

Legislative Brief

Coastal Aquaculture Authority (Amendment) Bill, 2023

The Coastal Aquaculture Authority (Amendment) Bill was introduced in Lok Sabha on April 5, 2023. The Bill has been referred to the Standing Committee on Agriculture.

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Highlights of the Bill

- ◆ The Bill amends the Coastal Aquaculture Authority Act, 2005. The Act defines coastal aquaculture as farming, under controlled conditions, of: (i) shrimp, (ii) prawn, (iii) fish or (iv) any other aquatic life in saline or brackish water. The Bill expands the scope of coastal aquaculture to include allied activities such as hatcheries and nucleus breeding centres.

Key Issues and Analysis

- ◆ The mandate of the Fisheries Ministry to promote coastal aquaculture may lead it to prioritise industry growth over environmental protection.
- ◆ The CAG noted that the Coastal Aquaculture Authority lacks capacity to carry out existing functions under the Act. The Bill adds more functions.

PART A: HIGHLIGHTS OF THE BILL

Context

Coastal aquaculture includes the farming of marine life such as shrimp, prawn or fish in controlled conditions. It is carried out in saline and brackish water. The Supreme Court (1996) had highlighted several risks and adverse environmental impacts of unregulated shrimp farming and semi-intensive coastal aquaculture.¹ It held that: (i) shrimp farming is a prohibited activity in the coastal regulation zone (CRZ) and (ii) an authority must be established under the Environment Protection Act (EPA), 1986 to protect coastal environment from the adverse effects of shrimp farming. Following such orders, the central government had established the Aquaculture Authority under the EPA.² However, in 2005, Parliament passed the Coastal Aquaculture Authority Act, 2005 which retrospectively amended the CRZ Notification, 1991 to exclude coastal aquaculture from the list of prohibited activities. It also constituted the Coastal Aquaculture Authority.³

As of 2022, 42,975 coastal aquaculture farms are registered across 12 states/UTs.⁴ In 2021-22, India exported 13.7 lakh tonne of marine products such as shrimp and cuttlefish worth USD 7.8 billion.⁵ Frozen shrimp accounts for 53% of marine product exports in terms of quantity and 75% in terms of value. The Coastal Aquaculture Authority (Amendment) Bill, 2023 was introduced in Lok Sabha on April 5, 2023. The Bill has been referred to the Standing Committee on Agriculture.

Key Features

- **Regulation of allied activities:** The Act regulates coastal aquaculture farms. This includes culturing shrimp, prawn fish or other aquatic life in a controlled environment along coastal areas in saline or brackish water. The Bill allows regulation of allied activities such as nucleus breeding centres and hatcheries. The Act prohibits coastal aquaculture in certain areas, such as 200 metres within the High Tide Line and in creeks/backwaters within the CRZ. The Bill amends this to allow some allied activities in protected areas. For instance: (i) activities like nucleus breeding centres will be permitted to operate in no development zones, and (ii) activities like sea weed culture will be permitted in creeks/backwaters within the CRZ. Nucleus breeding centres are those where fish/shrimp are cultivated at the larvae stage of their life cycle.
- **Coastal Aquaculture Authority:** Under the Act, functions of the Authority include: (i) regulating construction and operation of aquaculture farms, (ii) registering coastal aquaculture farms, and (iii) demolishing polluting farms. The Bill adds that the Authority shall: (i) fix standards for inputs and discharge of effluents from aquaculture units, (ii) prohibit the use of certain inputs to prevent harm to the environment, and (iii) monitor and regulate units, inputs, and emissions.
- **Penalties:** The Act penalises unregistered farms or farms in prohibited areas, with imprisonment up to three years and/or a fine of one lakh rupees. The Bill replaces this and specifies that if coastal aquaculture is carried out illegally: (i) the activity may be suspended, (ii) structure may be removed, (iii) crop may be destroyed, (iv) the registration may be cancelled, and/or (v) a penalty may be imposed.

PART B: KEY ISSUES AND ANALYSIS

Regulating environmental impact of coastal aquaculture

Act:
Sections 4,
13, 27
Bill:
Clauses
10, 16

The Act regulates the environmental impact of coastal aquaculture. It allows various aquaculture activities to be undertaken in Coastal Regulation Zones, which are regulated under the Environment Protection Act (EPA), 1986. These activities help increase production of marine products leading to value generation through exports. However, intensive coastal aquaculture activities may have adverse impacts on the environment such as salinisation of land/wells and obstruction of natural flood water drainage.^{1,6,7} Hence, there may be a need to find a balance between promoting aquaculture activities and minimising the environmental damage from such activities. In light of this, the question is whether the Ministry of Fisheries is the most appropriate Ministry to administer the law regulating the environmental aspects of coastal aquaculture. The Ministry of Fisheries, Animal Husbandry and Dairying is responsible for promoting and developing inland and marine fisheries. Such objectives may lead the Ministry to prioritise the aquaculture industry over protecting the coastal environment.

Note that the Supreme Court (1996) had held that an authority must be established under the Environment Protection Act, 1986 to protect the coastal environment from adverse effects of shrimp farming. Following such orders, the central government had established the Aquaculture Authority under the EPA.² However, the Coastal Aquaculture Authority set up later under the 2005 Act comes under the Fisheries Ministry.³

A similar issue arose when the Food Safety and Standards Bill, 2005 was introduced to constitute the Food Safety and Standards Authority of India (FSSAI) under the Ministry of Food Processing Industries.⁸ The Standing Committee examining the Bill observed that the Food Processing Ministry is a promotional Ministry, and that the Ministry of Health would be more appropriate to regulate food standards.⁹ Later, the administration of FSSAI was changed from the Food Processing Ministry to the Ministry of Health.

Implementation issues

Bill:
Clauses 7,
9

Under the Act and Rules, the Coastal Aquaculture Authority is required to carry out several functions such as: (i) registering and inspecting farms, (ii) testing water samples, (iii) fixing input standards, and (iv) surveying coastal areas. The Bill adds functions such as fixing emission standards, and monitoring/regulating such standards. In 2020, the Comptroller and Auditor General (CAG) noted that since 2016, the Authority has not carried out most of its functions adequately. It could not carry out these functions due to a deficiency in skilled manpower and infrastructure facilities.¹⁰ This raises the question whether the Authority has the capacity to carry out the additional functions. Key findings of the CAG include:

Inspection: Only four technical posts have been sanctioned to inspect all farms across the Indian coastline. The Authority has no regional/branch offices for this purpose. Between April 2013 and March 2018, the Authority inspected 246 of the 35,395 registered farms, and 213 of the 298 registered hatcheries.¹¹ The Rules also do not provide for a periodic inspection plan, nor set any annual inspection targets.¹¹

Waste water testing: Waste water from shrimp farms contains solid and dissolved materials, which must be treated. In 2011, the Authority established its own laboratory to test waste water samples collected from farms. CAG noted that as of 2019, the Authority had not drawn plans for collecting and testing the number of samples. Between March 2011 and April 2016, 275 samples were tested, of which 30% had particulate matter beyond permissible limits. Between May 2016 and July 2019, no samples were tested.

Input standards: As of July 2018, no input standards were fixed. In 2008, the Authority formed a sub-committee to fix standards, however it has not published its report yet.

1. [S. Jagannath vs The Union of India, Supreme Court of India, December 11, 1996.](#)
2. [S.O. 88 \(E\), Ministry of Environment and Forests, eGazette, February 6, 1996.](#)
3. [The Coastal Aquaculture Authority Act, 2005.](#)
4. [Annual Report 2021-22, Coastal Aquaculture Authority, Ministry of Fisheries, Animal Husbandry and Dairying.](#)
5. [Annual Report 2021-22, Marine Products Export Development Authority, Ministry of Commerce and Industry.](#)
6. [Reducing Environmental Impacts of Coastal Aquaculture, Food & Agriculture Organization United Nations, June 4, 2002.](#)
7. 'The Environmental Impact of Aquaculture and the Effects of Pollution on Coastal Aquaculture Development in Southeast Asia', Science Direct, Marine Pollution Bulletin, Volume 20, Issue 7, July 1989.
8. [The Food Safety and Standards Bill, 2005.](#)
9. [Report No. 17, 'The Food Safety and Standards Bill, 2005', Standing Committee on Agriculture, February 21, 2006.](#)
10. [Union Government Compliance Audit Observations, Comptroller & Auditor General of India, September 23, 2020.](#)
11. [Annual Report 2017-18, Coastal Aquaculture Authority Ministry of Fisheries, Animal Husbandry and Dairying.](#)

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