



**Concept Note**

**BLACK TIGERS AND WHITE TIGERS:  
OVERCOMING THE SHRIMPY CRISIS**

**A case on the Governance of Fisheries in India**

*Key Speaker:* **Shri. K. S. Srinivas IAS**

*Chairman, Marine Products Exports Development Authority (MPEDA)*

*Date and Time:* **March 27, 2021, 11:00 AM to 12:10 PM IST**

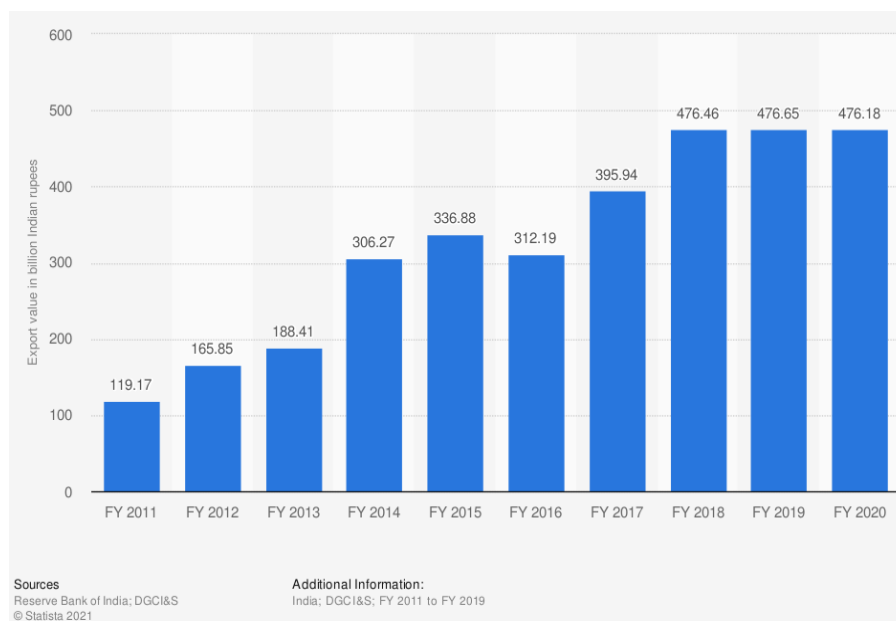
*Venue:* **Classroom B1, IIM Kozhikode** (Hybrid mode: Virtual and Offline)

**Background**

India exports marine products to more than 100 countries. Nearly 80 per cent of the total exports go to a handful of markets, including the USA, Japan and South-East Asia. The value of fish and fishery products exported from India in FY 2019 was over 476 billion rupees (see Figure 1). Marine Products Exports Development Authority<sup>1</sup>, a statutory body established in 1972, is entrusted with the responsibility to promote the marine products industry with special reference to exports.

**Figure 1**

*Value of fish and fishery products exported from India from financial year 2011 to 2019, with an estimate for 2020 (in billion Indian Rupees)*



*Source:* Statista (accessed on March 15, 2021)

<sup>1</sup> For more details, see: <https://mpeda.gov.in/>

Marine products can be categorised into two based on the method of production:

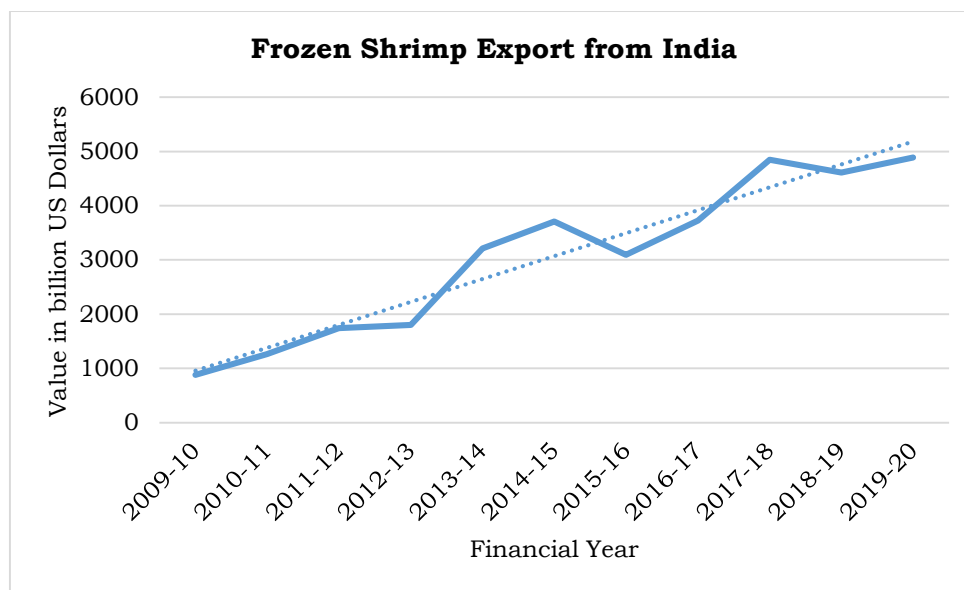
- [1] *Capture Fisheries or Sea-catch*: Using fishing vessels to catch fishes and prawns, *inter alia*.
- [2] *Culture Fisheries or Scientific Farming*: Cultivating marine products by creating conditions such as ponds, brackish water, entrepreneurship, seeds etc.

### Black Tiger Crisis

Culture fisheries earn a higher return on investment when compared to capture fisheries. Scientific Farming of fisheries started in India in the 1990s with *Penaeus monodon*, commonly known as Black Tiger Shrimp<sup>2</sup>. They are distributed in the east and south-west coasts of India and are present in abundance in the coasts of West Bengal and Odisha. Frozen shrimp is one of the significant export items from the Indian waters (see Figure 2).

**Figure 2**

*Value of Frozen Shrimp Export from India from financial year 2009 to 2019 (in billion US Dollars)*



Source: Centre for Governance, IIMK using data from MPEDA Official Website

Around 2002, India's tiger shrimp industry was hit by the White Spot Syndrome Virus (WSSV)<sup>3</sup>. This viral attack led to the spread of White spot disease (WSD), a highly contagious viral infection causing high mortality levels in cultured shrimp. The crisis worsened by 2004.

<sup>2</sup> For more details, see:

[http://www.fao.org/tempref/FI/CDrom/aquaculture/I1129m/file/en/en\\_gianttigerprawn.htm](http://www.fao.org/tempref/FI/CDrom/aquaculture/I1129m/file/en/en_gianttigerprawn.htm)

<sup>3</sup> For more details, see: <https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/white-spot-syndrome-virus>

## The Way Out

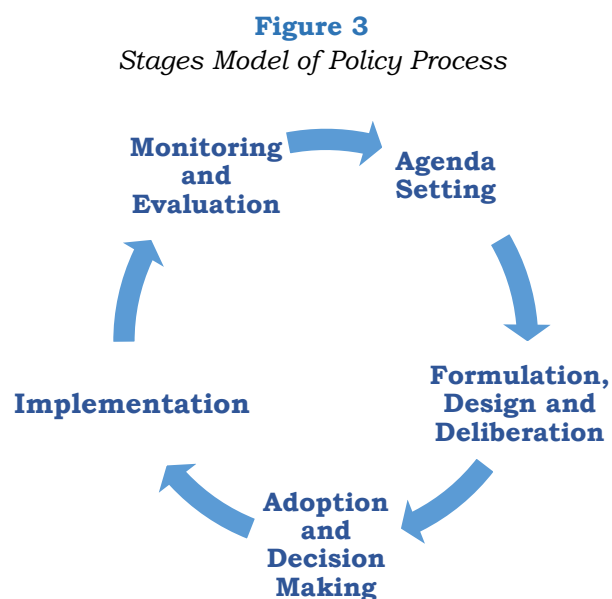
MPEDA solved the crisis by introducing *Penaeus vannamei*, commonly known as Whiteleg Shrimp<sup>4</sup>, to India's aquaculture farms. The policy-makers at MPEDA had to address the concerns of various stakeholders such as government agencies, business and the community. The political, economic, social, technological, ethical-legal, and ecological implications of this decision were also to be taken into account.

The initiative became successful with the large scale export of whiteleg shrimps from India, counting to about 800,000 metric tonnes in 2009-10. MPEDA leadership notes that the success of whiteleg shrimp export in India is the result of *coordinated governance*.

## What would the session explore?

### (A) Coordinated Governance and Policy Success

An exploratory analysis of the success story using the *Stages Model of Policy Process*<sup>5</sup> (see Figure 3)



### (B) Question & Answers Session

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<sup>4</sup> For more details, see: [http://www.fao.org/fishery/culturedspecies/Penaeus\\_vannamei/en](http://www.fao.org/fishery/culturedspecies/Penaeus_vannamei/en)

<sup>5</sup> Howlett, M, and M Ramesh. 2003. *Studying Public Policy: Policy Cycles and Policy Subsystems*. Toronto: Oxford University Press.