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Project Title

Sea Fish Breeding on Land by Creating Natural Sea Atmosphere

Objective

1. Conservation of marine fish that are about to go extinct.
2. Providing Organic fish that is free of chemicals & plastic.
3. There are no hatcheries available for endangered marine species in India.
4. Developing this technology and infrastructure that is already available in the USA, UAE, China, Norway and Kuwait.
5. Natural process to create the tank with help of natural sea weeds, corals and phytoplankton.

Method

1. Tank setup keeping it dry and disinfected before water is pumped.
2. Brine solution to be created in separate tanks and mineral water in separate tanks, both solutions will be mixed in the culture.
3. PH level, oxygen, pressure and tides will be maintained in the tank depending upon the species everything will be controlled with continuous oxygen supply.
4. After the tank is set it will be left for 3-5 days to maintain the system that is created.
5. Brood stock will be kept in a separate tank as they are fully matured adult fish which can produce twice a year.
6. Eggs laid will be collected and incubated in an artificial system. Once eggs hatch they are further shifted to 3 different tanks in 3 three different stages depending upon their growth and maturity.

Outcome

1. This is a big change in the fishing industry of India. It is profit oriented business as fishes play an important role in the development of Indian Economy.
2. 2019-20 export of marine products stood at 12.9 lakh metric tons and valued at Rs.46,662.85 crores.
3. India ranks very low in the Innovation sector when compared to world innovation level. We are just trying to make a big difference in this whole traditional system of the fishing industry.
4. Ultimate goal is to conserve and serve organic sea food to everyone.

Implementation:

- I started my research in November 2019 so far I've successfully gathered information, research papers, on field market study and research, meeting scientists who have successfully completed their research and experiments on specific species and gathering the data from them.
- Half part of the prototype is successful in creating perfect PH by mixing brine solution and mineral water. Before water was mixed water testing was done to check if all the elements required are available.
- Patent is filed in high court yet not registered as the full prototype is not completed.
- Looking at the present market condition it is very difficult to start it by investing huge amounts due to reasons such as: lack of skilled workers, direct buyer, exports are closed or open depending on the covid situation.
- Most important point to start this project is that fish should be taken out of the sea, then kept in the oxygenated tank and then it can be brought to land. For this complete process to happen fishermen need time and due lockdown and this was not possible.
- Being a commerce student we have calculated all the risks that can take place if we start this project in a haste.
- This is not a one night process. Scientists who are helping me in this project have spent their entire life over one specie.
- But there is a ray of hope that pomfret culture is not difficult as I know one scientist in Maharashtra who worked on pomfret and they were alive for 3 days on land in a tank. Yes, we have examined all the drawbacks for the failure and they will be worked out.