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In Depth - Blue Revolution

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The Vice-President on 30th August 2019, inaugurated the **fifth edition of the Aqua Aquaria India** in Hyderabad. It is an event that is held every year. This time, the **theme** was **'Taking Blue Revolution to India's Hinterland'**.

The Blue Revolution is part of the Government's efforts to promote fishing as an allied activity for farmers in order to double their incomes. It refers to an explosive growth in the aquaculture industry. As part of its efforts to raise seafood output and exports and promote sustainable aquaculture, **the Government has constituted an independent Ministry for Fisheries**. In the **budget** 2019-20, the government allocated an estimated 3,737 crore rupees for the newly carved out Ministry of Fisheries, Animal Husbandry and Dairying.

Blue Revolution

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- It refers to the time of intense growth of the worldwide aquaculture industry from the mid-1960s to the present day.

The aquaculture industry has been growing at an average rate of 9% a year and India is one of the fastest growers.
 - In other words, the **rapid increase in the production of fish and marine product** through a package program is known as the Blue Revolution.
 - The Blue Revolution, **first began in China** where fishing is an ancient activity. China accounts for around two-thirds of the total aquaculture production worldwide by weight and roughly half by market value.

Fisheries and Aquaculture

- Worldwide, aquaculture production has now reached 50 million tonnes, up from 2 million tonnes in 1950.

Asian countries contribute over 90% to aquaculture worldwide. China, itself, contributes more than 70%.
- Aquaculture **provides employment to people** throughout the world.
 - Some 880 million people are employed in fish farming from salmon cages in Norway to Prawn Ponds in Thailand.
 - Employment in the fisheries sector has grown faster than the world's population as well as employment in traditional agriculture.
- Fisheries and aquaculture **provide 4.3 billion people with over 15% of their annual animal protein consumption** and are a vital source of micronutrients and essential lipids.
- Fish and seafood are one of the **most traded food commodities**. Over 53% of the trade originates in developing countries.
- The top ten species of fish caught with aquaculture include carps and other oysters, salmons, trouts, shrimps and prawns among others.

Blue Revolution in India

- It was **launched in India during the 7th Five Year Plan (FYP)** that went from 1985 to 1990, during which the government sponsored the **Fish Farmers Development Agency (FFDA)**.
- During the 8th FYP, from 1992-97, the **Intensive Marine Fisheries Program** was launched in which collaboration with MNCs was encouraged.
- Over a period of time, **fishing harbours** in Tuticorin, Porbandar, Visakhapatnam, Kochi and Port Blair were established.
- A number of **research centres** have also been set up to increase the production as well as to do improvement in species.

Outcomes

- The FFDA brought **improvement in aquaculture** by adopting **new techniques of fish breeding**, rearing, marketing and export.
- The Indian Fisheries Sector which produced only 60,000 tonnes of fish 50 years ago **produces 4.7 million tonnes** including 1.6 million tonnes from freshwater aquaculture today.
- India recorded an **average annual growth of 14.8%** in production of fish and fish products in the last decade as compared to the global average of 7.5% in the same period.

Fisheries, are in fact, India's single largest agricultural export with a growth rate of 6-10% in the last five years. In comparison, the growth rate of the farm sector in the same period is around 2.5%.

- Fishing is the primary source of livelihood for several communities in India and the country is the **world's second largest fish producer** with exports worth more than 47,000 crore rupees.

Currently, the USA is the largest market for Indian seafood products with a share of 26.46% in terms of India's exports of marine products followed by South East Asian Countries- 25.71% and the European Union Nations- 20.08%.

- The fisheries and aquaculture production **contribute around 1% to India's GDP** and over 5% to the agricultural GDP.

Unutilized Potential

- It is a matter of great concern that India is **able to exploit only a fraction of the aquaculture potential available** to it.
- India uses only about 40% of the available ponds, tanks and other water bodies for freshwater aquaculture and 15% of total potential of brackish water resources.

Recent Steps Taken By the Government

Blue Revolution 2.0/ Neel Kranti Mission

- The focus of the Blue Revolution 2.0 is on **development and management of fisheries**. This covers inland fisheries, aquaculture, marine fisheries including deep sea fishing, mariculture and all activities undertaken by the National Fisheries Development Board.
 - The **National Fisheries Development Board (NFDB)** was established in 2006 as an autonomous organization under the administrative control of the Department of Fisheries, Ministry of Agriculture and Farmers Welfare, to enhance fish production and productivity in the country and to coordinate fishery development in an integrated and holistic manner.

- Now, the Board works under the Ministry of Fisheries, Animal Husbandry and Dairying.
- It aims to **achieve economic prosperity of fishers and fish farmers**. The same will be done by developing fisheries in a sustainable manner keeping in view biosecurity and environmental concerns.
- The Program has certain **objectives** which includes:
 - Fully tapping the total fish potential of the country, both in the inland and the marine sector and triple production by 2020.
 - Transforming the fisheries sector as a modern industry with special focus on new technologies and processes.
 - Doubling the income of fishers and fish farmers with special focus on increasing productivity and better post harvest marketing infrastructure including e-commerce and other technologies and global best innovations.
 - Ensuring inclusive participation of fishers and fish farmers in the income enhancement.
 - Tripling export earnings by 2020 with focus on benefits flow to fishers and fish farmers.
 - Enhancing food and nutritional security of the country.

Pradhan Mantri Matsya Sampada Yojana

- The Scheme is aimed **to turn India into a hotspot for fish and aquatic products** through appropriate policy, marketing and infrastructure support.
- With the Scheme, the government intends to bring all fishermen under the ambit of farmer welfare programmes and social security schemes.
- Through this scheme, the Department of Fisheries will establish a robust fisheries management framework. This will **address a critical gap in the value chain** including infrastructure modernisation, traceability, production, productivity, post harvest management and quality control.

Financial Allocation

- The government has allocated **804.75 crore rupees** for the fisheries sector in the current fiscal.
- It's aim is to augment fish production to achieve its target of 15 million tonnes by 2020 under the Blue Revolution and raise it thereafter to about 20 million tonnes by 2022-23.

Initiative Taken under the MGNREGA

The government under the MGNREGA has started to **develop the farm ponds**, where pisciculture is taking place.

Challenges

- The Food and Agriculture Organization (FAO) points out that nearly **90% of the global marine fish stocks have either been fully exploited** or overfished or depleted to the extent that recovery may not be biologically possible.
- **Discharge of harmful substances** like plastics and other waste into water bodies that cause devastating consequences for aquatic life.
- **Changing climate.**

Way Forward

- India's long coastline has the potential of becoming the strength of the economy particularly through the exploitation of the Blue Revolution.
- India can grow to the extent of 10 trillion dollar economy as against 2.7 trillion dollar today with the help of the Blue Economy.
- India **needs to develop more scientifically its fishing system** and other related aspects such as freezing, packaging, etc.