

## Blue revolution that will be

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**"A new department and fresh policies have given a spurt to productivity of fish farms."**

Creating a separate department for fisheries in the Union government is a significant step. Fisheries are the primary source of livelihood for several communities. A concentrated effort by an independent department could help the government achieve its objective of doubling farmers' income, provided its policies address the challenge of sustainability.

India is the world's second-largest fish producer with exports worth more than Rs 47,000 crore. Fisheries are the country's single-largest agriculture export, with a growth rate of 6 to 10 per cent in the past five years. Its significance is underscored by the fact that the growth rate of the farm sector in the same period is around 2.5 per cent.

However, like in rest of the world, India's fisheries sector faces the challenge of sustainability. The Food and Agriculture Organisation's State of World Fisheries and Aquaculture reports note that nearly 90 per cent of the global marine fish stocks have either been fully-exploited, or over-fished or depleted to an extent that recovery may not be biologically possible.

In order to meet the ever-increasing demand for animal protein, global fish production should touch 196 million tonnes by 2025 — it currently stands at 171 million tonnes. Taking into account the current depletion rate of marine fish stocks, that seems next to impossible. But India has the potential to bridge this gap provided it concentrates on aquaculture — fish farming. The country has a comparative advantage in this respect. It has a marine fisher population of 3.5 million; 10.5 million people are engaged in inland fishery and fish farming.

However, the productivity in both sectors is low — in terms of per fisher, per boat and per farm. In Norway, a fisherman/farmer catches/produces 250 kg per day while the Indian average is four to five kg.

However, the performance of this sector in India is impressive when one compares it with the average growth of the fisheries sector all over the world. The Blue Revolution scheme launched a few years ago seeks to make fishery and aquaculture a viable and rewarding vocation. The scheme adopted a two-

pronged approach: Sustainable capture fishery to harness marine and inland water resources and expanding the horizon of fish farming through increased coverage, enhanced productivity, species diversification and better market returns.

Marine capture fishery comprises largely of small fishermen who operate traditional boats — either non-motorised vessels or boats with a basic outboard motor. These vessels cannot operate beyond near shore waters. High value species such as tuna cannot be caught by fishermen who use these vessels. This means that while the near-shore coastal waters are highly overfished, the high value fish stock proliferates in the deep seas.

Harnessing these resources sustainably will bring immense benefits to fishing communities. The new National Policy on Marine Fisheries, therefore, talks of introducing deep-sea fishing vessels and assisting fishing communities to convert their vessels and gears for the waters beyond.

We, however, need to be cautious of falling prey to the temptation of introducing large-scale industrial fishing. We must factor in the sustainability challenges and acknowledge that fishing is a primary livelihood activity for a large number of communities and individuals. The policies framed by the new department should aim at enhancing productivity, better returns and increased incomes.

The policy envisages intensive fish farming through increased stocking of seed, better feed quality and diversification of species. Innovative practices such as re-circulatory aquaculture system aim to realise the goal of more crop per drop. As a result, the productivity of freshwater fish farms has gone up to more than 3 metric tonnes per hectare from the 2.5 tonnes per hectare. Productivity of brackish water coastal aquaculture has touched 10 to 12 metric tonnes per hectare — a sharp increase from the previous two to four tonnes per hectare. Thirty thousand hectares have been added to the area under fish farming. The government has invested in hatcheries to meet the ever-increasing demand for good quality fish seed. The expansion of aquaculture would increase this demand exponentially. Future policies must prioritise seed production in order to attain self-sufficiency in the sector.

The introduction of cage culture in reservoirs and other open water bodies has led to an increase in output. Nearly 8,000 cages have been installed and even though a cage gives a modest yield of three tonnes of fish, this translates into a more than 1,000 per cent increase in productivity. This new practice gives freedom to fishermen from the risk of traversing dangerous rivers and restricted reservoirs.

Regular stocking of reservoirs and other water bodies has resulted in a marked increase in catch. Open sea cage culture is at a pilot stage and the initial trials have given promising results. This may prove another game changer.

The investment of Rs 3,000 crore in the Blue Revolution is being supplemented through the Rs 7,523-crore Fisheries and Aquaculture Infrastructure Development Fund. This will meet the capital investment requirement of this sector.

The new department will give undivided attention to creating and strengthening infrastructure facilities in marine and inland fisheries and give a boost to aquaculture and post-harvest activities. The country should be producing more than 15 million tonnes fish by the end of 2019. It should be on its way to become a hub for sustainable fish production.

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## Fisheries

### Why in the discussion?

- Recently in the interim budget, Finance Minister Piyush Goyal had announced to create a separate department for fisheries.
- Gazette notification states that according to this, the government has made a separate department for fisheries by amending the business allocation rules of 1961.
- The purpose of the department is to promote and develop the development and development of fishing and fishing (to the extent fixed by inland, marine and regional water) and its associated activities.

### Formation of Department of Fisheries

- India is the second largest fish producing country in the world, where 6-3 percent of global production is done. China is occupied the first place.
- Although China is at the first place but for the last several years, the production of fish and its earnings are increasing in our country.
- About 1-45 crore people have been employed in this sector and in the last few years the sector is growing at an annual rate of 7 percent.
- The government has decided to set up Fisheries Department to monitor the development of this sector.
- These related activities include infra-

structure development, marketing, export and institutional arrangements. In addition to keeping all the data regarding fisheries, this department will regulate fish stock imports.

- This department will take steps to prevent the spread of infectious or infectious diseases or insects affecting fish from one state to another.
- It will also focus on the method of financial assistance to various State Undertakings and Fisheries Development Schemes through state agencies / co-operative societies.

### Blue Revolution

- Arun Krishnan started blue revolution in India but later the government himself made it a big project.
- If considered there is a huge number of people making use of fish and corking different products in the world including the country and abroad, and they want different types of fish.
- The leading states in total fish production in the country are in this way West Bengal > Andhra Pradesh > Gujarat > Kerala > and Tamil Nadu
- The leading states in the production of sea fish in the country are as follows: Kerala > Gujarat > Maharashtra > Tamil Nadu > and Andhra Pradesh
- The major producers of fish producing in the internal region are: West Bengal > Andhra Pradesh > Kerala > Tamil Nadu

### Expected Questions (Prelims Exams)

**1. Consider the following statements -**

1. India is the largest producer of fishries in the world.
2. Fishries is the largest agricultural export sector of India

Which of the above statements is/are correct?

- (a) Only 1
- (b) Only 2
- (c) Both 1 and 2
- (d) Neither 1 nor 2

**2. Consider the following statements -**

1. West Bengal is leading in the total fish production.
2. Gujarat is leading in the sea fish production in India.

Which of the above statements is/are correct?

- (a) Only 1
- (b) Only 2
- (c) Both 1 and 2
- (d) Neither 1 nor 2

### Expected Questions (Mains Exams)

- Q. Recently, a separate department has been created by the central government for fishries, to what extent it will be successful in reducing the challenges of stagnation in fishries sector? Discuss.**

(250 Words)

**Note:** Answer of Prelims Expected Question given on 1 Mar is 1(a)