capacity and strength and preventing rapid siltation. For waterbodies with polluted water, the task involves not just the above, but also treating the input water quality such as with a constructed wetland.



(10) Adventure Sports and Eco-tourism

Many schools and community groups are inviting social entrepreneurs to organise adventure activities and nature walks on Waterbodies. The possibilities of fun at waterbodies are endless!



Search out an oyster native to your region and cultivate them in your waterbody to culture pearls. They will flourish. Freshwater pearls can grow up to 10 times bigger than those made by saltwater oysters, naturally. And, the lustre freshwater pearls produce is astounding!

Govt Schemes to Potable Drinking Water

Recognizing the potential of waterbodies as income generators, especially for the youth, the government is offering many schemes to Pond Social Entrepreneurs.

Odisha Matsya Pokhari Scheme 2022



(11) Pearl Farming



Schemes for Aquaculture:

Odisha Govt Schemes	Aim	Objective
Subsidy for Fisheries Machineries / Equipments for Intensive Aquaculture (2021-22)	Implements like Aerators, Air Blowers with aero-tubes, bio-security nets, fishing nets are the integral part of enhancing the aquaculture production.	Increase the productivity and production of fish and shrimp.
Excavation of New Tanks under the State Plan Scheme 'Development of Brackish Water Fisheries' for the Financial Year 2021-22	To promote farmers and entrepreneurs for taking up Brackish water aquaculture by excavation of new tanks/ ponds for enhancement of production	To enhance brackish water shrimp and fish production in the state.

The program aims for expansion of the freshwater fish production area. It offers subsidy to excavate new tanks for intensive aquaculture and pisciculture.

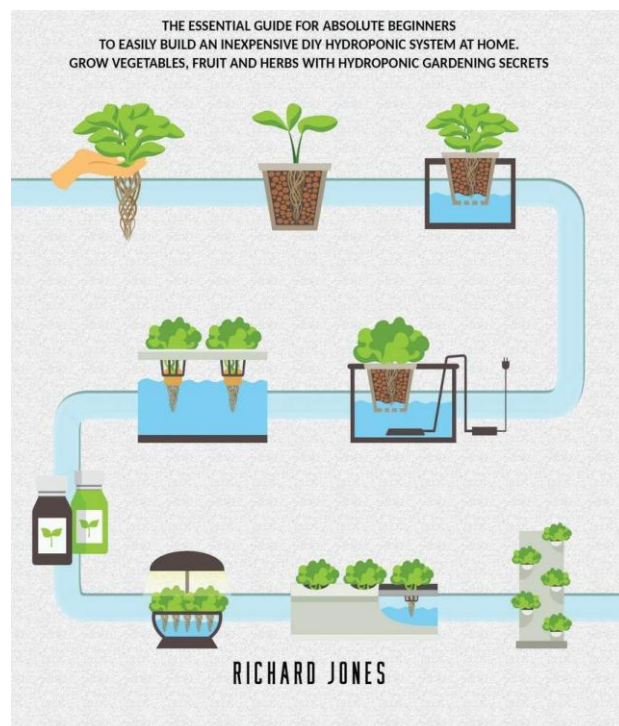
Subsidy for Mushroom Cultivation: (Odisha)

Government offers upto Rs. 8,00,000/- subsidy for mushroom cultivation subsidy and Rs 1000/- assistance for Exposure visit & study training of farmers.



Subsidy for Hydroponics:

In India, the central and state government have subsidized the capital costs for farmers willing to invest in hydroponics. Maharashtra government has provided 50% subsidy to farmers to adopt hydroponics for growing animal fodder.



SCAN TO JOIN



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