

Coastal Aquaculture Authority

Compendium of Act, Rules, Guidelines and Other Notifications

(Updated upto February 2026)



**Coastal Aquaculture Authority
Chennai - 600 035, India**



सत्यमेव जयते

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Other Notifications**

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COASTAL AQUACULTURE AUTHORITY

DEPARTMENT OF FISHERIES

MINISTRY OF FISHERIES, ANIMAL HUSBANDRY & DAIRYING

GOVERNMENT OF INDIA

5TH FLOOR, INTEGRATED OFFICE COMPLEX FOR ANIMAL HUSBANDRY

AND FISHERIES DEPARTMENT, FANPET, NANDANAM,

CHENNAI - 600 035, TAMIL NADU, INDIA.

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PUBLICATION SHOULD BE CITED AS COASTAL AQUACULTURE AUTHORITY - COMPENDIUM OF ACT,
RULES GUIDELINES AND OTHER NOTIFICATIONS,
UPDATED - FEBRUARY 2026, PAGE 332

FIRST RE-PRINT : SEPTEMBER 2006
FIRST UPDATED : MARCH 2014
SECOND UPDATED : OCTOBER 2025
THIRD UPDATED : FEBRUARY 2026

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Chairperson, CAA



भारत सरकार
मत्स्यपालन, पशुपालन और डेयरी मंत्रालय
मत्स्यपालन विभाग
तटीय जलकृषि प्राधिकरण



Government of India
Ministry of Fisheries, Animal Husbandry and Dairying
Department of Fisheries
COASTAL AQUACULTURE AUTHORITY

FOREWORD

The Coastal Aquaculture Authority (CAA) was established under the Coastal Aquaculture Authority Act, 2005, following a directive by the Supreme Court in 1994. The Authority was mandated to ensure the responsible development of aquaculture that does not harm the environment, to regulate the construction and operation of farms and hatcheries, to register and inspect aquaculture units and to safeguard the livelihoods of coastal communities. To address the legal and operational gaps that emerged, especially concerning aquaculture activities in the Coastal Regulation Zone (CRZ), the Government of India enacted the Coastal Aquaculture Authority (Amendment) Act, 2023. This significant amendment clarified ambiguities related to permissible activities in the No Development Zone (NDZ), particularly by permitting hatcheries, Broodstock Multiplication Centres and Nucleus Breeding Centres, in line with CRZ Notifications. This has ensured the continuity of seed production units, which are vital to the shrimp farming industry.

The amendment strengthened environmental safeguards by legally prohibiting aquaculture activities in Ecologically Sensitive Areas (ESAs) and important geomorphological regions, reinforcing the goal of sustainable coastal development. It also brought newer forms of aquaculture, such as cage culture, seaweed farming, bivalve culture, and ornamental rearing within the regulatory ambit of the CAA. These activities, often involving temporary structures in creeks and backwaters, provide significant livelihood opportunities, particularly for coastal women's Self-Help Groups. The amendment further introduced aqua-zoning and aqua-mapping provisions, enabling scientific, planned and eco-friendly site selection for aquaculture activities. To ensure quality and safety, the amendment brought aquaculture inputs, including feed, probiotics, and healthcare products, under regulatory control, preventing the use of banned pharmacologically active substances and aligning Indian aquaculture products with international safety standards.

The Act also strengthened biosecurity by introducing Specific Pathogen Free (SPF) certification, and encouraging the establishment of Nucleus Breeding Centres and Broodstock Multiplication Centres in No-Development Zone within the CRZ areas to ensure disease-free and genetically improved broodstock. Ease of doing business was enhanced through simplified registration and renewal procedures, direct online submission of applications, systems for duplicate certificates, transfer of ownership and delayed renewals. The amendment also decriminalised the Act by replacing imprisonment with graded monetary penalties based on the “polluter pays” principle. To operationalise the amended provisions, the Government notified the Coastal Aquaculture Authority Rules, 2024, which simplified registration through Sub-Divisional and District-Level Committees, detailed procedures for hatcheries and broodstock facilities, standardised aquaculture inputs, strengthened disease surveillance and formalised online processes. Additionally, eighteen comprehensive guidelines were issued in 2024 to regulate shrimp, finfish, bivalves, seaweed, cage culture, ornamental species, waste management, aqua-zoning and environmental damage assessment. Together, the 2023 Amendment, the 2024 Rules and the notified guidelines provide India with a modern, coherent, and environmentally responsible framework that supports sustainable aquaculture, enhances livelihoods, empowers women, ensures ecological protection, and contributes significantly to national food and nutritional security.

The present Coastal Aquaculture Authority (CAA) Compendium, which compiles the CAA Act, the Amendment Act, the Rules, Guidelines, and all relevant notifications, serves as a comprehensive and authoritative reference for the entire coastal aquaculture sector. This compendium is designed to enhance clarity, transparency, and accessibility for all stakeholders, including farmers, hatchery operators, input suppliers, women’s SHGs, industry players, regulatory authorities, and research institutions. By eliminating ambiguity in interpretation, this compendium empowers stakeholders to adopt sustainable practices, reducing the risk of environmental degradation, disease outbreaks and legal violations.



(D.V. SWAMY, IAS)
CHAIRPERSON, CAA

के सी देवसेनापति, आईएएस)
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Secretary, CAA



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Government of India
Ministry of Fisheries, Animal Husbandry and Dairying
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COASTAL AQUACULTURE AUTHORITY

PREFACE

Coastal aquaculture and mariculture play a vital role in strengthening India's nutritional security, economic growth and export performance. With a growing population and increasing demand for high-quality protein, aquatic foods such as fish, shrimp, bivalves and seaweed have emerged as essential components of a healthy diet. Coastal aquaculture contributes significantly to bridging the gap between demand and supply by producing nutrient-rich, affordable and accessible seafood. Mariculture including cage culture, seaweed farming, mussel and oyster culture offers additional opportunities to enhance domestic fish production without putting pressure on wild capture fisheries. These activities not only provide sustainable sources of protein but also supply essential micronutrients such as omega-3 fatty acids, zinc, iodine, calcium and vitamins, thereby contributing to improved national nutritional outcomes.

Economically, coastal aquaculture has become one of India's fastest-growing rural industries. Shrimp aquaculture, in particular, contributes substantially to foreign exchange earnings, making India one of the world's leading exporters of farmed shrimp. Coastal aquaculture generates extensive employment along the entire value chain, including seed production, feed manufacturing, farming, harvesting, processing, logistics and export. Mariculture further expands livelihood opportunities for coastal communities, especially women's Self-Help Groups, by offering low-investment activities such as seaweed cultivation and bivalve farming. The sector thus plays a key role in poverty reduction, rural development and socio-economic upliftment in coastal regions.

To ensure that this growth remains environmentally responsible and socially inclusive, the Coastal Aquaculture Authority (CAA) plays a central regulatory role. Established under the Coastal Aquaculture Authority Act, 2005 and strengthened through subsequent amendments, the Authority is responsible for regulating, monitoring and promoting all coastal aquaculture activities within the framework of ecological sustainability. Its primary functions include registration of coastal aquaculture farms, hatcheries, Broodstock Multiplication Centres (BMCs), Nucleus Breeding Centres (NBCs) and other associated units, ensuring that they operate

in compliance with environmental norms. The CAA also enforces biosecurity standards, including restrictions on the use of harmful chemicals and mandatory certification for Specific Pathogen Free (SPF) broodstock, to prevent disease outbreaks and maintain product quality.

The Coastal Aquaculture Authority Rules and Guidelines covered every operational aspect of coastal aquaculture including site selection, farm management, effluent treatment, disease surveillance, seed quality regulation, environmental protection and waste management. These regulatory instruments provide clarity, uniformity and scientific guidance for the sustainable expansion of aquaculture and mariculture. The guidelines for fin fish, crab and seaweed farming, cage culture, bivalve culture and ornamental fish rearing have enabled diversification, while the Rules and Act amendments have simplified registration processes, improved ease of doing business and strengthened environmental safeguards. Through its Act, Rules and Guidelines, the Coastal Aquaculture Authority ensures that this development is scientifically grounded, environmentally sustainable and socially beneficial, enabling the sector to grow responsibly while protecting coastal ecosystems and supporting millions of livelihoods.

Overall, the Amendment Act, Rules and Guidelines have created a more transparent, science-based and investor-friendly regulatory environment that promotes sustainable growth, environmental protection, improved production quality and expanded livelihoods, thereby strengthening the long-term viability and competitiveness of India's coastal aquaculture sector.

I hope the present CAA Compendium helps all the stakeholders for authoritative reference, ensures clarity, uniform understanding and effective implementation of all regulatory provisions for promoting environmentally sustainable and responsibly managed coastal aquaculture in India.



(K C DEVA SENAPATHI, IAS)
SECRETARY, CAA

Coastal Aquaculture Authority

COMPENDIUM OF ACT, RULES, GUIDELINES AND OTHER NOTIFICATIONS

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**THE COASTAL AQUACULTURE AUTHORITY
ACT, 2005 (24 of 2005)**

(As amended in 2023 (27 of 2023))

THE COASTAL AQUACULTURE AUTHORITY ACT, 2005
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**THE COASTAL AQUACULTURE
AUTHORITY ACT, 2005
ACT NO. 24 OF 2005**

[23rd June, 2005.]

An Act to provide for the establishment of a Coastal Aquaculture Authority for regulating the activities connected with coastal aquaculture in the coastal areas and for matters connected therewith or incidental thereto.

BE it enacted by Parliament in the Fifty-sixth Year of the Republic of India as follows:—

CHAPTER I
PRELIMINARY

1. **Short title and commencement.**—(1) This Act may be called the Coastal Aquaculture Authority Act, 2005.
 - (2) Provisions of section 27 shall come into force at once and the remaining provisions of this Act shall come into force on such date^{1,2} as the Central Government may, by notification in the Official Gazette, appoint.
2. **Definitions.**—(1) In this Act, unless the context otherwise requires,—
 - ³[(a) “aquaculture input” means any material used as an input in coastal aquaculture for the maintenance of quality of water and soil and for the growth and better health of organisms reared, or other aquatic life available, therein and includes seed, fertilizer, feed, growth supplement, probiotic, environment remediator and disinfectant;
 - (aa) “aqua mapping” means geospatial coastal area distribution maps depicting areas potential and suitable for coastal aquaculture;
 - (ab) “aqua zonation” means the zones of spatial planning for different species or methods of coastal aquaculture notified by a State Government or the Authority for sustainable coastal aquaculture;
 - (ac) “Authority” means the Coastal Aquaculture Authority established under sub-section (1) of section 4;

-
1. 16th December, 2005, ss. 2 to 26 (both inclusive), vide notification No. S.O. 1771(E), dated 16th December, 2005, see Gazette of India, Extraordinary, Part II, sec. 3(ii).
 2. 12th Septemebr, 2023, ss. 28, vide notification no. S.O. 3977(E), dated 7th September, 2023, see Gazette of India, Extraordinary, Part II, sec. 3(ii).
 3. Subs. by Act 27 of 2023, s. 2(i) for clause (a) (w.e.f. 12-9-2023).

- (ad) “biosecured facility” means a coastal aquaculture unit carrying on coastal aquaculture activity adopting such biosecurity measures for ensuring freedom from disease causing pathogens as may be specified in the guidelines issued for such activity;
- (ae) “biosecurity” means any measure or strategy or integrated approach adopted to analyse, manage and prevent the risk of introduction or spread of harmful organisms, including viruses and bacteria, within the coastal aquaculture unit and to minimise the risk of transmission of infectious diseases;
- (af) “Brood Stock Multiplication Centre” means a coastal aquaculture unit carrying on such coastal aquaculture activity which receives such post larvae or juvenile which are specific pathogen free or specific pathogen tolerant or specific pathogen resistant or such other post larvae or juvenile from a Nucleus Breeding Centre and rears it under strict biosecurity and close disease surveillance to ensure freedom from disease;]
- (b) “Chairperson” means the Chairperson of the Authority;
- ¹[(c) “coastal aquaculture” or “coastal aquaculture activity” means rearing and cultivation of any life stages of fish, including crustacean, mollusc, finfish, seaweed or any other aquatic life under controlled conditions, either indoor or outdoor, in cement cisterns, ponds, pens, cages, rafts, enclosures or otherwise in saline or brackish water in coastal areas, including activities such as production of brood stock, seed, grow out, but does not include fresh water aquaculture;
- (ca) “coastal aquaculture unit” means any facility that is engaged in coastal aquaculture or any allied activity connected therewith and includes Nucleus Breeding Centre, Brood Stock Multiplication Centre, hatchery and farm;]
- ²[(d) “coastal area” means the area declared as the Coastal Regulation Zone in the Coastal Regulation Zone notification issued by the Central Government under the Environment (Protection) Act, 1986 (29 of 1986) and includes such other area as the Central Government may, by notification in the Official Gazette, specify;
- (da) “coastal environment” means the area of land and water in the coastal area, including complete system of living organisms and physical surroundings therein;

1. Subs. by Act 27 of 2023, s. 2(ii), for clause (c) (w.e.f. 12-9-2023).

2. Subs. by s. 2(iii), *ibid.*, for clause (d) (w.e.f. 12-9-2023).

- (db) “farm” means a coastal aquaculture unit where culturing of fish, including crustacean, mollusc, finfish, seaweed or any other aquatic life is done under controlled conditions in ponds, pens, cages, rafts, enclosures or otherwise, in saline or brackish water in coastal areas and includes nursery rearing, but does not include fresh water aquaculture;
- (dc) “hatchery” means a coastal aquaculture unit carrying on coastal aquaculture activity of breeding and seed production of fish, including crustacean, mollusc, finfish, seaweed or any other aquatic life, in saline or brackish water and includes rearing of nauplii and live feed, but does not include fresh water aquaculture;]
- (e) “member” means the member of the Authority appointed under subsection (3) of section 4 and includes the Chairperson^{1***};
- ²[(ea) “Nucleus Breeding Centre” means a coastal aquaculture unit carrying on biosecured coastal aquaculture activity which has an established freedom from disease causing pathogens for the purpose of producing domesticated specific pathogen free, specific pathogen tolerant and specific pathogen resistant stocks;
- (eb) “operator” means any person or firm that is engaged in the operation of the coastal aquaculture activity;
- (ec) “owner”, in relation to any coastal aquaculture unit, includes—
- (i) his legal heirs or agent; and
 - (ii) an operator, a mortgagee, lessee, including sub-lessee or any other person in actual possession of such coastal aquaculture unit;
- (ed) “pharmacologically active substance or antimicrobial agent” means a naturally occurring, semi-synthetic or synthetic substance that, at in vivo concentration, exhibits antimicrobial activity of killing or inhibiting the growth of microorganisms;]
- (f) “prescribed” means prescribed by rules made under this Act;
- (g) “regulations” means the regulations made by the Authority under this Act.
- ³[(h) “specific pathogen free” or “specific pathogen resistant” or “specific pathogen tolerant” means free of, resistant to, or tolerant to, such pathogens as may be listed by the World Organisation for Animal Health

1. The words “and the member-secretary” omitted by Act. 27 of 2023 s. 2(iv), (w.e.f. 12-9-2023).
2. Ins. s. 2(v), *ibid.* (w.e.f. 12-9-2023).
3. Ins. s. 2(vi), *ibid.* (w.e.f. 12-9-2023).

or any other pathogen notified by the Central Government, which is specific for candidate species used in the coastal aquaculture;

(i) “State” includes Union territory.]

- (2) Words and expressions used herein and not defined but defined in the Environment (Protection) Act, 1986 (29 of 1986) shall have the meanings respectively assigned to them in that Act.

CHAPTER II

GENERAL POWERS OF CENTRAL GOVERNMENT

3. **Power of Central Government to take measures to protect environment.**—The Central Government shall take all such measures as it deems necessary or expedient for regulation of coastal aquaculture by prescribing guidelines, to ensure that coastal aquaculture does not cause any detriment to the coastal environment and the concept of responsible coastal aquaculture contained in such guidelines shall be followed in regulating the coastal aquaculture activities to protect the livelihood of various sections of the people living in the coastal areas.

CHAPTER III

THE COASTAL AQUACULTURE AUTHORITY

4. **Establishment of Authority and appointment of Chairperson and members.**—(1) With effect from such date as the Central Government may, by notification in the Official Gazette, appoint in this behalf, there shall be established for the purposes of this Act an Authority to be called the Coastal Aquaculture Authority.
- (2) The head office of the Authority shall be at such place as the Central Government may decide.
- (3) The Authority shall consist of the following members who shall be appointed by the Central Government, namely:—
- (a) the Chairperson who is, or has been, a Judge of a High Court;
 - (b) one member who is an expert in the field of coastal aquaculture;
 - (c) one member who is an expert in the field of coastal ecology nominated by the ¹[Ministry of Earth Sciences] of the Central Government;

1. Subs. by Act 27 of 2023 s. 3(i), for “Department of Ocean Development” (w.e.f. 12-9-2023).

- (d) one member who is an expert in the field of environment protection or pollution control nominated by the ¹[Ministry of Environment, Forest and Climate Change] of the Central Government;
- (e) one member to represent the ²[Ministry of Agriculture and Farmers Welfare] of the Central Government;
- (f) one member to represent the ³[Ministry of Commerce and Industry] of the Central Government;
- ⁴[(fa) one member to represent the Ministry of Fisheries, Animal Husbandry and Dairying of the Central Government;]
- ⁵[(g) one member to represent each of the coastal States and Union territories;] ^{6****}

⁷[(3A) When the office of the Chairperson is vacant, the Central Government may, till the appointment of a new incumbent to the said office, nominate any member of the Authority to exercise such of the powers, and perform such of the functions, of the Chairperson as may be prescribed.]

- (4) The term of office of the Chairperson and every other member shall be three years.
- (5) The salaries and allowances payable to, and the other terms and conditions of service of, the members shall be such as may be prescribed.

5. Disqualifications for appointment as member.—A person shall be disqualified for being appointed as a member if he—

- (a) has been convicted and sentenced to imprisonment for an offence which, in the opinion of the Central Government, involves moral turpitude; or
- (b) is an undischarged insolvent; or
- (c) is of unsound mind and stands so declared by a competent court; or
- (d) has been removed or dismissed from the service of the Government or a Corporation owned or controlled by the Government; or

1. Subs. by Act 27 of 2023 s. 3(A)(ii), for “Ministry of Environment and Forests” (w.e.f. 12-9-2023).
2. Subs. by s. 3(A)(iii), *ibid.*, for “Ministry of Agriculture” (w.e.f. 12-9-2023).
3. Subs. by s. 3(A)(iv), *ibid.*, for “Ministry of Commerce” (w.e.f. 12-9-2023).
4. Ins. by s. 3(A)(v), *ibid.* (w.e.f. 12-9-2023).
5. Subs. by s. 3(A)(vi), *ibid.*, for clause (g) (w.e.f. 12-9-2023).
6. Clause (h) omitted by s. 3(A)(vii), *ibid.* (w.e.f. 12-9-2023).
7. Ins. by s. 3(B), *ibid.* (w.e.f. 12-9-2023).

- (e) has, in the opinion of the Central Government, such financial or other interest in the Authority as is likely to affect prejudicially the discharge by him of his functions as a member.
6. **Eligibility of member for reappointment.**—Subject to sub-section (5) of section 4, any person ceasing to be a member shall be eligible for reappointment as such member for not more than two consecutive terms.
7. **Meetings of Authority.**—(1) The Authority shall meet at such times and places and shall observe such rules of procedure in regard to the transaction of business at its meetings (including the quorum thereat) as may be specified by regulations.
- ¹[(2) If the Chairperson is unable to attend a meeting of the Authority, any other member of the Authority nominated by the Chairperson in this behalf, and in the absence of both Chairperson and nominated member, any other member chosen by the members present from amongst themselves, shall preside over the meeting.]
- (3) All questions which come up before any meeting of the Authority shall be decided by a majority of votes of the members present and voting and in the event of an equality of votes, the Chairperson or in his absence the person presiding, shall have and exercise a second or casting vote.
- ²[7A. **Committees of Authority.**— (1) Subject to any rules made in this behalf, the Authority may from time to time constitute such committees as may be necessary for the efficient discharge of its functions.
- (2) Every committee shall consist of such number of persons and perform such functions and be subject to such terms and conditions as may be prescribed.]
8. **Vacancy in Authority not to invalidate proceeding.**—No act or proceeding of the Authority shall be invalidated merely by reason of—
- (a) any vacancy in, or any defect in the constitution of, the Authority;
or
- (b) any defect in the appointment of a person acting as a member of the Authority; or
- (c) any irregularity in the procedure adopted by the Authority not affecting the merits of the case.

1. Subs. by Act 27 of 2023, s. 4, for sub-section (2) (w.e.f. 12-9-2023).
2. Ins. by s. 5, *ibid.* (w.e.f. 12-9-2023).

9. Appointment of officers, consultants and other employees of Authority.—

(1) For the purposes of discharging its functions, the Authority shall appoint such number of officers and other employees as it may consider necessary on such terms and conditions as may be specified by the regulations.

(2) The Authority may appoint, from time to time, any person as adviser or consultant as it may consider necessary on such terms and conditions as may be specified by the regulations.

¹**[9A. Secretary of Authority. —** (1) The Central Government may appoint an officer of such rank, as it considers fit, to be a Secretary of the Authority, in such manner and subject to such terms and conditions as may be prescribed.

(2) The Secretary shall function as the Chief Executive Officer of the Authority who shall be responsible for—

- (a) the day-to-day administration of the Authority;
- (b) drawing up of proposal for the Authority's work programmes in consultation with the Authority;
- (c) implementing the work programmes and the decisions adopted by the Authority;
- (d) ensuring that the tasks of the Authority are carried out in accordance with the requirements of users, in particular with regard to the adequacy of the services provided and the time taken;
- (e) the preparation of the statement of revenue and expenditure and the execution of the budget of the Authority;
- (f) coordinating with the Central Government and with the committees of the Authority; and
- (g) legally representing the Authority in all matters.

(3) Every year, the Secretary shall submit to the Authority for approval,—

- (a) a general report covering all the activities of the Authority in the previous year;
- (b) the programmes of work;
- (c) the annual accounts for the previous year; and
- (d) the budget for the coming year.

- (4) The Secretary shall, after the approval of the Authority, forward the general report and the programmes to the Central Government and shall have the general report published.
- (5) The Secretary shall have administrative control over the officers and other employees of the Authority.
- (6) The Secretary shall approve all financial expenditure of the Authority and send a report on the Authority's activities to the Central Government.]

10. Authentication of orders and other instruments of Authority.—All orders, decisions and other instruments of the Authority shall be authenticated under the signature of the Chairperson or any other member or any officer of the Authority authorised by the Chairperson in this behalf.

CHAPTER IV

POWERS AND FUNCTIONS OF AUTHORITY

11. Functions of Authority.—(1) Subject to any guidelines issued by the Central Government under section 3, the Authority shall exercise the following powers and perform the following functions, namely:—

- (a) to make regulations for the construction and operation of¹[coastal aquaculture units] within the coastal areas;
- (b) to inspect coastal aquaculture²[units] with a view to ascertaining their environmental impact caused by coastal aquaculture;
- (c) to register coastal aquaculture²[units];
- ³[(d) to order removal or demolition of any coastal aquaculture unit which is causing pollution after hearing the occupier of such unit;]
- ⁴[(da) to regulate or prohibit the number, species and method of any coastal aquaculture in such area, as may be prescribed, through planning and execution of such programmes, including aqua zonation and aqua mapping for environmentally sustainable coastal aquaculture, as may be notified by the Central Government;
- (db) to fix or adopt standards, certify, monitor, regulate or prohibit coastal aquaculture inputs, including probiotics, therapeutants and such other inputs used in coastal aquaculture, as may be prescribed, for the prevention, control and abatement of detriment to the coastal aquaculture or coastal environment;

1. Subs. by Act 27 of 2023, s. 7(A)(i), for “aquaculture farms” (w.e.f. 12-9-2023)

2. Subs. by s. 7(A)(ii), *ibid.*, for “farms” (w.e.f. 12-9-2023).

3. Subs. by s. 7(A)(iii), *ibid.*, for clause (d) (w.e.f. 12-9-2023).

4. Ins. by s.7(A)(iv), *ibid.* (w.e.f. 12.9.2023)

- (*dc*) to fix or adopt standards, certify, monitor and regulate the coastal aquaculture units, including coastal aquaculture activities carried out in such units with biosecurity and close disease surveillance to ensure freedom from disease, in such manner as may be prescribed;
 - (*dd*) to fix or adopt the standards for emission or discharge of effluents from coastal aquaculture unit:
Provided that different standards for emission or discharge may be fixed for different coastal aquaculture unit having regard to the quality or composition of the emission or discharge of effluents from such sources;
 - (*de*) to collect and disseminate information in respect of matters relating to coastal aquaculture;]
 - (*e*) to perform such other functions as may be prescribed.
- (2) Where the Authority orders removal or demolition of any coastal aquaculture ¹[unit] under clause (*d*) of sub-section (*I*), the workers of the said ¹[unit] shall be paid such compensation as may be settled between the workers and the management through an authority consisting of one person only to be appointed by the Authority and such authority may exercise such powers of a District Magistrate for such purpose, as may be prescribed.

12. Power to enter.—Subject to any rule made in this behalf, any person generally or specially authorised by the Authority in this behalf, may, wherever it is necessary to do so for any purposes of this Act, at all reasonable times, enter on any coastal aquaculture ²[unit] and—

- (a) make any inspection, survey, measurement, valuation or inquiry;
- (b) remove or demolish any structure therein; and
- (c) do such other acts or things as may be prescribed:

Provided that no such person shall enter on any coastal aquaculture ²[unit] without giving the occupier of such aquaculture ²[unit] at least twenty-four hours' notice in writing of his intention to do so.

³[Provided further that the requirement of notice under the first proviso may be waived by the Authority, in such cases and for such reasons to be recorded in writing, as it deems fit:

1. Subs. by Act 27 of 2023, s. 7(B), for “farm” (w.e.f. 12-9-2023).

2. Subs. by s. 8(a), *ibid.*, for “land, pond, pen or enclosure” (w.e.f. 12-9-2023).

3. Ins. by s. 8(b), *ibid.*, (w.e.f. 12-9-2023).

Provided also that the owner shall be liable to pay the cost of demolition and cost of damage to the environment, if any, assessed in such manner as may be prescribed.]

¹[**12A. Prohibition of certain materials.**— The Authority may, by an order, prohibit the use, in any coastal aquaculture activity of—

- (a) such pharmacologically active substance, antimicrobial agent or other material which may cause harm to human health as may be prescribed; or
- (b) aquaculture inputs containing such substance, agent or material as may be specified under clause (a).]

13. Registration for coastal aquaculture.—(1) Save as otherwise provided in this section, no person shall carry on, or cause to be carried on, coastal aquaculture in coastal area or traditional coastal aquaculture in the traditional coastal aquaculture ²[unit] which lies within the Coastal Regulation Zone referred to in sub-section (9) and is not used for coastal aquaculture purposes on the appointed day unless he has registered his ²[unit] with the Authority under sub-section (5) or in pursuance of sub-section (9), as the case may be.

(2) Notwithstanding anything contained in sub-section (1), a person engaged in coastal aquaculture, immediately before the appointed day, may continue to carry on such activity without such registration for a period of three months from that day and if he makes an application for such registration under sub-section (4) within the said period of three months, till the communication to him of the disposing of such application by the Authority.

(3) The registration made under sub-section (5) or in pursuance of sub-section (9)—

- (a) shall be valid for a period of five years;
- (b) may be renewed from time to time for a like period; and
- (c) shall be in such form and shall be subject to such conditions as may be specified by the regulations.

³[*Provided* that the Authority may issue a certificate of registration for carrying out coastal aquaculture on the land allotted or assigned by the Government subject to such procedure and for such period, as may be prescribed, but not exceeding the period specified under clause (a) or clause (b), as the case may be.]

1. Ins. by Act 27 of 2023 s. 9, (w.e.f. 12-9-2023).

2. Subs. by s. 10(i), *ibid.*, for “farm” (w.e.f. 12-9-2023).

3. Ins. by s. 10(ii), *ibid.* (w.e.f. 12-9-2023).

(4) A person who intends to carry on coastal aquaculture shall make an application for registration of his farm before the Authority in such ¹[coastal aquaculture unit] accompanied with such fees as may be prescribed for the purpose of registration under sub-section (5).

(5) On receipt of an application for registration of a ¹[coastal aquaculture unit] under sub-section (4), the Authority shall consider the application in the prescribed manner and after considering the application either register the farm or reject the application:

Provided that the Authority shall not reject the application without recording the reason for such rejection.

(6) The Authority shall, after registering a ¹[coastal aquaculture unit] under sub-section (5), issue a certificate of registration in the prescribed form to the person who has made the application for such registration.

²[(7) In the case of a farm comprising more than two hectares of water spread area and any other coastal aquaculture unit, no application for registration to commence any activity connected with coastal aquaculture shall be considered under sub-section (5) unless the Authority, after making such inquiry as it thinks fit, is satisfied that registration of such coastal aquaculture unit shall not be detrimental to the coastal environment.]

(8) Notwithstanding anything contained in this section,—

³[(a) no coastal aquaculture shall be carried on in the ecologically sensitive areas or the geo- morphological features;

(b) no coastal aquaculture, except hatchery, Nucleus Breeding Centre and Brood Stock Multiplication Centre shall be carried on in the No Development Zone in the case of sea, and in the buffer zone in the case of creeks, rivers and backwaters;

(c) no coastal aquaculture, except seaweed culture, pen culture, raft culture and cage culture activities shall be carried on in creek, rivers and backwaters within the Coastal Regulation Zone:]

Provided that nothing in this sub-section shall apply in the case of a coastal aquaculture farm which is in existence on the appointed day and to the non-commercial and experimental coastal aquaculture farms operated or proposed to be operated by any research institute of the Government or funded by the Government:

1. Subs. by Act 27 of 2023 s. 10(iii), for “farm” (w.e.f. 12-9-2023).

2. Subs. by s. 10(iv), *ibid.*, for sub-section (7) (w.e.f. 12-9-2023).

3. Subs. by s. 10(v)(A), *ibid.*, for clauses (a) and (b) (w.e.f. 12-9-2023).

Provided further that the Authority may, for the purposes of providing exemption under the first proviso, review from time to time the existence and activities of the coastal aquaculture farms and the provisions of this section shall apply on coastal aquaculture farms in view of such review.

¹[*Explanation*.—For the purposes of this sub-section,—

- (i) “High Tide Line” means the line on the land up to which the highest water line reaches during the spring tide;
 - (ii) the expressions “ecologically sensitive areas”, “geo-morphological features”, “No Development Zone”, “buffer zone” and “Coastal Regulation Zone” shall have the same meanings as defined in the Coastal Regulation Zone notification issued under the Environment (Protection) Act, 1986 (29 of 1986).]
- (9) Notwithstanding anything contained in this section, any traditional coastal aquaculture ²[unit] which lies within the Coastal Regulation Zone declared by the notification of the Government of India in the Ministry of Environment and Forest (Department of Environment, Forests and Wildlife) No. S.O.114(E), dated the 19th February, 1991 and is not used for coastal aquaculture purposes on the appointed day shall be registered under sub-section (5) by producing before the Authority, by the person who is the owner of such ²[unit], the documentary proof of such ownership failing which such ²[unit] shall not be registered under sub-section (5) and if such person after such registration does not utilise such ²[unit], within one year, for coastal aquaculture purposes, the registration shall be cancelled by the Authority.
- (10) A person, who intends to renew the registration of a ³[coastal aquaculture unit] made under sub-section (5) or in pursuance of sub-section (9), may make an application within two months before the expiry of such registration to the Authority in the prescribed form accompanied with the prescribed fees and the Authority shall, after receiving such application, renew the registration and for such purpose make an entry with its seal on the registration certificate relating to such form issued under sub-section (6).

⁴[*Provided* that the Authority may condone the delay in making application for renewal, subject to payment of such fee for renewal of registration, as may be prescribed.]

1. Subs. by Act 27 of 2023 s. 10(v)(B), for Explanation (w.e.f. 16-12-2005).

2. Subs. by, s. 10(vi), *ibid.*, for “farm” (w.e.f. 12-9-2023).

3. Subs. by s. 10(vii)(a), *ibid.*, for “farm” (w.e.f. 12-9-2023).

4. Ins. by s. 10(vii)(b), *ibid.* (w.e.f. 12-9-2023)

- (11) The Authority may refuse to renew the registration of a ¹[coastal aquaculture unit] under sub-section (10) if the Authority is satisfied that the person to whom such registration is made has failed to utilise such ¹[coastal aquaculture unit] for coastal aquaculture purposes or without any reasonable cause has violated any provision of this Act or the rules or regulations made there under or any direction or order made by the Authority in pursuance of section 11:

Provided that such refusal to renew the registration shall not be made without providing such person an opportunity of being heard.

Explanation 1.—For the purposes of this section, “appointed day” means the date of establishment of the Authority.

Explanation 2.—For the removal of doubts, it is hereby declared that the expression “to renew the registration” used in sub-sections (10) and (11) shall be construed to include further renewal of the registration.

- ²[(12) The Authority may vary, amend or modify the certificate of registration issued under this section, in such manner as may be prescribed.
- (13) In the event of the certificate of registration issued under this Act being defaced or mutilated or lost, the Authority may grant a duplicate certificate, on payment of such fee and in such manner, as may be prescribed.]

³[13A **Authorisation of officers.**—(1) The Authority may, by order, authorise any officer of the Authority or the State Government or the Central Government, not below the rank of Assistant Director of Fisheries in a District to function as authorised officer to exercise such powers, to discharge such duties and perform such functions, as may be specified in that order.

- (2) The Central Government may, by notification, authorise any officer of the Authority or the State Government or the Central Government, not below the rank of Under Secretary to the Government of India, to function as an adjudicating officer, to adjudicate the penalties imposed under this Act.
- (3) The Central Government may, by notification, authorise any officer of the Authority or the State Government or the Central Government, not below the rank of Deputy Secretary to the Government of India, to function as the Appellate Authority, who may affirm, vary or set aside the order passed by the adjudicating officer.

1. Subs. by Act-27 of 2023, s.10(viii), for “farm” (w.e.f. 12-09-2023)

2. Ins. by s. 10(ix), *ibid.* (w.e.f. 12-9-2023).

3. Ins. by s. 11, *ibid.* (w.e.f. 12-9-2023).

- (4) The adjudicating officer or the Appellate Authority, shall, for the purposes of discharging functions under this Act, have the same powers as are vested in a civil court under the Code of Civil Procedure, 1908 (5 of 1908) while trying a suit, in respect of the following matters, namely:—
- (a) summoning and enforcing the attendance of witnesses;
 - (b) requiring the discovery and production of documents;
 - (c) requisitioning any public record or document or copy of such record or document from any office;
 - (d) receiving evidence on affidavits;
 - (e) issuing commissions for the examination of witnesses or documents.
- (5) The adjudicating officer or the Appellate Authority shall be deemed to be a civil court for the purposes of sections 345 and 346 of the Code of Criminal Procedure, 1973 (2 of 1974).]

¹[14. Penalty for carrying on coastal aquaculture in contravention of provisions of Act.— Where any person carries on coastal aquaculture or traditional coastal aquaculture or causes the coastal aquaculture or traditional coastal aquaculture to be carried on in contravention of any of the provisions of this Act or any rules or regulations made thereunder or any guidelines or notifications issued thereunder, an officer authorised under section 13A shall take all or any of the following actions, namely:—

- (a) suspension or stoppage of any activity in a coastal aquaculture unit for such period and in such manner as may be prescribed;
- (b) imposition of penalty as specified in the Table below;
- (c) removal or demolition of any structure;
- (d) destruction of the standing crop therein;
- (e) suspension or cancellation of registration for such period and in such manner as may be prescribed.

1. Subs. by Act 27 of 2023, s. 12 for section 14 (w.e.f. 12-9-2023).

THE COASTAL AQUACULTURE AUTHORITY ACT, 2005

Table					
Sl. No.	Coastal Aquaculture / use of prohibited materials	Offences	Penalty		
			First time offence	Second time offence	Third time and subsequent offences
(1)	(2)	(3)	(4)	(5)	(6)
1.	Farm	Non-registration.	Rupees ten thousand per hectare (or fraction of a hectare) of water spread area.	Rupees fifteen thousand per hectare (or fraction of a hectare) of water spread area.	Rupees twenty-five thousand per hectare (or fraction of a hectare) of water spread area.
		Non-compliance with the provisions of the Act, rules, regulations, guidelines and notifications, other than non-registration.	Rupees five thousand per hectare (or fraction of a hectare) of water spread area.	Rupees ten thousand per hectare (or fraction of a hectare) of water spread area.	Rupees fifteen thousand per hectare (or fraction of a hectare) of water spread area.
2	Hatchery, Brood Stock Multiplication Centre, Nucleus Breeding Centre or such other coastal aquaculture unit	Non-registration.	Rupees fifty thousand.	Rupees seventy-five thousand.	Rupees one lakh.
		Non-compliance with the provisions of the Act, rules, regulations, guidelines and notifications, other than non-registration.	Rupees twenty-five thousand.	Rupees fifty thousand.	Rupees one lakh.

3	Use of materials prohibited under section 12A	Contravention of the provisions of clause (a) or clause (b) of section 12A	Rupees fifty thousand.	Rupees seventy five thousand.	Rupees one lakh.
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14A. Appeal.—(1) Any person aggrieved by an order of the adjudicating officer may within thirty days from the date on which the order is made, prefer an appeal to the Appellate Authority:

Provided that the Appellate Authority may entertain any appeal preferred after the expiry of the said period of thirty days, but before the expiry of ninety days from the date aforesaid, if it satisfied that the appellant was prevented by sufficient cause from filing the appeal in time.

(2) No appeal under this section shall be entertained by the Appellate Authority unless the appellant has at the time of filing the appeal deposited the amount of penalty payable under the order appealed against:

Provided that on an application made by the appellant in this behalf, the Appellate Authority may, if it is of the opinion that the deposit to be made under this sub-section shall cause undue hardship to the appellant, by order in writing, dispense with such deposit, either unconditionally or subject to such condition, as it may deem fit to impose.

(3) On the receipt of an appeal under sub-section (1), the Appellate Authority may, after holding such enquiry as it deems fit, and after giving the parties concerned reasonable opportunity of being heard, confirm, modify or set aside the order appealed against, and—

(a) if the sum deposited by way of penalty under sub-section (2) exceeds the penalty directed to be paid by the Appellate Authority, such excess amount shall be refunded to the appellant; or

(b) if the Appellate Authority sets aside the order imposing penalty, the whole of the sum deposited by the way of penalty shall be refunded to the appellant.

(4) The decision of the Appellate Authority under this section shall be final.]

15. Cognizance of offence.—No court shall take cognizance of an offence under section 14 without a written complaint filed by an officer of the Authority authorised in this behalf by it.

CHAPTER V

FINANCE, ACCOUNTS AND AUDIT

16. **Payment to Authority.**—The Central Government may, after due appropriation made by Parliament, by law, in this behalf, pay to the Authority in each financial year such sums as may be considered necessary for the performance of functions of the Authority under this Act.
17. **Fund of Authority.**—(1) The Authority shall have its own fund and all sums which may, from time to time, be paid to it by the Central Government and all the receipts of the Authority (including any sum which any State Government or any other authority or person may hand over to the Authority) shall be credited to the fund and all payments by the Authority shall be made therefrom.
- (2) All moneys belonging to the fund shall be deposited in such banks or invested in such manner as may, subject to the approval of the Central Government, be decided by the Authority.
- (3) The Authority may spend such sums as it thinks fit for performing its functions under this Act, and such sums shall be treated as expenditure payable out of the fund of the Authority.
18. **Budget.**—The Authority shall prepare, in such form and at such time each year as may be prescribed, a budget, in respect of the financial year next ensuing, showing the estimated receipts and expenditure and copies thereof shall be forwarded to the Central Government.
19. **Annual report.**—The Authority shall prepare once in every calendar year, in such form and at such time as may be prescribed an annual report giving a true and full account of its activities during the previous year and copies thereof shall be forwarded to the Central Government and that Government shall cause the same to be laid before both Houses of Parliament.
20. **Accounts and audit.**—(1) The Authority shall cause to be maintained such books of account and other books in relation to its accounts in such form and in such manner as may, in consultation with the Comptroller and Auditor-General of India, be prescribed.
- (2) The Authority shall, as soon as may be, after closing its annual accounts, prepare a statement of accounts in such form, and forward the same to the Comptroller and Auditor-General of India by such date, as the Central Government may, in consultation with the Comptroller and Auditor-General of India, determine.

- (3) The accounts of the Authority shall be audited by the Comptroller and Auditor-General of India at such times and in such manner as he thinks fit.
- (4) The accounts of the Authority as certified by the Comptroller and Auditor-General of India or any other person appointed by him in this behalf together with the audit report thereon shall be forwarded annually to the Central Government and that Government shall cause the same to be laid before both Houses of Parliament.

CHAPTER VI MISCELLANEOUS

- 21 Chairperson and other members, officers and other employees of Authority, etc., to be public servants.**—The Chairperson and other members and the officers and other employees of the Authority and the authority appointed by the Authority shall be deemed to be public servants within the meaning of section 21 of the India Penal Code (45 of 1860).
- 22 Protection of action taken in good faith.**—No suit, prosecution or other legal proceeding shall lie against the Central Government or the Authority or the Chairperson and other members of the Authority or the authority appointed by the Authority or any person authorised by the Authority or any officer authorised by the Chairperson for anything which is in good faith done or intended to be done in pursuance of this act or any rule or regulation or order made thereunder.
- ¹[22A. Arrears of cost and penalty recoverable as arrears of land revenue.** — Any cost which is due and not paid as provided for by or under this Act and any sum directed to be recovered by way of penalty under section 14 shall be recoverable in the same manner as an arrear of land revenue.]
- 23 Power to remove difficulties.**—(1) If any difficulty arises in giving effect to the provisions of this Act, the Central Government may, by order published in the Official Gazette, make such provisions, not inconsistent with the provisions of this Act, as appear to it to be necessary or expedient for removing the difficulty:
Provided that no such order shall be made after the expiry of the period of two years from the date of the commencement of this Act.
 - (2) Every order made under this section shall, as soon as may be after it is made, be laid before each House of Parliament.

1. Ins. by Act 27 of 2023, s. 13 (w.e.f. 12-9-2023).

24 Power of Central Government to make rules.—(1) The Central Government may, by notification in the Official Gazette, make rules to carry out the provisions of this act.

(2) In particular, and without prejudice to the generality of the foregoing powers, such rules may provide for all or any of the following matters, namely:—

(a) the guidelines under section 3;

¹[(aa) the powers to be exercised and the functions to be performed by the nominated member under sub-section (3A) of section 4;]

(b) the salaries and allowances payable to, and the other terms and conditions of service of, the members under sub-section (5) of section 4;

²[(ba) the manner of constitution of committees under sub-section (1) of section 7A;

(bb) the number of persons in the committees, their functions, and the terms and conditions of the committees under sub-section (2) of section 7A;

(bc) the manner of appointment and the terms and conditions for appointment of Secretary under sub-section (1) of section 9A;

(bd) the area in which the Authority may regulate or prohibit the number, species and method of any coastal aquaculture under clause (da) of sub-section (1) of section 11;

(be) the other inputs used in coastal aquaculture under clause (db) of sub-section (1) of section 11;

(bf) the manner of certification, monitoring and regulation of the coastal aquaculture units and the manner of carrying out coastal aquaculture activities with biosecurity and close disease surveillance to ensure freedom from disease in coastal aquaculture units under clause (dc) of sub-section (1) of section 11;]

(c) the other functions of the Authority under clause (e) of sub-section (1) of section 11;

(d) the powers of a District Magistrate to be exercised by the authority under sub-section (2) of section 11;

(e) the rules subject to which any person referred to in section 12 may enter upon any coastal aquaculture ³[unit];

1. Ins. by Act 27 of 2023, s. 14(i) (w.e.f. 12-9-2023).

2. Ins. by s. 14(ii) *ibid.* (w.e.f. 12-9-2023).

3. Subs. by s. 14(iii), *ibid.*, for “land, pond, pen or enclosure under that section” (w.e.f. 12-9-2023).

- (f) the other acts or things under clause (c) of section 12;
- ¹[(fa) the manner of assessing the cost of damage to the environment under the third proviso to section 12;
- (fb) prohibition of such other material which may cause harm to human health under clause (a) of section 12A;
- (fc) the procedure and period under the proviso to sub-section (3) of section 13;]
- (g) the form of application and the fees to be accompanied therewith under sub-section (4) of section 13;
- (h) the manner of considering application under sub-section (5) of section 13;
- (i) the form of certificate of registration under sub-section (6) of section 13;
- (j) the form of application and the fees to be accompanied therewith under sub-section (10) of section 13 ²[and the fee for renewal of registration under the proviso thereof;]
- ³[(ja) the manner of varying, amending and modifying the certificate of registration under sub-section (12) of section 13;
- (jb) the fee for grant of duplicate certificate and the manner of granting it under sub-section (13) of section 13;
- (jc) the period and manner of suspension or stoppage of activity in a coastal aquaculture unit under clause (a) of section 14;
- (jd) the period and manner for suspension or cancellation of registration under clause (e) of section 14;]
- (k) the form and time of preparing budget under section 18;
- (l) the form and time of preparing annual report under section 19;
- (m) the books of account and other books to be maintained in relation to the accounts of the Authority and the form and manner of maintaining such books of account and other books under sub- section (1) of section 20;
- (n) any other matter which is required to be, or may be, prescribed.

1. Ins. by Act. 27 of 2023, s. 14(iv) (w.e.f. 12-9-2023).

2. Ins. by s. 14(v) *ibid.* (w.e.f. 12-9-2023).

3. Ins. by s. 14(vi) *ibid.* (w.e.f. 12-9-2023).

- 25. Power of Authority to make regulations.**—(1) The Authority may, by notification in the Official Gazette, make regulations not inconsistent with the provisions of this Act and the rules made thereunder to carry out the purposes of this Act.
- (2) In particular, and without prejudice to the generality of the foregoing powers, such regulations may provide for all or any of the following matters, namely:—
- (a) the times and places of the meetings of the Authority and the rules of procedure to be observed in regard to the transaction of business at its meetings (including quorum thereat) under sub-section (1) of section 7;
 - (b) the terms and conditions of appointment of the officers and other employees under sub-section (1) section 9;
 - (c) the terms and conditions of appointment of adviser or consultant under sub-section (2) of section 9;
 - (d) for the construction and operation of coastal aquaculture¹[units] within the coastal areas under clause (a) of sub-section (1) of section 11;
 - (e) the form and conditions of registration under clause (c) of sub-section (3) of section 13;
 - (f) generally for better regulation of the coastal aquaculture.
- 26. Rules and regulations to be laid before Parliament.**—Every rule and every regulation made under this Act shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the rule or regulation or both Houses agree that the rule or regulation should not be made, the rule or regulation shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule or regulation.
- 27. Validation.**—²[(1) Notwithstanding anything contained in clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) or clause (d) of sub-rule (3) of rule 5 of the Environment (Protection)

1. Subs. by Act 27 of 2023, s. 15, for “farms” (w.e.f. 12-9-2023).

2. Sub. by s. 16(a), *ibid.*, for sub-section (1) (w.e.f. 12-9-2023).

Rules, 1986, in the Coastal Regulation Zone Notification or the Island Coastal Regulation Zone Notification issued by the Government of India in the Ministry of Environment, Forest and Climate Change, in exercise of the powers conferred under the said Environment (Protection) Act, in the paragraph dealing with prohibited activities, after the last sub-paragraph, the following proviso shall be inserted and shall always be deemed to have been inserted with effect from the 19th day of February, 1991, namely:—

“*Provided* that nothing contained in this paragraph shall apply to coastal aquaculture.”]

- (2) The said notification shall have and shall be deemed always to have effect for all purposes as if the foregoing provisions of this section had been in force at all material times and accordingly notwithstanding anything contained in any judgment, decree or order of any court, tribunal or other authority, no coastal aquaculture carried on or undertaken or purporting to have been carried on or undertaken shall be deemed to be in contravention of the said notification and shall be deemed to be and to have always been for all purposes in accordance with law, as if the foregoing provisions of this section had been in force at all material times and notwithstanding anything as aforesaid and without prejudice to the generality of the foregoing provisions, no suit or other proceeding shall be maintained or continued in any court for the enforcement of any direction given by any court of any decree or order directing the removal or closure of any coastal aquaculture^{1***} activity or demolition of any structure connected thereunder which would not have been so required to be removed, closed or demolished if the foregoing provisions of this section had been in force at all material times.

²[28. Validation of certain provisions and amendments retrospectively.—

(1) Where a coastal aquaculture and activities connected therewith has been granted registration under this Act, then, notwithstanding anything contained in clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986), or clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 or in any other law for the time being in force:—

- (i) such registration granted under this Act shall prevail and remain valid;

1. The word “farm’s” omitted by Act 27 of 2023, s. 16(b) (w.e.f. 12-9-2023).

2. Ins. by s. 17, *ibid.* (w.e.f. 12-9-2023).

- (ii) such coastal aquaculture and activities connected therewith shall be a permitted activity under the Coastal Regulation Zone Notification or the Island Coastal Regulation Zone Notification issued under the Environment (Protection) Act, 1986 (29 of 1986);
 - (iii) all registrations granted for coastal aquaculture and activities connected therewith under this Act shall be valid permissions under the applicable rules, regulations and notifications notified under the Environment (Protection) Act, 1986 (29 of 1986) from time to time.
- (2) The provisions of sub-section (1), and the provisions of sub-section (8) of section 13 as amended retrospectively with effect from the 16th December, 2005 by the Coastal Aquaculture Authority (Amendment) Act, 2023, shall have and shall be deemed always to have effect for all purposes as if they had been in force at all material times, and accordingly,—
- (i) notwithstanding anything contained in any judgment, decree or order of any court, tribunal or other authority, any action taken or anything done or purported to have been taken or done in accordance with the said provisions shall be deemed to be, and always to have been, for all purposes, as validly and effectively taken or done as if the said provisions had been in force at all material times;
 - (ii) no suit or other proceeding shall be instituted, maintained or continued in any court for any action taken or anything done or omitted to be done in accordance with the said provisions; and
 - (iii) no enforcement shall be made by any court of any decree or order or direction relating to removal or closure of any coastal aquaculture activity or demolition of any structure connected therewith or relating to any action taken or done or omitted to be done in accordance with the said provisions as if the provisions of sub-section (1), and the amendments made in sub-section (8) of section 13 had been in force at all material times.]

**THE COASTAL AQUACULTURE
AUTHORITY RULES, 2024
(Amended in 2024)**

THE COASTAL AQUACULTURE AUTHORITY RULES, 2024
(Amended in 2024)

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**THE COASTAL AQUACULTURE AUTHORITY
RULES, 2024 (Amended in 2024)**

Dated : 8th Janaury, 2024

G.S.R 33(E).– In exercise of the powers conferred by section 24 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005) and in supersession of the Coastal Aquaculture Authority Rules, 2005 except as respects things done or omitted to be done before such supersession, the Central Government hereby makes the following rules, namely:–

1. Short title and commencement. – (1) These rules may be called the Coastal Aquaculture Authority Rules, 2024

(2) They shall come into force from the date of their publication in the Official Gazette.

2. Definitions. – (1) In these rules, unless the context otherwise requires, —

- (a) “Act” means the Coastal Aquaculture Authority Act, 2005 (24 of 2005);
- (b) “Authority” means the Coastal Aquaculture Authority established under sub-section (1) of section 4 of the Act;
- (c) “biosecurity measures” means all biosecurity measures and programmes including physical, chemical and biological measures necessary to protect the coastal aquaculture units and stocks from the ingress and consequences of all diseases that represent a high risk;
- (d) “biosecurity audit” means an audit to examine, the types of biosecurity measures, their relevance, execution and effectiveness in securing such coastal aquaculture units and stocks from the ingress of any disease;
- (e) “Chairperson” means the Chairperson of the Authority;
- (f) “farm” means a coastal aquaculture unit where culturing of fish, including crustacean, mollusc, finfish, seaweed or any other aquatic life is done under controlled conditions in ponds, pens, cages, rafts, enclosures or otherwise, in saline or brackish water in coastal areas and includes nursery rearing, but does not include freshwater aquaculture;
- (g) “fee” means any fee stipulated in these rules;
- (h) “Form” means a Form appended to these rules;
- (i) “Guidelines” means any of the Guidelines referred to in rule 3;

- (j) “Hatchery” means a coastal aquaculture unit carrying on coastal aquaculture activity of breeding and seed production of fish, including crustacean, mollusc, finfish, seaweed or any other aquatic life, in saline or brackish water and includes rearing of Nauplii and Live Feed, but does not include freshwater aquaculture;
- (k) “high health stock” means any fish stocks including crustacean, mollusc, finfish, or any other aquatic species that are raised in bio secure facilities, following bio secure management measures, fed with bio secure feeds and has the established history of freedom from specific pathogens for a continuous period of at least six months;
- (l) “live feed” means the live invertebrates, micro algae and such other organisms either cultured or captured from wild and used alive as the feed for different stages of any fish, including crustacean, mollusc, finfish, or any other aquatic species;
- (m) “nursery” means a coastal aquaculture unit either indoor or outdoor, intended to rear the larval forms of any fish, including crustacean, mollusc, finfish, seaweed or any other aquatic life, to a juvenile to transfer to the farm where the juveniles are grown to a commercial size;
- (n) “member” means member of the Authority appointed under sub-section (3) of section 4 of the Act and includes the Chairperson;
- (o) “regulations” mean the regulations made by the Authority under section 25 of the Act;
- (p) “Schedule” means any of the Schedule appended to these rules;
- (q) “Specific Pathogen Free” means any fish stocks including crustacean, mollusc, finfish, or any other aquatic species and any bio secured coastal aquaculture unit, following bio secure management measures, using bio secure feeds and has the established history of freedom from specific pathogens for a continuous period of at least two years;
- (r) “specific pathogen tolerant” means the any fish stocks including crustacean, mollusc, finfish, or any other aquatic species tolerant to a specific disease such that the stock can be infected but may not develop the disease or it may develop it to a lesser extent;
- (s) “specific pathogen resistant” means a qualitative trait of any fish stocks including crustacean, mollusc, finfish, or any other aquatic species having resistant to infection by a specific pathogen.

- (t) “notification” means a notification published in the Official Gazette.
- (2) The Words and expressions used herein and not defined but defined in the Coastal Aquaculture Authority Act, 2005 (24 of 2005) or the Environment Protection Act, 1986 (29 of 1986) shall have the meanings respectively assigned to them in those Acts.
- 3. Guidelines.** – For the purposes of ensuring that coastal aquaculture does not cause any detriment to the coastal environment and to protect the livelihood of various sections of the people living in the coastal areas, all coastal aquaculture units and activities shall comply with the following Guidelines to be issued in compliance with section 3 of the Act, namely: –
- (a) Guidelines for regulating coastal aquaculture;
 - (b) Guidelines for regulating hatcheries and farms for seed production and culture of Specific Pathogen Free *Litopenaeus vannamei*;
 - (c) Guidelines for seed production and culture of Specific Pathogen Free *Penaeus monodon*;
 - (d) Guidelines for the health monitoring, disease surveillance and Specific Pathogen Free certification of coastal aquaculture units and stocks in India;
 - (e) Guidelines for certificate of compliance for aquaculture inputs;
 - (f) Guidelines for the establishment and operation of Nucleus Breeding Centres and Broodstock Multiplication Centres in India;
 - (g) Guidelines for solid waste management in coastal aquaculture units or activities;
 - ¹[(h) Guidelines for regulating hatcheries and farms for seed production and culture of crab;
 - (i) Guidelines for regulating hatcheries and farms for seed production and culture of marine finfishes;
 - (j) Guidelines for regulating hatcheries and farms for seed production and culture of indigenous shrimp species in marine and brackish water;
 - (k) Guidelines for regulating hatcheries and rearing units for marine/brackish water ornamental organisms;

1. Inserted by G.S.R. 750(E) dated 4th December, 2024

- (l) Guidelines for regulating seaweed seedling production and farming in marine and brackish water;
- (m) Guidelines for regulating cage and pen culture of marine/brackish water aquaculture species;
- (n) Guidelines for regulating live feed culture units and management in coastal aquaculture;
- (o) Guidelines for regulating Bio-floc, Recirculatory Aquaculture Systems (RAS), and Nursery-based Aqua Farming Systems;
- (p) Guidelines for notifying the aqua zones and aqua mapping;
- (q) Guidelines for regulating seed production and farming of bivalves in marine and brackish water;
- (r) Guidelines for assessment of cost for the damage to environment and cost of demolition and utilization of environment monitoring fund.]

4. Terms and conditions of service of Chairperson and members. — (1) The Chairperson shall be entitled to such salary and allowances and such conditions of service in respect of leave, pension, and other matters as admissible to a Secretary to the Government of India.

(2) The Secretary of the Authority shall be an officer not below the rank of a Joint Secretary to Government of India to be appointed on deputation basis by the Central Government through Central Staffing Scheme of the Government of India, initially for a term of three years, which may be extended for one more term of three years, or till he attains the age of superannuation, whichever is earlier.

(3) The members appointed under clauses (b), (c), (d), (e), (f), (fa) and (g) of sub-section (3) of section 4 of the Act shall be part-time members and shall not be entitled for any salary and allowances under these rules:

Provided that non-official members shall be entitled to sitting fees as well as Travelling Allowance, Dearness Allowance, etc. as may be fixed by the Central Government from time to time.

(4) A member appointed under clauses (b), (c), (d), (e), (f), (fa) and (g) of sub-section (3) of section 4 of the Act shall cease to be a member if such member ceases to hold the office by virtue of which he was appointed.

(5) The Chairperson may resign his office by giving notice in writing to the Central Government and upon such resignation being accepted by the Central Government, the Chairperson shall be deemed to have vacated his office.

- (6) A member may resign his office by a letter addressed to the Chairperson.
- (7) The office of a member shall fall vacant from the date on which the resignation of such member is accepted by the Central Government or on expiry of thirty days from the date of the receipt of the resignation by the Chairperson, whichever is earlier.
- (8) The Central Government may remove any member who becomes subject to any of the disqualifications specified in section 5 of the Act.
- (9) The Central Government may also remove any member if he, without the approval of the Chairperson, fails to attend three consecutive meetings of the Authority.
- (10) A member of the Authority nominated by the Central Government under sub-section (3A) of section 4 of the Act, shall exercise the power of the Chairperson relating to—
 - (i) deciding the date and place of Authority meetings;
 - (ii) calling meetings of the Authority;
 - (iii) approving the agenda for such meetings;
 - (iv) inviting special invitees to the meetings of the Authority;
 - (v) presiding over meetings, and;
 - (vi) such other powers and functions as may be assigned to him by the Central Government.
- (11) The Secretary shall function as the Chief Executive Officer of the Authority and shall be responsible for the implementation of the work programs and decisions arrived by the Authority or by the committees set up by it and discharge the duties imposed on him under these rules.
- (12) The Secretary shall, in consultation with the Chairperson, fix the date, time, place and also draw up agenda for every meeting.
- (13) The Secretary shall have powers of general superintendence over the functioning of the Authority, which shall include, -
 - (a) to grant leave to the officers and staff of the Authority;
 - (b) to exercise administrative control over all divisions and officers of the Authority;
 - (c) to call for documents and record and to inspect or cause to be inspected, the accounts and places of storage or of business as required under these rules;

- (d) to sanction expenditure for contingencies, supplies and services and purchase of articles required for the functioning of the office of the Authority;
 - (e) cause all important papers and matters to be presented to the Authority as early as practicable; and
 - (f) issue directions as to the method of carrying out the decisions of the Authority.
- (14) The Secretary shall ensure timely conduct of meetings of the District, Sub-Divisional Level or such other committees, as per the timeline specified in the regulations, for the speedy and timely disposal of matters related to the implementation of the Act and these rules.
- (15) The Secretary shall oversee the functioning of authorised officers and adjudicating officers under the Act for the speedy and timely disposal of matters related to the implementation of the Act on the field.
5. **Functions of Authority.** – The Authority shall perform the following other functions in addition to the functions specified under section 11 of the Act, namely.—
- (i) to ensure that the agricultural lands, mangroves, wet lands, forest lands, land for village common purposes and the land meant for public purposes and national parks and sanctuaries shall not be converted for construction of coastal aquaculture farms so as to protect the livelihood of coastal community;
 - (ii) to deal with any issues pertaining to coastal aquaculture including those which may be referred to it by the Central Government;
 - (iii) to survey the entire coastal area of the country and advise the Central Government and the State Governments to formulate suitable strategies for achieving eco-friendly coastal aquaculture development;
 - (iv) may develop a nationwide aquaculture mapping and zonation, including the following, namely:–
 - (a) use of high resolution geographic information system maps, integrated with land surveys, sub-divisions, boundaries and land ownership merged with the land use map and regulatory requirements under the law;
 - (b) identify and locate the potential areas, based on multiple parameters including the water source such as sea front, estuary, river, creek, backwater, the type of land through the multicriteria decision support system that are validated by the field surveys;

- (c) define broad zones suitable for different type of aquaculture and other allied activities or species or stocking density or in combination of all in such zones to deter and abate any environmental hazard;
- (v) to advise and assist the States to take steps for containment of infection and disease management through development of Aquaculture Management Areas with enhanced traceability;
- (vi) to take steps for the grant of auto registration for the coastal aquaculture units located in the potential zones identified through aquaculture maps;
- (vii) to advise and extend support to the State Governments to construct common infrastructure such as common water intake and discharge canals by the coastal aquaculture farms and common effluent treatment systems for achieving eco-friendly and sustainable development of coastal aquaculture;
- (viii) to fix or adopt standards, certify, monitor, regulate or prohibit coastal aquaculture inputs such as seed, feed, growth supplements including probiotics, therapeutants and such other inputs used in coastal aquaculture for the maintenance of the water bodies and the organisms reared therein and other aquatic life for the prevention, control and abatement of any detriment to the coastal aquaculture or coastal environment as may be specified in the Guidelines for certificate of compliance for aquaculture inputs referred to in clause (e) of rule 3;
- (ix) to carry out and sponsor investigations and studies or schemes relating to environment protection and demonstration of eco-friendly technologies in coastal aquaculture;
- (x) to collect and disseminate data and other scientific and socio-economic information in respect of matters related to coastal aquaculture;
- (xi) to prepare manuals, codes and audio-visual material relating to sustainable development of coastal aquaculture and activities relating thereto;
- (xii) to organise through media and other means of communication a comprehensive programme regarding sustainable utilisation and fair and equitable sharing of the coastal resources for aquaculture purpose;
- (xiii) to plan and organise training of personnel engaged or likely to be engaged in sustainable utilisation of the coastal resources for aquaculture purposes;

- (xiv) to constitute various technical committees, sub-committees, working groups, sub-groups that may comprise of the members and officers of the Authority, scientists and officers of the national research institutes or State Governments, public representatives or representatives of the civil society or coastal aquaculture association or local body or farmer producer organisations for preparation of technical manuals, code of conduct, etc.;
- (xv) to direct the owners or operators of the coastal aquaculture units to carry out such modifications to minimise the impacts on coastal environment including stocking density and the use of aquaculture inputs certified by the Authority;
- (xvi) to order seasonal closure of the coastal aquaculture units for the sustainability of the coastal aquaculture practices, maintaining environmental sustainability and protection of livelihoods or for any other reasons considered necessary in the interest of coastal environment;
- (xvii) to make recommendations to the Government for amending the Guidelines from time to time taking into account the changes in technology, farming practices, etc, and incorporating modifications, as may be necessary, in such Guidelines, to ensure environmental protection and the livelihoods of the coastal communities;
- (xviii) to safeguard the coastal aquaculture and the environment from the impact of diseases and pests, through risk analysis, risk mitigation measures, inspection and implementation of mitigation response arrangements;
- (xix) to formulate requirements for the health monitoring, disease surveillance and certification of coastal aquaculture units and stocks as Specific Pathogen Free by ensuring freedom from diseases as specified in the Guidelines for health monitoring, disease surveillance and Specific Pathogen Free certification of coastal aquaculture units and stocks in India referred to in clause (d) of rule 3.

6. Powers and functions of one man Authority.— (1) The one man authority to be appointed under sub- section (2) of section 11 of the Act shall exercise the powers of a District Magistrate with regard to the compensation as may be settled between the workers and the management.

- (2) While settling the compensation to be paid to the workers, factors such as the likely loss of income for the workers, the alternate employment opportunities for them and the paying capacity of the employer may be taken into account.
 - (3) For the purposes of ensuring that the amount of compensation settled is paid to the workers, the one man authority shall exercise the powers of the Collector and District Magistrate under the land revenue laws of the respective States.
7. **Power to enter on any coastal aquaculture unit.** – (1) The person authorised by the Authority shall have the powers to take one or more persons including police personnel to carry out the functions mentioned in this rule.
- (2) The powers of a person authorised by the Authority to enter on any coastal aquaculture unit shall be subject to the following conditions, namely: -
 - (i) the Authority's decisions to make any inspection, survey, measurement, valuation or inquiry as well as removal or demolition of any structure shall be intimated to the owner of the coastal aquaculture unit or his representative at least twenty-four hours in advance in writing and delivered to him by registered post or by messenger and such notice shall also be pasted at a prominent place in the premise of the coastal aquaculture unit:
Provided that if the owner refuses to accept the notice, such pasting shall be deemed to be due service of the notice on him:

Provided further that the requirement of notice may be waived by the Authority in such cases and for such reasons to be recorded in writing, as it deems fit:
 - (ii) the activities mentioned in section 12 of the Act shall be carried out in the presence of the owner or his representative if he desires to do so and such owner may also be permitted to bring his own staff (not more than two) to assist in the inspection, survey, measurement, valuation or inquiry;
 - (ii) the removal or demolition of any structure shall be carried out under a panchanama and wherever possible a representative of the local body may be included in the team and his signature recorded in the panchanama:

Provided that the owner shall be liable to pay the cost of demolition and cost of damage to the environment, if any, assessed in such manner as may be specified in the Guidelines;

- (iv) the persons authorised by the Authority to perform the functions mentioned under clauses (a) and (b) of section 12 of the Act shall do so only during the daytime before sunset;
- (v) the persons authorised by the Authority to perform the functions under clause (a) of section 12 of the Act shall endeavour that such functions are carried out without causing any damage to the civil structures, equipment, machinery or the standing crop.

8. Other functions to be performed by an authorised person.— Any person authorised by the Authority shall,—

- (i) take samples of water, soil, aquaculture input and the farmed animal for the purpose of detection of banned antibiotics, chemicals and other pharmacologically active compounds adopting appropriate procedures for collection, analysis, reporting and follow up action;
- (ii) subject to the provisions of rule 7, remove or demolish any coastal aquaculture unit or any structure therein causing pollution that has been ordered by the Authority to be removed or demolished under clause (d) of sub-section (1) of section 11 of the Act;
- (iii) drain the water from the coastal aquaculture unit or destroy the standing crop therein, causing pollution that has been ordered by the Authority to be so destroyed;
- (iv) authorise or recognise laboratories to carry out analysis of soil, water, aquaculture inputs, farmed animals or other farmed aquatic life for the purpose of health monitoring and disease surveillance; detection of banned antibiotics, chemicals and other pharmacologically active substances or such other material.

9. Registration and fees. — (1) Every application for registration of any coastal aquaculture unit or coastal aquaculture activity under section 13 of the Act shall be made in Form-I or Form-II, specific to each coastal aquaculture unit or activity specified in Schedule-II, to be obtained from the office of the Member Convener of Sub Divisional Level Committee or District Level Committee, or from the office of the Authority or downloaded from the website of the Authority.

- (2) The application for the registration of any coastal aquaculture unit or activity in the case of .—
 - (a) sea weed culture, cage culture, raft culture, pen culture, Recirculatory Aquaculture System, Bio-floc, nurseries, etc., and traditional coastal aquaculture farms irrespective of their size, shall be made in Form-I, by the owner or operator thereof to the Sub- Divisional Level Committee or directly to the District Level Committees (in the absence of a Sub-Division in a particular District) where the coastal aquaculture unit is located.
 - (b) Hatchery, Nauplii Rearing Hatchery, Live Feed Unit, Nucleus Breeding Centre and Broodstock Multiplication Centre shall be made in Form-II, by the owner or operator thereof directly to the Authority.
- (3) The Authority may, in the public interest, make provision for on-line filing of an application for registration.
- (4) Every application for registration of a coastal aquaculture unit or activity shall be accompanied with-
 - (a) a fee as specified in Schedule-I; and
 - (b) the documents as specified in Schedule-II.
- (5) The fees for registration shall be payable in the form of a Demand Draft or electronically through online mode in favour of the Member Convener of the Sub-Divisional Level Committee or District Level Committees in the absence of a Sub-Division in a particular District or in favour of the Coastal Aquaculture Authority.
- (6) In case of any defect in the application, the Member Convener of the Sub-Divisional Level Committee concerned shall within seven days of receipt of application, inform the applicant in writing, to rectify the defect within fifteen days from the date of receipt of such information:

Provided that if the applicant fails to rectify the defect within such period, the application for registration shall be deemed to have been rejected.
- (7) The Sub-Divisional Level Committee or District Level Committees in the absence of a Sub-Division in a particular District may, if satisfied that the application for registration complies with the requirements, recommend the same for registration in the manner provided in rule 10.

- (8) Where the application for registration is refused, the reasons for such refusal shall be recorded in writing and a copy of the order of refusal shall be furnished to the applicant.
- (9) On receipt of the application from the Sub-Divisional Level Committee or the Divisional Level Committee, as the case may be, the Authority or any officer authorised by the Authority may require the applicant to furnish within a such period as may be specified by it, such additional information as he may consider necessary for the purpose of registration or renewal and every such applicant shall be bound to furnish such information within the specified period.
- (10) The Authority may, upon satisfaction, grant registration or by order, refuse registration or renewal thereof, if the applicant fails to furnish the required information or furnishes incorrect information and a copy of the order together with reasons for such refusal shall be communicated to the applicant.
- (11) The grant of registration or refusal thereof shall be made within a period of sixty days from the date of receipt of application by the Authority:
Provided that the time limit for processing the application by the Sub-Divisional Level Committee, the District level committee and the Authority, shall be as specified in the regulations.
- (12) Any person aggrieved by an order of refusal under this rule may, within thirty days from the date of receipt by him of a copy of the order of refusal, appeal to the Chairperson who may either affirm, vary or set aside such order.

10. Manner of considering application for registration of certain coastal aquaculture units or activities. — (1) On receipt of an application for registration under sub-rule (2) of rule 9, the Sub-Divisional Level Committee or the District Level Committee (in the absence of a Sub-Division in a particular District) shall scrutinise the application including documents furnished therewith in respect of the coastal aquaculture units irrespective of their size and process them as follows, namely:—

- (a) in the case of coastal aquaculture farms up to 2.0 hectare water spread area, sea weed culture, cage culture, raft culture, pen culture, Recirculatory Aquaculture System, Bio-floc, nurseries etc., and traditional coastal aquaculture farms irrespective of their size, Sub-Divisional Level Committee upon satisfaction of the information furnished therein, shall recommend the application directly to the Authority for consideration of registration,-

- (b) in the case of coastal aquaculture farms above 2.0 hectare of water spread area and upto 5.0 hectare of water spread area, the Sub-Divisional Level Committee shall recommend the application directly to the Authority for consideration of registration only after making such inquiry including inspection as it thinks fit, to satisfy itself that the registration of such farm shall not be detrimental to the coastal environment;
 - (c) in the case of coastal aquaculture farms above 5.0 ha of water spread area, the Sub- Divisional Level Committee shall recommend the application to the District Level Committee for consideration of registration, —
 - (i) after making such inquiry including inspection as it thinks fit, to satisfy itself that the registration of such farm shall not be detrimental to the coastal environment;
 - (ii) after making further inquiries to ascertain that the coastal aquaculture farm conforms to the stipulations laid down in the Guidelines for regulating coastal aquaculture referred to in clauses (a),(b) and (c) of rule 3.
- (2) On receipt of an application under clause (c) of sub-rule (1), the District Level Committee, upon satisfaction, shall further recommend the application to the Authority for consideration of registration.
- (3) For the purposes of this rule, the compositions of the Sub-Divisional Level and the District Level Committees shall be as under, namely:—
- (A) Sub-Divisional Level Committee:
- (a) Revenue Divisional Officer or Sub-Collector of a sub-division -Chairperson, ex officio;
 - (b) Tahsildar or Mandal Revenue officer within the sub-division - Member, ex officio;
 - (c) Sub-divisional Agriculture Officer or equivalent- Member, ex officio;
 - (d) Assistant Conservator of Forest or equivalent - Member, ex officio;
 - (e) Sub-divisional officer of Irrigation or Water Resources- Member, ex officio;
 - (f) Block Development Officer- Member, ex officio;
 - (g) Assistant Director of Fisheries in the district or equivalent - Member Convener, ex officio.

- (B) District Level Committee:
- (a) District Collector or Deputy Commissioner of the District or Additional Collector or Joint Collector or Additional Deputy Commissioner-Chairperson, ex officio;
 - (b) Revenue Divisional Officer or Sub-Collector of sub-division- Member, ex officio;
 - (c) Chief Executive Officer of Zila parishad or equivalent-Member, ex officio;
 - (d) District Head of Agriculture- Member, ex officio;
 - (e) Divisional Forest Officer or equivalent- Member, ex officio;
 - (f) District Head of Irrigation or Water Resources- Member, ex officio;
 - (g) Representative from Marine Products Export Development Authority- Member, ex officio;
 - (h) any other Government Official in the District to be co-opted by the Collector or Deputy Commissioner of the District- Member, ex officio;
 - (i) District Head of Fisheries- Member Convener, ex officio.
- (4) Any recommendations under this rule by the District Level Committee or the Sub- Divisional Committee, as the case may be, shall be made by a quorum consisting of two thirds of the members including the Chairperson and the Member Convener, at its meeting for making such recommendation

11 Manner of considering application for registration of coastal aquaculture Hatchery, Nauplii Rearing Hatchery, Live Feed Unit, Broodstock Multiplication Centre and Nucleus Breeding Centre.—

- (1) No person shall establish Hatchery or Nauplii Rearing Hatchery or Live Feed Unit or Broodstock Multiplication Centre or a Nucleus Breeding Centre without obtaining prior permission, by making an application with relevant documents, in the case of,—
- (a) Hatchery or Nauplii Rearing Hatchery or Live Feed Unit in Form-II, to the Authority; and
 - (b) Broodstock Multiplication Centre or a Nucleus Breeding Centre, in the Form specified in the Guidelines for establishment and operation of Nucleus Breeding Centres and Broodstock

Multiplication Centres in India referred to in clause (f) of rule 3, to the Central Government.

- (2) On receipt of such application for prior permission under sub-rule (1), the Authority or the Central Government, as the case may be, shall verify the particulars given in the application along with documents attached therewith and process the application in such manner as may be specified in the Guidelines referred to in clauses (a), (b), (c) and (f) of rule 3.
- (3) The Authority or the Central Government shall issue a prior permission for the construction of Hatchery, Nauplii Rearing Hatchery or Live Feed Unit, Broodstock Multiplication Centre or Nucleus Breeding Centre on being satisfied that the application complies with the Guidelines referred to in clauses (a), (b), (c) and (f), of rule 3;
- (4) Upon receipt of the prior permission under the sub-rule (3), the owner or operator of the facility shall construct the Hatchery, Nauplii Rearing Hatchery or Live Feed Unit or Nucleus Breeding Centre or Broodstock Multiplication Centre, in accordance with the biosecurity measures specified in the Guidelines referred to in clauses (a), (b), (c) and (f) of rule 3 and shall intimate the completion of construction to the Authority for inspection of the unit, along with an application in Form-II for registration.
- (5) Upon such intimation, the Technical and Inspection Committee constituted for such purpose shall inspect the coastal aquaculture units or activities and furnish the report with its specific recommendations to the Authority within three weeks of such intimation.
- (6) The deficiencies or shortfalls, if any, observed and communicated by the Technical and Inspection Committee, shall be rectified by the owner or operator and the compliance of the same shall be communicated to the Authority.
- (7) On receipt of compliance report under sub-rule (5) or sub-rule (6), the Authority shall grant the registration within a period of sixty days from the date of receipt of the application by the Authority and order of any refusal shall be communicated to the applicant duly furnishing the reasons therefor.
- (8) Any owner or operator aggrieved by an order of refusal under sub-rule (7) may, within thirty days from the date of receipt of such order of refusal, prefer appeal to the Chairperson in writing, who may either affirm, vary or set aside such order of refusal.

- 12. Form for certificate of registration.** — (1) The Authority may grant the certificate of registration including through electronic means,—
- (a) in Form-IV, in the case of coastal aquaculture unit or activity referred to in clause (a) of sub-rule (2) of rule 9; and
 - (b) in Form- V, in the case of coastal aquaculture unit or activity referred to in clause (b) of sub-rule (2) of rule 9.
- (2) The certificate of registration granted under these rules shall be valid for five years from the date of such registration and shall be renewed for similar period with the same registration number in accordance with the procedure laid down in rule 13 and subject to such terms and conditions as may be specified in the certificate.
- (3) In case of coastal aquaculture units established on the lands allotted or assigned by the Government, the validity of registration of coastal aquaculture unit shall be co terminus with the period for which the land has been allotted or assigned or reallocated or reassigned by the Government:
- Provided* that the cumulative validity of such registration shall not exceed five years and no separate application for extension of validity of registration shall be required under this sub-rule within such period of five years for which the land has been reallocated or reassigned.
- (4) The coastal aquaculture units registered by the Authority shall have the right to access and draw the quality saline water or seawater from the nearest source and to discharge the treated effluent by laying pipeline without causing any damage to the coastal environment in compliance with the procedures as may be specified in the Guidelines
- 13. Renewal of registration.** — (1) Every application for renewal of registration of a coastal aquaculture unit or activity shall be made by the owner or operator thereof, before ninety days from the date of expiry of its period of validity, to the Authority in Form-I, or Form-II, specified in Schedule-II, along with the documents establishing the ownership and operational status of the coastal aquaculture unit or activity.
- (2) The Authority on being satisfied with the application under sub-rule (1), shall renew the registration for a further period of five years.
 - (3) In case of delay in making application for renewal of registration within the period specified in sub- rule (1), the application for renewal

of registration of the coastal aquaculture unit or activity shall be accompanied with a request for condoning the delay, specifying the reasons for the delay and shall be accompanied by such additional fee, which shall be two times the applicable fee for renewal of registration for the period from the date of expiry of such registration.

- (4) The Authority, if satisfied that the delay was due to sufficient cause, may condone the delay in making application for renewal within the specified time, subject to payment of fees specified in sub-rule (3):

Provided that all the registration of whose validity has expired as on the date of publication of this notification in the Official Gazette, may be condoned on payment of such fees as the Authority deems fit, if an application for condonation of the delay is made within one year from the date of such publication.

- (5) The Authority may undertake any inquiries including inspections, as deems fit, to conform the claims made in the application under these rules by itself or through Sub-Divisional Level Committee or District Level Committee and the owner or operator of coastal aquaculture unit shall be liable for any acts of omission or commission under these rules, the Act, the regulations or the Guidelines.
- (6) The fees payable for renewal of registration shall be the same as specified in Schedule-I for registration of a coastal aquaculture unit or activity and shall be paid to the Authority in the form of a Demand Draft or electronically through online mode.
- (7) The time limit for consideration of renewal of registration shall be as specified in the regulations.
- (8) Where the Authority is satisfied that further continuation of the said coastal aquaculture unit or activity is harmful to the coastal environment, it shall refuse to renew the registration thereof:

Provided that the Authority shall, before such refusal for renewal of the registration, give the concerned owner or operator, an opportunity for being heard and a copy of the order together with the reasons for the refusal shall be communicated to such owner or operator.

- (9) Any owner or operator aggrieved by an order of refusal of renewal may, within thirty days from the date of receipt by him of a copy of the order of refusal, appeal to the Chairperson who may affirm, vary or set aside such order.

- 14. Issuance of duplicate certificate of registration of coastal aquaculture unit or certificate of compliance for aquaculture inputs.** — (1) Any loss or mutilation of the certificate of registration of a coastal aquaculture unit or activity or a certificate of compliance for aquaculture inputs shall be reported forthwith, by the owner or operator, to the police authority concerned.
- (2) The application for grant of a duplicate certificate of registration of coastal aquaculture unit or certificate of compliance for aquaculture inputs shall be accompanied with a fee of five hundred rupees to be paid electronically or in the form of a Demand Draft drawn in favour of the Coastal Aquaculture Authority along with a non-traceable certificate issued by the police authority concerned or a self-declaration in the case of damaged certificate.
- (3) The Authority shall issue a duplicate certificate of registration of the coastal aquaculture unit or a duplicate certificate of compliance for aquaculture inputs, as the case may be, ordinarily within fifteen days from the date of receipt of such application after duly verifying the facts and documentary evidence, if any, and satisfying itself as to the genuineness of the application.
- 15. Cancellation of registration.** — (1) Where the Authority is satisfied that any person has obtained a certificate of registration under sub-rule (1) of rule 12 by furnishing false information or in contravention of any of the provisions of these rules or of the conditions mentioned in the certificate of registration, it shall, without any prejudice to any other action that may be taken against such person, cancel the certificate of registration of coastal aquaculture unit or activity:

Provided that before cancelling such certificate, the person concerned shall be given an opportunity of being heard and a copy of the order together with the reasons for the cancellation shall be communicated to the person concerned.

- (2) Any person aggrieved by an order of cancellation under this rule may, within thirty days from the date of receipt by him of a copy of the order of cancellation, appeal to the Chairperson who may either affirm, vary or set aside such order.

16. Transfer of ownership or interest therein of coastal aquaculture unit or activity. —

- (1) Every application for transfer of ownership or interest therein of coastal aquaculture unit by way of sale or by operation of law, shall be made with documentary evidence for substantiating the claim and accompanied with the fees as specified in Schedule-I.
- (2) The Authority shall, after making such enquiry as it deems fit, allow the transfer of ownership of coastal aquaculture unit for the remaining period of validity of registration ordinarily within a period of fifteen days from the date of receipt of such application:
Provided that the Authority may, by order, refuse an application for transfer of ownership or interest therein of a coastal aquaculture unit if the applicant fails to furnish the information asked for or furnishes incorrect information and a copy of the order together with reasons for such refusal shall be communicated to the applicant.
- (3) Any owner or operator aggrieved by an order of refusal under sub-rule (2) may, within thirty days from the date of receipt of such order of refusal, prefer an appeal to the Chairperson in writing who may either affirm, vary or set aside such order of refusal.
- (4) If, during the period of validity of the registration, the owner or operator of a coastal aquaculture unit or activity desires to make any change in the certificate of registration, he shall apply to the Authority at least thirty days before the expiry of the period of validity of such registration and the Authority shall after making such enquiries, as it considers necessary, where it agrees to the change, cause the details of such change to be entered in the certificate of registration.

17. Manner of assessing cost of damage to environment. —

- (1) The Authority shall constitute a committee to be called the environmental monitoring committee consisting of such members as it deems fit, to assess the cost of damage to the environment and cost of demolition as may be specified in the Guidelines.
- (2) The operator or owner of such coastal aquaculture unit or activity shall be liable for payment of the assessed cost of damage to coastal environment, including the cost of demolition of such unit, into the account of the Authority.
- (3) The receipts of amount shall be maintained by the Authority and be utilised for the purposes as may be specified in the Guidelines.

- 18. Standards and certification of aquaculture inputs** - (1) The Authority shall constitute expert committees consisting of independent scientific experts including representatives from stake holders as it deems appropriate, who shall recommend —
- (a) new standards of product or labelling;
 - (b) standards of product or labelling developed by any other competent authority or institution, for different categories of aquaculture inputs for adoption; and
 - (c) for prohibition of such pharmacologically active substance, antimicrobial agent or other material, the use of which in coastal aquaculture may cause harm to human health, based on the best scientific evidences available to it, including the following, namely: -
 - (i) Chloramphenicol;
 - (ii) Nitrofurans including: Furaladone, Furazolidone, Furfurylformamide, Nifuratel, Nifuroxime, Nifurprazine, Nitrofurantoin, Nitrofurazone;
 - (iii) Neomycin;
 - (iv) Nalidixic acid;
 - (v) Sulphamethoxazole;
 - (vi) Aristolochiaspp and preparations thereof;
 - (vii) Chloroform;
 - (viii) Chlorpromazine;
 - (ix) Colchicine;
 - (x) Dapsone;
 - (xi) Dimetridazole;
 - (xii) Metronidazole;
 - (xiii) Ronidazole;
 - (xiv) Ipronidazole;
 - (xv) Other nitroimidazoles;
 - (xvi) Clenbuterol;
 - (xvii) Diethylstilbestrol (DES);
 - (xviii) Sulfonamide drugs (except approved Sulfadimethoxine; Sulfabromomethazine and Sulfaethoxypridazine);
 - (xix) Fluroquinolones;
 - (xx) Glycopeptides.

- (2) On the acceptance of the recommendation of such expert committee, the Authority shall, from time to time , -
 - (a) specify the standards developed or adopted for different categories of aquaculture inputs;
 - (b) by an order, prohibit such pharmacologically active substance, antimicrobial agent or other material for use in any coastal aquaculture;
 - (c) undertake such other measures as may be recommended by the expert committees for confirming the standards and freedom from pharmacologically active substances, antimicrobial agents and other prohibited substances;
 - (d) provide adequate publicity to the standards for different categories of inputs and share the list of such pharmacologically active substance, antimicrobial agent or other material that are prohibited for use in any coastal aquaculture activity with all the stakeholders concerned.
- (3) No aquaculture inputs shall be made available or used in coastal aquaculture without the certification from the Authority, except those specifically exempted by the Authority, as may be specified in the Guidelines for certificate of compliance for aquaculture input referred to in clause (e) of rule 3.
- (4) Every application for certificate of compliance of an aquaculture input shall be in Form-III, accompanied with such documents as specified in Schedule-III, and with a fee of ten thousand rupees per product to be paid electronically or in the form of a Demand Draft drawn in favor of the Coastal Aquaculture Authority.
- (5) The Authority shall scrutinise the application including the documents furnished therewith to conform that the aquaculture input complies with the standards and is free from the pharmacologically active substances, antimicrobial agents and other prohibited substances, as specified in the Guidelines for certificate of compliance for aquaculture input referred to in clause (e) of rule 3.
- (6) Where the Authority is satisfied that the aquaculture input conforms to the standards, the Authority may grant the certificate of compliance through electronic means in Form-VI.

- (7) The grant of certification or refusal, as the case may be, shall be made within a period of ninety days from the date of receipt of application for certification.
- (8) The certificate of compliance granted under the sub - rule (6) shall be valid for a period of five years from the date of grant of such certificate of compliance.
- (9) Every application for the renewal of validity of certificate of compliance of an aquaculture input shall be in Form-III, accompanied with such documents specified in Schedule-III and fee as specified in sub-rule 4.
- (10) The certificate of compliance of an aquaculture input granted under sub-rule (6) shall be renewed by the Authority for a similar period in accordance with the procedures specified in the Guidelines for certificate of compliance for aquaculture input referred to in clause (e) of rule 3.
- (11) The Authority shall monitor the compliance of aquaculture inputs in the manner specified in the Guidelines for certificate of compliance for aquaculture input referred to in clause (e) of rule 3.

19. Health monitoring, disease surveillance and Specific Pathogen Free certification. — (1) The Specific Pathogen Free certification shall be mandatory for —

- (a) all Broodstock Multiplication Centres, Nucleus Breeding Centres, Live Feed Units for Artemia and Polychaete worms and the stocks therein; and
 - (b) any other coastal aquaculture unit or stock as the Central Government may, by an order, specify from time to time.
- (2) The Authority may recommend the need for Specific Pathogen Free certification for any coastal aquaculture units and stocks.
- (3) The Central Government may, from time to time, specify —
- (a) the competent authority for effective implementation of health monitoring, disease surveillance and Specific Pathogen Free certification;
 - (b) the list of referral laboratories;
 - (c) the pathogens of concern or any other matter connected therewith, for species-specific coastal aquaculture unit in consultation with the Technical Advisory Committee constituted for the purpose.

- (4) The Central Government may grant —
 - (a) accreditation of Specific Pathogen Free status to any coastal aquaculture unit or stock; and
 - (b) authorisation to sell the stocks as High Health or Specific Pathogen Free stock.
 - (5) The process of health monitoring, disease surveillance, chain of custody sampling and testing to conform the freedom from diseases or pathogens and the manner of certification shall be as specified in the Guidelines for health monitoring, disease surveillance and Specific Pathogen Free certification of coastal aquaculture units and stocks in India, referred to in clause (d) of rule 3.
- 20. The form and time for preparation of budget.** — (1) The Authority shall, in each financial year, prepare a budget for the Authority for the next financial year and submit it for sanction to the Central Government on or before such dates as may be appointed by the Central Government.
- (2) No expenditure shall be incurred until the budget is sanctioned by the Central Government and the sanction for that expenditure by the competent authorities is received.
 - (3) The budget shall be prepared containing the following or as may be directed by the Central Government, indicating, -
 - (a) the estimated opening balance;
 - (b) the estimated receipts referred to in sub-section (1) of section 17 of the Act;
 - (c) the estimated expenditure classified under the following broad heads or such other heads as per the schemes approved by the Central Government, namely: -
 - (i) administration;
 - (ii) development;
 - (iii) statistics;
 - (iv) inspection or works;
 - (v) financial and other assistance / subsidy scheme;
 - (vi) others.

- (4) Wherever applicable, full details shall be given under various sub-heads for each broad head specified in sub-rule (3), indicating estimated expenditure including that of pay of officers, expenses of establishment, allowance, honoraria, contingencies, and the like.
- (5) Supplementary estimates of expenditure, if any, shall be submitted for the sanction of the Central Government in such form and on such dates as may be directed by it in this behalf.

21. The form and time for preparation and submission of annual report.—

(1) The Chairperson or such employee of the Authority as may be authorised in this behalf, shall prepare, as soon as may be after the commencement of each financial year, an annual report which shall include an account of the activities of the Authority during the previous financial year, containing the following information, namely: —

- (a) a statement of corporate and operational goals and objectives of the Authority;
- (b) annual targets and physical and financial terms set for various activities together with a brief review of the actual performance with reference to those targets;
- (c) an administrative report on the activities of the Authority during the previous financial year and an account of the activities which are likely to be taken up during the next financial year;
- (d) a summary of the actual financial results during the previous financial year and year of report;
- (e) important changes in policy and specific measures either taken or proposed to be taken, which have influenced or are likely to influence the profitability or functioning of the Authority;
- (f) new projects or expansion schemes contemplated, together with their advantages, financial implications and programme for execution;
- (g) important changes in the organisational set up of the Authority;
- (h) report on employer-employee relations and welfare activities of the Authority; and
- (i) report on such other miscellaneous subjects as may be deemed fit by the Authority or the Central Government, for reporting to the latter.

- (2) The annual report shall be placed for adoption in the meeting of the Authority and shall be signed by the Chairperson or in his absence by two members authorised for the purpose by the Chairperson and authenticated by fixing the common seal of the Authority and required copies thereof shall be submitted to the Central Government by the 31st day of December of the following year.
- 22. Form and manner of maintaining accounts of Authority.** — (1) The Authority shall maintain accounts of all receipts and expenditure relating to every financial year.
- (2) A separate bank account shall be maintained for the registration fee.
- (3) The expenditure incurred in a particular financial year shall be shown under separate heads and sub-heads
- (4) The opening balance, if any, shall also be stated as such, separately.
- (5) The closing balance of the year shall be shown at the foot of the accounts on the expenditure side.
- (6) The books of accounts and other books in relation to the accounts will be maintained in the form as laid down in the various General Financial Rules, the Central Treasury Rules and the Receipts and Payment Rules, in force from time to time.
- (7) Except as otherwise provided in these rules, the provisions of the Central Treasury Rules, the Delegation of Financial Power Rules, 1978 and the General Financial Rules, 2017 of the Central Government, for the time being in force, shall subject to such modifications or adaptations as may be made by the Authority therein with the previous approval of the Central Government, apply to all financial transactions of the Authority.

Schedule-I

[See rules 9 (3)(a), 13(6) and 16(1)]

Fee for registration/renewal/transfer of ownership or interest therein of coastal aquaculture units or activities

S.No	Coastal aquaculture unit or activity	Fee
		Registration / renewal/ transfer of ownership or interest therein
1	Farm	
	Up to 5.0 hectare water spread area	Two hundred rupees (or fraction of a hectare), subject to a minimum of five hundred rupees
	Above 5 hectare up to 10 hectare water spread area	One thousand rupees plus five hundred rupees per hectare (or fraction of a hectare) in excess of 5 hectares.
	Above 10 hectare water spread area	Three thousand five hundred rupees plus One thousand rupees per hectare (or fraction and above of a hectare) in excess of 10 hectares.
2	Hatchery, Nauplii Rearing Hatchery, Live Feed Unit	Registration fee of ten thousand rupees
		Monitoring fee of fifty thousand rupees and Performance guarantee as may be specified by the Authority.
3	Broodstock Multiplication Centre or Nucleus Breeding Centre	Registration fee of twenty thousand rupees
		Monitoring fee for freedom from disease and Performance guarantee as may be specified by the Authority.
4	Sea weed culture	Rupees one hundred per registration
5	Pen culture, raft culture and cage culture etc.	Two rupees per cubic meter subject to minimum of Two hundred rupees
6	Recirculatory Aquaculture System and Bio- floc systems in indoor or outdoor cement cisterns	Ten rupees per cubic meter subject to minimum of five hundred rupees

Schedule-II

[See rules 9(1), (3)(b) and 13(1)]

Application Forms and documents for registration/renewal of coastal aquaculture unit or activities

Sl.No	Farm, seaweed culture, pen culture, raft culture, cage culture, Recirculatory Aquaculture System and Bio-floc	Hatchery, Nauplii Rearing Hatchery, Live Feed Unit, Broodstock Multiplication Centre and Nucleus Breeding Centre
(1)	(2)	(3)
1	Duly filled in application in Form-I	Duly filled in Form-II
2	Applicable registration fee proof of electronic payments including Unique Transaction Reference Number	Applicable registration fee proof of electronic payments including Unique Transaction Reference Number.
3	Copy of the registered sale deed / lease deed of the site / proof of Government assigned /allotment document/ in local language and the translated English version with self-attestation	Copy of the registered sale deed / lease deed of the site / proof of Government assigned /allotment document/ in local language and the translated English version with self-attestation
4	Partnership deed, if applicable	Partnership deed, if applicable
5	Company/Firm registration certificate (if applicable)	Company /firm registration certificate. If leased, copy of the registered lease agreement
6	Copy of Field Measurement Book sketch of the site	Copy of Field Measurement Book sketch of the site.
7	Layout of the farm (Duly depicting the layout of Effluent Treatment Plant for farms with water spread area more than 5 hectares and also for farming of exotic species with stocking density of above 20 Number. Post Larvae per meter ² irrespective of the extent of water spread area)	Declaration in Part A of Form-II on fifty rupees non judicial stamp paper
8	Blueprint for the construction approved by the competent authority if any and if applicable	Blueprint for the construction approved by the competent authority

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9	Environment Impact Assessment report (Mandatory for farms / mariculture units above 10 hectare water spread area)	Layout of the Hatchery or Nauplii Rearing Hatchery or Broodstock Multiplication Centre or Nucleus Breeding Centre along with drainage system.
10	Environment Management Plan report (Mandatory for farms/ mariculture units above 40 hectare water spread area)	Water quality test report from the water source.
11	No Objection Certificate from local administration	No Objection Certificate from local administration
12	Project report, if applicable	Certified audited financial statement of the firm for the last three years (if applicable)
13	Any other document (please specify)	Terms and conditions of agreement with the Indian firms
14		Copy of the Memorandum of Understanding /agreement indicating a firm commitment for the supply of Specific Pathogen Free shrimp Broodstock or Parent Post-larvae as per the requirement
15	-	Certificate of freedom from disease issued by Competent Authority for the facility for at least for a continuous period of two years
16	-	Diagnostic reports of the facility of the overseas supplier during the recent surveillance from a Government authorised or World Organisation for Animal Health referral laboratory

Schedule-III

[See rules 18(4) and (9)]

Application Form and documents for certificate of compliance for aquaculture inputs / renewal

Sl.No	Form and documents
(1)	(2)
1	Duly filled application for each product separately in Form-III
2	Applicable processing fee in the form of a Demand Draft
3	Details of applicant company such as certificate of incorporation, Goods and Services Tax certificate, micro, small or medium enterprises, etc.
4	Copy of the agreement between applicant company and merchant manufacturer (if applicable) (for Indian manufactured product only)
5	Details of manufacturing facility (License to work a factory/ Good Manufacturing Practice or Best Aquaculture Practices or Hazard Analysis and Critical Control Point System or International Organisation for Standardisation certificate of registration, etc.) (applicable for both Indian manufactured product and imported product)
6	Process certification for imported product (Good Manufacturing Practice or Best Aquaculture Practices or Hazard Analysis and Critical Control Point System or International Organisation for Standardisation or any other certificate)
7	Original label, in accordance with the Guidelines for certificate of compliance for aquaculture inputs referred to in clause (e) of rule 3
8	Manufacturing Process (Detailed) and testing process for quality control
9	Original laboratory report (NOT earlier than a month) from National Accreditation Board for Testing and Calibration Laboratories accredited laboratory for the parameters as specified in the Guidelines for certificate of compliance for aquaculture inputs referred to in clause (e) of rule 3
10	Undertaking for sample retention and reimbursing the cost of samples collected by the task force in the format specified in the Guidelines for certificate of compliance for aquaculture inputs referred to in clause (e) of rule 3
11	Notarised self-declaration in the format specified in the Guidelines for certificate of compliance for aquaculture inputs referred to in clause (e) of rule 3
12	Notarised agreement between applicant company and overseas principal manufacturer (for imported products only)
13	Health certificate / sanitary certificate/ veterinary certificate or any other certification indicating antibiotic- free status issued by the country of origin
14	Tamper proof mechanism if any available (with detailed description and illustration)
15	List of records maintained in the unit

FORM-I

[See rules 9(1), (2)(a) and 13 (1)]

Application for registration/renewal of coastal aquaculture unit or activity referred to in clause (a) of sub-rule (2) of rule 9

1	Applicant details	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> Passport size photo </div>	
	(a) Name of the applicant(s)/ registered company/ establishment (in BLOCK LETTERS)		
	(b) Permanent Address		
	(c) Address for Communication		
	(d) Mobile number		
	(e) Email ID		
	(f) Aadhar number		
2.	Details of coastal aquaculture unit/activity: farms; nursery; seaweed culture; pen culture; raft culture; cage culture; Recirculatory Aquaculture System ; Bio-floc systems for which registration is applied for: please specify		
	(a) State		
	(b) District		
	(c) Taluk / mandal		
	(d) Revenue village		
	(e) Survey Number(s)		
	(f) Geo coordinates (mandatory for mariculture units)	Latitude	Longitude
(g) Ownership right (whether freehold or lease hold or Government assigned / allotted land/ coastal public water bodies) please furnish details			

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	(h) Validity period of lease hold / Government assigned / allotted land/coastal water bodies	From	To	
3.	Type of culture for which registration is applied for			
	(a) Farm with earthen Ponds			
	(b) Pens			
	(c) Cages			
	(d) Rafts			
	(e) Enclosures			
	(f) Others (specify)			
4.	Details of the coastal aquaculture unit/activity: farms; nursery; seaweed culture; pen culture; raft culture; cage culture; Recirculatory Aquaculture System ; Bio-floc systems			
	(a) Newly constructed	Yes / No		
	(b) Already existing / operating	Yes / No		
	(c) If , already existing/operating, details of the following:			
	(i) Date of commencement of operations			
	(ii) If previously registered by Coastal Aquaculture Authority, registration number and expiry date			
	(d) Total area	Number	Unit area	Total area
	(1) coastal aquaculture unit: farms; nursery; Recirculatory Aquaculture System ; Bio-floc systems (hectare)			
	(2) seaweed culture: pen culture; raft culture; cage culture; Mariculture units (meter ² / meter ³)			
	(e) Water Spread Area	Number	Water spread area per unit	Total water spread area
	(1) coastal aquaculture unit: farms; nursery; Recirculatory Aquaculture System; Bio-floc systems (hectare)			
	(2) seaweed culture: pen culture; raft culture; cage culture; Mariculture units (meter ² / meter ³)			

5.	If the whole or a part of the above coastal aquaculture unit(s) falls under any one of the following categories, please furnish details			
	Category	Village	Survey Number	Extent (in hectare)
	(a) Agricultural land			
	(b) Forests land			
	(c) Land for village common purpose			
	(d) Land meant for public purpose			
	(e) Wetland			
	(f) Mangrove			
6.	Water source for the aquaculture unit			
	(a) Sea	Yes / No		
	(b) Creek/estuary/ canal/ back water	Yes / No		
	(c) If water source is as mentioned in (b) above, indicate the name of the source			
7.	Distances of the unit site from the following			
	(a) High tide line			
	(b) Nearest drinking water source			
	(c) Agricultural land			
	(d) Mangrove			
	(e) Marine protected area			
	(f) Adjacent aquaculture farm			
	(g) Human settlements (Indicate the population of the settlement)			
	(h) National parks			
	(i) Sanctuaries			
	(j) Reserve forests			
	(k) Breeding, spawning grounds and other aquatic life			
	(l) Beaches			
	(m) Coral reefs			
(n) Heritage area				

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8.	Species and stocking density	Species	Stocking density (Numbers per meter ² / meter ³)
	(a) Crustacean		
	(b) Mollusc		
	(c) Finfish		
	(d) Seaweed		
	(e) Any other		
9.	Details of bio-security arrangements		
	(a) Crab fencing		
	(b) Bird fencing		
	(c) Hand wash / foot bath		
	(d) Reservoirs		
	(e) Filters		
10	Furnish Project Report giving details with sketch (to scale) of design and layout of the aquaculture farm in operation/ proposed along with operational details, water intake and wastewater treatment facility		
11	If Effluent Treatment System has been in operation/ proposed, please furnish layout, design and technical details		
12	Whether Environment Impact Assessment/ Environment Management Plan were carried out on the environment of the aquaculture farm with reference to other land uses in its neighbourhood and based on operational details of the unit as furnished in the project report, please state specifically, whether–		
	(a) the aquaculture activity has the effect of causing water logging of adjacent areas or polluting the drinking water source		
	(b) by use of supplementary feeds/ medicines / drugs, etc. will consequently increase sedimentation which will be harmful to the environment		

	(c) such activity would cause siltation, turbidity with detrimental implication on local fauna and flora	
13.	If, Environment Impact Assessment has been done, please attach the report (Mandatory for coastal aquaculture unit /mariculture units above 10 hectare water spread area)	
14.	If Environment Management Plan has been drawn up, please furnish details (Mandatory for coastal aquaculture unit /mariculture units above 40hectare water spread area)	
15.	Details of remittance of processing fee	

Declaration

I/ We _____ son
 (s) / daughter (s) / wife of _____
 _____ residing at _____

_____ hereby declare that the information furnished above is true to the best of my/our knowledge and belief. The coastal aquaculture unit /mariculture operations carried out by me/ us had not neither polluted the environment nor damaged the ecology of the adjacent area. I am / we are fully aware that if it is found that the information furnished by me / us is false or there is any kind of deviation / violation of the conditions on which certificate of registration may be issued by the Authority, the certificate of registration issued may be either suspended or cancelled and liable for penal action under Coastal Aquaculture Authority Act or the rules, regulations and guidelines made thereunder.

Place:

Date:

Signature of the applicant or applicants

FORM-II

[See rules 9(1), (2)(b), 11 (1)(a), (4) and 13 (1)]

Application for registration/renewal of coastal aquaculture unit or activity referred to in clause (b) of sub-rule (2) (b) of rule 9

1	Name of the applicant (in BLOCK LETTERS)		Passport size photo
2	The application made for registration of	Nucleus Breeding Centre	Yes/No
		Broodstock Multiplication Centre	Yes/No
		Hatchery	Yes/No
		Nauplii Rearing Hatchery	Yes/No
		Live Feed (Artemia or Polychaete)	Yes/No
3	Whether applying for prior permission/ fresh registration / renewal of registration		
4	If applied for renewal of registration, furnish the following details of such registration:		
	(a) Coastal Aquaculture Authority registration number		
	(b) Date of registration		
	(c) Validity period	From _____ To _____	
5	Details of prior permission for construction		
6	Name of the coastal aquaculture unit		
7	Address of the coastal aquaculture unit along with PIN code		
8	Contact details		
	(a) Communication address		
	(b) Mobile number		
	(c) E mail ID		

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9	Details of Board of Directors and Managing Director with copy of Memorandum of Association / Memorandum of Article			
10	Certified audited financial statement of the firm for the last three years (if applicable)			
11	The application made for registration of	Nucleus Breeding Centre		Yes / No
		Broodstock Multiplication Centre		Yes/No
12	Type of the operation (Hatchery or Nauplii Rearing Hatchery or Broodstock Multiplication Centre or Nucleus Breeding Centre)	Parent Post larvae	Post larvae	Broodstock
13	Species to be produced (Specify only one species)			
	(a) Specific Pathogen Free <i>Penaeus monodon</i>	Yes / No		
	(b) Specific Pathogen Free <i>Litopenaeus vannamei</i>	Yes / No		
	(c) Scampi (Specify species name)			
	(d) Marine finfish (Specify species name)			
	(e) Crab (Specify species name)			
	(f) Others (Specify species name)			
14	Ownership rights of the Hatchery or Nauplii Rearing Hatchery or Broodstock Multiplication Centre or Nucleus Breeding Centre (Government /society/public limited/ private/proprietary/partnership)			
15	Location of the Hatchery or Nauplii Rearing Hatchery or Broodstock Multiplication Centre or Nucleus Breeding Centre			
	(a) State			
	(b) District			
	(c) Taluk or mandal			
	(d) Revenue village			
	(e) Survey number			
	(f) Geo coordinates	Latitude	Longitude	

16	Total extent of the Hatchery or Nauplii Rearing Hatchery or Broodstock Multiplication Centre or Nucleus Breeding Centre site (in m ²)	
17	Distance from High Tide Line (in metres)	
18	Whether owned or leased (enclose supporting documents)	
19	If on lease, specify the lease period and also attach copy of the registered lease deed.	
20	Infrastructure available (as applicable)	
	Facilities	Capacity
	A. Seawater intake system:	
	(i) Seawater required/day (ii) Number and capacity of the pump (iii) Filtration system and number of pressure sand filter installed (State number of low sand filter, Rapid sand filter and cartridge filters) (iv) UltraViolet sterilisation (Number of lamps with total amps) (v) Number of storage tanks (vi) Capacity of each storage tank (vii) Number of chlorination tanks and capacity (viii) Number of sedimentation tanks and capacity	
	B. Freshwater intake system	
(i) Pumps : (i) High Density Polyethylene cement overhead tank		
C. Maturation / spawning		
(i) Number of maturation tanks (ii) Capacity of each tank (iii) Number of spawning /hatching tanks (whether cement or Fiber Reinforced Plastics, if so, details) (iv) Capacity of each tank		

<p>D. Larval rearing (ii) Number of larval rearing tanks (ii) Number and capacity of early larval rearing tanks (iii) Number and capacity post-larval rearing tanks</p>	
<p>E. Grow out (i) Number of maturation tanks (ii) Capacity of each tank (iii) Number of spawning / hatching tanks (whether cement or Fiber Reinforced Plastics, if so, details) (iv) Capacity of each tank</p>	
<p>F. Live Feed culture facilities (i) Number and capacity of Indoor algal culture tanks (Fiber Reinforced Plastics) (ii) Number and capacity of outdoor tanks (iii) Number and capacity of artemia hatching tanks (Fiber Reinforced Plastics)</p>	
<p>G. Feed / storage facility</p>	
<p>H. Common facilities (i) Number and capacity (in Kilovolt amperes) of generators (ii) Number and capacity (in Horsepower) of air blower / compressor (iii) Staff quarters (iv) Office buildings</p>	
<p>I. Hatchery laboratory (i) Water analysis laboratory (ii) Microbiology laboratory (iii) Polymerase Chain Reaction laboratory (iv) Deep freezer (v) Incinerator (vi) Other laboratory facilities</p>	

21	Source of Specific Pathogen Free shrimp post larvae for Broodstock Multiplication Centre or Broodstock for Nucleus Breeding Centre:	
	(i) Name of the overseas Specific Pathogen Free facility	
	(ii) Address of the overseas Specific Pathogen Free facility (including email ID)	
	(iii) Details of the Indian representative of the overseas supplier with mobile number and email ID	
	(iv) Details of the firm	
	(v) Country of registration	
	(vi) Location of the facility	
	(vii) Terms and conditions of agreement with the Indian firms (copy to be enclosed)	
	(viii) Details of extent of commercial supply of Specific Pathogen Free Parent Post Larvae or Broodstock	
	(ix) Details of any other multiplication centre operated in any other country	
	(x) Reproductive performance of Specific Pathogen Free Broodstock of the firm in terms of size at maturity, Latency period for maturation, Fecundity, number of spawning per female, hatching rate and Survival rate from nauplii to Post Larvae	
	(xi) Performance of Post Larvae derived from Specific Pathogen Free Broodstock of the firm in commercial culture for growth and disease	
(xii) The performance of the Parent Post Larvae derived from Specific Pathogen Free Broodstock of the firm supplied to Broodstock Multiplication Centre (including survival rate, growth and disease-free status)		

	(xiii) attach separate sheets with complete details	
	(xiv) Copy of the Memorandum of Understating/agreement indicating a firm commitment for the supply of Specific Pathogen Free Shrimp Broodstock or Parent Post Larvae as per the requirement is to be enclosed.	
22	Detailed infrastructure and personnel of overseas Specific Pathogen Free facility	
	(i) Lay-out plan of the Specific Pathogen Free facility (attach diagram with explanation)	
	(ii) Water treatment and supply	
	(iii) Rearing facilities	
	(iv) Laboratory facilities	
	(v) Biosecurity (disinfection protocol, shower room, fencing, etc.)	
	(vi) Number of technical staff and details of their expertise (Attach bio-data)	
	(vii) Financial status of last three years along with audited statement	
23	Disease surveillance at the Specific Pathogen Free facility	
	(i) List of pathogens excluded in the facility	
	(ii) Methodology followed for the diagnosis (or diagnostic protocols followed)	
	(iii) Certificate (issued by Government) of disease free nature of the facility for the last two years to be enclosed Frequency of surveillance	
	(iv) Details of the diagnostic reports during the recent surveillance from a Government authorized or World Organisation for Animal Health referral laboratory	

24	Details of Selective Breeding Programme
(i) Source of founder population (Number of geographic location/number of Specific Pathogen Free facilities sourced)	
(ii) Genetic divergence of the population (Number of families from each location /each Specific Pathogen Free facility).	
(iii) Frequency of introduction of further families in to founder population	
(iv) Type of selection programme followed	
(v) Number of lines and number of families maintained	
(vi) Number of generations raised	
(vii) Minimum effective population size over the generations	
(viii) Traits considered for selection	
(ix) Genetic gain over the generations	
(x) Name and brief bio-data of the geneticist involved in drafting the breeding plan.	
(xi) Breeding plan indicating the specific details to avoid inbreeding	
25	Details of Indian Broodstock Multiplication Centre facility
(i) Annual capacity proposed (Number of Broodstock (In numbers) or Parent Post Larvae (in million) per annum)	
(ii) Requirements of Specific Pathogen Free broodstock (In numbers) or Parent Post Larvae (in million) and the frequency of import per annum	
(iii) Number of months / years of rearing proposed	

	(iv) Survival anticipated during rearing from Parent Post Larvae to broodstock/generating the broodstock	
26	Infrastructure facilities proposed	
	(i) Land area	
	(ii) Location	
	(iii) Whether any existing facility is being remodeled as Broodstock Multiplication Centre or Nucleus Breeding Centre? If so, indicate its prior use and the present condition	
	(iv) Distance between the nearest Hatchery/farm	
	(v) Lay-out plan of the posed facility indicating the quarantine, water intake and treatment; rearing tanks under closed conditions, biosecurity features, Effluent Treatment System, etc., indicate the capacity and number of tanks (attach diagram with explanation)	
	(vi) Details of the diagnostic laboratory facility	
	(vii) Brief cost estimates and source of funding	
	(viii) Technical staff proposed to be involved in the operation of Broodstock Multiplication Centre or Nucleus Breeding Centre and their brief bio-data indicating their area of expertise	
	(ix) List of pathogens proposed to be tested in the Broodstock Multiplication Centre or Nucleus Breeding Centre and the surveillance protocol to be followed	
	(x) Sampling details	
	(xi) Frequency of sampling and testing	
(xii) Any other particulars / details		

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27	Species produced at present, if any in the Hatchery or Nauplii Rearing Hatchery or Broodstock Multiplication Centre or Nucleus Breeding Centre	
28	Installed capacity and utilisation (million / annum)	
29	Statement of anticipated annual production indicating production (million)	
	(a) Shrimp/scampi	Nauplii
	(b) Marine finfish	Fry
		Fingerlings
	(c) Crab	Instars
		Crablets
30	Whether the following Bio-security arrangements are available in the Hatchery (i) Peripheral Fencing (ii) Physical separation of the sections (iii) Shower and Change room (iv) Vehicle dip (v) Foot bath (vi) Hand wash	
31	Give details of the Effluent Treatment System in the Hatchery complex (Number of tanks with capacity in metric ton)	
32	Details of qualified technical staff employed, their names and qualifications with contact details.	
33	Details of fees paid	Amount : Demand Draft number and date : Bank:

Declaration

I / Weson (s) /daughter(s) /
wife of.....
residing at

..... hereby declare that the information furnished above is true to the best of my/our knowledge and belief. I am/ we are fully aware that if it is found that the information furnished by me/us is false or there is any kind of deviation/ violation of the conditions on which certificate of registration may be issued by the Authority, the certificate of registration issued may be either suspended or cancelled and liable for penal action under Coastal Aquaculture Authority Act or the rules, regulations and guidelines made thereunder.

Place:

Date: Signature of the applicant or applicants

PART-A

Declaration to be furnished by the owner of the Hatchery, Nauplii Rearing Hatchery, Live Feed Unit, Nucleus Breeding Centre and Broodstock Multiplication Centre along with Form-II

(to be signed on fifty rupees non-judicial stamp paper)

1 I/We..... aged son (s) of...
..... and owner (s) of the million
per annum installed capacity shrimp seed Hatchery located
at..... Revenue village,.....Mandal /Taluk,.....
District of (State) hereby declare that I/We have
read and understood the norms for approval of coastal aquaculture hatchery
or Nauplii Rearing Hatchery or Live Feed Unit or Broodstock Multiplication
Centre or Nucleus Breeding Centre for bio-security and seed production of
_____ (species name) and agree to abide by the conditions
laid down in Guidelines referred to in clauses (b), (c) and (f) of rule 3.

2. I/We declare that I/We have already set up/provided the physical facilities specified in the Guidelines and that I/We shall continue to provide such facilities, failing which the registration granted to me may be cancelled and liable for penal action under Coastal Aquaculture Authority Act and the rules, regulations and Guidelines made thereunder .
3. I/We hereby declare that I/We shall follow the the specific Guidelines and safeguards required for Hatchery or Nauplii Rearing Hatchery or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre for raising/producing.....(species name).
4. I/We undertake to produce in my/our Hatchery or Nauplii Rearing Hatchery or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre only seed following the specifications laid down, failing which I/We agree to the cancellation of the registration and liable for penal action under Coastal Aquaculture Authority Act and the rules, regulations and Guidelines made thereunder .
5. I/We also undertake to carryout improvements, additions, alterations or up-gradation suggested by Coastal Aquaculture Authority, failing which I/We understand that the Coastal Aquaculture Authority can cancel the registration.
6. I/We also agree to abide by any instruction that may be issued by the Coastal Aquaculture Authority from time to time regarding the operation of the Hatchery or Nauplii Rearing Hatchery or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre, failing which I/We understand that the Coastal Aquaculture Authority can cancel the registration.
7. I/We also agree to inspection of the Hatchery or Nauplii Rearing Hatchery or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre by any Designated officer(s) of Coastal Aquaculture Authority at anytime, without prior intimation.
8. I/We also agree to provide the production records, laboratory, analysis sheets, etc., to the Inspection team and shall submit regular reports as required by Coastal Aquaculture Authority.
9. I/We also agree to submit to Coastal Aquaculture Authority, any returns regarding production of seeds and supply to farmers and the running of the Hatchery or Nauplii Rearing Hatchery or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre and maintenance of any record as may be specified By Coastal Aquaculture Authority from time to time.

10. I/We also agree to issue a quality certificate to accompany the consignment of seed shipped from any establishment (self-certification) regarding the Specific Pathogen Free status of the seed.
11. I/We also agree to settle disputes if any on the quality of the seeds with farmers with due diligence.
12. I/We also agree to conform the environmental requirements as specified in the Guidelines referred to in clauses (a), (b), (c) and (f) of rule 3 and the regulations made in this behalf by the Coastal Aquaculture Authority from time to time.
13. I/We also agree to comply with any instructions/ conditions as may be from time to time issued by the Authority
14. I/We also agree to maintain the record of inputs used in the Hatchery or Nauplii Rearing Hatchery or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre like Broodstock, nauplii, feed, chemicals, probiotics, medicines and the harvest details such as production and name and address of the person to whom the produce is sold shall be maintained for every cycle and reported to the Authority.
15. I/We also agree not to use any pharmacologically active substances, antimicrobial agents or other material which may cause harm to human health as specified in the Guidelines referred to in clause (e) of rule 3.
16. I/We agree to deposit a performance bank guarantee as specified by the Authority, towards the registration of the Hatchery or Nauplii Rearing Hatchery or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre.
17. I/We agree to sell the seed only to the farmers registered with the Coastal Aquaculture Authority (on production of a copy of the Registration Certificate issued by Coastal Aquaculture Authority) and permitted (copy of the permission letter issued by Coastal Aquaculture Authority) to culture such species.

Place:

Signature with address and seal

Date:

FORM-III

[See rules 18(4) and (9)]

**APPLICATION FOR CERTIFICATE OF COMPLIANCE FOR
AQUACULTURE INPUTS/RENEWAL**

I. Applicant details		Passport size photo
1. Name of the Applicant		
2. Applicant Designation		
(a) Managing Director (b) Director (c) Authorised Person (enclose authorisation letter)		
3. ID Proof of the applicant (a) Aadhar (b) Driving License (c) Voter Id (d) Passport (e) Any other(specify-text box)		
4. Whether applying for fresh compliance/ renewal for compliance		
5. If applied for renewal compliance, furnish the details, if any		
(a) Coastal Aquaculture Authority registration number		
(b) Date of registration		
(c) Validity period	From _____ To _____	
II. Details of the Firm/Company		
1. Name of the Registered company/firm		
(a)Individual		
(b) Corporate		
(c) Consortium		
(d) Others		
2. Contact details		

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(a) Mobile number	
(b) Email id	
3. Address of the company/firm	
4. Address for communication	
5. Category of the company/firm	
(a) Indian own manufacturer	
(b) Indian merchant manufacturer	
(c) Distributor of overseas product	
6. Whether registered with authorised agency of Government	Yes/No
If yes, any one of the following documents to be attached (a) Goods and Services Tax (b) Micro small & medium enterprises (c) Udyog Aadhar (d) Certificate of incorporation (e) Certificate of registration (f) Any others	
7. Do the firm / company possess any certification for the product (Applicable for both own and merchant manufacturer)	Yes/No
If yes, any one of the following documents to be attached (a) Department of factories (b) Good manufacturing practice (c) International Organization for Standardization (d) Best Aquaculture Practices (e) Hazard Analysis Critical Control Point (f) Any others	
8. For Indian own manufacturer/ Indian merchant manufacturer	
(a) Name of the Indian own manufacturer/ Indian merchant manufacturer	
(b) Address of the manufacturing unit	

(c) If applicant is Indian merchant manufacturer, please furnish copy of the agreement with manufacturing company/firm)	
9. For distributor of overseas product	
(a) Name of the overseas company/ firm	
(b) Address of the overseas manufacturer	
(c) Agreement between applicant and overseas manufacturer (supporting document to be attached)	Yes / No
(d) Health Certificate/ Sanitary Certificate/ Veterinary Certificate/ Any other Antibiotic Free Certificate	Yes / No
III. Details of the product	
1. Name of the Product (same as in the label and laboratory report)	
2. Product code (if any)	
3. Category of the product (a) Feed additive (b) Probiotic (c) Feed- larval (d) Feed -adult (e) Chemical (f) Disinfectant (g) Immuno stimulant (h) Drug (i) Mineral mixture (j) Others (specify)	
4. Manufacturing Process of the Product	
(a) Whether Quality Testing laboratory facility available	Yes/No

<p>(b) if yes, in-house laboratory facilities existing</p> <ul style="list-style-type: none"> (i) Water and soil analysis (ii) Microbiology (iii) Feed analysis (iv) Enzyme Linked Immuno Absorbant Assay (v) Polymerase Chain Reaction / Reverse Transcription Polymerase Chain Reaction (vi) Liquid Chromatographic Mass Spectrometric (vii) Gas chromatography/mass spectrometry (viii) Others 	
<p>(c) Outsource testing laboratory (text box-list of the parameters tested)</p> <ul style="list-style-type: none"> (i) Water and soil analysis (ii) Microbiology (iii) Feed analysis (iv) Enzyme Linked Immuno Absorbant Assay (v) Polymerase Chain Reaction / Reverse Transcription Polymerase Chain Reaction (vi) Liquid Chromatographic Mass Spectrometric (vii) Gas chromatography/mass spectrometry (viii) Others 	
<p>IV. Details of the antibiotic - free status of the product</p>	
<p>i. Name of the laboratory where sample analyzed</p>	
<p>ii. Address of the laboratory</p>	

iii. Accreditation of the laboratory a) National Accreditation Board for Testing and Calibration Laboratories b) Export Inspection Council c) Indian Council of Agricultural Research d) Other Government laboratory	
iv. Date of analysis of Antibiotic residue	
v. Result of the sample analysis for Antibiotic residue	
vi. Analysis Method	
a) Liquid Chromatographic Mass Spectrometric b) Any Other	
vii. Tamper Proof Mechanism	Yes/No

Declaration

I/We.....son(s) / daughter(s) / wife of
.....residing
at..... hereby declare that the information furnished above is true to the best of my/our knowledge and belief. I am/ We are fully aware that if the information furnished by me/us is false or there is any kind of deviation/violation of the conditions on which the certificate of compliance to be issued by the Authority, the certificate of compliance issued will be either suspended or cancelled besides imposing penalty as per the penal provisions under Coastal Aquaculture Authority Act or the rules, regulations and Guidelines made thereunder.

Place:

Date:

Signature of the applicant(s)

FORM-IV

[See rule 12(1)(a)]

Certificate of registration of coastal aquaculture unit or activity referred to in clause (a) of sub-rule (2) of rule 9

Reg. No. Date of registration:

The **coastal aquaculture unit** of Shri / Smt / M/s.

..... son/daughter/wife of.....

residing at

is registered by the Coastal Aquaculture Authority *vide* No.

dated

Details of the coastal aquaculture unit registered and technology to be followed

1. Type of coastal aquaculture unit :
(farms: nursery; seaweed culture; pen culture; raft culture; cage culture; Recirculatory Aquaculture System; Bio-floc systems)
2. Ownership right of the coastal aquaculture unit:
(Freehold/lease / Government assigned/allotted land)
3. Validity of Government assigned allotted :
4. Location of the coastal aquaculture unit:

State	District Taluk /	Mandal	Revenue Village
--------------	-------------------------	---------------	------------------------
5. Survey Number (s) :
6. Area of the farm (in hectare)
 - a) Total Farm Area :
 - b) Water Spread Area :
7. Species to be cultured :
8. Stocking density (per meter²/meter³):
9. Number of crop(s)/ year :
10. Validity period of registration: From _____ to _____

Place :

Signature of the Officer

Date :

Issuing the Certificate

(Seal of the Authority)

Conditions for registration of coastal aquaculture farm

1. This certificate of registration is granted subject to the provisions of the Coastal Aquaculture Authority Act, 2005, and the rules, regulations and Guidelines framed thereunder.
2. This certificate of registration is transferable by the Authority to the legal-heir or transferee of the farm for the remaining period of validity in case of freehold or own land.
3. Any change in the layout, design, area and stocking density or other matter shall have the approval of the Authority.
4. The environmental requirements shall conform to the Guidelines and the regulations issued in this behalf by the Coastal Aquaculture Authority from time to time.
5. The owner of the coastal aquaculture farm shall also comply with such other instructions/ conditions as may be from time to time issued by the Authority.
6. Record of inputs used in the farm like seed, feed, chemicals, probiotics, medicines and the harvest details such as production and name and address of the person to whom the produce is sold shall be maintained for every crop and reported to the Authority.
7. Pharmacologically active substances, antimicrobial agents or other material which may cause harm to human health as specified in rule 18 and the Guidelines referred to in clause (e) of rule 3 shall not be used in farming.

FORM-V

[See rule 12(1) (b)]

Certificate of registration of coastal aquaculture unit or activity referred to in clause (b) of sub-rule (2) of rule 9

Reg. No.

Date of issue:

The Coastal Aquaculture Authority has registered (name of the Hatchery or Nauplii Rearing Hatchery or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre) located at
..... vide Registration No.
dated for period of five financial years.

Details of the coastal aqua Hatchery registered and permitted candidate species

- 1) Type of facility :
(Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre)
- 2) Species permitted:
(Seed Production/Parent Post Larvae/Broodstock)
- 3) Location of the Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre
- 4) Details of the overseas supplier/Specific Pathogen Free facility for Specific Pathogen Free Parent Post larvae or broodstock
 - a) Name of the overseas supplier/Specific Pathogen Free facility: _____
 - b) Address of the overseas supplier/Specific Pathogen Free facility: _____

State District Taluk / Mandal Revenue Village

- 5) Survey Number (s) :
- 6) Capacity details (Number of tanks with water holding capacity)
 - a) Maturation Section : _____Number of tanks, _____Metric ton
 - b) Larval Section: _____ Number of tanks, _____Metric ton
 - c) Live feed section : _____Number of tanks, _____Metric ton
 - d) Effluent Treatment System: _____Number of tanks, _____Metric ton
- 7) Validity period of registration: From _____ to _____

Place :

Signature of the Officer

Date :

Issuing the Certificate

(Seal of the Authority)

Terms and conditions for registration of Hatchery, Nauplii Rearing Hatchery, Live Feed Unit, Broodstock Multiplication Centre and Nucleus Breeding Centre

1. This certificate of registration is granted subject to the provisions of the Coastal Aquaculture Authority Act, 2005 and the rules regulations and Guidelines made thereunder.
2. This certificate of registration is transferable by the Authority to the legal heir or transferee of the farm for the remaining period of validity in case of freehold/own land.
3. The Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre shall establish/maintain the required biosecurity facilities as specified in the Guidelines referred to in clauses (b), (c) (d) and (f) of rule 3.
4. The Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre shall be managed by a qualified Manager/Technician, who is the authorised representative of the Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre and shall be available in the Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre at all reasonable times particularly at the time of inspection by the inspection team of the Coastal Aquaculture Authority.
5. The authorised representative of the Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre shall cooperate with the inspection team of Coastal Aquaculture Authority in all respects at the time of inspection.
6. The authorised representative of the Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre shall be empowered to give statement and/ or any other information required by the inspection team of Coastal Aquaculture Authority at the time of inspection and the statement so given shall be deemed to be given by the Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre owner.
7. Refusal of the authorised representative of the Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre to give statement and/or any other particulars to the inspection team shall render the Hatchery or Nauplii Rearing Centre or

Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre to be deprived of the privilege given under this registration/Annual Allocation Order.

8. The Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre shall not allow any person or persons or other entity or authorities other than the employees of the Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre and the inspection team of the Coastal Aquaculture Authority shall have access to the Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre without the written permission or authorisation of the Coastal Aquaculture Authority for the specific purpose for which they are authorised.
9. The Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre operator shall not make any alterations or additions or up gradations and improvement and put into use the facilities of the Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre other than what has been indicated in the registration certificate, without the prior approval of Coastal Aquaculture Authority and any such alteration or up gradation and improvement carried out or usage of the same without approval of Coastal Aquaculture Authority would render the Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre liable to cancellation of its registration.
10. The Hatchery shall not stock broodstock in excess of the quantity allotted in the Annual Allocation Order of the relevant year.
11. The imported broodstock or procured from Broodstock Multiplication Centre shall be culled on the completion of six months from the date of the import or procurement with intimation to the Coastal Aquaculture Authority and any retention of broodstock beyond six months shall be considered as a major violation of Coastal Aquaculture Authority Guidelines.
12. The Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre shall maintain records pertaining to the number of broodstock, number of spawning, number of seed produced, inputs like feed, probiotics and incidence of disease occurrence, water quality parameters for intake and effluent discharge, records of sales, Coastal Aquaculture Authority registration number, address of farmers to whom sold, mortality, carcass disposal or any other

records specified by the Coastal Aquaculture Authority from time to time and report these in their quarterly compliance report to be submitted to the Coastal Aquaculture Authority as per the format specified in the Guidelines referred to in clauses (b), (c) and (f) of rule 3.

13. The Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre shall sell only certified Specific Pathogen Free seed to the farms registered with the Coastal Aquaculture Authority or with the State Government for fresh water farms.
14. The Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre shall not use any prohibited antibiotics or pharmacologically active substances specified in rule 18 and the Guidelines referred to in clause (e) of rule 3.
15. The wastewater discharged from the Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre shall conform to the standards for the Final Discharge Points specified in the Guidelines referred to in clause (a) of rule 3.
16. The Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre shall comply with the provisions of the Coastal Aquaculture Authority Act and the rules, regulations and Guidelines made thereunder as well as any additional conditions or safeguards that may be stipulated from time to time for the purpose of sustainable and responsible development of aquaculture.
17. Any violation of the above terms and conditions shall render the Hatchery or Nauplii Rearing Centre or Live Feed Unit or Broodstock Multiplication Centre or Nucleus Breeding Centre liable to cancellation of its registration / Annual Allocation Order, revoking of bank guarantee in addition to any penalty under the Coastal Aquaculture Authority Act and the rules, regulations and Guidelines made thereunder.
18. The registering Authority reserves the right to cancel the certificate whenever it comes to the knowledge of the Authority that the applicant has obtained the registration certificate by furnishing false information or documents or any misrepresentation or suppression of material facts.

FORM-VI

[See rule 18 (6)]

Certificate of compliance for aquaculture input

Certificate No.

Date of issue:

Certified that the following aquaculture input has complied with specified standards/ antibiotic-free status as per the documentary evidences furnished:

The details of the certified aquaculture input

1. Name of the input : _____
2. Product code : _____
3. Category of the input: _____
4. Name and Address of the company/firm: _____
5. Category of the company: _____
(Indian own manufacturer/ Indian merchant manufacturer/ distributor of overseas product)
6. Valid up to: _____

Place :

Authorised signatory

Date :

(Seal of the Authority)

Conditions for certificate of compliance for aquaculture inputs

1. This certificate of compliance is granted subject to the provisions of the Coastal Aquaculture Authority Act, 2005 and the rules, regulations and Guidelines made thereunder.
2. The certificate of compliance is not transferable.
3. This certificate of compliance is valid for the product certified only.
4. The certificate is valid for five years and can be renewed for a similar period, if complied with antibiotic- free status.

5. The certified aquaculture input shall conform to the regulations of the Coastal Aquaculture Authority and the Guidelines referred to in clause (e) of rule 3.
6. The certified aquaculture input shall not contain pharmacologically active substances, antimicrobial agents or other material which may cause harm to human health as specified in rule 18 and the Guidelines referred to in clause (e) of rule 3.
7. The Inspection Committee shall randomly inspect the storage or manufacturing facilities of the manufacturers or importers, as the case may be, for conforming the compliance without any prior notice.
8. Periodical random sampling of the product from the market shall be done by the taskforce or the designated officer of the Coastal Aquaculture Authority.
9. In case any pharmacologically active substances, antimicrobial agents or other material which may cause harm to human health is found in the product, the certificate of compliance shall be suspended or cancelled and delisted from the list of certified aquaculture inputs in addition to any penalty as may be imposed under section 14 of the Coastal Aquaculture Authority Act and the rules, regulations and Guidelines made thereunder.

CAA GUIDELINES FOR COASTAL AQUACULTURE

CAA GUIDELINES FOR COASTAL AQUACULTURE ARRANGEMENT OF GUIDELINES

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COASTAL AQUACULTURE

Dated: 20th March, 2024

S.O. 1496(E). —In pursuance of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (a) of rule 3 of the Coastal Aquaculture Authority Rules, 2024, and in supersession of the Guidelines for regulating coastal aquaculture, except as respects things done or omitted to be done before such supersession, the Central Government hereby notifies the following guidelines, namely: -

1. Short title and commencement. – (1) These guidelines may be called the Guidelines for regulating coastal aquaculture.

(2) They shall come into force from the date of their publication in the Official Gazette.

Guidelines for regulating coastal aquaculture

1. Introduction. – These guidelines are intended to ensure-

- (a) orderly and sustainable development of aquaculture in the country;
- (b) environmentally responsible and socially acceptable coastal aquaculture and to enhance the positive contributions that coastal aquaculture can make to socio-economic benefits, livelihood security and poverty alleviation in the coastal areas;
- (c) appropriate farm management and measures to reduce the environmental impact arising through effluent discharges from coastal aquaculture farm, treatment of such effluents and mitigation of the adverse impact of such effluents on the environment as well as resolution of social conflicts, which could lead to sustainable development of coastal aquaculture;
- (d) adoption of good management practices by farmers;
- (e) availability of guidance to all stakeholders involved, including coastal aquaculture farmers, the coastal community, State Fisheries Departments, Pollution Control Boards and the Ministries and Departments of the Governments of India and the States.

2. Site selection process. - (1) Site selection is an important process in aquaculture as this may decide the success or failure of any coastal aquaculture activity.

(2) Besides technological aspects including biological, physical and chemical aspects of aquaculture, the environmental and socio-economic aspects

covering social, economic and legal issues are important parameters to be considered while finalising the site for setting up coastal aquaculture unit.

- (3) There shall be no aquaculture activities including Nucleus Breeding Centers or the Broodstock Multiplication Centers within a radius of 1000 meters (one kilometer) from the site selected for the establishment of the farm.
- (4) Site selection process are to ensure that coastal aquaculture units are harmoniously integrated into the local environment and social settings.
- (5) Generally clayey loam soils are preferred and high capital and operational cost shall be involved in maintaining farm in sandy area, which is also to be avoided owing to the high water percolation through the sandy soils and consequential environmental damage.
- (6) The quality of soil shall be ascertained for soil pH, permeability, bearing capacity and heavy metal content; Soil with low pH of below 5 (example acid sulphate soils) and soils with high concentrations of heavy metals shall be avoided.
- (7) The suitable soil characteristics ideal for construction of a coastal aquaculture farm are as follows:

pH	Organic carbon	Calcium carbonate	Available nitrogen	Available phosphorus	Electrical conductivity
7-8	1.5-2.5%	>5%	50-75mg/100g soil	4-6mg/100g soil	>4dS/m

- (8) The hydro-meteorological data of the proposed area is very important to develop the design of the farm and to ensure the availability of acceptable water quality in the farm.
- (9) Construction of coastal aquaculture farm in cyclone prone places where natural calamities such as floods occur shall be avoided.
- (10) The infrastructure facilities like roads, electricity, proximity to hatcheries, feed manufacturing units, feed retailers, ice plants, processing plants shall be considered while choosing the site for farm since these play an important role in the economics of aquaculture operations.
- (11) The following, mandatory requirements, shall be adopted for site selection and to avoid subsequent social and environmental impacts, namely: -
 - (i) mangroves, agricultural lands, ecologically sensitive areas including sanctuaries and marine parks, shall not be used for coastal aquaculture;

- (ii) coastal aquaculture farm shall be located at least 100 m away from any human settlement in a village or hamlet of less than 500 population and beyond 300 m from any village or hamlet of over 500 population and for major towns and heritage areas it shall be around 2km;
- (iii) all coastal aquaculture farms shall maintain 100 m distance from the nearest drinking water sources;
- (iv) the coastal aquaculture farm shall not be located across natural drainage canals or flood drain;
- (v) while using common property resources including creeks, canals and sea, care shall be taken that the farming activity does not interfere with any other traditional activity including fishing;
- (vi) spacing of at least 3 m distance shall be maintained between adjacent coastal aquaculture farm for maintaining biosecurity and public access to the fish landing centers in such manner that access to other common facilities shall not be affected;
- (vii) larger coastal aquaculture farm shall be set up in clusters with free access provided in between clusters;
- (viii) a minimum distance of 50 – 100 meters shall be maintained between the nearest agricultural land (depending upon the soil condition) or canal or any other water discharge or drainage source and the coastal aquaculture farm;
- (ix) for large coastal aquaculture farm of above 2.0 ha, the water spread area shall not exceed 60 percent of the total area of the farm and the rest 40 percent may be used appropriately for other purposes and plantation may be done wherever possible;
- (x) in case of small coastal aquaculture farm upto 2.0 ha, the water spread area shall not exceed 80 percent of the total area of the farm, the rest 20 percent may be used appropriately for other purposes and plantation may be done wherever possible to enhance the green cover.

3. Construction and preparation of coastal aquaculture farm. - (1) Proper designing and construction of farm is essential for their efficient management and for promoting environmental protection.

- (2) Good site selection and incorporation of mitigatory features in the farm design are the best ways to avoid problems related to flood levels, storms, erosion, seepage, water intake and discharge points.

- (3) A site-specific approach to design and construction of coastal aquaculture farm is necessary, as site characteristics vary greatly from place to place.
- (4) The following checklist shall be considered while designing and constructing coastal aquaculture farm:

Check list for farm design and construction

- (a) embankments shall be designed to prevent flooding and erosion, after taking into consideration the tidal amplitude, water current, wind direction, wave action and the past histories of flooding in the area during cyclones/storms;
 - (b) in soils, which are seepage prone, design shall include provision for trench around the farm to reduce saline water intrusion into the neighboring lands;
 - (c) the elevation of the pond bottom, drainage canal and the outlet shall be designed in such a way that the water in the farm can be drained fully and easily through gravity;
 - (d) ponds shall have separate intake and outlet structures to permit control of filling and draining;
 - (e) a minimum water depth of 80-100 cm shall be maintained in the ponds;
 - (f) inlet and discharge canals shall be separate so that water supply and waste water are not mixed and in areas where such a provision cannot be made, it is advisable that waste treatment pond shall be included in the design;
 - (g) the farm design shall not alter natural water flows, or impound floodwater;
 - (h) the sluice gates shall be water tight and provided with net filters;
 - (i) where possible, vegetative buffer zones, riparian vegetation and habitat corridors shall be maintained and vegetative cover provided on exposed earthwork;
 - (j) pump intakes shall be screened, vegetative buffers provided around pump stations, and containments installed to prevent fuel spills.
- (5) Construction of intake reservoirs and effluent treatment ponds for the areas where the source water is turbid with suspended particles, an intake reservoir for settling the silt is very essential.

- (6) In areas where there is overcrowding of coastal aquaculture farms and the intake and outfall are from the same source such as creek, estuary or backwater, the intake reservoir with provision for treatment of water is essential.
- (7) In areas where the tidal current is swift and tidal amplitude is high, the waste water from the farm can be directly let out during the low tide, but in areas where the tidal current is very low, it is essential that the waste water be treated in an effluent treatment pond before it is released in to the natural system.
- (8) An effluent treatment pond, as a reservoir for holding and regenerating waste water, is mandatory for coastal aquaculture farm larger than 5ha and a minimum of 10 per cent of the total farm area shall be reserved for this purpose.
- (9) Smaller coastal aquaculture farm that are located in close proximity to each other making farm cluster and connected by a common drainage network shall establish a common discharge water treatment system.
- (10) The design of the common discharge water treatment system shall be dependent on the type of culture system in practice, the quality and quantity of inputs used and the water quality management method followed.
- (11) For better water management, individual culture units shall be within 5 ha areas and suitable feeder channel system shall be provided within the farm to effectively manage the water intake in all the individual units.
- (12) Pond preparation is an essential part of culture practices during which the metabolite load and contaminants (chemical and biological) in the soil from the previous culture cycle is removed through tilling, ploughing and drying.
- (13) During pond preparation, the pests and predators are removed and pH and nutrient levels in the water and soil are brought to optimal concentrations through application of lime, organic manures and inorganic fertilizers.
- (14) The following may assist in pond preparation and reduction of the possible environmental impacts, -
 - (i) pond sediments from the previous culture, which are likely to have accumulation of nutrient loads and other contaminants, shall not be disposed off in the natural environment;
 - (ii) in case it is necessary to remove the sediments and it shall be disposed off within the coastal aquaculture farm site itself, by

putting such sediments in trenches made in the wide dykes and it shall be ensured that these sediments do not leach out;

- (iii) application of lime is useful in correcting the pH of the soil and water, as a disinfectant and for increasing the mineralisation process and if the soil pH is not below 7.5, a basal dose of 300-500 kg per ha. can be applied;
- (iv) in acid soils, where the pH is low, the quantity of lime to be applied shall be calculated based on the pH and type of lime used;
- (v) unwanted or pest organisms shall be removed from the pond by drying of the pond bottom. In cases, where complete drying is not possible, organic, biodegradable piscicides can be used. No chemical piscicide shall be used;
- (vi) chlorination can be done to remove the pests and pathogens in ponds where drying of pond bottom is not possible;
- (vii) fertilizers and manures shall be used judiciously as per the requirement. Over fertilization shall be avoided and fertilizer schedule shall be decided on the basis of phytoplankton growth in the ponds;
- (viii) the colour and transparency of the water can be taken as indicators of plankton growth. Optimal density of phytoplankton shall be maintained throughout the culture period;
- (ix) heavy algal bloom shall never be allowed to develop since crash of algal bloom may lead to anoxic conditions in the pond thereby affecting the survival and growth of the culture stock.

4. Water quality and its management. - (1) Brackish water or sea water in adequate quantities shall be available throughout the year and the water source may be from backwaters, canals or creeks, lagoons or sea.

- (2) The coastal aquaculture units shall lay the pipeline without affecting natural environment to draw the quality saline water from the nearby source either creek, river or sea and to discharge the treated waste water.
- (3) **The water source shall be free from any industrial or agricultural runoff and the presence of contaminants and their levels shall be**

considered in the light of the tolerance and also sub-lethal effects on the species to be cultured.

- (4) Water quality parameters like pH, salinity, dissolved oxygen and the presence of toxicants /pollutants shall be periodically ascertained and the optimal levels of various water quality parameters for better survival and growth of species cultured are listed in the below Table.

Table

Optimal levels of water quality parameters for coastal aquaculture farm

Sl. No.	Water Quality Parameters	Optimal Level
1.0	Temperature (°C)	28 – 33
2.0	Transparency (cm)	25 - 45
3.0	pH	7.5 - 8.5
4.0	Dissolved oxygen (ppm)	5 – 7 (above 50% air saturation)
5.0	Salinity (ppt)	As per species cultured
6.0	Total alkalinity (ppm)	200
7.0	Dissolved inorganic phosphate (ppm)	0.1 - 0.2
8.0	Nitrate - N (ppm)	< 0.03
9.0	Nitrite - N (ppm)	< 0.01
10.0	Ammonia - N (ppm)	< 0.01
11.0	Cadmium (ppm)	< 0.01
12.0	Chromium (ppm)	< 0.1
13.0	Copper (ppm)	< 0.025
14.0	Lead (ppm)	< 0.1
15.0	Mercury (ppm)	< 0.0001
16.0	Zinc (ppm)	< 0.1

- (5) The following practices may be adopted to protect the environment, namely: -
- (a) good water quality shall be maintained by using water stable feed with minimal wastage;
 - (b) water quality parameters shall be monitored regularly and care shall be taken to avoid wide fluctuations in water quality, so as to avoid stress to the farmed stock and proper screens shall be used to prevent the entry of pests and predators and dissolved oxygen concentrations shall be measured during early morning hours;

- (c) fertilizers and lime shall be used in a responsible manner only when it is actually required;
 - (d) use of groundwater to reduce the salinity of the culture water shall be avoided for sustainability reasons; even though the farmed stock can adapt and grow in a wide range of salinity, it is better to avoid salinity fluxes so as to avoid stress to the farmed stock, which could make them more prone to diseases;
 - (e) indiscriminate use of chemicals, bacteriological and enzyme preparations that supposedly enhance nutrient removal, organic matter, oxidation and removal of ammonia from water and soil shall be avoided.
- (6) The following general bio-security procedures shall be adopted, namely:
- - (a) the quality of intake water is very important for healthy operation of coastal aquaculture and the pollution free water drawn from natural sources shall be filtered, chlorinated to kill the microbes and de-chlorinated before usage.
 - (b) movement of men and materials between different coastal aquaculture farms shall be controlled to avoid contamination.
 - (c) foot bath, hand bath, wash basins, toilets, etc. shall be provided to ensure adequate sanitation and hygiene in the coastal aquaculture farm.
 - (d) the effluent water shall be properly treated in an effluent treatment system before discharge. Regular monitoring of effluents shall be carried out to ensure environment standards stipulated.
 - (e) it is essential that the farmers shall maintain proper records of their activities, for verification by the Authority and also to ensure traceability and easy market access.

5. Seed selection and stocking. - (1) Seed quality has a direct relationship with the survival and growth of the cultured stock and the stocking density has a strong bearing on the level of waste generated in the pond and the following best practices shall be observed, namely: -

- (a) only healthy high health and pathogen-free seed sourced from registered hatcheries shall be used for stocking;

- (b) the health status of the seed shall be checked through standard testing procedures, including Polymerase Chain Reaction;
- (c) seed collection from the natural resources shall be banned by the State Governments with a view to protecting a large spectrum of fin and shellfish species from being destroyed;
- (d) before stocking the seed shall be acclimatized to the prevailing temperature, salinity and pH in the pond conditions by gradual mixing. In areas with very low salinity, salinity adjustments are to be made over a period of 4 –5 days and hence shall be done at the hatchery itself.

6. Feed and feed management. –

- (1) Careful feed management is essential for successful farming and by using good quality feed in reasonable quantities, water and soil quality in ponds remains in optimum conditions which in turn reduces stress on farmed species, and incidence of disease, improve feed conversion ratio and minimize feed costs.
- (2) Better water quality in ponds allows minimum load of nutrients in waste water and reduces the possibility of environmental impacts in receiving water bodies.
- (3) Farmers shall keep full records of daily feed schedules to enable assessment of Feed Conversion Ratio, which shall be used to increase feeding efficiency and reduction in feed waste.

7. Health management. - (1) Viruses, bacteria, protozoa cause the major diseases and the diseases that have led to devastations or economic loss in farming globally are enlisted and updated by World Organization for Animal Health from time to time.

- (2) Apart from these, diseases of concern for finfish, crustaceans, molluscs, marine algae and other commercial candidate species of national concern or globally emerging diseases of economic importance will also be notified by the Government from time to time.
- (3) Outbreak of disease in culture systems is related to the environmental factors such as deterioration of water quality, sedimentation and self-pollution.
- (4) Treatment shall be undertaken only when a specific disease has been diagnosed.

- (5) Effective measures shall be taken to minimize the spread of disease between farm stocks and natural stocks.
- (6) The following practices envisage health management as a holistic activity with disease prevention as the main objective, namely: -
 - (a) the health management practices include reduced stocking density of disease-free seed, better handling, maintenance of good pond environment and optimal feed management;
 - (b) the health of the culture stock shall be monitored continuously and those with any one or more of the following conditions are indicative of some disease: -
 - (i) inactive and sluggish, empty gut, bluish/blackish coloration;
 - (ii) body blisters, flared up gills, broken appendages; and
 - (iii) black or white spots, coloured gills and opaque muscles;
 - (c) any disease shall be diagnosed immediately with the help of trained pathologists or microbiologists;
 - (d) do not employ chemical treatments that can stress the animals;
 - (e) management of pond environment is to be given utmost importance for disease prevention and control;
 - (f) for non-infectious diseases related to pond conditions, treatment of animals shall be carried out or pond conditions shall be corrected;
 - (g) for mild infectious diseases with potential to spread, the pond shall be quarantined and the best options for disease treatment shall be carried out;
 - (h) for serious infectious diseases that may spread widely, the pond shall be isolated, remaining farmed stock shall be net harvested and the pond shall be disinfected without discharging any water;
 - (i) dead and diseased farmed stock shall be disposed of in a sanitary manner that will discourage the spread of disease;
 - (j) when disease occurs in a pond, transfer of farmed stock, equipment, or water to other ponds shall be avoided;
 - (k) treatments that are permitted shall be done judiciously in accordance with recommended practices and all national and international regulations shall be complied with.

- 8. Use of Fertilizers and other Aquaculture inputs, -** (1) As far as possible only organic manure or fertilizers and other plant products shall be used for coastal aquaculture for promoting the growth of fish food organisms, particularly for the early post-larval stages.
- (2) Use of chemical piscicides in coastal aquaculture shall be avoided and only biodegradable organic plant extracts shall be used as they are less harmful than the chemical agents.
 - (3) The use of antibiotics in coastal aquaculture shall be strictly prohibited
 - (4) The list of antibiotics or pharmacologically active substances that are prohibited for use in coastal aquaculture shall be as specified under rule 18 of the Coastal Aquaculture Authority Rules, 2024 (hereafter referred to as the said rules).
 - (5) The coastal aquaculture inputs shall comply with the Guidelines for certificate of compliance for aquaculture impacts; issued under clause (e) of the rule 3 of said rules.
 - (6) The Coastal aquaculture inputs including seed shall not contain any antibiotic prohibited for use in coastal aquaculture.
- 9. Harvest and post-harvest. -** (1) During harvesting, as maximum suspended particles are likely to be released into the open waters, great care shall be taken to prevent such release and the farmers are advised to adopt the following norms while harvesting the crop, namely: -
- (a) harvesting may be done by completely draining the pond either by gravity or through pumping and hand picking or trapping;
 - (b) the water drained out for harvesting shall be pumped into the waste stabilization ponds and kept for a few days for settlement followed by chlorination and de-chlorination before releasing into the open water; and
 - (c) icing shall be done immediately after harvest.
- 10. Waste water management. -** (1) The following checklist shall guide the coastal aquaculture farmer in waste management and for protection of the water and land resources.
- Checklist for wastewater management, -**
- (a) proper designing of the farm with independent intake and outfall will reduce the nutrient loading;

- (b) proper compaction of bunds with vegetative cover shall be provided which will reduce erosion;
 - (c) proper pond preparation methods will reduce nutrient loads;
 - (d) proper water and soil quality management in the culture ponds will reduce the nutrient loading of wastewater;
 - (e) responsible feed management will reduce feed wastage;
 - (f) during harvest, waters shall be drained carefully avoiding re-suspension of sediment;
 - (g) wastewater shall not be discharged into freshwater areas or onto agricultural land; and
 - (h) removing of sediments from the pond bottom shall be avoided. It shall be corrected *in situ*.
- (2) Effluent treatment system is mandatory for coastal aquaculture farm above 5 ha, at least 10 per cent of the total water spread area shall be earmarked for the effluent treatment system which may be used for secondary aquaculture projects, particularly for culture of mussels, oysters, seaweed or other fin fishes and such integrated projects shall help improving the waste water quality, reducing the organic and nutrient loads and producing an additional cash crop.
- (3) The standards shown in the Table below shall be adhered to for the discharge of wastewater from the coastal aquaculture units.

Table

Standards for waste water discharges from the coastal aquaculture units

Sl. No	Parameters	Final Discharge Point	
		Coastal Marine Waters	Creek or estuarine courses when the same inland water courses are used as water source & disposal point
1	pH	6.0–9.0	6.0–9.0
2	Suspended solids mg/l	100	100
3	Dissolved oxygen mg/l	Not less than 3	Not less than 3
4	Free Ammonia (asNH ₃ -N)mg/l	1.0	0.5
5	Biochemical Oxygen Demand-BOD		
	(5 days@20 c)Max mg/l	50	20
6	Chemical Oxygen		
	Demand-COD mg/1Max	100	75
7	Dissolved Phosphate		
	(as P) mg/1Max	0.4	0.2
8	Total Nitrogen (as N)mg/l	2.0	2.0
9	Nitrate N(ppm)	1.0	0.5

- (4) It is advisable to let ponds dry between harvests rather than removing sediment accumulations from the pond bottom as such method is environmental friendly.
- (5) The solid waste of the coastal aquaculture farm, including sludge and scrapped soil from the ponds shall not be disposed of into the waterways and solid waste shall be disposed of in accordance with the Guidelines for solid waste management in coastal aquaculture units or activities issued under clause (g) of rule 3 of said rules.

11. Environment impact assessment and Environment monitoring and management plans. - (1) An Environment Impact Assessment and Environment monitoring and management plans shall be made at the planning stage by all coastal aquaculture farms above 40 ha size.

- (2) All coastal aquaculture farms of 10 ha in size and above but less than 40 ha shall furnish detailed statement with information on the likely impacts along with the detailed plans.
- (3) The Sub-Divisional Level Committees and District Level Committees set up by the Authority shall be the Environment Impact Assessment Authorities and shall ensure that such an Environment Impact

Assessment or Environment monitoring and management plans as applicable has been carried out by the coastal aquaculture farms before their proposal is recommended for registration to the Authority for approval.

- (4) The Authority shall empanel Environment Impact Assessment Consultant Organization that are accredited with the National Accreditation Board for Education and Training of Quality Council of India and having its expertise in aquaculture related matters for the preparations of Environment Impact Assessment and Environment monitoring and management plans reports of coastal aquaculture farms.
- (5) Before setting up of a large coastal aquaculture farm, -
 - (a) an individual or public or private entity that has ultimate control over the affairs of the coastal aquaculture farm and is duly authorized or appointed by the Board of Directors of the company or a competent authority of such entity shall engage an Environment Impact Assessment Consultant Organization empaneled by the Authority for the preparation of the Environment Impact Assessment Report or Environment monitoring and management plans;
 - (b) the Final Environment Impact Assessment Report and the Environment monitoring and management plans as applicable shall be prepared after the required consultations and shall contain mitigation measures duly addressing the concerns raised by the public, time bound action plan, budgetary provision for the commitments made therein shall be submitted with the application for registration to the Environment Impact Assessment Authorities for the purpose of appraisal;
 - (c) the Sub Divisional Level Committees and District Level Committees shall after being satisfied, forward the application along with the Final Environment Impact Assessment Report and the Environment monitoring and management plans to the Authority for registration.
 - (d) post-project evaluations shall be conducted by the concerned person in order to compare actual environmental and social impacts with predictions made during the Environment Impact Assessment or Environment monitoring and management plans and submit the report to Sub-Divisional Level Committees and District Level Committees of concerned States or Union Territories while applying for the renewal of registration.

12. Procedure for Environment Impact Assessment. - (1) Environment Impact Assessment is a process where the environmental risk of development is

assessed in terms of acceptable environmental impact and balanced against the projected benefits of the development and it provides information on the present situation and future trends of an environmental resource and proposes alternatives for action.

- (2) The following process shall be followed for preparation of the Environment Impact Assessment Report, namely: -
- (i) screening is a preliminary examination of a project to determine whether a more detailed environmental assessment is required and if so, at what level;
 - (ii) if there is uncertainty about an aquaculture unit in relation to the criteria, an Initial Environmental Assessment may be required, and this may be subject to review before a decision is made about the need for a full Environment Impact Assessment;
 - (iii) scoping is a process to identify and evaluate community and scientific concerns about a proposed aquaculture unit so that they can be addressed systematically in the Environment Impact Assessment;
 - (iv) the output from scoping usually includes detailed terms of reference for further work. Scoping shall include specific objectives of Environment Impact Assessment, identification of key issues and impacts during construction/ establishment, operation and decommissioning phases, and alternatives;
 - (v) prediction of impacts is the core of Environment Impact Assessment and involves identifying and defining more clearly the impacts that are to be investigated in detail and analyzing these impacts in terms of their major characteristics and significance and the type and scale of any ecological change associated with coastal aquaculture development will depend on the method of aquaculture, the level of production, and the physical, chemical, and biological characteristics of the coastal area;
 - (vi) impact analysis methods shall be in proportion to the scope of the assessment and the relative importance of the impact and assessments shall be quantitative wherever possible, in order to assess impacts there must be a baseline or standard to measure against;
 - (vii) public involvement and comments on predicted or new impacts

can be used to adapt and refine both the monitoring programme and environmental management plan and the widest possible range of stakeholders having a direct or indirect impact on the sector shall be consulted or actively involved, especially where there are multiple and competing stakeholders or where disputes or conflicts are evident; and

- (viii) mitigation measures to minimize, avoid, or compensate for the anticipated impacts are to be provided and mitigation of the environmental impacts of aquaculture units can be implemented through modifications and improvements in application procedures and management practices

13. Environment monitoring and management plans, - (1) The major endpoints for investigation to prepare the Environment monitoring and management plans shall be the following, namely: -

- (i) the water courses in the vicinity;
- (ii) the ground water quality;
- (iii) the drinking water sources;
- (iv) the agricultural activity;
- (v) the soil;
- (vi) the mangroves.

(2) The following process shall be followed for the preparation of Environment monitoring and management plans, namely: -

- (a) the monitoring the environment for impacts is dependent on the purposes and aims of the study, ecological end points under investigation, the size of the farm, site characteristics, etc;
- (b) the basic objectives of environmental monitoring shall be the level of, or trend in a particular parameter and ensure that it does not fall below or exceed a predetermined value related to the natural conditions for the area;
- (c) in monitoring the environmental effects of coastal aquaculture farm, data is to be collected at various time points and compared with original pre-development data and or with contemporary reference data and the available data has to be collected from the published documents/literature; If the required data is not available, then the environmental impacts can be determined by comparing the impacted area with a control site;
- (d) baseline monitoring, both spatial and temporal refers to the

- measurement of environmental parameters during a pre-project period for the purpose of determining the nature and ranges of natural variation and to establish, where appropriate, the nature of change and it provides essential background ecosystem data for subsequent comparison and such data may be used in the design of an appropriate monitoring study, focusing on the areas which are most relevant for investigating change in any particular environment;
- (e) monitoring methodology depends on the location of sampling stations, frequency of sampling, method of sampling, and method of analysis of the samples taken to measure the determinants;
 - (f) the monitoring programs shall have realistic temporal and spatial sampling elements and the sampling methods shall be relevant to the target area;
 - (g) the selection of sampling stations will vary with location and purpose of the monitoring effort and by using a detailed map of the area, number of sampling stations has to be fixed for a good monitoring program, once the sampling stations have been selected, they shall be capable of permanently identifying in the field and be marked on a map or GPS readings of the stations must be noted so that samples can always be taken from the same location; all the sampling stations shall have accessibility so that it will be possible to obtain all samples on each sampling date;
 - (h) all samples shall be taken on the same day if possible. If monitoring programs have many sampling stations or several remote stations, the whole sampling for a particular month shall be done preferably within 2 or 3 days;
 - (i) the parameters to measure are those most likely to cause deterioration of water quality conditions and will vary according to the major endpoint under investigation and few important parameters may be selected that can be reliably measured and interpreted rather than to analyse a wide range of parameters;
 - (j) in order to ensure that environmental change does not exceed the pre-determined and accepted levels, Environmental Quality Standards have to be established, a precondition for effective monitoring program and Environmental Quality Standards are levels of particular parameters associated with an identified use, which may be imposed to ensure that the objectives are not

compromised and the setting of standards shall be done with the input from a broad range of institutions;

- (k) corrections would be made to farm management, depending on the results obtained from monitoring programs;
- (l) as the nature and scale of an ecological impact will depend on the type of aquaculture practice and the location of the operation, it is likely that the protocols will have to be modified according to local requirements;
- (m) it shall consider green belt development.

14. Assessment of the cost of demolition. -The environmental monitoring committee constituted under sub-rule (1) of rule 17 of the said rules shall assess the cost of damage to the environment and cost of demolition based on the following broad principles:

- (a) use such scientific methods to assess the cost of damage which are expandable to different scales, inclusive of externalities, practical to implement or such other method as the committee deems fit;
- (b) identify elements that may cause damage to the environment supported with adequate data to address the probability of the impact occurring, consequences if it does occur, and the level of confidence in the analysis; and
- (c) a relationship between levels of activity to the degree of damage shall be developed to derive the monetary value of the impact associated and appropriate set of data shall be used to arrive at actual environmental damages based on-ground study.

15. Integrated coastal zone management. – (1) Integrated coastal zone management plans shall be prepared for each coastal State by the States concerned with zoning for different activities and with buffer zones and updated regularly.

- (2) Detailed master plans for development of aquaculture through macro and micro-level surveys of the potential areas and zonation of coastal area delineating the land suitable and unsuitable for aquaculture using the remote sensing data, ground truth verification, Geographical Information System and socioeconomic aspects shall be considered.

16. Aqua Zonation. - (1) *Aquaculture zoning* brings together the criteria for

locating aquaculture and other activities in order to define broad zones suitable for different activities or mixes of activities.

- (2) An *aquaculture zone* is an area dedicated to aquaculture, recognized by planning authorities, that would be considered a priority for local aquaculture development
- (3) Aquaculture zones for land-based aquaculture and for aquaculture in open water bodies need to be earmarked in the coastal states after considering the environmental suitability and other resource use plans through spatial planning
- (4) There is a need to identify suitable zones for aquaculture by the respective States or Union Territories considering the present land use, extent of utilization of resources, carrying capacity of the source water bodies, site-specific water quality parameters, soil quality, culture species, existing provisions of various relevant Acts and rules or regulations and relevant directions contained in various judgments of High Courts or Supreme Court.
- (5) The aqua maps indicating aquaculture zones shall appropriately indicate the distance between such zones and agricultural lands, mangroves, wetlands, forest lands, flood-prone regions, water holding areas during the rainy season, land meant for public purposes, and ecologically sensitive areas like national parks and sanctuaries, etc.,
- (6) The number and extent of permitted existing aquaculture units need to be taken into consideration before new permissions to maintain environmental sustainability and the carrying capacity of water bodies and such coastal aquaculture zonation and mapping shall be based on the evaluation of environmental parameters, including the probability of occurrence of harmful algal blooms and their impact on the environment.
- (7) The potential areas for promoting coastal aquaculture based on the criteria such as fallow lands, low lying areas, inundated lands, the lands which are not fit for agriculture, alkaline and saline lands may be considered for declaring as potential areas for promotion of coastal aquaculture and may be notified along with aquaculture zones by the respective States or Union Territories.

17. Aqua mapping. – (1) Each state map of potential aquaculture zones will be based on the existing resource- sharing capacity for all aquaculture units.

- (2) Geospatial mapping of suitable lands for pond aquaculture needs to integrate land use, soil characteristics, water quality from source water bodies, and environmental regulations.
- (3) Such mapping of aqua zones shall also consider socio-cultural attributes,

local area master plans and other logistics, with consideration to protect the livelihoods of local fishing communities and their access to fishing grounds and avoiding conflict with other users.

- 18. Cluster management, record maintenance and networking.** - (1) There shall be an awareness of avoiding social conflicts and the stakeholders together shall discuss common problems and adopt appropriate management measures to avoid conflicts and increase sustainability of the farming systems.
- (2) Farmers shall form co-operatives, associations or self-help groups in order to exchange technology and to achieve co-operation in water use and waste management.
 - (3) Facilities for regular extension work and different aspects of training shall be made available to the farmers; Individual farmers and self-help groups or associations shall arrange to interact with the extension staff in the State Department of Fisheries, the Marine Products Exports Development Authority, Indian Council of Agricultural Research institutions, Agricultural Universities, and Non-Governmental Organizations, as the case may be to assist the small farmers.
 - (4) For facilitating data collection on the practices and farm accounts, farmers or self-help groups shall co-operate with the State Department of Fisheries to collect, organize, and evaluate data to demonstrate the adoption of the guidelines and document the benefits of their use and also for other statistical purposes.
 - (5) Farmers shall be encouraged to join Farmer Producer Organizations or farmers information network at the local, national and regional levels and the aquaculture networks available shall be made use by farmers/ Groups for improving their knowledge and skills and also for obtaining latest developments and market trends.
- 19. Protecting the livelihood of various coastal communities.** - Coastal aquaculture, is one among the several activities in the coastal area involving the coastal communities.
- (a) farm owners or managers shall respect the community rights and needs and in case of any conflicts arising always attempt to solve the problems in amicable ways for ensuring harmony in the community and sustainability of the coastal aquaculture farm and they shall cooperate with the community and other sectoral users of the coastal resources, in common efforts for improving environmental conditions and community welfare.
 - (b) care shall be taken to see that the natural drainage canals which

- are used as water source for aquaculture units are not blocked so as to avoid flooding of low lying areas and villages.
- (c) salinisation of land and drinking water shall be avoided by providing suitable buffer zones between agricultural land, villages and coastal aquaculture farm.
 - (d) to avoid problems of ground water salinisation, drawal of ground water is strictly prohibited for coastal aquaculture and the farmer shall monitor salinity ingress regularly, in case of salinity ingress, the Authority shall take action.
 - (e) the operator of every coastal aquaculture unit shall take measures for abatement of noise including noise emanating from generators and other machineries and ensure that the existing noise levels do not exceed the ambient air quality standards specified under the Noise Pollution (Regulation and Control) Rules, 2000 made under the Environment (Protection) Act 1986.
 - (f) use of common property resources like the creeks, canals, etc shall be carried out in a harmonious manner and the traditional rights of the coastal communities shall not be affected in any way.

GUIDELINES FOR REGULATING HATCHERIES AND FARMS FOR SEED PRODUCTION AND CULTURE OF SPECIFIC PATHOGEN FREE *LITOPENAEUS VANNAMEI*

Dated: 15th March, 2024

S.O. 1457(E).—In pursuance of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (b) of rule 3 of the Coastal Aquaculture Authority Rules, 2024, the Central Government hereby notifies the following guidelines, namely:-

1. Short title and commencement. – (1) These guidelines may be called the Guidelines for Regulating Hatcheries and Farms for seed production and culture of Specific Pathogen Free *Litopenaeus vannamei*.
- (2) They shall come into force from the date of their publication in the Official Gazette.

Guidelines for Regulating Hatcheries and Farms for Seed Production and culture of Specific Pathogen Free *Litopenaeus vannamei*

PART I

Safeguards and regulations for operation of hatcheries

1. **Criteria for application to breed *L. vannamei*.** - (1) Hatcheries engaged or intending to be engaged in seed production having the required biosecurity facilities as specified by the Authority shall be eligible to apply for registration under the Coastal Aquaculture Authority Act, 2005 (24 of 2005) and the rules framed thereunder and for permission to import specific pathogen free broodstock of *L. vannamei* or specific pathogen free juveniles of *L. vannamei* (up to 10 g size) for rearing to adult broodstock and to produce and sell post larvae of *L. vannamei*.
 - (2) The hatchery operator shall submit application in prescribed format to the Authority duly enclosing required documents and payment of registration fee of Rs. 10,000/- (Rupees ten thousand) for registration of hatchery in accordance with the procedure laid down in rule 9 of the Coastal Aquaculture Authority Rule, 2024.
 - (3) Approval of the hatchery for rearing *L. vannamei* shall be given by the Authority after due inspection of the hatchery facilities by a team constituted by the Authority for this purpose.
 - (4) The hatchery facilities shall have strict biosecurity control through physical separation or isolation of the different production facilities or isolation through the construction of barriers and implementation of process and product flow controls.

- (5) The hatchery facility shall have a wall or fence around the periphery of the premises, with adequate height to prevent the entry of animals and unauthorised persons to help reduce the risk of pathogen introduction by this route, as well as improve overall security.
2. **Sanitary requirement.** - (1) Entrance to the hatchery shall be restricted to the personnel assigned to work exclusively in this area and a record of personnel entering the facility be maintained by the security personnel.
 - (2) The entry of any person including staff shall be compulsorily through shower and changing room to enable them to take shower and changing into working clothes and boots before entering into facility and the same procedure shall be followed at the end of the working shift.
 - (3) A provision shall be made for disinfection of vehicle tyres (tyre baths at the gate), feet (footbaths containing hypochlorite solution at >50 ppm active ingredient), and hands [bottles containing iodine-PVP (20 ppm and / or 70% alcohol)] to be used upon entering and exiting the unit.
3. **Water intake.** - (1) Each functional unit of the hatchery shall have independent water treatment facility isolated from all other water supply systems and separate recirculation systems may be used for each functional unit of hatchery to reduce water usage and improve biosecurity, especially in high-risk areas.
 - (2) Water for the hatchery shall be filtered and treated to prevent the entry of vectors and pathogens that may be present in the source water by initial filtering through sub-sand well points, sand filters (gravity or pressure), or mesh bag filters, into the first reservoir or settling tank.
 - (3) After primary disinfection by chlorination or ozonation or such other appropriate disinfectants, and after settlement, the water shall be filtered again with a finer filter and then disinfected using ultraviolet light or ozone.
 - (4) The water supply system may include use of activated carbon filters, the addition of ethylene diamine tetra acetic acid and temperature and salinity regulation.
4. **Water treatment and discharge of wastewater.** - (1) The discharged water from the hatchery shall be held temporarily and treated with hypochlorite solution (>20 ppm active chlorine for not less than sixty minutes) or other effective disinfectant prior to discharge.
 - (2) The seawater to be used in the facility shall be delivered into a storage tank where it will be treated with hypochlorite solution (20 ppm active ingredient for not less than thirty minutes) followed by sodium thiosulphate (1 ppm for every ppm of residual chlorine) and strong aeration.

- (3) No wastewater shall be released out of the hatchery without chlorination and dechlorination, so as to prevent the escape of the larvae into the natural waters and Effluent Treatment System shall be designed to include this provision.
- 5. Disinfection of implements.** - (1) Used containers and hoses must be washed and disinfected with hypochlorite solution (20 ppm) before further use.
- (2) Each broodstock holding tank shall have, -
- (i) a separate set of implements which must be clearly marked and placed near the tanks; and
 - (ii) facilities for disinfection of all the implements at the end of each day's use.
- 6. Quarantine.** - The quarantine procedure shall be as specified in the notification of the Government of India in the Ministry of Agriculture, Department of Animal Husbandry, Dairying and Fisheries published in the Gazette of India, Extraordinary, Part II, Section 3, sub-section (ii), *vide* notification No. S.O. 2482(E), dated the 15th October, 2008, issued under sub-section (1) of section 3 of the Livestock Importation Act, 1898 (9 of 1898).
- 7. Broodstock in hatchery.** - (1) Only specific pathogen free broodstock cleared through the quarantine shall be used in the hatchery for seed production.
- (2) Use of pond-reared broodstock is strictly prohibited.
- (3) Hatcheries involved in *L. vannamei* seed production shall not use any other species within the hatchery premises.
- 8. Seed production and sale.** - (1) Nauplii shall be sold only to the hatcheries permitted by the Authority to rear the seed of specific pathogen free *L. vannamei* with due biosecurity protocols.
- (2) Hatcheries rearing nauplii to the post-larvae stage for sale shall maintain record of the number of nauplii received and the post-larvae produced and sold and submit in their quarterly compliance reports in Form- B-I the Authority on a regular basis, failing which the hatcheries shall be derecognised to receive nauplii in future.
- (3) Post-larvae shall be sold only to the farmers who have registered with the Authority specifically for the culture of *L. vannamei*.
- (4) A copy of the certificate of registration issued by the Authority shall be retained by the hatchery operator for inspection.
- (5) The detailed record of the seed production as well as sale including the name and address of the buyer or farmer shall be maintained.

9. **Disease reporting and record maintenance.** - (1) Any disease outbreak in the hatchery shall be reported immediately to the Authority.
(2) The hatcheries shall maintain a record of the imported broodstock with details of source, quantity imported, the number of mortality, eggs produced, nauplii produced, post-larvae produced, post-larvae sold, name and address of the farmer to whom sold, date and number of the registration and permission certificate issued by the Authority and report these in their quarterly compliance report to be submitted to the Authority in Form-B-I of these Guidelines.
10. **Inspection.** - A person authorised by the Authority shall periodically visit and check the status of the broodstock, the seed production and sale.
11. **Bank Guarantee.** - The approved hatcheries shall pay rupees fifty thousand towards monitoring fee and deposit a bank guarantee for five lakh rupees in favour of the Coastal Aquaculture Authority in accordance with the Coastal Aquaculture Authority Rules, 2024, to ensure compliance with these Guidelines and in the event of any violation, the bank guarantee shall be invoked.

PART II

Norms and Regulations for Approval and Operation of Farms

1. **Eligibility criteria for farms.** - (1) Aquaculture farmers registered with the Authority, shall submit a separate application for permission for farming *L. vannamei*:
 - (2) The inspection team authorised by the Authority shall inspect the farm and based on its recommendation regarding the suitability of the facility for farming of *L. vannamei*, applications shall be processed by the Secretary of the Authority, for consideration of the Authority for issuing permission to farms for farming of *L. vannamei*.
 - (3) Farms shall establish adequate biosecurity measures including fencing, reservoirs, bird-scare, separate implements for each of the ponds etc., and be managed by personnel who are trained or experienced in management of biosecurity measures.
 - (4) Farms irrespective of their size shall have an Effluent Treatment System which is able to handle the wastewater let off during harvest.
 - (5) Harvesting shall be sequential depending on the size of the Effluent Treatment System and the quality of the wastewater shall conform to the standards prescribed under the Guidelines.
2. **Water discharge protocols.** -(1) In case of any outbreak of disease, distress harvesting may only be done through netting and the water shall be chlorinated and dechlorinated before release into drainage system.

- (2) Wastewater shall be retained in the Effluent Treatment System for a minimum period of two days.
 - (3) Farms which follow Zero Water Exchange system of farming may also take up *L. vannamei* farming.
- 3. Biosecurity considerations.** -(1) Culture of specific pathogen free *L. vannamei* shall not be permitted if the neighbouring farms are culturing native species, which are non-specific pathogen free, since *L. vannamei* is susceptible for all the viral pathogens reported in *Penaeus monodon* in India.
 - (2) Farms approved for *L. vannamei* culture shall not be permitted for simultaneous farming of shellfish and finfish species in the same farm.
 - (3) For shifting culture from one species to another, adequate dry out period shall be maintained during pond preparation in accordance with the norms issued by the Authority for this purpose from time to time.
- 4. Norms for culture of *L. vannamei*.** -(1) Tested and certified seed shall be procured only from hatcheries authorised for import of the *L. vannamei* broodstock or production of *L. vannamei* seed.
 - (2) Stocking densities shall not exceed 60 no. / m² for conventional earthen pond systems
 - (3) Strict compliance with the wastewater standards shall be mandatory requirement and inspection team authorised by the Authority in each case shall monitor the quality of wastewater as per the procedure laid down in the Coastal Aquaculture Authority Regulations, 2008.
- 5. Record maintenance at farms.** -(1) The farmers shall maintain a detailed record of the name and address of the hatchery from where they procured the seed, including quantity procured, number and date of the valid registration of the hatchery.
 - (2) The farmers shall record the quantity of shrimp produced, sold, and the name and address of the processor or representative or agent to whom sold and the record shall be made available to the inspection team authorised by the Authority, during inspection.
- 6. Destruction of unauthorised stock.** -If any unauthorised seed production or culture of *L. vannamei* is noticed during the inspection of farms or hatcheries by the inspection team of the Authority, the inspection team may confiscate, dispose of or destroy the stock, as it thinks fit.

Form B-I

[See Part-I, 8 (2) and 9(2)]

Format for Quarterly Compliance Report from Hatcheries

The report shall contain the following information:

1. Name and Address
2. Date and number of certificate of registration and permission to import
3. Number of broodstock imported, males and females
4. Transport mortality
5. Quarantine mortality
6. Total number of spawning's
7. Total number of eggs produced
8. Total number of nauplii produced
9. Total number of post-larvae produced
10. Report on general aquatic health monitoring and any unusual mortality
11. Total number of post-larvae sold to the farmers
12. Details of the farmers to whom sold (shall include information on the name, address, registration number) and copy of the permission letter for culturing *L. vannamei* issued by Coastal Aquaculture Authority.

Place:

Signature

Date:

Name of the authorised signatory

**GUIDELINES FOR SEED PRODUCTION AND CULTURE
OF SPECIFIC PATHOGEN FREE *PENAEUS MONODON***

Dated: 15th March, 2024

S.O. 1429(E). — In pursuance of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (c) of rule 3 of the Coastal Aquaculture Authority Rules, 2024, the Central Government hereby notifies the following guidelines, namely: -

1. Short title and commencement. – (1) These guidelines may be called the Guidelines for Seed Production and Culture of Specific Pathogen Free *Penaeus monodon*.
- (2) They shall come into force from the date of their publication in the Official Gazette.

Guidelines for seed production and culture of Specific Pathogen Free

Penaeus monodon

- A. Specific Pathogen Free Status of Broodstock Rearing or Nuclear Breeding Facility.** - (1) Shrimp that are maintained in the broodstock rearing facility or Nuclear Breeding Centre shall have a history of freedom from disease status documented through a surveillance programme, at least for a continuous period of two years.
 - (2) Specific pathogen free implies that the facilities, operations and animals are free of the specifically listed pathogens, World Organisation for Animal Health listed pathogens and other pathogens of concern to India; and the facility producing the specific pathogen free stock shall also be certified for the specific pathogen free status by the designated agency of the Government.
- B. Quarantine.** - (1) All the broodstock including parent post larvae meant for rearing into broodstock imported by hatcheries and Broodstock Multiplication Centres shall undergo quarantine including every specific pathogen free stock brought into the country even if they are brought from the islands of the Indian territory to the mainland.
 - (2) All the quarantine guidelines including biosecurity requirements, preborder quarantine requirements, disinfection methods, etc., as provided for import of specific pathogen free *L. vannamei* and as notified *vide* notification of the Government of India in the Ministry of Agriculture, number S.O. 2482 (E), dated the 15th October, 2008 under the Livestock Importation Act, 1898 (Act 9 of 1898), shall be applicable in the case of specific pathogen free *P. monodon* too.

C. Safeguards and Regulations for Operation of Hatcheries for Specific Pathogen Free *P. monodon*

1. **Criteria for application to breed specific pathogen free *P. monodon*.**
 - (1) Hatcheries engaged or intending to be engaged in shrimp seed production having the required biosecurity facilities as specified by the Authority shall be eligible to apply for registration with the Authority and for permission to import specific pathogen free *P. monodon* broodstock or to acquire from indigenous specific pathogen free source and to produce and sell post-larvae of specific pathogen free *P. monodon*.
 - (2) The hatchery operator shall submit application in prescribed format to the Authority duly enclosing required documents and payment of registration fee of Rs. 10,000/- (Rupees ten thousand) for registration of hatchery in accordance with the procedure laid down in rule 9 of the Coastal Aquaculture Authority Rules, 2024.
 - (3) Approval of the hatchery for rearing specific pathogen free *P. monodon* shall be given by the Authority after due inspection of the hatchery facilities by a team constituted by the Authority for this purpose.
 - (4) The hatchery facilities shall have strict biosecurity control through physical separation or isolation of the different production facilities effective through the construction of barriers and implementation of process and product flow controls.
 - (5) The hatchery facility shall have a wall or fence around the periphery of the premises, with adequate height to prevent the entry of animals and unauthorised persons to help reduce the risk of pathogen introduction by this route, as well as improve overall security.
2. **Sanitary requirement.** -
 - (1) Entry into the hatchery shall be restricted to the personnel assigned to work exclusively in this area and a record of personnel entering the facility shall be maintained by the security personnel.
 - (2) The entry of any person including staff shall be compulsorily through shower and changing room to enable them to take shower and change into working clothes and boots before entering the facility and the same procedure shall be followed at the end of the working shift.
 - (3) A provision shall be made for disinfection of vehicle tyres (tyre baths at the gate), feet (footbaths containing hypochlorite solution at >50 ppm active ingredient), and hands (bottles containing iodine). Polyvinylpyrrolidone (PVP) 20 ppm and/or 70% alcohol to be used upon entering and exiting the unit.

3. **Water intake.** - (1) Each functional unit of the hatchery shall have independent water treatment facility isolated from all other water-supply systems and separate recirculation systems may be used for each functional unit of hatchery to reduce water usage and improve biosecurity, especially in high risk areas.
 - (2) Water for the hatchery shall be filtered and treated to prevent the entry of vectors and pathogens that may be present in the source water by initial filtering through sub-sand well points, sand filters (gravity or pressure), or mesh bag filters into the first reservoir or settling tank.
 - (3) After primary disinfection by chlorination or ozonation or such other appropriate disinfectants, and after settlement, the water shall be filtered again with a finer filter and then disinfected using ultraviolet light or ozone or both.
 - (4) The water-supply system may include use of activated carbon filters, the addition of ethylene diamine tetra acetic acid and temperature and salinity regulation.
4. **Water treatment and discharge of wastewater.** -(1) The discharged water from the hatchery, shall be held temporarily and treated with hypochlorite solution (>20 ppm active chlorine for not less than sixty minutes) or other effective disinfectant and appropriately dechlorinated prior to discharge.
 - (2) The seawater to be used in the facility shall be delivered into a storage tank where it will be treated with hypochlorite solution (20 ppm active ingredient for not less than thirty minutes) followed by sodium thiosulphate (1 ppm for every ppm of residual chlorine) and strong aeration.
 - (3) No wastewater shall be released out of the hatchery without chlorination and dechlorination and Effluent Treatment System shall be designed in accordance with the desires and capacity as specified by the Authority to include this provision.
5. **Disinfection of implements.** - (1) Used containers and hoses must be washed and disinfected with hypochlorite solution (20 ppm) before further use.
 - (2) Each broodstock holding tank shall have-,
 - (i) a separate set of implements which must be clearly marked and placed near the tanks; and
 - (ii) facilities for disinfection of all the implements at the end of each day's use.

6. **Broodstock in hatchery.** - (1) Only specific pathogen free broodstock cleared through the quarantine shall be used in the hatchery for seed production.
 - (2) Use of broodstock other than those certified as Specific Pathogen Free by the designated authority is strictly prohibited.
 - (3) Hatcheries involved in specific pathogen free *P. monodon* seed production shall not use any other non-Specific Pathogen Free species within the hatchery premises.
7. **Seed production and sale.** - (1) Nauplii may be sold to other hatcheries only when permitted by the Authority and only tested and certified post-larvae shall be sold.
 - (2) Post-larvae of specific pathogen free *P. monodon* right from production to sale shall be maintained at the specific pathogen free facility with proper biosecurity safeguards.
 - (3) Post-larvae shall be sold only to the farmers who have registered with the Authority specifically for the culture of *P. monodon*, and a copy of the certificate of registration issued by the Authority for culturing specific pathogen free *P. monodon* shall be retained by the hatchery operator for inspection.
 - (4) The detailed record of the seed production as well as sale including the name and address of the buyer or farmer shall be maintained.
8. **Disease reporting and record maintenance.** - (1) Any disease outbreak in the hatchery shall be reported immediately to the Authority.
 - (2) The hatcheries shall maintain a record of the imported broodstock or indigenously certified broodstock of specific pathogen free status with details of source, quantity imported, or procured from indigenous sources, the number of mortality, eggs produced, nauplii produced, post-larvae produced, post-larvae sold, name and address of the farmer to whom sold, date and number of the registration and permission certificate issued by the Authority and report these in their quarterly compliance reports to be submitted to the Authority in Form-C-I annexed to these guidelines.
9. **Inspection.** - Any person authorised by the Authority shall periodically visit and check the status of the broodstock, the seed production and sale.
10. **Destruction of stock at unauthorised hatcheries or farms.** - During the inspection of hatcheries or farms by the inspection team or Authorized

Officer of the Authority, if any unauthorised seed production, sale of specific pathogen free seed or culture of Specific Pathogen Free *P. monodon* is noticed, the inspection team may confiscate, dispose of or destroy the stock, as it thinks fit.

11. **Bank Guarantee.** - The approved hatcheries shall pay rupees fifty thousand towards monitoring fee and deposit a bank guarantee for five lakhs rupees in favour of the Coastal Aquaculture Authority in accordance with the Coastal Aquaculture Authority Rules, 2024, to ensure compliance of these Guidelines and in the event of any violation, the bank guarantee shall be invoked.

D. Norms and Regulations for Approval and Operation of Farms

1. **Eligibility criteria for farms to culture specific pathogen free *P. monodon*.**
 - (1) Aquaculture farmers registered with the Authority shall submit a separate application for permission for farming specific pathogen free *P. monodon*.
 - (2) The inspection team authorised by the Authority, for specific pathogen free *L. vannamei* culture, shall inspect the farm intending to culture specific pathogen free *P. monodon* and based on its recommendation regarding the suitability of the facility for farming of specific pathogen free *P. monodon*, applications shall be processed by the Secretary of the Authority for approval of the Authority for issuing permission to farms for farming of specific pathogen free *P. monodon*.
 - (3) Farms culturing specific pathogen free *P. monodon* shall establish adequate biosecurity measures including fencing, reservoirs, bird-scare, separate implements for each of the ponds and be managed by personnel who are trained or experienced in management of biosecurity measures.
 - (4) Farms irrespective of their size shall have an Effluent Treatment System which is able to handle the wastewater let off during harvest. Harvesting shall be sequential depending on the size of the Effluent Treatment System and the quality of the wastewater shall conform to the standards prescribed under the guidelines issued by the Authority.
 - (5) In low stocking density (≤ 10 PL/m²) culture of specific pathogen free *P. monodon*, Effluent Treatment System is optional for farms less than 5 ha.
2. **Water discharge protocols.** - (1) In case of any outbreak of disease, distress harvesting may be done through netting and the water shall be chlorinated and dechlorinated before release into drainage system.

- (2) Wastewater shall be retained in the Effluent Treatment System for a minimum period of two days.
 - (3) Farms which follow Zero Water Exchange system of farming may also take up specific pathogen free *P. monodon* farming.
- 3. Biosecurity considerations.** - Farms approved for specific pathogen free *P. monodon* culture shall not be permitted for farming of any other non-specific pathogen free crustacean species simultaneously in the same pond or farm.
- 4. Norms for culture of Specific Pathogen Free *P. monodon*.** - (1) Tested and certified seed shall be procured only from hatcheries authorised to breed specific pathogen free *P. monodon* broodstock and sell the seed.
- (2) Stocking densities shall not exceed 30 no./m².
 - (3) Strict compliance with the wastewater standards shall be mandatory and inspection team authorised by Authority in each case shall monitor the quality of wastewater as per the procedures laid down in the Coastal Aquaculture Authority Regulations, 2008.
- 5. Record maintenance at farms.** - (1) The farmers shall maintain a detailed record of the name and address of the hatchery from where they procured the seed, quantity procured, number and date of the valid registration of the hatchery, etc.
- (2) The farmers shall record the quantity of shrimp produced, sold, and the name and address of the processor to whom sold and it shall be made available to the inspection team authorised by the Authority, during inspection.
- E. Norms for permitting farms which are registered for *P. monodon* culture to take up *L. vannamei* culture.** - (1) Biosecurity requirements are essential irrespective of the size of the farm for ensuring successful culture.
- (2) To avoid the risk of disease occurrence using non-disinfected creek water while filling up the ponds, water disinfection prior to stocking should be done in the pond itself, in case if they do not have the reservoir ponds.
 - (3) Zero water exchange system with in-situ bioremediation with probiotics may be followed.

- (4) All the other biosecurity requirements like filtration, fencing (men, crab, and bird) and disinfection protocol for the labour and implements should be strictly followed.
- (5) Effluent Treatment System is mandatory in *P. monodon* farms of above five hectares and case of *L. vannamei* culture, is mandatory for all farms irrespective of the size when they follow the stocking density of up to sixty numbers per square meter as provided in the Guidelines for *L. vannamei* culture, in low density culture of *L. vannamei*, (i.e., twenty numbers per square meter), Effluent Treatment System is left optional for farms of less than five hectares as was followed in the case of *P. monodon* culture.
- (6) After the culture and harvest, the water in the pond shall be retained for at least three days for the settlement of suspended particles and disinfected before release.
- (7) Though these Guidelines are issued having due regard to the bio-security protocols to the benefit of small independent farmers, group farming may be preferred with common reservoirs, common Effluent Treatment System and collective biosecurity protocols.

FORM C-I

[See Para C- 8 (2)]

Format for Quarterly Compliance Report from Hatcheries

The report should contain the following information:

1. Name and Address
2. Date and number of certificate of registration and permission to import
3. Number of broodstock imported, males and females
4. Transport mortality
5. Quarantine mortality
6. Total number of spawning
7. Total number of eggs produced
8. Total number of nauplii produced
9. Total number of post-larvae produced
10. Report on general aquatic health monitoring and any unusual mortality
11. Total number of post-larvae sold to the farmers
12. Details of the farmers to whom seed sold (should include information on the name, address, Registration Number) and copy of the permission letter for culturing Specific Pathogen Free *P. monodon* issued by Coastal Aquaculture Authority.

Place :

Signature

Date :

Name of the Authorised Signatory

GUIDELINES FOR THE HEALTH MONITORING, DISEASE SURVEILLANCE AND SPECIFIC PATHOGEN FREE CERTIFICATION OF COASTAL AQUACULTURE UNITS AND STOCKS IN INDIA.

Dated: 15th March, 2024

S.O. 1479(E). —In pursuance of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (d) of rule 3 of the Coastal Aquaculture Authority Rules, 2024, the Central Government hereby notifies the following guidelines, namely: -

1. Short title and commencement. – (1) These guidelines may be called the Guidelines for the health monitoring, disease surveillance and Specific Pathogen Free certification of coastal aquaculture units and stocks in India.
- (2) They shall come into force from the date of their publication in the Official Gazette.

Guidelines for the health monitoring, disease surveillance and Specific Pathogen Free certification of coastal aquaculture units and stocks in India.

1. **Introduction.** - These guidelines are not limited to but outlines broader requirements for the health monitoring, disease surveillance and specific pathogen free certification of coastal aquaculture units and stocks in India for safeguarding of the sector from the impact of diseases and pests, through risk analysis, risk mitigation measures, inspection and certification, and implementation of mitigation response arrangements for Indian aquaculture sector.
2. **Application.** – (1) These guidelines shall apply to the coastal aquaculture units for which specific pathogen free certification is mandatory under the rule 19 of the Coastal Aquaculture Authority Rules, 2024:

Provided that these guidelines shall also apply to other coastal aquaculture units including hatcheries which are not covered under rule 19, but voluntarily opt for the specific pathogen free certification.
3. **Biosecurity.** - (1) The coastal aquaculture units shall have adequate biosecurity which shall be a strategic and integrated approach that analyse and manage risks in the life and health of candidate species including associated environmental risk and the prevention of diseases in aquaculture.

(2) The operator of the coastal aquaculture units shall implement biosecurity measures, specific for each unit, culture system and sanitary zone which may include the physical, chemical and biological methods necessary to protect the facilities from the consequences of all diseases that represent a high risk.

(3) The priority areas of strict biosecurity measures include the following, namely: -

- (i) site or location;
- (ii) water intake;
- (iii) source water treatment;
- (iv) compartmentalisation, zonation and physical separation or isolation with different levels of biosecurity;
- (v) sanitation and personnel hygiene;
- (vi) movement of personnel between compartments and zones;
- (vii) live or fresh or frozen feed sources;
- (viii) introduction of new aquaculture sources or genetic materials;
- (ix) dispatch and loading;
- (x) entry and exit of vehicle, personnel and visitors within and into the coastal aquaculture unit; and
- (xi) others as may be specified by the Authority from time to time.

4. Continuous health monitoring and disease surveillance. - (1) Any coastal aquaculture unit or stock shall be certified as specific pathogen free, if-

- (i) it has bio-secure facilities with appropriate water treatment within enclosed environment;
- (ii) it follows bio-secure management including bio-secure feeds;
- (iii) it has tested negative for specific pathogens for a continuous period of at least two years through a surveillance programme.

(2) Any coastal aquaculture unit applying for specific pathogen free certification shall, -

- (i) undertake continuous health monitoring and disease surveillance, to ensure freedom from specific pathogens of the candidate species on a continuous basis;
- (ii) put in place necessary contingency plan so that prompt action can be carried out in controlling disease outbreak and for preventing further spreading of disease.

(3) The coastal aquaculture unit shall be equipped with a wet lab and microbial pathology laboratories for undertaking routine screening of the coastal aquaculture unit, water, animal, algae and other feeds to assess the health status.

- (4) The Central Government shall in consultation with the Technical Advisory Committee of the National Surveillance Programme for Aquatic Animal Diseases, specify the pathogens of concern which are not listed by World Organisation for Animal Health for each candidate species, methodology or procedure and assay of testing of that pathogen or any other matter connected therewith, and Microbiological Index for each species-specific coastal aquaculture unit.
 - (5) Health monitoring and disease surveillance and testing shall be done on the basis of procedures laid down in Chapter 1.4 in Article 1.4.6 of Aquatic Animal Health Code on Disease Surveillance of World Organisation for Animal Health.
 - (6) The procedure laid down in the Manual of Diagnostic Tests for Aquatic Animal of the World Organisation for Animal Health shall be followed in all the testing procedures.
 - (7) The continuous health monitoring and disease surveillance shall be in two stages, namely: -
 - (i) a robust in-house health monitoring and disease surveillance programme including a **verifiable in-house biosecurity audit** conducted by the operator himself; and
 - (ii) a chain of custody sampling and testing by the empanelled agency.
- 5. Verifiable in-house biosecurity audit.** - (1) The operator of coastal aquaculture units shall implement a verifiable in-house biosecurity audit to examine, how well those biosecurity measures are executed in such coastal aquaculture units.
- (2) The operator of coastal aquaculture units shall employ various levels, zones, compartments and strategies for biosecurity at the coastal aquaculture unit depending on the size and design of the facilities and the diseases of concern.
 - (3) The operator of the coastal aquaculture units shall undertake a quarterly in-house evaluation of the biosecurity measures being implemented in the coastal aquaculture unit by an expert and take such necessary corrective action based on the audit report, required to ensure the biosecurity of the coastal aquaculture unit.
 - (4) The quarterly audit report shall be made available for verification by the authorised personnel during inspection and chain of custody sampling of the coastal aquaculture unit.

- (5) A record of the biosecurity audit and the vetting of the same by the authorised personnel shall be maintained as proof for specific pathogen free certification.
- 6. In-house health monitoring and disease surveillance.** - (1) The respective facilities shall implement an in-house health monitoring and disease surveillance programme to monitor the health status and quality of their stocks with appropriate frequency for sampling and testing and the results of the in-house monitoring shall be maintained appropriately at the respective coastal aquaculture unit.
- (2) The in-house health monitoring and disease surveillance involves three levels of examination, namely:
- (a) examination of stock for general health condition, sex determination, staging of ovarian development, moult staging, removal of sick or moribund individuals;
 - (b) examination of larval stages by microscope, checking bacterial flora of normal or moribund animals; and
 - (c) disease screening of brood stock and Parent Post Larvae by Polymerase Chain Reaction, histopathology and or any other relevant advanced technique.
- (3) The screening shall be conducted by qualified and certified technologists using latest Polymerase Chain Reaction (PCR) or Real-time Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) technique in accordance with the procedures laid down in the latest World Organisation for Animal Health - Manual of Diagnostic Tests for Aquatic Animals.
- (4) The frequency of sampling and sample size for each candidate species shall be as declared by the Authority.
- (5) The general guide on the frequency of sampling with a sample size of twenty samples each during every sampling for the maintenance of in house disease surveillance protocol shall be as given in the table below:

Table-1

Screening Number	Screening frequency (Days of Operation)	Probable range of Weight. (g)	Parameters to be tested	Confirmatory Screening
(1)	(2)	(3)	(4)	(5)
1 st	30	2 to 3	All pathogens listed by World Organisation for Animal Health and non listed pathogens of concern specified by the Central Government for the candidate species concerned shall be screened	Confirmatory screening shall be through Histopathology and Sequencing of Polymerase Chain Reaction products following detection.
2 nd	60	13 to 15		
3 rd	90	22 to 28		
4 th	120	33 to 37		
5 th	150	42 to 48		
6 th	180	50 to 53		

- (6) In the event of occurrence of any disease or pathogen, the operator of the coastal aquaculture unit shall immediately isolate and contain the operation of such compartments in such a way as not to contaminate the other areas of the coastal aquaculture unit and report the same to the Authority immediately.

7. Chain of custody sampling and testing:

A. Empaneled agencies for chain of custody sampling and testing.- (1) The Authority shall for the purpose of chain of custody sampling and testing for specific diseases or pathogens of concern empanel and authorise any Government or semi- Government Organisations including Indian Council of Agricultural Research - Central Institute of Brackishwater Aquaculture, National Bureau of Fish Genetic Resources, Rajiv Gandhi Centre for Aquaculture, Fisheries Universities, and World Organisation for Animal Health referral laboratories and private agencies, if –

- (i) they are accredited by National Accreditation Board for Testing and Calibration Laboratories;
- (ii) they are qualified at the national or international ring test for multiple pathogens screening;
- (iii) fulfill the terms and conditions and other criteria specified by the Authority for such empanelment.

- (2) The Authority shall authorise the empaneled and authorised agencies following a roaster system to collect samples for testing at specified intervals from the concerned units provided such collection of sample and testing by an empanelled agency for two consecutive times from any coastal aquaculture unit shall be avoided to ensure the transparency in the sampling and testing.
- (3) The empanelled and authorised agency for chain of custody sampling and testing shall report their test results as soon as available to the Authority, maintaining the confidentiality of the same.
- (4) The samples shall be drawn, stored and tested by the authorised personnel or laboratory of empanelled and authorised agency and the operator shall not in any way draw the sample and submit for third-party testing under this programme.
- (5) The empanelled agencies shall also be authorised to verify the quarterly in-house biosecurity audit, the in-house disease screening and their reports.
- (6) The Authority shall fix a fee for chain of custody sample collection and testing and pay the same to the empanelled agencies.

B. Disease surveillance process. - (1) The general guide on the frequency of sampling, sample size and maintenance of in chain of custody sampling and testing protocol shall be as given in the table below:

Table-2

Screening Number	Screening frequency (Days of Operation)	Sample Sets	Probable range of Weight. (g)	Parameters to be tested	Confirmatory screening
(1)	(2)	(3)	(4)	(5)	(6)
1 st	30	60	2 to 3	All Pathogens listed by World Organisation for Animal Health and non listed pathogens of concern specified by the Central Government for the candidate species concerned shall be screened.	Confirmatory screening shall be through Histopathology and sequencing of Polymerase Chain Reaction products following detection
2 nd	90	60	22 to 28		
3 rd	180	60	50 to 53		
4 th	360	60			
5 th	540	60			
6 th	720	60			
specific pathogen free accreditation					
7 th	900	20			
8 th	1080	20			

- (2) The new coastal aquaculture units or facilities shall be scheduled for sampling during the 1st, 3rd, 6th, 12th, 18th, and 24th months and the sample size of initial 3 samplings of the 1st, 3rd and 6th months shall be with 60 sample sets each during each sampling.
- (3) Surveillance and testing shall be continued at the 12th, 18th, and 24th months with 60 sample sets during each sampling to acquire specific pathogen free certification or as specified in Manual of Diagnostic Tests for Aquatic Animals laid down by the World Organisation for Animal Health or as specified by the Authority.
- (4) The sample size, frequency of sampling, Standard Operating Procedure for collection of samples, type, methodology or procedure and assay of testing shall be as specified in Manual of Diagnostic Tests for Aquatic Animals laid down by the World Organisation for Animal Health, to be specified by the Authority for each candidate species and such sampling regime shall include all life stages available at the coastal aquaculture unit.
- (5) Upon successful specific pathogen free accreditation of the coastal aquaculture unit and the stock following the chain of custody surveillance and testing for a continuous period of two years, it shall be scheduled once in every six months with 20 sample sets each during each sampling or as specified in the Manual of Diagnostic Tests for Aquatic Animals laid down by the World Organisation for Animal Health or as specified by the Authority.
- (6) In the event of occurrence of a disease, or on affirmative positive sample set reported by the empanelled agency or by the operator, the referral laboratory shall be notified at the shortest time possible by the operator or empanelled agency or the Authority to confirm the same and the operation of the unit shall be suspended by the Authority pending confirmation by the referral laboratory.
- (7) On confirmation of occurrence of any disease or of a confirmative positive sample set by the referral laboratory, the Authority shall engage with the Technical Advisory Committee and shall subject the infected coastal aquaculture unit for inspection by a sub-committee of experts to ensure the biosecurity arrangements and shall cause the coastal aquaculture unit to destroy the entire infected stock and incinerate the same in their presence to contain the spread of the infection.

- (8) In the event of occurrence of disease or of a confirmative positive sample set by the referral laboratory in a particular compartment, the Authority shall decide on the vigorous chain of custody sampling and testing to ensure that the other compartments in the coastal aquaculture unit are free from the said infection, provided there are sufficient biosecurity measures in place to prevent such contamination and any additional fee or charges as decided by the Authority for the same shall be collected from the operator of the coastal aquaculture unit.
- 8. Manner of certification.** - (1) The coastal aquaculture units or stocks shall be subjected to the disease surveillance for the purpose of specific pathogen free certification as illustrated in the Annexure to this Guidelines.
- (2) The operator of any coastal aquaculture unit engaged in the production of specific pathogen free stocks of finfish or shellfish or any aquatic organisms shall apply for the specific pathogen free certification of the coastal aquaculture unit and stocks contained in it.
 - (3) The fee or charge for health monitoring, disease surveillance and specific pathogen free certification shall be fixed by the Authority and shall be paid in advance by the operator of the coastal aquaculture unit concerned to the Authority.
 - (4) Candidate species used for stocking in this coastal aquaculture unit must originate from a certified specific pathogen free coastal aquaculture unit.
 - (5) In the case of new coastal aquaculture unit or, as the case may be, a unit which resumes its operation after stoppage due to infection, the coastal aquaculture unit shall be allowed to sell or ship or export the candidate species as high health stock with health documents on successful completion of three negative sample sets during the 1st, 3rd and 6th months with 60 sample sets each but such stocks shall not be certified as specific pathogen free stocks.
 - (6) On successful completion of the 12th, 18th and 24th months with 60 sample sets each, tested negative within a continuous period of two years, the stock and the coastal aquaculture unit shall be accredited with specific pathogen free status.
 - (7) The accreditation of specific pathogen free status to the coastal aquaculture unit and authorisation to sell the stocks as high health or specific pathogen free shall be issued by the Central Government.
 - (8) In the event of occurrence of a disease or confirmatory positive sample set, the specific pathogen free status of the coastal aquaculture unit and stocks shall automatically stand withdrawn.

- (9) The coastal aquaculture unit with a confirmatory positive sample set shall shutdown the operation and follow the disinfection and dry out process of the compartment or the entire coastal aquaculture unit, as the case may be, for a period of one month and shall start the operation and the process of health monitoring and disease surveillance for specific pathogen free certification afresh.

9. Monitoring and regulation:

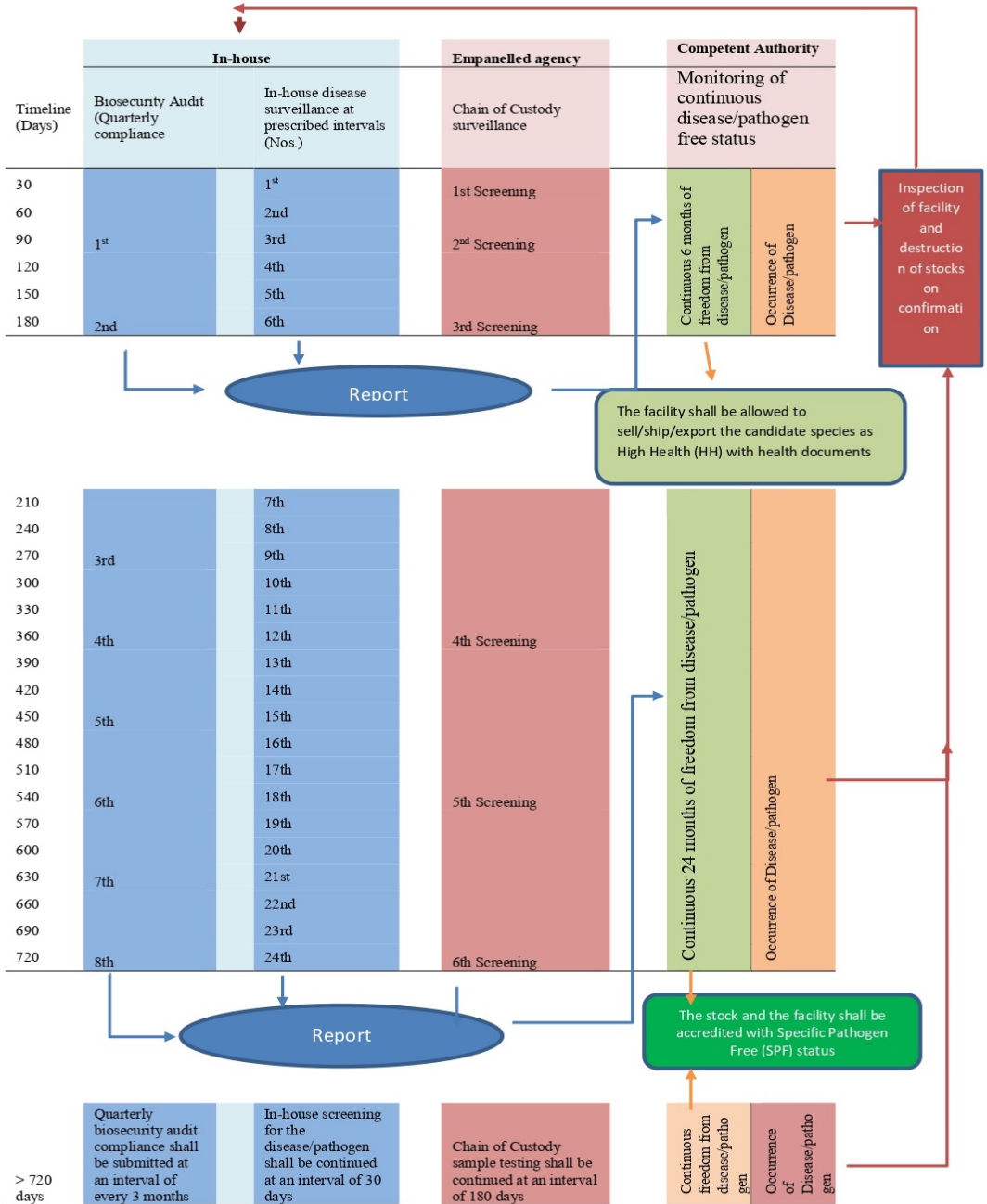
(A). Coastal Aquaculture Authority. - The Authority shall be the competent authority for the following matters, namely: -

- (i) empanelment of agencies for the chain of custody sampling and testing;
- (ii) terms and conditions of empanelment;
- (iii) creation of roster of empaneled agencies for chain of custody sampling and testing;
- (iv) fixation of any fee or charges under this programme;
- (v) the sample size, frequency of sampling, Standard Operating Procedures for collection of samples;
- (vi) scrutiny of test reports and recommendation;
- (vii) coordination and follow up measures in case of a disease occurrence or a positive sample set;
- (viii) suspension of the activity of the coastal aquaculture unit in the event of a disease occurrence or confirmatory positive sample set; and
- (ix) any other administrative and operational matters.

(B). Referral laboratories. –

- (1) The Central Government shall notify the list of referral laboratories from time to time.
- (2) In order to qualify for participating in the specific pathogen free certification programme, the laboratory shall be National Accreditation Board for Testing and Calibration Laboratories accredited and shall qualify in the national or international ring test for multiple pathogen screening of fish and aquatic organisms, unless it is exempted from such conditions by the Central Government.

- (3) The cost of the travel by the authorised personnel of the referral laboratory for the sample collection and testing shall be incurred by the respective institutions or organisation.
- (C). Technical Advisory Committee.** - (1) The Technical Advisory Committee constituted by the Central Government under rule 19 of the Coastal Aquaculture Authority Rules, 2024 shall oversee the implementation of the health monitoring, disease surveillance and specific pathogen free certification programme.
- (2) The Technical Advisory Committee shall assist the Authority in deciding on the matters relating to fixation of the sample size, frequency of sampling, Standard Operating Procedures for collection of samples, fixation of fee or charges, constitution of sub-committees for inspection and culling of the infected stocks, suspension of activity of a coastal aquaculture unit in part or full in the event of disease detection, grievance redressal and dispute under this programme.
 - (3) Appeal, if any, on the decision of the Authority shall be made to the Central Government and the decision of the Central Government shall be final.



**GUIDELINES FOR CERTIFICATE OF COMPLIANCE FOR
AQUACULTURE INPUTS**

Dated: 15th March, 2024

S.O. 1456(E). — In pursuance of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (e) of rule 3 of the Coastal Aquaculture Authority Rules, 2024, the Central Government hereby notifies the following guidelines, namely: -

1. Short title and commencement. – (1) These guidelines may be called the Guidelines for certificate of compliance for aquaculture inputs.
- (2) They shall come into force from the date of their publication in the Official Gazette.

Guidelines for Certificate of Compliance for Aquaculture Inputs

1. **Certificate of compliance.**- (1) The certificate of compliance for aquaculture inputs shall be issued, if –
 - (a) it is free from such pharmacologically active substance, antimicrobial agent or other material which may cause harm to human health as specified by an order of the Authority under section 12A of the Coastal Aquaculture Authority Act, 2005 and rule 18 of Coastal Aquaculture Authority Rules, 2024;
 - (b) complies with the standards specified by the Authority under rule 18 of the said rules, (hereinafter referred to as the said rules).
- (2) All coastal aquaculture inputs made available or used in coastal aquaculture activities, except those specifically exempted by the Authority from the requirement of certification shall have valid certificate of compliance issued under sub-rule (6) of rule 18 of the said rules.
- (3) All coastal aquaculture inputs that have not obtained certificate of compliance, shall submit the application for grant of certificate within six months from the date of publication of this notification in the official Gazette and shall comply with all requirements within one year from such date.
- (4) Both Indian manufacturers and importers or distributors of overseas aquaculture inputs and other supplements for aquaculture use shall obtain a certificate of compliance from the Authority.
- (5) A certificate of compliance shall not be transferrable.

- (6) The certificate of compliance shall be valid for a period of five years from the date of issue which shall be renewable for a similar period in the manner specified in paragraph (8).
- (7) A non-refundable processing fee of ten thousand rupees (Rs. 10,000/-) for each application shall be paid either electronically or in the form of demand draft drawn in favour of the Coastal Aquaculture Authority.

2. Labelling standards, - (1) The labels on packages or containers of aquaculture inputs in addition to other statutory requirements on labelling, without any duplication, shall contain particulars specified in sub-paragraph (4), and displayed at a conspicuous position on the container in which the substance is packed and every other covering in which that container is packed.

- (2) The labels shall clearly indicate the basic composition of the aquaculture input, dosage, batch number, expiry date and other important details as specified in sub-paragraph (4), provided that brochures shall be mandatory in case the label has limited information.
- (3) The portion in the label showing content shall not contain generic terms like, vitamins, minerals, essential nutrients etc., instead, specific scientific name of vitamins, minerals, etc., shall be mentioned;
- (4) The label shall contain but not limited to the following particulars, in the following manner namely: -
 - (a) **name of the aquaculture input:** Trade name of the aquaculture input shall be in capital letters or prominent font as mentioned in the certificate of compliance issued by the Authority;
 - (b) **net quantity of contents:**
 - (i) A correct statement of the net content in terms of weight, measure, volume, number of units of contents and number of units of activity, as the case may be, shall be indicated.
 - (ii) The indicated values shall be in Metric system;
 - (c) **name and composition of ingredients:** Scientific name of all major ingredients of the aquaculture input shall be mentioned with approximate concentration, composition expressed in appropriate unit, as applicable;

- (d) **recommendations for use:** The label shall clearly indicate the intended benefit, prescribed dosage and schedule of application to achieve the desired benefit;
- (e) **method of application:**
 - (i) Method of application of aquaculture input as feed top dressing, broadcasting throughout the pond or any other method shall be provided;
 - (ii) Pre-treatments like, soaking in water or overnight fermentation, if any before application shall be clearly mentioned;
 - (iii) This can be limited to brochure to save space in the label and brochure is compulsory with such aquaculture input;
- (f) **contraindications (if any):** Information not suitable with any other aquaculture input or not to be used in particular culture systems, species or growth stages shall be clearly indicated with pictorial representation in the label.
- (g) **batch number:**
 - (i) A distinctive traceable batch number in which the aquaculture input was produced at the manufacturing unit shall be indicated on the label;
 - (ii) The details of such batches and retention sample shall be available at the manufacturing facility or distribution unit or warehouse facility for traceability;
 - (iii) The figure representing the batch number shall be prefixed with 'Batch No';
- (h) **import licence number (if imported):** Aquaculture inputs manufactured with imported ingredients and aquaculture inputs as a whole imported and marketed in India shall bear on the label, the license number or Sanitary Import Permit number, wherever applicable, under which the aquaculture input is imported, prefixed with 'Import License Number' or Sanitary Import Permit number and contact details of the company importing and marketing the aquaculture input shall also be clearly mentioned;

- (i) **manufacture date:** The date of manufacture shall be in terms of month and year;
- (j) **expiry date:**
 - (i) The date of expiry shall be in terms of month and year and it shall mean that the aquaculture input is recommended till the last day of the month.
 - (ii) The date of expiry shall be prefixed with 'Expiry date'.
 - (iii) It required, "Best Before" in terms of month and year shall be indicated depending on the aquaculture inputs;
- (k) **storage conditions:** Appropriate storage conditions like cool, dark place, avoiding from sun light etc., required to maintain the potential of the aquaculture input till the expiry date shall be mentioned clearly;
- (l) **indication of 'Not for Human Consumption':** The label shall have 'Not for Human Consumption' in the bottom strip with bigger font size to avoid any possible consumption by humans;
- (m) **indication of 'Aquatic Animal Use Only':** The label shall bear a SYMBOL depicting an appropriate image of the aquatic animals for which the aquaculture input is to be administered;
- (n) **name and address of manufacturer and Importer:** Complete name and address of the manufacturer and importer shall be provided as submitted to the Coastal Aquaculture Authority including the name of the place or village, taluk, district, state and the PIN code;
- (o) **Indication "Does not contain antibiotics" or "Free from Antibiotics":** The label shall have 'Does not contain antibiotics' or 'Free from Antibiotics' in the bottom strip with bigger font size conspicuously displayed in a box with distinct colour;
- (p) **certification number:** Every aquaculture input except those exempted by the Authority under sub-rule (3) of rule 18 of the said rules, manufactured or marketed in India shall bear on its label the certification number issued by the Authority for that aquaculture input with a caption in bold letters as "CAA Certified Aquaculture Input" or any water mark as may be specified by the Authority.

3. **Certification process.** – (1) Separate application for each aquaculture input shall be made in Form-III of the said rules for grant of certificate of compliance for that aquaculture input, which may be downloaded from Authority website – www.caa.gov.in and shall be submitted along with all required documents as specified in Schedule-III of the said rules.
- (2) Only the manufacturers of aquaculture inputs and other supplements for aquaculture use shall be eligible to apply for the certificate of compliance, if such aquaculture inputs are manufactured in India.
 - (3) Only the importer of the aquaculture inputs and other supplements for aquaculture use shall be eligible to apply for grant of certificate of compliance.
 - (4) All documents as required by the Authority shall be submitted before completion of sixty calendar days from the date of receipt of application by the Authority failing which the application shall be closed as defective under intimation to the applicant and the processing fee of rupees ten thousand shall be forfeited and deposited in the Authority's accounts.
 - (5) The application shall be submitted afresh, if the earlier application is closed as defective.
4. **Details of documents required under Schedule III,** - (1) The following documents shall be commonly required for both manufacturers and importers, namely: -
- (a) antibiotic test report of the aquaculture input in ORIGINAL for test done not earlier than a month from the date of submission of application, for the presence of antibiotics, their parent compounds and metabolites specified by the Authority from any National Accreditation Board for Testing and Calibration Laboratories accredited Government or private laboratory with a scope for testing said antibiotic residues using Liquid Chromatography with tandem mass spectrometry method;
 - (b) retention sample of not less than 500 grams or 500 milligram of each aquaculture input from each batch of manufacturing or importing shall be retained at the manufacturing or distribution unit for a period not exceeding the expiry of such aquaculture input and the documentary evidence such as scanned copy of the latest page of the sample retention record for each aquaculture input which shows the details of the latest sample stored and photographs of such storage facility and furnish declaration in Form-E-1.

- (2) All the certified aquaculture inputs shall be subjected to a random testing by Authority at least once before the expiry of its certification;
- (3) The manufacturer may design their own seal or tamper proof mechanism to ensure the same is not duplicated by any other party and it shall be mentioned in the application to the Authority by the applicant to confirm the genuineness of the aquaculture input while sampling.
- (4) In the case of aquaculture inputs manufactured in India, any application for certificate of compliance shall be accompanied with the following documents in addition to those specified in sub-paragraph (1), namely: -
 - (a) Details of company/firm, as under: -
 - (i) company incorporation proof (Address proof for company);
 - (ii) Micro, Small and Medium Enterprises; and
 - (iii) Goods and Services Tax certificate.
 - (b) Details of the manufacturing facility, as under: -
 - (i) certificate of registration of the manufacturing unit or factory etc., from the competent authority;
 - (ii) licence to work as factory;
 - (iii) proof of any facility certification;
 - (iv) any process certification such as International Organization for Standardization or Best Aquaculture Practices or Good Manufacturing Practice or Hazard Analysis Critical Control Points etc.
 - (c) other documents, as under: -
 - (i) detailed process flowchart which shall be, but not limited to the checkpoints that are linked with testing process as a part of the in-process quality control system adopted by the manufacturer in the production
 - (ii) process certification that ensures antibiotic free production or a notarised self- declaration in Form-E-2 for antibiotic free ingredients as well as production process;
 - (iii) list of records maintained in the unit pertaining to the aquaculture input and production process;
 - (iv) in case the aquaculture input is manufactured under an agreement (3) as merchant manufacturer, in a facility not owned by the applicant, copy of such agreement shall be submitted and in such case, the responsibility of compliances shall be on both the parties.

- (5) In the case of aquaculture inputs imported from abroad, every application for certificate of compliance shall be accompanied with the following documents in addition to those specified in subparagraph (1), namely: -
- (i) proof of registration of the importing company in India such as certificate of incorporation, importer licence, Micro, Small and Medium Enterprises, Goods and Services Tax, etc.;
 - (ii) health certificate or veterinary certificate from the competent authority showing antibiotic free status of the aquaculture input while importing or any antibiotic-free certificate from competent authority of the country of origin and in the absence of such certificate, a duly notarised declaration from the manufacturer in Form-E-2;
 - (iii) details or list of records maintained by the importer on the imported aquaculture inputs, the originals of which may be produced on demand;
 - (iv) copy of authorisation for distributing the aquaculture input or copy of the agreement between the overseas principal manufacturer and Indian importer;
 - (v) manufacturing process stepwise (Flow chart) along with testing procedures followed within the unit or any such relevant document from the overseas manufacturer;
 - (vi) any process certification such as International Organization for Standardization or Best Aquaculture Practices or Good Manufacturing Practice or Hazard Analysis Critical Control Points from the overseas manufacturer;
 - (vii) proof of any facility certification.

- 5. Renewal of certificate of compliance.** - (1) Application in Form-III of the said rules shall be submitted for renewal of certificate of compliance for aquaculture inputs three months before the expiry of such certificate with a non-refundable processing fee for ten thousand rupees (Rs. 10,000) shall be paid either electronically or in the form of demand draft drawn in favour of the Coastal Aquaculture Authority, along with the following documents as specified in Schedule-III of the said rules, namely: -

- (i) antibiotic test report of the aquaculture input in ORIGINAL for test done not earlier than a month from the date of submission of application, for the presence of antibiotic, their parent and metabolites from any National Accreditation Board for Testing and Calibration Laboratories accredited Government or private laboratory with a scope for testing said antibiotic residues using Liquid Chromatography with tandem mass spectrometry method;
 - (ii) revised labels and brochures, in case of change, if any, in compliance with the requirements specified in paragraph (5);
 - (iii) a notarised self-declaration in Form-E-3.
- (2) In case any deficiency in the application is observed by the Authority, the rectification or additional documentary requirements shall be submitted within forty-five calendar days before the expiry of such certification failing which the application shall be closed as defective and the processing fee of ten thousand rupees (Rs. 10,000/-) shall be forfeited and deposited with the Authority's account under intimation to the applicant.
- (3) Upon satisfactory compliance with the requirements of this paragraph, the Authority shall renew the certificate of compliance within a period of sixty days from the date of receipt of the application by it.

6. Enforcement mechanism. - (1) There shall be an inspection committee headed by the Director Technical of the Authority including representatives from the following institutions, namely: -

- (i) Sub Divisional or District Level Committees or Department of Fisheries of State concerned;
 - (ii) representative for Central Drugs Standard Control Organisation not below the rank of Assistant Drug Inspector;
 - (iii) representative from Marine Products Export Development Authority;
 - (iv) representative from any Indian Council of Agriculture Research Fisheries Institute in the region Central Institute of Brackishwater Aquaculture, Central Marine Fisheries Research Institute and Central Institute of Fisheries Education.
- (2) The committee shall randomly inspect the storage or manufacturing facilities of the manufacturers or importers for conforming the compliance.

- (3) A task force shall be constituted by the Authority including representatives from the Authority, District Level Committees and the Marine Products Export Development Authority, for monitoring of aquaculture inputs manufactured or marketed in India.
- (4) The Task Force constituted by the Authority shall collect aquaculture input samples randomly from manufacturing facility or storage facility, aqua shops, farms, hatcheries, etc. and the manufacturer or importer company shall reimburse the cost of the sample collected by the Authority to the facility from where the sample is collected.
- (5) In case of aquaculture inputs for which the seal or tamper proof mechanism is declared by the manufacturer, the task force shall during sampling, open the packaging of the input for ensuring the intactness of the seal or tamper proof mechanism amalgamated with the packaging as mentioned in the application and samples shall be sealed in the presence of the task force to ensure the genuineness of the aquaculture input at the time of submission for testing.
- (6) The Authority shall empanel laboratories for testing the aquaculture inputs.
- (7) The person representing the Authority the task force shall submit the samples collected by task force to the laboratories empanelled and approved by the Authority and the laboratories shall submit the report to the Authority directly for necessary action.
- (8) The frequency of collection of sample and testing of a aquaculture input shall be reduced if it maintains antibiotic-free status in multiple tests conducted by the Authority over a period of two consecutive years.
- (9) The Authority shall specify by an order, a protocol for sampling and testing, outlining the roles of the task force.
- (10) In case any aquaculture input is tested positive or reported by the task force or any competent authorities under any National Regulatory Programme such as National Residue Control Plan for antibiotic residues, the certificate of such aquaculture input shall stand suspended with immediate effect and such aquaculture input shall be delisted from the active list of certified aquaculture inputs.
- (11) The Authority shall, after providing reasonable opportunities for being heard from manufacturer or importer of such aquaculture input, impose the penalties as provided under section 14 of the said Act.

Form-E-1

[See paragraph 4 (1) (b)]

[To be printed on Rs. 100/- Non-judicial stamp paper]

Date :

DECLARATION

We – (name of the company) undertake to declare that a sample not less than 500 grams or 500 miligrams of each aquaculture input from each batch of manufacturing is being retained for the aquaculture inputs listed below with necessary information and adequate safety and storage precautions for maintaining this input, till the expiry of its validity of the respective batch for each aquaculture input sample.

Sl.No.	Name of the aquaculture input	Period of retention (from the date of sampling)
(1)	(2)	(3)
1.		
2.		
3.		
4.		
5.		

Further, we undertake to reimburse the cost of the samples collected by Coastal Aquaculture Authority to the end user concerned.

(Name of the authorised signatory with company seal)

Form-E-2

[See paragraph 4(4) (c) (ii) and 4(5) (ii)]
[To be printed on Rs. 100/- Non-judicial stamp paper]

Date:

DECLARATION

We – (name of the company) do solemnly affirm that the ingredients used for the manufacturing of the following aquaculture inputs are free from the antibiotics banned for use in aquaculture. We also affirm that the process with which the following aquaculture inputs manufactured are designed to produce the aquaculture inputs without the inclusion of any antibiotic in any form:

Sl.No.	Name of the aquaculture input
(1)	(2)
1.	
2.	
3.	
4.	
5.	

Further, we do authorise the Coastal Aquaculture Authority or any person, team or committee authorised by the Authority to enter and inspect the storage premises or manufacturing facility of the company and to collect aquaculture input samples at any time without any prior notice.

(Name of the authorised signatory with company seal)

Form-E-3

[See paragraph 5 (1) (iii)]

[To be printed on Rs. 100/- Non-judicial stamp paper]

Date:

DECLARATION

We – (name of the company) do solemnly affirm that the ingredients used for the manufacturing of the following aquaculture inputs are free from the antibiotics banned for use in aquaculture. We also affirm that the process with which the following aquaculture inputs manufactured are designed to produce the aquaculture inputs without the inclusion of any antibiotic in any form:

Sl.No.	Name of the aquaculture input
(1)	(2)
1.	
2.	
3.	
4.	
5.	

Further, we declare that the aquaculture input composition, name, period of expiry, dosage, method of application and all other aspect of the above mentioned aquaculture input, furnished at the time of certification remains the same.

(Name of the authorised signatory with company seal)

GUIDELINES FOR ESTABLISHMENT AND OPERATION OF NUCLEUS BREEDING CENTRE AND BROODSTOCK MULTIPLICATION CENTRES IN INDIA.

Dated: 15th March, 2024

S.O. 1459(E). —In pursuance of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (f) of rule 3 of the Coastal Aquaculture Authority Rules, 2024, the Central Government hereby notifies the following guidelines, namely:-

1. **Short title and commencement.** – (1) These guidelines may be called the Guidelines for establishment and operation of Nucleus Breeding Centre and Broodstock Multiplication Centres in India.
- (2) They shall come into force from the date of their publication in the Official Gazette.

Guidelines for establishment and operation of Nucleus Breeding Centre and Broodstock Multiplication Centres in India.

1. **Application.** - (1) These guidelines lay down norms and procedure to govern the establishment and operation of Nucleus Breeding Centres and Broodstock Multiplication Centres in the coastal areas for the production of disease free broodstocks.
- (2) The Nucleus Breeding Centres and Broodstock Multiplication Centres for any candidate species including *Litopenaeus vannamei* or *Penaeus monodon* or *Penaeus indicus*, finfishes such as Sea Bass or Cobia or Pompano or Grouper and Fresh water prawn *Macrobrachium rosenbergii* to establish the improvised specific pathogen free or specific pathogen tolerant or specific pathogen resistant brood bank to harness the potential of coastal aquaculture shall be considered under these guidelines with appropriate biosecurity, genetic improvement and sustainability measures including environmental safeguards.
2. **Eligibility.**- (1) The Nucleus Breeding Centres and Broodstock Multiplication Centres shall be established for increasing production and productivity of the coastal aquaculture sector in India by any existing producers of specific pathogen free or specific pathogen tolerant or specific pathogen resistant broodstock as well those involved in domestication and breeding programmes of any potential candidate species for coastal aquaculture either from India or from overseas either independently or through a joint venture with the local partner from the India.

- (2) An applicant organization possesses the requisite experience and capabilities required for establishment and operation of Nucleus Breeding Centres or Broodstock Multiplication centres may apply in Form- F-1 either individually (as sole organisation) or as lead partner of a consortium of organisations (as lead partner) as per the extant rules, regulations and procedure in force.
- (3) The Applicants shall individually or collectively possess the following technical capacity and experience, namely:-
 - (i) have successfully designed and operated a Nucleus Breeding Centres or Broodstock Multiplication Centres for *Litopenaeus vannamei* or any such other fish or shrimp species which has developed and maintained a minimum of 5 generations; and
 - (ii) have successfully developed and managed a minimum of 50 families of *Litopenaeus vannamei* or any such other fish or shrimp species, through its own research and development activities, in the last ten years.
- (4) The applicants must have been engaged in the establishment and operation of at least one Nucleus Breeding Centres or Broodstock Multiplication Centres assignment within the last five years preceding the date of application and submit details thereof.
- (5) The Genetic Improvement Programs and Nucleus Breeding Centre under the Government shall be encouraged through Indian Council of Agricultural Research under the Department of Agricultural Research and Education on a convergence mode with the other Ministries and Department of Government of India including organization and other entities under them, the State or union territory Governments and private entrepreneurs.

- 3. Prior permission for establishing Nucleus Breeding Centres or Broodstock Multiplication Centres.-** (1) The prior permission for establishing the Nucleus Breeding Centres or Broodstock Multiplication Centres upon an application made under rule,11 of the said rules, shall be granted by the Central Government in the Department of Fisheries, Ministry of Fisheries Animal Husbandry and Dairying, based on the recommendations of a Project Screening Committee consisting of the following members, namely: -

Guidelines for Establishment and Operation of Nucleus Breeding Centre and
Broodstock Multiplication Centres in India

i	Joint Secretary (Marine Fisheries), Department of Fisheries	-	Chairperson
ii	Secretary, Coastal Aquaculture Authority	-	Member
iii	Director, Indian Council of Agricultural Research - National Bureau of Fish Genetic Resources	-	Member
iv	Director, Indian Council of Agricultural Research - Central Institute of Brackishwater Aquaculture	-	Member
v	Director, Indian Council of Agricultural Research - Central Marine Fisheries Research Institute	-	Member
vi	Representative from Department of Economic Affairs or Corporate Affairs	-	Member
vii	Project Director, Marine Product Export Development Authority - Rajiv Gandhi Centre for Aquaculture	-	Member

- (2) The application under rule, 11 of said rules shall contain but not limited to the following, namely: -
- (i) general background and overview of the individual firm or consortium;
 - (ii) statement of qualification;
 - (iii) understanding of the assignment and scope;
 - (iv) work methodology;
 - (v) detailed mile stones;
 - (vi) domestic and international experience in design and operation of a Nucleus Breeding Centre or a breeding programme (if any);
 - (vii) professional and local partners (if any);
 - (viii) technical team strength;
 - (ix) details of technology;
 - (x) Valid certificates of freedom from disease from the competent authority of the Government issued in accordance with the World Organization for Animal Health Code, for the facilities operated by the applicants.
- (3) The Project Screening Committee shall be assisted by a Technical and Inspection Committee to be constituted by an order of the Central Government.

- (4) The Project Screening Committee shall scrutinize the applications received from time to time and subject project site for physical verification and on-site inspection by the Technical and Inspection Committee.
- (5) The Technical and Inspection Committee shall conduct a physical verification and on-site inspection and submit its report on the suitability of the site proposed for establishment of Nucleus Breeding Centres or Broodstock Multiplication Centres before the concept presentation by the applicant.
- (6) The Project Screening Committee shall scrutinize the applications received from time to time and evaluate them through a concept presentation made by the applicant on the scheme of development covering the following aspects, namely: -
 - (i) brief background of the applicants and the details of Nucleus Breeding Centres or Broodstock Multiplication Centres being operated by the applicants, as well as experience, if any, of having provided services in any other project;
 - (ii) conceptual plans of the project including preliminary lay out and site plan, floor plans, elevations, sections wherever necessary;
 - (iii) indicative area allocation for the different zones of the Nucleus Breeding Centres or Broodstock Multiplication Centres;
 - (iv) expected features and functionalities of the proposed Nucleus Breeding Centres or Broodstock Multiplication Centres;
 - (v) preliminary cost estimates for the development of project;
 - (vi) proposed selective breeding strategy that the applicant seeks to implement including physical growth, freedom from disease with disease tolerance characteristics and reproductive performance;
 - (vii) analysis of the historical outcomes of the research & development undertaken by the applicants;
 - (viii) presentation of the Standard Operating Procedure and manuals to be prepared for the project by the applicants and the procedure to be adopted for developing distinct families with least inbreeding.
 - (ix) advantages of the technology and bio-security being provided by the applicants and the rationale and benefits of such an approach.
- (7) The Project Screening Committee shall make its recommendation based on the report of the Technical and Inspection Committee and the concept

presentation to the Department of Fisheries for grant of prior permission or otherwise by the competent authority to establish Nucleus Breeding Centres or Broodstock Multiplication Centres.

- (8) The decision of the competent authority shall be conveyed to the applicant within ninety days from the date of receipt of application.

4. General requirements. - (1) There shall be no aquaculture activities or Fish Landing Centres or any other source of direct contamination within a radius of 1000 meters (one kilometer) from the site selected for the establishment of the Nucleus Breeding Centres or the Broodstock Multiplication Centres.

- (2) The Nucleus Breeding Centres and Broodstock Multiplication Centres shall be in separate locations and in case there is substantial cause, they may coexist within the same site with adequate physical separation and isolation from each other with independent water supply and discharge.

- (3) There shall be adequate biosecurity measures to analyze and manage risks in the life and health of candidate species including associated environmental risk for the prevention of diseases in aquaculture.

- (4) The Nucleus Breeding Centres and Broodstock Multiplication Centres shall comply with the requirements for biosecurity, in-house biosecurity audit, in house health monitoring and disease surveillance and chain of custody sampling and testing as specified in the Guidelines for the Health Monitoring, Disease Surveillance and Specific Pathogen Free Certification of Coastal Aquaculture Units and Stocks in India and Aquatic Animal Health Code of World Organisation for Animal Health.

5. Infrastructure requirement. - The Nucleus Breeding Centres or Broodstock Multiplication Centres shall have sufficient infrastructure including the following for ensuring complete biosecurity, namely:-

- (i) the basic infrastructure including indoor rearing tanks in accordance with the annual broodstock production of the Broodstock Multiplication Centres or with the minimum number of founder families to be maintained at the Nucleus Breeding Centres;
- (ii) in-house primary and secondary quarantine, with dedicated water supply, aeration and drainage system to avoid any cross contamination;
- (iii) a completely bio-secure production area with compound wall on the perimeter, shower and change room for entry, disinfection

for men, materials and vehicles, isolation of entry and exit to avoid crisscrossing, compartmentalization of rearing units with adequate physical separation and packing facility;

- (iv) biosecured water supply and aeration system with double line;
- (v) completely covered the drainage system with provision for disinfection of the drainage water at each compartment;
- (vi) adequate temperature-controlled storage for biosecured feeds;
- (vii) intake water treatment facilities with sufficient capacity reservoirs, different types of filters and mandatory sterilisation of intake water using Ultra Violet or ozonization;
- (viii) an Effluent Treatment System with adequate capacity to ensure that no water is discharged without disinfection of the same;
- (ix) a fully equipped disease diagnostic laboratory with stock of all required primers as well as qualified and trained technicians;
- (x) capacity to carry out genomic analysis in the case of Nucleus Breeding Centres;
- (xi) a full- fledged facility for incineration of dead or diseased animals;
- (xii) a full-fledged Specific Pathogen Free algal culture system.

6. Source material or germplasm and selective breeding programme. - (1)

The Nucleus Breeding Centres facility shall implement its own scientifically documented selective breeding programme to develop a robust candidate species with a high level of genetic diversity, whilst maintaining high growth potential freedom from disease with disease tolerance characteristics and reproductive performance.

- (2) The founder families of highly genetically diverse breeders shall either be obtained from another breeding programme or wild or farmed stocks covering a range of environmental conditions. The new population from the wild shall be cleaned up through multiple quarantine and screening process.
- (3) The Nucleus Breeding Centres shall implement genetic improvement programs including family and within family breeding program, combined family and within-family selection scheme with the founder families which shall focus on improving size at harvest, survival rate and freedom or tolerance or resistance to listed diseases.

- (4) Appropriate measures including pedigree analysis shall be implemented to contain the accumulation of inbreeding whilst maintaining genetic integrity and variability.
 - (5) The Nucleus Breeding Centres shall to the extent possible trace the genetic relationships among breeding candidates and test animals by Deoxyribonucleic acid based parental assignment to have a Deoxyribonucleic acid profile of the populations.
 - (6) With parental assignment by Deoxyribonucleic acid, animals belonging to different families shall be pooled shortly after tagging.
 - (7) Candidate species used for stocking in any Broodstock Multiplication Centres shall originate from a certified Specific Pathogen Free coastal aquaculture unit.
 - (8) The Broodstock Multiplication Centres shall have a reliable supply of Specific Pathogen Free parent post larvae from an established Nucleus Breeding Centre located in India or overseas.
 - (9) In the case of Indigenous Domesticated Broodstock of wild type or which has or not undergoes genetic improvement, the Nucleus Breeding Centre must maintain the disease free, tested and clean broodstock which should be source of supply to Broodstock Multiplication Centre. Broodstock Multiplication Centre must maintain the clean broodstock status for the seed supply down the line for aquaculture.
- 7. Import of source material and Quarantine.** -(1) The Nucleus Breeding Centre or Broodstock Multiplication Centre may import the source material either Broodstock or parent post larvae as the case may be, including those required for sentinel trials, as the case may be from the designated empaneled supplier of the respective Nucleus Breeding Centre or Broodstock Multiplication Centre every month subject to the availability of quarantine space at the aquatic quarantine facility.
- (2) In case of any change of designated supplier, the matter shall be referred to the Authority for consideration:

Provided that the Broodstock Multiplication Centre shall operate with the source material imported from one single designated empanelled supplier at any given point in time.
 - (3) The imported source material shall be subjected to quarantine at the aquatic quarantine facility for a period as may be specified by the Authority or the Central Government, for such source material.

- (4) The imported source material shall undergo the required quarantine process at the in-house quarantine facility of the Nucleus Breeding Centres or Broodstock Multiplication Centres for period not less than one month to avoid any possible external contamination.
- (5) The imported source material shall be screened for all World Organisation for Animal Health listed pathogens for the candidate species concerned in addition to the pathogens of concern if any specified by the Authority or the Central Government.
- (6) The Central Government may from time to time specify the pathogens of concern, methodology or procedure and assay of testing of that pathogen or any other matter connected therewith, Microbiological Index for each species-specific coastal aquaculture unit, in consultation with the technical advisory committee constituted for the purpose.

8. Monitoring and regulation of Nucleus Breeding Centre or Broodstock Multiplication Centre. -

- (1) The Nucleus Breeding Centre or Broodstock Multiplication Centre shall comply with provisions of the Guidelines for the Health Monitoring, Disease Surveillance and specific pathogen free certification of coastal aquaculture units and stocks in India.
- (2) The Nucleus Breeding Centres shall keep the average rate of inbreeding per generation in the target lines selected for specific traits to suit the environment where they will be grown at low ranging between from 0.25 to 0.50 percent.
- (3) The Nucleus Breeding Centres shall ensure that genetic gain per generation for growth or any other selected parameter is increased substantially.
- (4) The Nucleus Breeding Centres shall maintain the records of performance analysis including the following namely:
 - (i) completed generations of selection based on performance data from full-sib families;
 - (ii) heritability estimates such as harvest weight, general survival, freedom from specific disease, resistance or tolerance to specific disease etc.;
 - (iii) genetics trend analyses for average selection response per generation.

- (5) The Nucleus Breeding Centres or Broodstock Multiplication Centres shall supply certified High Health or specific pathogen free broodstock or source material alone to the coastal aquaculture units registered with the Authority or States, in a fair and transparent manner and the Broodstock Multiplication Centre shall maintain a record of such sales.
- (6) The Broodstock Multiplication Centre operator shall maintain a detailed record of the growth, survival, disease occurrence of the shrimp population during rearing.
- (7) The approved Nucleus Breeding Centres or Broodstock Multiplication Centres shall pay monitoring Fee as prescribed by the Authority and shall deposit a performance bank guarantee for rupees five lakh in favour of the Coastal Aquaculture Authority to ensure compliance of the guidelines by them and in the event of any violation the Bank Guarantee shall be invoked.
- (8) The non-compliance, if any, on the part of the Nucleus Breeding Centres or Broodstock Multiplication Centres or its operator, the performance Bank Guarantee shall be invoked and shall be liable for suspension or cancellation of the registration in accordance with the provisions of section 14 of the said Act.

Form- F-1

**Application for prior permission to establish Nucleus Breeding Centre or
Broodstock Multiplication Centre**

I.	Name of the candidate species	
II.	Prior permission sought to establish Nucleus Breeding Centre or Broodstock Multiplication Centre	
III.	Details of the proposing firm or consortium:	
1.	Name of the applicant (s) or firm (s) (Separate sheet may be attached for each member in case of consortium)	
2.	Address	
3.	Date of incorporation and registration details	
4.	Field of operation	
5.	Details of Board of Directors and Managing Director with copy of Memorandum of Association or Memorandum of Article	
6.	Certified an Audited financial statement of the firm for the last three years	

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IV.	Statement of qualification	
1.	Number of years of experience in the operation of Nucleus Breeding Centre or Broodstock Multiplication Centre	
2.	Number of Nucleus Breeding Centre or Broodstock Multiplication Centre designed or operated, candidate species and Number of families developed and maintained in the last ten years (attach separate sheet)	
3.	Number of families developed and maintained through own research and development activities in the last ten years	
V.	Details of source material:	
1.	Name of the overseas Specific Pathogen Free Facility	
2.	Address (including email ID)	
3.	Details of the firm:	
4.	Country of registration	
5.	Location of the facility	
6.	Terms and conditions of agreement with the Indian firms	
7.	Details of extent of commercial supply of Specific Pathogen Free broodstock	
8.	Details of any other Nucleus Breeding Centre or Broodstock Multiplication Centre operated in any other country	
9.	Reproductive performance of Specific Pathogen Free broodstock of the firm in terms of Size at maturity, latency period for maturation, fecundity, Number of spawning per female, hatching rate and survival rate at different stages	
10.	Performance of the stock in commercial culture for growth and disease	
11.	Copy of the Memorandum of Understanding or agreement indicating a firm commitment for the supply of source material as per the requirement is to be enclosed.	
VI.	Detailed infrastructure and personnel of overseas Specific Pathogen Free facility	
1.	Lay-out plan of the Specific Pathogen Free facility	(attach diagram with explanation)
2.	Water treatment and supply	
3.	Rearing facilities	
4.	Laboratory facilities	
5.	Biosecurity (disinfection protocol, shower room, fencing, etc.)	

Guidelines for Establishment and Operation of Nucleus Breeding Centre and
Broodstock Multiplication Centres in India

6.	Number of technical staff and details of their expertise (Attach bio data)	
7.	Financial status for last three years along with audited statement	
VII.	Disease surveillance at the Specific Pathogen Free facility	
1.	List of pathogens excluded in the facility	
2.	Methodology followed for the diagnosis (or diagnostic protocols followed)	
3.	Certificate (issued by Government) of disease free nature of the facility for the last two years to be enclosed	
4.	Frequency of surveillance	
5.	Details of the diagnostic reports during the recent surveillance from a Government authorised or World Organisation for Animal Health referral laboratory	
VIII.	Details of selective breeding programme	
1.	Source of Founder population (Number of geographic location or number of Specific Pathogen Free facilities sourced)	
2.	Genetic divergence of the population (Number of families from each location or each Specific Pathogen Free facility.	
3.	Frequency of introduction of further families into founder population	
4.	Type of selection programme followed	
5.	Number of lines and Number of families maintained	
6.	Number of generations raised	
7.	Minimum effective population size over the generations	
8.	Traits considered for selection	
9.	Genetic gain over the generations	
10.	Name and brief bio-data of the geneticist involved in drafting the breeding plan	
11.	Breeding plan indicating the specific details to avoid in breeding	
IX.	Details of Indian Broodstock Multiplication Centre facility	
1.	Annual capacity proposed (Number of broodstock per year)	
2.	Requirements of Specific Pathogen Free Post Larvae and the frequency of import	
3.	Number of months of rearing proposed	
4.	Survival anticipated during rearing from Post Larvae to broodstock	

Guidelines for Establishment and Operation of Nucleus Breeding Centre and
Broodstock Multiplication Centres in India

X.	Infrastructure facilities proposed	
1.	Land area	
2.	Location	
3.	Whether any existing facility is being remodeled as Broodstock Multiplication Centre? If so, indicate its prior use and the present condition	
4.	Distance between the nearest hatchery or farm	
5.	Lay-out plan of the posed facility indicating the quarantine, water intake and treatment; rearing tanks under closed conditions, biosecurity features, Effluent Treatment System, etc., indicate the capacity and number of tanks (attach diagram with explanation)	
6.	Details of the diagnostic laboratory facility	
7.	Brief cost estimates and source of funding	
8.	Technical staff proposed to be involved in the operation of Broodstock Multiplication Centre and their brief bio-data indicating their area of expertise	
9.	List of pathogens proposed to be tested in the Broodstock Multiplication Centre and the surveillance protocol to be followed	
10.	Sampling details	
11.	Frequency of sampling and testing	
XI.	Any other particulars or details	

GUIDELINES FOR SOLID WASTE MANAGEMENT IN COASTAL AQUACULTURE UNITS OR ACTIVITIES

Dated: 15th March, 2024

S.O. 1458(E). —In pursuance of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (g) of rule 3 of the Coastal Aquaculture Authority Rules, 2024, the Central Government hereby notifies the following guidelines, namely: -

- 1. Short title and commencement.** – (1) These guidelines may be called the Guidelines for solid waste management in coastal aquaculture units or activities.
(2) They shall come into force from the date of their publication in the Official Gazette.

Guidelines for Solid Waste Management in Coastal Aquaculture Units or Activities

- 2. General:** (1) For the purpose of achieving sustainable development of environmentally friendly coastal aquaculture, the aquaculture sector shall focus on methods to reduce and manage the waste generated from production including coastal aquaculture hatcheries, farms, Nucleus Breeding Centres, Broodstock Multiplication Centres, and aquaculture inputs production units.
(2) The coastal aquaculture units shall follow appropriate selection and use of reusable materials during the production cycle in the coastal aquaculture units to reduce waste generation.
(3) All coastal aquaculture units shall minimise the use of non-recyclable products and promote the use of eco-friendly alternate material, which can be easily recycled or reused or degraded and decomposed.
(4) The wastes generated from coastal aquaculture units may be categorised into waste water and solid waste as under, namely: -
 - (a) **Waste water.**- The wastewater or effluents from the coastal aquaculture units shall be treated in the Effluent Treatment System, in accordance with the protocol specified by the Coastal Aquaculture Authority which shall conform to the standards for treatment of wastewater discharged from the aquaculture units as specified under the Guidelines for regulating coastal aquaculture issued under rule 3 of the Coastal Aquaculture Authority Rules, 2024 before it is discharged into the open water source: Provided that in the absence of standards or loads for certain parameters, the discharged water shall be in conformity with the standards of the Pollution Control Board for such parameters.

- (b) **Solid waste.** - The solid wastes generated from the coastal aquaculture units shall be managed with adequate care to protect the adjoining coastal environment from possible pollution as under:
 - (i) the units shall be responsible for handling the solid waste in accordance with the rules made under the Environment (Protection) Act 1986 (29 of 1986);
 - (ii) the coastal aquaculture units shall develop appropriate infrastructure for segregation, collection, storage, transportation processing and disposal of solid or plastic waste either by its own or by engaging agencies or producers in accordance with the rules made under the said Environment (Protection) Act, 1986.
- 2. **Evaluation of Waste.** - (1) Every coastal aquaculture units shall identify the areas or sections, the type and quantity of waste being generated, area for the storage and treatment of different streams of waste, **determine the appropriate methods or ways to safely dispose them** and prepare a solid waste management plan for the facility.
 - (2) The solid wastes shall be categorised in to biodegradable, non-biodegradable and domestic hazardous and an appropriate care shall be provided in segregation and collection of such different streams of waste at source, its storage and disposal.
 - (3) Each area or section shall be provided with sufficient capacity bins in three different colours for three different streams referred to in subparagraph (2) for the segregation and collection of them at source.
 - (4) Sign boards and posters on handling and compliance requirement etc., shall be displayed at any section or area identified in accordance with the type of waste that is being generated.
 - (5) The facility managers shall assign specific functions to be performed by the employees not below the level of supervisors, to implement and manage the solid waste management plan.
 - (6) Every units shall enter into agreement with appropriate or authorised agencies for the collection and disposal of following wastes, namely: -
 - (i) recyclable non-degradable waste;
 - (ii) sludge from Effluent Treatment System;
 - (iii) biodegradable non-recyclable waste;
 - (iv) non-degradable non-recyclable waste; and
 - (v) domestic sewage.

- (7) The facility manager shall plan and ensure the transportation of different wastes in specific vehicles from the facility to the processing or disposal sites.
- (8) The facility managers shall plan and implement the reuse or recycling of the waste minimising the transportation.
- (9) Separate records shall be maintained for clearing of waste by the agencies.
- (10) The list of major types of possible wastes generated from various coastal aquaculture units are specified in the table below: -








Table-1

Sl. No.	Section of the unit	Waste generated
(1)	(2)	(3)
1.	Brood stock receiving area	Brood stock bags, Thermocol boxes (and sometimes carton boxes), ice packs, rubber bands used for brood stock packing and dead animals (brooders) or moribund animals.
2.	Maturation	Feed packing plastic pouches or boxes, tins, or any such substances, feed spill overs, feed residues and dead animals (brooders) or moribund animals.
3.	Larval rearing	Feed packing plastic pouches or boxes, tins, or any such substances, feed spill overs and feed residues.
4.	Packing	Boxes or packs of the Post Larvae packing covers, rubber bands and damaged packing bags.
5.	Laboratory	Empty plastic or glass containers of chemicals, expired chemicals, damaged lab equipment, the culture plates in the microbiological labs, gels prepared in Polymerase Chain Reaction labs etc.
6.	Maintenance	Leftovers/broken pieces of Polyvinyl chloride pipes, small and large air hoses, damaged valves, spill overs of chemicals and other disinfectants and sponges or other scrub used for cleaning.
7.	Effluent Treatment System	Sludge from the Effluent Treatment System.
8.	Domestic	Single use plastic plates, tumblers, spoons and other vessels used to serve food, food and vegetable waste, sewage, etc.
9.	Seed stocking	Polythene bags in which the Post Larvae or Nauplii has been purchased.
10.	Aqua inputs	Containers, pouches of the various inputs used. Packaging materials of feed.
11.	Sludge removal	From culture ponds and Effluent Treatment System.

3. **Evaluation of plastic wastes.** – (1) Plastics of any grade shall **NOT** be burnt at any time by the units, and they shall be handed over to the local body or the appointed agency for collecting such plastics.

(2) Different types of plastics and their recycling status shall be as given in the table below:

Table-1

S.No	Symbol	Short Name	Scientific Name	Possible waste generated from	Recyclable or non-recyclable
(1)	(2)	(3)	(4)	(5)	(6)
1		PET	Polyethylene terephthalate	Soft drink Bottles, furniture, carpet, paneling, etc.	Recyclable
2		HDPE	High-Density polyethylene	Bottles, carry bags, milk pouches, recycling bins, agricultural pipe, base cups, etc.	
3		PVC	Polyvinyl chloride	Pipe, window profile, fencing, flooring, shower curtains, lawn chairs, non-food bottles, etc.	
4		LDPE	Low density polyethylene	Plastic bags, various containers, dispensing bottles, wash bottles, tubing, etc.	Non - Recyclable
5		PP	Polypropylene	Auto parts, industrial fibers, food containers, dishware, etc.	
6		PS	Polystyrene	Cafeteria trays, plastic utensils, toys, clam shell containers, insulation board, etc.	
7		O	Others	Thermoset plastics, multilayer and laminates, bakelite, polycarbonate, nylon sheet moulding compound, fibre-reinforced plastic, etc.	

4. **Collection and Segregation of Waste.** – (1) Every coastal aquaculture units shall segregate the waste at its source or sections into different categories and collect them in bins with lids, as specified in the table below:

Table-3

Type of waste	Biodegradable and Non- recyclable	Non-degradable and Recyclable	Non-degradable, non-recyclable & domestic hazardous
(1)	(2)	(3)	(4)
Bins colour	Green	Yellow	Red

- (2) There shall be persons on duty at each area identified to collect, segregate and dispose the waste based on its category, every 12 hours and records shall be maintained for clearing the waste.
- (3) All the work force, especially those who are assigned for handling, storing, or otherwise managing the waste, shall be trained on the intended use of the bins which may include introduction to,-
- (i) basic procedures for waste management;
 - (ii) human and environmental risks; and
 - (iii) measures of precaution in waste management, etc.
- (4) The non-degradable, recyclable waste such as broodstock bags, thermocol boxes, waste generated from office stationery and general up keeping, etc., shall be stored temporarily in the area designated for temporary storage of such waste and handed over to the recycling agency on a regular basis.
- (5) The biodegradable and non-recyclable waste shall be transferred to temporary storage yard designated for temporary storage of such waste.
- (6) A small in-house incinerator shall be installed at the hatcheries, Broodstock Multiplication Centres and Nucleus Breeding Centres, etc., to handle the fresh feed wastage and the dead animals from maturation to avoid any possible contamination in the wild.
- (7) There shall be a temporary storage space designated for the storage of non-degradable and non-recyclable waste till the disposal of the same.
- (8) Care shall be taken while depositing the waste into the bins to avoid spill overs.
- (9) The waste shall be not dumbled into the adjacent open coastal environment or public land or the drain or water bodies.

- 5. Temporary Storage and Proper Disposal of Waste.** – (1) Every coastal aquaculture unit shall maintain temporary storage of appropriate capacity for handling different categories of such wastes.
- (2) The recyclable non-degradable waste gathered based on their characteristics and stored at the warehouse designated for the temporary storage of such waste, shall be periodically sold or handed over to the recycler based on the size, holding capacity and nature of the storage facility and appropriate care must be taken to avoid the delay in disposal such as a fixed weekly schedule of disposal.
 - (3) The coastal aquaculture units shall establish, operationalise and co-ordinate the waste management system with the local body for performing the associated functions.
 - (4) The coastal aquaculture units which are larger and generating larger quantity of sewage shall establish and operate an in-house sewage treatment plant in accordance with the standards of Pollution Control Board.
 - (5) The biological wastes transferred to the storage yard, shall be subjected to appropriate fermentation or biological digestion or composting process to generate manure separately.
 - (6) The biodegradable waste shall otherwise be handed over to the local body such as municipalities, gram panchayats, etc., for disposal.
 - (7) In coastal hatcheries, Broodstock Multiplication Centre's and Nucleus Breeding Centre's old animals at every quarter, dead or moribund animals shall be incinerated.
 - (8) The kitchen wastes, sludge and other organic waste shall wherever possible, be appropriately used to prepare compost and the manure generated shall be used in the inhome garden or be disposed of through the agency appointed for collection of the same.
 - (9) All chemicals or disinfectants and the waste generated from the laboratory shall be collected with utmost care and disposed of as per the protocol specified for disposing them.
 - (10) A designated space for sanitary landfills shall also be used to dispose of the solid waste.
 - (11) A sludge pump shall be set up for the removal of sludge at Effluent

Treatment System of the coastal aquaculture units especially hatcheries Broodstock Multiplication Centres and Nucleus Breeding Centres and disposed of through the local body.

- (12) In the case of coastal aquaculture farms, the sludge shall be treated with the established procedures during dry out or scrapped if required, from the bottom of the ponds after the harvest and disposed appropriately.
- (13) The sludge depending on the quantity shall be removed periodically every week or after each cycle of production and shall be thickened in a gravity thickener or by dissolved air floatation.
- (14) The organic solids in the sludge shall be digested through biological process to reduce total mass of solids.
- (15) The sludge shall be dewatered, dried and handed over to the local body or agency appointed for such purpose as and when it is collected or on a periodical basis with temporary storage.
- (16) The sludge shall otherwise be reused as manure after treating with chlorine, dechlorinating and removing salinity by washing and drying.
- (17) A storage room for fuel or oil, lubricants and other consumables for operating generators and mechanical equipment shall be designated at every coastal aquaculture unit.
- (18) Every coastal aquaculture unit shall identify and comply with legal requirements, if any, for storing fuel or oil, lubricants and other consumables.
- (19) The containers of oil, lubricants and other consumables in the storage room, shall be periodically checked and maintained without any leakage.
- (20) Proper warning signs shall be displayed where lubricants or fuel is stored.
- (21) Every coastal aquaculture unit shall impart training to the staff operating the generators and mechanical equipment and care shall be taken to avoid spill oil or lubricants spill while changing or collecting.
- (22) The used oil collected shall be stored in a leak-proof can or container and it shall be handed over to Government approved or authorised contractors only.
- (23) Every coastal aquaculture units shall maintain the records of hazardous waste sold to subcontractors of hazardous waste.

6. **Record Keeping.** – (1) The records or registers shall be maintained at each area or section identified for generation of waste with the details of type and quantity and frequency of removal of waste.
 - (2) The records for the disposal of sludge, sewage and other recyclable and non-recyclable waste shall be maintained at every coastal aquaculture unit.
 - (3) The Authority shall conduct the random inspection of the records maintained by the coastal aquaculture units.

7. **Evaluation of Compliance.** - (1) Every coastal aquaculture units shall periodically evaluate the activities of the waste management system and in case of any non-compliance, adopt appropriate methods to ensure compliance.
 - (2) The Authority shall evaluate the activities of the waste management system in all the coastal aquaculture units and in case of non-compliance, suitable action shall be initiated to ensure compliance.

HATCHERIES AND FARMS FOR SEED PRODUCTION AND CULTURE OF CRAB GUIDELINES, 2025.

Dated: 26th June, 2025

S.O. 2894(E). —In pursuance of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (h) of rule 3 of the Coastal Aquaculture Authority Rules, 2024, the Central Government hereby notifies the following guidelines, namely: -

1. **Short title and commencement.** - (1) These guidelines may be called the Hatcheries and Farms for Seed Production and culture of Crab Guidelines, 2025.

(2) They shall come into force from the date of their publication in the Official Gazette.

PART I

Safeguards and regulations for operation of crab hatcheries

1. **Application criteria for crab hatchery.**- (1) The hatcheries engaged or intending to be engaged in seed production of crabs having the required biosecurity facilities and in-house quarantine facility as specified by the Coastal Aquaculture Authority shall be eligible to apply for registration under the Coastal Aquaculture Authority Act, 2005 (24 of 2005) (herein after referred as the said Act) and the Coastal Aquaculture Authority Rules, 2024 (herein after referred as the said rules) for collection, conditioning, and induced breeding of crab in marine or brackish water from Indian waters for seed production, nursery rearing and sale of megalopa or instars or crablets.

(2) The hatchery operator shall submit an application in Form II of the said rules to the Authority enclosing therewith the required documents as specified in Schedule II of the said rules and payment of registration fees of rupees ten thousand in accordance with the procedure laid down in rule 9 of the said rules.

(3) A detailed project report indicating the infrastructure, bio-security measures, production capacity, technology support, employment generation, economics of operation, etc., shall be submitted along with the application.

(4) Approval of the hatchery for seed production of crab shall be given by the Authority after due inspection of the hatchery facilities by a team constituted by the Authority for this purpose in accordance with the procedure laid down in rule 11 of the said rules.

- (5) The hatchery facilities shall have strict biosecurity control through physical separation or isolation of the different production facilities or isolation through the construction of barriers and implementation of process and product flow controls.
 - (6) The hatchery facilities shall have a wall or fence around the periphery of the premises, with adequate height to prevent the entry of animals and unauthorised persons to help to reduce the risk of pathogen introduction in to the culture system.
2. **Sanitary requirement.** - (1) Entry to the hatchery shall be restricted to the personnel assigned to the work exclusively in this area and a record of persons entering the facility to be maintained by the security personnel.
- (2) The entry of any person including staff shall be compulsorily passed through shower and allowed only after taking shower and wearing working clothes and boots before entering into the facility and the same procedure shall be followed at the end of the working shift.
 - (3) A provision shall be made for disinfection of vehicle tyres (tyre baths at the gate with > 100 ppm of active ingredients Sodium or calcium hypochlorite solution), feet (foot baths containing 50 ppm of Potassium permanganate/ 20 ppm of hypochlorite solution), and hands [bottles containing iodine-PVP (20 ppm and / or 70% alcohol)] to be used upon entering and exiting the unit.
 - (4) All the cleaning chemicals, sanitary chemicals and other inputs materials should be stored separately with proper labelling outside the production area.
 - (5) Hatchery surroundings should be maintained hygienically throughout the production cycle without any accumulation of waste materials.
3. **Water intake.** - (1) Each functional unit of the hatchery shall have independent water treatment facility isolated from all other water supply systems and separate recirculation systems may be used for each functional unit of hatchery to reduce water usage and improve biosecurity, especially in high-risk areas.
- (2) Water for the hatchery shall be filtered and treated to prevent the entry of vectors and pathogens that may be present in the source water by initial filtering through sub-sand well points, sand filters (gravity or pressure), or mesh bag filters, into the first reservoir or settling tank.
 - (3) After primary disinfection by chlorination or ozonation and after settlement, the water shall be filtered again with a finer filter and then

disinfected using ultraviolet light or ozone before the water is being utilised in the concerned section.

- (4) The water supply system shall include the use of activated carbon filters, ethylene diamine tetraacetic acid, along with temperature and salinity regulation.

4. Water treatment and discharge of wastewater. - (1) The discharged water from the hatchery shall be held temporarily and treated with hypochlorite solution (>20 ppm active chlorine for not less than sixty minutes) or other effective disinfectants prior to discharge.

- (2) The seawater to be used in the facility shall be delivered into a storage tank where it will be treated with hypochlorite solution (20 ppm active ingredient for not less than thirty minutes) followed by sodium thiosulphate (1 ppm for every ppm of residual chlorine) and strong aeration.
- (3) No wastewater shall be released out of the hatchery without chlorination and dechlorination, so as to prevent the escape of the pathogens or parasites into the natural waters.
- (4) Effluent Treatment System shall be designed as specified by the Authority.

5. Disinfection of implements. - (1) Used containers and hoses shall be washed and disinfected with hypochlorite solution (> 50 ppm) before further use.

- (2) Disinfection of Pipe lines inside the facility (both Seawater and Freshwater) shall be done by pumping 200 ppm chlorinated water and hold it for 24 hrs and after disinfection with chlorine, the pipelines shall be flushed with freshwater to remove residual chlorine.
- (3) Aeration lines shall be disinfected by fumigating with formalin.
- (4) All the in-warded new materials or equipment shall be disinfected by using fumigation equipment (200 ppm formalin).
- (5) The technical person responsible for the operation of the unit shall confirm the water quality parameters such as Ammonia, Nitrite, Nitrate, DO, Temperature, pH, and Salinity, as prescribed in the para 4 of the Guidelines for regulating Coastal aquaculture, before stocking.
- (6) Each broodstock holding tank shall have, -
 - (i) a separate set of implements which must be clearly marked and placed near the tanks; and
 - (ii) facilities for disinfection of all the implements at the end of each day's use.

6. **Broodstock collection.** - (1) The gravid female crabs may be procured or collected from wild or culture pond or broodbank to use them for spawning at hatchery facility.
 - (2) In case of wild collection of brooder, the berried or ovigerous brooders shall be avoided to protect the natural recruitment.
 - (3) Brooders shall be reared individually in tanks with adequate space for its movement and wellbeing.
 - (4) The broodstock shall be free from injuries or deformities and can be transported individually to the facility in thermocoal or styroform boxes with Oxygen.
 - (5) Record on the traceability of the source of these stocks shall be maintained to avoid in-breeding.
7. **Broodstock quarantine.** - (1) The hatchery operator shall establish a proper and fully bio-secured facility.
 - (2) Broodstock collected shall be quarantined in in-house facility for one week before entry in to the hatchery.
 - (3) The prophylactic treatment for external parasite shall be done.
 - (4) Quarantine discharge water shall be treated separately before releasing into effluent treatment system.
8. **Standard operating procedure for in-house quarantine facility.** - (1) The Coastal Aquaculture Authority shall have right to carry out the inspection of the in-house quarantine facility and hatchery at any time or may assign this responsibility to any designated Agency or Committee, as and when required.
 - (2) The following shall be the procedure for receiving broodstock at in-house quarantine facility, namely:-
 - (i) vehicle shall pass through tyre bath at the hatchery premises before reaching the receiving point;
 - (ii) The entire consignment shall be unloaded at the in-house quarantine facility and the personnel involved in unloading shall disinfect their hands, apron, coat and shoes before and after unloading; and

- (iii) The quarantine tanks shall have 1MT to 5MT capacity for movement of broodstock crabs and shall be maintained under optimal water quality parameters as specified in para 4 of the Guidelines for regulating coastal aquaculture.
- (3) The following procedure shall be adopted for screening of pathogens, namely :-
- (i) screening for World Organisation for Animal Health listed pathogens and pathogens of concern to India shall be done;
 - (ii) during quarantine period, samples may be collected using non-lethal methods (appendages or haemolymph) from randomly selected brooders for screening;
 - (iii) the sample shall be referred to Aquatic Quarantine Facility laboratory at Neelankarai, Chennai or Indian Council of Agricultural Research - Central Institute of Brackishwater Aquaculture or any other accredited laboratory for testing of relevant pathogens of marine or brackishwater crabs for World Organisation for Animal Health listed pathogens and other pathogens of concern to India;
 - (iv) based on the test report of the sample, the quarantined crab shall be shifted to broodstock holding tanks after the quarantine period, if no pathogen is detected;
 - (v) in the event of detection of any relevant pathogen, the sample shall be sent to Indian Council of Agricultural Research - Central Institute of Brackishwater Aquaculture as referral lab for validation or confirmation; and
 - (vi) in case of confirmation, the unit operator shall destroy the entire infected stock and incinerate for containment of the spread of the infection under intimation to the Authority.
- (4) The following procedure shall be adopted for broodstock maintenance, namely: -
- (i) the gravid female crabs shall be preferably reared individually in tanks with adequate space for its movement and wellbeing;
 - (ii) salinity, temperature, pH, dissolved oxygen, total ammonia, and nitrate levels shall be monitored regularly and maintain optimal;

- (iii) broodstock shall be fed ad libitum with disease free polychaete, depurated clam, frozen squid and low valued fish or formulated feed;
 - (iv) a flow through system or water recirculatory system shall be maintained for better water quality; and
 - (v) maturation section shall be isolated with dark and noise free environment to simulate natural conditions for successful spawning.
- (5) The following procedure shall be adopted for the larval rearing, namely:-
- (i) healthy and screened berried or ovigerous females shall be used in the hatchery for seed production;
 - (ii) live feeds such as microalgae, rotifers and artemia of good quality and pathogen free shall be used for larval rearing. Algal, rotifers and artemia culture sections shall be isolated from each other. Live feeds should be screened regularly to ensure the supply of pathogen free live feeds;
 - (iii) hatcheries shall use approved inputs in the seed production cycle. Prohibited chemicals and products not intended for use in aquaculture shall not be used;
 - (iv) dedicated seed packing area is required in the hatchery;
 - (v) in case of supply of megalopa or early instars, they shall be acclimatized in the hatchery as per the requirement of the farmer based on the salinity levels in the farm, which shall be a minimum of 25 ppt;
 - (vi) larvae shall be transported either in oxygen-filled bags or containers with water and hide out or in wet condition (grass/leaves/jute) in perforated baskets (for crablets); and
 - (vii) Prohibited pharmacologically active substances and antimicrobial agents as specified in clause (c) of sub-rule (1) of rule 18 of the said rules shall not be used in the seed production system.

9. Seed production and sale. - Crab seeds or instar shall be sold only to the Coastal Aquaculture Authority registered farms or farmers to rear the instars into pathogen-free crablets in a bio-secured condition as specified in para 2 of these guidelines.

10. **Disease reporting and record maintenance.** - (1) Any disease outbreak in the hatchery shall be reported immediately to the Authority.
 - (2) The hatchery operator shall maintain day to day records of hatchery operations. This record shall contain all the activities including broodstock details, spawning details, larval survival, feeding time, live feed or inert feeds used, chemical usage, pathogen test results, water quality reports, sale of seed data including farmer's details etc.
 - (3) The hatchery operator shall submit a quarterly compliance report to the Authority in Form H-1 of these guidelines.
11. **Inspection.** - A person authorised by the Authority shall periodically visit and check the status of the broodstock, seed production, sale, etc.
12. **Bank guarantee.** - The approved hatcheries shall pay rupees fifty thousand towards monitoring fee and deposit a bank guarantee for two lakh rupees in favour of the Coastal Aquaculture Authority in accordance with the said rules, to ensure compliance with these guidelines and in the event of any violation, the bank guarantee shall be invoked.

PART II

Norms and regulations for approval and operation of crab farms

1. **Eligibility criteria for farms.** - (1) Aquaculture farmers shall submit an application in Form I of the said rules to the Sub-Divisional Level Committee or District Level Committee concerned duly enclosing therewith the required documents as specified in the Schedule II and payment of registration fee as specified in the Schedule I of the said rules for registration of farms of crab in accordance with the procedure laid down in rule 9 of the said rules.
 - (2) The inspection team authorised by the Authority shall inspect the farm as per the procedure laid down in rule 10 of the said rules and based on its recommendation regarding the suitability of the facility for farming of crab, applications shall be processed by the Secretary of the Authority, for consideration of the Authority for registering the farms for farming of crab.
 - (3) Farms shall establish biosecurity measures, such as fencing, reservoir ponds for water treatment, bird-scare, separate implements for each of the ponds, etc., and be managed by personnel, who are trained or experienced in the management of biosecurity measures.

- 2. Site selection process.** - (1) Farm location shall be suitable for each type of crab culture such as earthen pond, cage culture, pen culture, box culture.
- (2) Generally clayey loam soils are preferred to avoid high-water percolation through the sandy soils and consequential environmental damage.
 - (3) In the case of sandy soil, the pond should be lined with proper material such as polyethylene sheet, canvas, etc. for water holding capacity.
 - (4) Ponds should be properly fenced to prevent the escape of the crab from one pond to other or neighbouring water bodies.
 - (5) Crab farming shall always be isolated and at least five hundred meters away from the shrimp farming area so as to strictly maintain the bio-security.
 - (6) Erosion should be actively controlled during construction and operation of crab farms. Measures shall be taken to avoid escape of the crab to the neighbouring farms.
 - (7) The quality of soil shall be ascertained for soil pH, permeability, bearing capacity and heavy metal content; Soil with low pH of below 5 (example acid sulphate soils) and soils with high concentrations of heavy metals shall be avoided.
 - (8) The intake water quality shall be maintained as specified in the para 4 of the Guidelines for regulating coastal aquaculture for crab culture.
 - (9) For carrying out cage, box and pen culture in open coastal water bodies, the permission shall be obtained from Government or from the local body as authorised by the State Government.
 - (10) For carrying out mangrove based mud crab aquaculture as a livelihood linked conservation procedure, proper permission shall be obtained from the authorized agencies, and it may be promoted as a community based aquaculture.
 - (11) Proper designing and construction of farm as specified in para 3 of the Guidelines for regulating coastal aquaculture is essential for their efficient management and for promoting environmental protection.
 - (12) A minimum water depth of 80-100 centimetre shall be maintained for crab farming.
 - (13) If mud crab *Scylla olivacea* is used for farming, proper mitigation such as 650-1000 GSM polyethylene/HDPE lining and covering with mud lining shall be provided to prevent burrowing.

3. **Water discharge protocols.** - (1) Farms irrespective of their size shall have an Effluent Treatment System which is able to handle the wastewater let off during harvest.
 - (2) Wastewater shall be retained in the Effluent Treatment System for a minimum period of two days.
 - (3) In case of any outbreak of disease, water shall be chlorinated and dechlorinated before release into drainage system.
 - (4) Harvesting shall be sequential depending on the size of the Effluent Treatment System and the quality of the wastewater shall conform to the standards prescribed under the guidelines.
 - 5) Farms which follow Zero Water Exchange system shall also take care of the discharge water treatment if drain harvest is followed.
4. **Biosecurity considerations.** - (1) The crab culture shall not be permitted if the neighbouring farms are culturing shrimp species since it acts a vector for several pathogens.
 - (2) The farms permitted for crab culture shall not be permitted for simultaneous farming of shellfish species in the same farm. However, crab farming with finfish culture may be permitted in extensive culture ponds.
 - (3) For shifting culture from one species to another, adequate dry out period shall be maintained during pond preparation in accordance with the norms issued by the Authority for this purpose from time to time.
5. **Norms for culture of crab.** - (1) Tested and certified Megalopae or instar shall be procured only from Coastal Aquaculture Authority approved or registered hatcheries and test reports from authorised government lab shall be considered.
 - (2) Stocking densities shall not exceed 1 no./2m² crablets (not exceeding 5000 nos. per ha) for conventional earthen pond systems. While rearing crabs in individual compartments a stocking density of 1 per compartment may be followed.
 - (3) Submerged box culture is preferred to protect from the temperature related issues.
 - (4) In case of crab fattening, the stocking density and rearing period shall be determined based on the type of fattening methods such as soft moulted crab to hard shelled crab, lean crab to marketable sized crab and immature to mature female crab.

- (5) As commercial mud crab feeds yet to be marketed, farmers may use fish bycatch, and other low-valued fishes or farm made feed. When farm made feeds are used, it should be ensured that it is free from prohibited pharmacologically active substances and anti-microbial agents.
 - (6) Water quality parameters including temperature, salinity, dissolved oxygen, currents, pollution, and algal blooms, determining species viability shall be regularly monitored.
 - (7) Regular monitoring of growth and health parameters shall be recorded.
 - (8) Avoid overcrowding to prevent stress, cannibalism and disease outbreaks. Minimum fifty percent of the stocking density shall be provided with hide outs.
- 6. Health management.** - (1) Cultured crab health shall be monitored regularly and if any abnormal symptom is found, diagnose to find cause and take corrective action and keep the record.
- (2) When an unusually large number of dead crabs are found or there is suspicion of an outbreak, it shall be informed to the Authority immediately.
 - (3) In case of disease outbreak, the farmer shall destroy the infected stock duly following the health management practices as prescribed in para 7 of the Guidelines for regulating coastal aquaculture under intimation to the Authority.
 - (4) Prohibited pharmacologically active substances and antimicrobial agents shall not be used in the farming as specified in clause (c) of sub-rule (1) of rule 18 of the said rules.
- 7. Harvesting.** - (1) Harvesting of crab by hand picking after completely draining the pond is preferable to maintain the quality of the produce.
- (2) During live crab harvesting and marketing, care shall be taken to avoid damage to the animals.
- 8. Maintenance of farm management records.** - (1) Crab farmers shall maintain records of procurement of seed, stocking density, water quality parameters, feeding quantities, health management, growth parameters, inputs used, harvesting and marketing details, etc.
- (2) The farmer shall produce the farm records on demand by the authorised personnel or officials.
- 9.** Penalty for violation shall be in accordance with the said Act and rules made thereunder.

Form H-1

[See Part-I, paragraph 10 (3)]

Format for quarterly compliance report from crab hatcheries

The report shall contain the following information, namely: -

1. Name and Address of the hatchery
2. Date and number of certificate of registration
3. Number of broodstock procured, males and females
4. Source of broodstock procured
5. Transport mortality
6. Quarantine mortality
7. Total number of spawnings
8. Total number of Zoeae 1 produced
9. Total number of megalopa or instars produced
10. Total number of crablets produced
11. Report on general aquatic health monitoring and any unusual mortality
12. Total number of instars or crablets sold to the farmers
13. Details of the farmers to whom crab seed sold (shall include information on the name, address, registration number) and copy of the registration certificate for culturing of crab issued by Coastal Aquaculture Authority.

Place:

Signature

Date:

Name of the authorised signatory

HATCHERIES AND FARMS FOR SEED PRODUCTION AND CULTURE OF MARINE FINFISHES GUIDELINES, 2025.

Dated: 26th June, 2025

S.O. 2897(E). — In pursuance of the section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (i) of rule 3 of the Coastal Aquaculture Authority Rules, 2024, the Central Government hereby notifies the following guidelines, namely: -

- 1. Short title and commencement.** - (1) These guidelines may be called the Hatcheries and Farms for Seed Production and culture of marine finfishes Guidelines, 2025.
- (2) They shall come into force from the date of their publication in the Official Gazette

PART I

Safeguards and regulations for operation of marine finfish hatcheries

- 1. Application criteria for marine finfish hatcheries.** – (1) The hatcheries engaged or intending to be engaged in seed production of marine finfish having the required biosecurity facilities and in-house quarantine facility as specified by the Coastal Aquaculture Authority shall be eligible to apply for registration under the Coastal Aquaculture Authority Act, 2005 (24 of 2005) (herein after referred as the said Act) and the Coastal Aquaculture Authority Rules, 2024 (herein after referred as the said rules) to produce and sell fertilised eggs or fry or fingerlings of marine finfish.
 - (2) The hatchery operator shall submit application in Form II of the said rules to the Authority enclosing therewith the required documents as specified in Schedule II of the said rules and payment of registration fee of rupees ten thousand for registration of hatchery in accordance with the procedure laid down in rule 9 of the said rules.
 - (3) A detailed project report indicating the infrastructure, production capacity, technology support, employment generation, economics of operation, etc., shall be submitted along with application.
 - (4) Approval of the hatchery for seed production of marine finfish shall be given by the Authority after due inspection of the hatchery facilities by a team constituted by the Authority for this purpose in accordance with the procedure laid down in rule 11 of the said rules.

- (5) The hatchery facilities shall have strict biosecurity control through physical separation or isolation of the different production facilities or isolation through the construction of barriers and implementation of process and product flow controls.
 - (6) The hatchery facility shall have a wall or fence around the periphery of the premises, with at least six feet height to prevent the entry of animals and unauthorised persons to reduce the risk of pathogen introduction into the culture system.
2. **Sanitary requirement.** - (1) The entry to the hatchery shall be restricted to the personnel assigned to work exclusively in this area and a record of personnel entering the facility to be maintained by the security personnel.
- (2) The entry of any person including staff shall be allowed compulsorily only after taking shower wearing and working clothes and boots before entering into facility and the same procedure shall be followed at the end of the working shift.
 - (3) A provision shall be made for disinfection of vehicle tyres (tyre baths at the gate with > 100 ppm of active ingredients Sodium/calcium hypochlorite solution), feet (foot baths containing 50 ppm of Potassium permanganate/ 20 ppm of hypochlorite solution), and hands [bottles containing iodine-PVP (20 ppm and / or 70% alcohol)] to be used upon entering and exiting the unit.
 - (4) All the cleaning chemicals, sanitary chemicals and other inputs materials shall be stored separately with proper labelling outside the production area.
 - (5) Hatchery surrounding shall be maintained hygienically throughout the production cycle without any accumulation of waste materials
3. **Water intake.** - (1) Each functional unit of the hatchery shall have independent water treatment facility isolated from all other water supply systems and separate recirculation systems shall be used for each functional unit of hatchery to reduce water usage and improve biosecurity, especially in high-risk areas.
- (2) Water for the hatchery shall be filtered and treated to prevent the entry of vectors and pathogens that may be present in the source water by initial filtering through sub-sand well points, sand filters (gravity or pressure), or mesh bag filters, into the first reservoir or settling tank.

- (3) After primary disinfection by chlorination or ozonation and after settlement, the water shall be filtered again with a finer filter and then disinfected using ultraviolet light or ozone before the water is being utilised in the concerned section.
 - (4) The water supply system may include use of activated carbon filters, Ethylene Diamine Tetra Acetic acid and temperature and salinity regulation.
- 4. Water treatment and discharge of wastewater.** - (1) The discharged water from the hatchery shall be held temporarily and treated with hypochlorite solution (>20 ppm active chlorine for not less than sixty minutes) or other effective disinfectant prior to discharge.
- (2) The seawater to be used in the facility shall be delivered into a storage tank where it shall be treated with hypochlorite solution (20 ppm active ingredient for not less than thirty minutes) followed by sodium thiosulphate (1 ppm for every ppm of residual chlorine) or ozonation and strong aeration.
 - (3) No wastewater shall be released out of the hatchery without chlorination and dechlorination, so as to prevent the escape of the pathogens or parasites into the natural waters.
 - (3) Effluent Treatment System shall be designed as specified by the Authority.
- 5. Hatchery infrastructure.** - (1) Various sections of the hatchery like the broodstock holding tanks or ponds, laboratory for hormone preparation, embryo and larval growth monitoring, egg incubation units, larval rearing units, mechanical filtration units, UV or Ozone plant, indoor algal culture, rotifer and copepod production, etc., shall be physically isolated and shall follow single entry and exit to avoid contamination.
- (2) The hatchery perimeter shall be secured with fencing to deter entry of animals and unauthorized persons.
- 6. Disinfection of implements.** - (1) Used containers and hoses shall be washed and disinfected with hypochlorite solution (20 ppm) before further use.
- (2) Aeration lines shall be disinfected by fumigating with formalin.
 - (3) All the new inward materials or equipment shall be disinfected by using fumigation equipment (200 ppm formalin).

- (4) The technical person is responsible for the operation of the unit duly maintaining the optimal levels of water quality parameters as specified in the para 4 of the Guidelines for regulating Coastal aquaculture for parameters such as Ammonia, Nitrite, Nitrate, DO, Temperature, pH, and Salinity before stocking.
 - (5) Each broodstock holding tank shall have, -
 - (i) a separate set of implements that must be clearly marked and placed near the tanks; and
 - (ii) facilities for disinfection of all the implements at the end of each day's use.
7. **Quarantine.** - The Coastal Aquaculture Authority shall have right to carry out the inspection of the in-house quarantine and hatchery at any time or may assign this responsibility to any designated Agency or Committee, as and when required.
- (1) **Broodstock collection:**
 - (i) sub adult and adult broodstock of marine finfishes shall be procured or collected from the wild or a farmer's pond or brood bank to make them mature at the hatchery facility;
 - (ii) sub adult and adult broodstock shall be free from pathogens, injuries or deformities, shall be transported to the in-house quarantine facility in the broodstock transportation tanks with oxygenated water;
 - (iii) record on the traceability of the source of these stocks shall be maintained to avoid inbreeding.
 - (2) **Broodstock quarantine:**
 - (i) the hatchery operator shall establish a proper and fully bio-secured facility;
 - (ii) broodstock collected shall be quarantined in this in-house facility for two weeks before entry in to hatchery;
 - (iii) the broodstock fish shall be tagged for individual identification;
 - (iv) Polymerase Chain Reaction (PCR) testing for virus such as Viral Nervous Necrosis (VNN) etc. and external inspection for parasite shall be done while in quarantine section.
 - (v) quarantine discharge water shall be treated separately before releasing into effluent treatment system.

(3) Standard operating procedure for in-house quarantine facility: -

- (i) The following shall be the procedure for receiving broodstock at in-house quarantine facility, namely: -
 - (a) vehicle shall pass through tyre bath at the hatchery premises before reaching the receiving point;
 - (b) the entire consignment shall be unloaded at the in-house quarantine facility;
 - (c) the personnel involved in unloading shall disinfect their hands, apron, coat and shoes before and after unloading; and
 - (d) The quarantine tanks shall have 1 MT to 5 MT capacity based on the targeted marine finfish for movement of sub adult or adult broodstock fishes and shall be maintained under optimal water quality parameters as specified in the para 4 of the Guidelines for regulating Coastal aquaculture.
- (ii) The following procedure shall be adopted for screening of pathogens, namely: -
 - (a) during quarantine period gills or blood samples can be collected from randomly selected fishes for screening of relevant pathogens by using appropriate technique in accordance with World Organisation for Animal Health protocol;
 - (b) the sample shall be referred to Aquatic Quarantine Facility laboratory at Neelankarai or Central Institute of Brackishwater Aquaculture laboratory or any other accredited laboratory for testing of relevant pathogens of marine or brackishwater finfish for World Organisation for Animal Health listed pathogens and other pathogens of concern to India;
 - (c) based on the test report of the sample, the quarantined fish shall be shifted to broodstock holding tanks after the quarantine period if no pathogen is detected;
 - (d) in the event of detection of any relevant pathogen, the sample shall be sent to Central Institute of Brackishwater Aquaculture as referral lab for validation or confirmation; and
 - (e) in case of confirmation, the unit operator shall destroy the entire infected stock and incinerate for containment of the spread of the infection under intimation to the Authority.

- 8. Maintenance of mature brood fishes.** - (1) Broodstock fishes shall be shifted from the quarantine facility to maturation or broodstock holding tanks fitted with flow through Recirculatory Aquaculture System.

 - (2) Functional brood stock feeds shall be used to enhance the gonadal maturity.
 - (3) While using feed prepared with fresh meat of squid, crab, fish and shrimp, care shall be taken to prevent the entry of diseases causing pathogens and parasites into the broodstock holding facility. The feed used shall be stored in frozen condition at not less than -20°C.
- 9. Live feed culture.** - (1) Live feeds like microalgae, rotifers and copepods of good quality and pathogen free shall be used for larval rearing.

 - (2) Algal, rotifer and copepod culture sections shall be isolated from each other.
 - (3) Live feeds shall be screened regularly to ensure the supply of pathogen free live feeds.
- 10. Probiotics and chemical agents.** - (1) The hatcheries shall use Coastal Aquaculture Authority certified inputs in the seed production cycle.

 - (2) Prohibited Pharmacologically active substances and antimicrobial agents as specified in clause (c) of sub-rule (1) of rule 18 of the said rules shall not be used in the seed production system.
- 11. Seed production and sale of marine finfishes.** - The hatchlings or hatchery seeds shall be sold only to the hatcheries permitted by the Authority to rear the pathogen free seed following the biosecurity protocols as prescribed in para 2 of these guidelines.
- 12. Seed packing and transport.** - (1) Dedicated seed packing area is required in the hatchery.

 - (2) Fish seed shall be transported in bags or containers with adequate oxygen supply based on the size, stocking density and duration of the transport.
 - (3) Fish seed may be acclimatised in the hatchery itself for salinity as per the requirement of the farmer based on the salinity levels in the farm.
- 13. Disease reporting and record maintenance.** - (1) Any disease outbreak in the hatchery shall be reported immediately to the Authority.

- (2) The hatchery operator shall maintain day to day records of hatchery operations and this record shall contain all the activities including broodstock details, spawning details, larval survival, feeding time, live feed or inert feeds used, chemical usage, pathogen test results, water quality reports, record of animal stock, sale of seed data including farmer's details etc.
 - (3) The hatchery operator shall submit a quarterly compliance report to the Authority in Form I-1 of these guidelines.
- 14. Inspection.** - A person authorised by the Authority shall periodically visit and check the status of the broodstock, seed production and sale.
- 15. Bank guarantee.** - The approved hatcheries shall pay rupees fifty thousand towards monitoring fee and deposit a bank guarantee for two lakh rupees in favour of the Coastal Aquaculture Authority in accordance with the said rules, to ensure compliance with these guidelines and in the event of any violation, the bank guarantee shall be invoked.

PART II

Norms and Regulations for Approval and Operation of Farms

- 1. Eligibility criteria for farms.** - (1) Aquaculture farmers shall submit an application Form I of the said rules to the Sub Divisional Level Committee or District Level Committee concerned duly enclosing therewith required documents as specified in the Schedule II of the said rules and payment of registration fee as specified in the Schedule I of the said rules for registration of farms of marine finfish in accordance with the procedure laid down in rule 9 of the said rules.
 - (2) The inspection team authorised by the Authority shall inspect the farm as per the procedure laid down in rule 10 of the said rules and based on its recommendation regarding the suitability of the facility for farming of marine finfish, applications shall be processed by the Secretary of the Authority, for consideration of the Authority for registering the farms for farming of marine finfish.
 - (3) Farms shall establish biosecurity measures such as fencing, reservoir ponds for water treatment, bird-scare, separate implements for each of the ponds etc., and be managed by personnel who are trained or experienced in management of biosecurity measures.
- 2. Farming site requirements.** - (1) Pond based finfish farming needs adequate water depth of 1.5 - 2.0 meters.
 - (2) The source water shall have a salinity range of 10-30 ppt depending on the species cultured.

3. **Water discharge protocols.** - (1) In case of any outbreak of disease, distress harvesting shall only be done through netting and the water shall be chlorinated and dechlorinated before release into drainage system.
 - (2) Wastewater shall be retained in the Effluent Treatment System for a minimum period of two days.
 - (3) Farms which follow Zero Water Exchange system of farming shall also take care of the discharge water treatment if drain harvest is followed.
4. **Biosecurity considerations.** - (1) Farms approved for marine finfish culture shall not be permitted for simultaneous farming of shellfish and finfish species in the same farm.
 - (2) For shifting culture from one species to another, adequate dry out period shall be maintained during pond preparation in accordance with the norms issued by the Authority for this purpose from time to time.
5. **Norms for culture of marine finfish.** - The following norms shall be adopted for culture of marine finfish, namely: -
 - (1) **Species selection:** Farming requires a fish variety with the basic characters like, suitability for marketing, market demand, consumer acceptance, easy to culture, adaptability to the varying salinity, acceptance to artificial diets, faster growth rate and resistant to common diseases.
 - (2) **Seed selection and stocking:**
 - (i) tested and certified fry or fingerling shall be procured only from Coastal Aquaculture Authority approved or registered hatcheries. Test reports from authorised government lab shall be considered;
 - (ii) fish seed size of 4-8 inches shall be preferred and stocked at appropriate stocking density not exceeding 5000 nos. per ha based on the species, size of the pond and culture period;
 - (iii) stocking densities shall not exceed one or two number for conventional earthen pond systems with a maximum production density of 10 MT/Ha. For open water cage farms a production of 20 kg/cubic meter is the recommended harvest density; and
 - (iv) strict compliance for the wastewater standards is a mandatory requirement and the Inspection team authorised by the Coastal Aquaculture Authority in each case shall monitor the quality of waste water or pond drain water as per the standards prescribed in the para 10 of the Guidelines for regulating Coastal Aquaculture.

- (3) **Acclimatization and stocking of fish fingerlings:** (i) fish seed brought from the approved hatchery have to be acclimatized in tanks or pens or nursery cages for a shorter period to observe their health condition. If abnormal behaviour or infection symptoms are noticed, such seeds have to be isolated and reared separately;
- (ii) to avoid spread of diseases, fish fingerlings infected with pathogens shall be given proper treatment;
 - (iii) approved disinfectants or antibiotics shall be used for treating the diseases in consultation with the fisheries officials or Indian Council of Agricultural Research scientists;
 - (iv) as the culture period progresses, the standing fish biomass in the pond also shall increase and therefore, water quality parameters such as dissolved oxygen, pH, ammonia and nitrite shall be maintained as specified in the para 4 of the Guidelines for regulating coastal aquaculture have to be monitored regularly;
 - (v) Paddle wheel aerators may be used to enhance the Dissolved Oxygen level in the pond and water exchange can be provided if required periodically.
- (4) **Feed Management:** (i) optimal use of feed helps to improve the farming environment and ensure healthy fish stock;
- (ii) use of extruded formulated pellet feed instead of low value fish shall be used to reduce organic matters in water;
 - (iii) feed quantity has to be reduced when the fishes are under stress or during rough weather or during low water temperature;
 - (iv) the nutritional requirements vary with different fish species, sizes, growth stages and feeding habits and accordingly appropriate quantity of formulated feeds shall be used; and
 - (v) avoid use of live tilapia fish, trash fish or low valued fish, dry fish and other wild resources which may be one of the reasons for transmission of parasites and pathogens.
- (5) **Use of fertilisers and other aquaculture inputs:** (i) to increase the primary production and to maintain the optimum pH and other water quality parameters, the biodegradable organic plant extracts shall be used;

- (ii) Coastal Aquaculture Authority approved feed supplements or inputs or additives shall be used as recommended by the fisheries officials or Scientists or technical staff; and
 - (iii) prohibited pharmacologically active substances and anti-microbial agents as specified in clause (c) of sub-rule (1) of rule 18 of the said rules shall not be used.
- (6) Prevention and treatment of fish diseases:**
- (i) regular observation of fish is required to identify altered behaviour, diseases causes and appropriate treatments;
 - (ii) pathogens like bacteria, viruses, fungi and parasites are existing in the natural environment and healthy fish have adequate resistance against them;
 - (iii) to prevent and control fish diseases, maintaining a good farming environment and use of hygienic and nutritious fish feed to boost resistance of the fish may minimise the chance of disease outbreak; and
 - (iv) in case of any disease outbreak, health management practices as specified in para 7 of the Guidelines for regulating coastal aquaculture shall be followed.
- (7) Harvesting:**
- (i) harvesting of fish by drag netting or cast netting is preferable to maintain the quality of the produce. Icing shall be done immediately after the harvest to prevent the spoilage;
 - (ii) in case of harvest for live fish marketing, care should be taken to transport live fish with proper aeration and water quality arrangements.
- 6. Maintenance of farm management records.** - (1) Finfish farmers shall maintain records of procurement of seed, stocking density, water quality parameters, feeding quantities, health management, growth parameters, inputs used, harvesting and marketing details etc.
- (2) The farmer shall produce the farm records on demand by the authorised personnel or officials
7. Penalty for violation shall be in accordance with the said Act and rules made thereunder.

Form I-1

[See Part-I, paragraph 13 (3)]

Format for quarterly compliance report from Hatcheries

The report shall contain the following information, namely: -

1. Name and Address of the hatchery
2. Date and number of certificate of registration and permission to import
3. Number of broodstock procured/imported, males and females
4. Transport mortality
5. Quarantine mortality
6. Total number of spawning's
7. Total number of eggs produced
8. Total number of fry produced
9. Total number of fingerlings produced
10. Report on general aquatic health monitoring and any unusual mortality
11. Total number of fry or fingerlings sold to the farmers
12. Details of the farmers to whom sold (shall include information on the name, address, registration number) and copy of the registration certificate for culturing marine finfish issued by Coastal Aquaculture Authority.

HATCHERIES AND FARMS FOR SEED PRODUCTION AND CULTURE OF INDIGENOUS SHRIMP IN MARINE AND BRACKISHWATER GUIDELINES, 2025.

Dated: 26th June, 2025

S.O. 2903(E).— In pursuance of the section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (j) of rule 3 of the Coastal Aquaculture Authority Rules, 2024, the Central Government hereby notifies the following guidelines for indigenous shrimp which includes ^{1***} *Penaeus indicus*, ^{1***} *P. semisulcatus*, *P. mergueinsis*, *P. japonicus* and any other indigenous species permitted by the Central Government, namely:-

²[Explanation: for the purposes of this notification, “indigenous shrimp” includes *P. monodon* for which specific pathogen free domesticated stocks are already available in the country. The aquaculture of *P. monodon* shall strictly be practiced as per the “Guidelines for establishment operation of Nucleus Breeding Centre and Broodstock Multiplication Centres in India” issued vide notification number S.O. 1459(E) dated the 15th March. 2024.]

- 1. Short title and commencement.-** (1) These guidelines may be called the Hatcheries and Farms for Seed Production and Culture of Indigenous Shrimp in Marine and Brackishwater Guidelines, 2025. (2) They shall come into force from the date of their publication in the Official Gazette.

PART I

Safeguards and regulations for operation of hatcheries for indigenous shrimp

- 1. Application criteria for registration of hatchery for indigenous shrimp.-**
 - (1) Hatcheries engaged or intending to be engaged in indigenous shrimp seed production having the required biosecurity facilities and in-house quarantine facility as specified by the Coastal Aquaculture Authority shall be eligible to apply for registration under the Coastal Aquaculture Authority Act, 2005 (24 of 2005) (hereinafter refereed as the said Act) and the Coastal Aquaculture Authority Rules, 2024 (hereinafter referred as the said rules) to procure indigenous shrimp ³[wild stock] or to acquire from indigenous domesticated source and to produce and sell nauplii or post larvae of these shrimp.
 - (2) The hatchery operator shall submit an application in Form II of the said rules to the Authority duly enclosing therewith the required documents as specified in the Schedule II of the said rules and payment

1. The words “both” and “*P. monodon*” omitted by s. 1(a), of S.O.552(E) dated 27.01.2026 (w.e.f. 04.02.2026)

2. Ins. by s.1(b), *ibid.*, (w.e.f. 04.02.2026)

3. Subs. by s. 1(c), *ibid.*, for “broodstock” (w.e.f. 04.02.2026)

of registration fee of rupees ten thousand for registration of hatchery in accordance with the procedure laid down in rule 9 of the said rules.

- (3) Approval of the hatchery for rearing indigenous shrimp seed shall be given by the Authority after due inspection of the hatchery facilities by a team constituted by the Authority for this purpose in accordance with the procedure laid down in rule 11 of the said rules.
- (4) The hatchery facilities shall have strict biosecurity control through physical separation or isolation of the different production facilities or isolation through the construction of barriers and implementation of process and product flow controls.
- (5) The hatchery facility shall have a wall or fence around the periphery of the premises, with adequate height to prevent the entry of animals and unauthorised persons to help reduce the risk of pathogen introduction by this route, as well as improve overall security.

2. Sanitary requirement.- (1) Entry to the hatchery shall be restricted to the personnel assigned to work exclusively in this area and a record of personnel entering the facility be maintained by the security personnel.

- (2) The entry of any person including staff shall be allowed compulsorily after taking shower and wearing working clothes and boots before entering into facility and the same procedure shall be followed at the end of the working shift.
- (3) A provision shall be made for disinfection of vehicle tyres (tyre baths at the gate with > 100 ppm of active ingredients Sodium/calcium hypochlorite solution), feet (foot baths containing 50 ppm of Potassium permanganate/ 20 ppm of hypochlorite solution), and hands [bottles containing iodine PVP (20 ppm and / or 70% alcohol)] to be used upon entering and exiting the unit.
- (4) All the cleaning chemicals, sanitary chemicals and other inputs materials shall be stored separately with proper labelling outside the production area.
- (5) Hatchery surrounding shall be maintained hygienically throughout the production cycle without any accumulation of waste materials.

3. Water intake.- (1) Each functional unit of the hatchery shall have independent water treatment facility isolated from all other water supply systems and separate recirculation systems may be used for each functional unit of hatchery to reduce water usage and improve biosecurity, especially in high-risk areas.

- (2) Water for the hatchery shall be filtered and treated to prevent the entry of vectors and pathogens that may be present in the source water by initial filtering through sub-sand well points, sand filters (gravity or pressure), or mesh bag filters, into the first reservoir or settling tank.
 - (3) After primary disinfection by chlorination or ozonation and after settlement, the water shall be filtered again with a finer filter and then disinfected using ultraviolet light or ozone.
 - (4) The water supply system shall include the use of activated carbon filters, ethylene diamine tetra acetic acid and temperature and salinity regulation.
- 4. Water treatment and discharge of wastewater.-** (1) The discharged water from the hatchery shall be held temporarily and treated with hypochlorite solution (>20 ppm active chlorine for not less than sixty minutes) or other effective disinfectant prior to discharge.
- (2) The seawater to be used in the facility shall be delivered into a storage tank where it shall be treated with hypochlorite solution (20 ppm active ingredient for not less than thirty minutes) followed by sodium thiosulphate (1 ppm for every ppm of residual chlorine) or ozonation and strong aeration.
 - (3) No wastewater shall be released out of the hatchery without chlorination and dechlorination, so as to prevent the escape of the pathogens or parasites into the natural waters and Effluent Treatment System shall be designed as specified by the Authority.
- 5. Disinfection of implements.-** (1) Used containers and hoses shall be washed and disinfected with hypochlorite solution (> 50 ppm) before further use.
- (2) Each ¹[wild stock]and larval rearing tanks shall have a separate set of implements which shall be clearly marked and placed near the tanks and disinfection of all the implements shall be done at the end of each day's use.
- 6. ¹[Wild stock] collection.-** (1) The collection and transportation shall be stress free and the fishing ground shall be as far as from the coast.
- (2) The matured male and female ¹[wild stock]shall be procured.
 - (3) All brooders shall be packed individually to avoid cross contamination and may be transported in insulated vehicles with a facility for suitable aeration connection.

1. Subs. by s. 1(c), of S.O.552(E) dated 27.01.2026 (w.e.f. 04.02.2026)

- (4) Upon arrival at the hatchery, the ¹[wild stock] shall be treated with 100 ppm KMnO₄ or liquid povidone for one minute before being stocked in the tanks.
 - (5) The ¹[wild stock] shall be free from pathogens, injuries or deformities, may be transported to the facility with individually packed in ¹[wild stock] bags in oxygenated water.
 - (6) Record on the traceability of the source of these stocks shall be maintained to avoid in breeding.
7. **Quarantine.**- (1) the hatchery operator shall establish a proper and fully bio-secured facility.
- (2) ¹[Wild stock] collected shall be quarantined in this in-house facility before entry in to hatchery.
 - (3) In case of domesticated ¹[wild stock], periodic disease surveillance shall be carried out.
 - (4) Quarantine discharge water shall be treated separately before releasing into effluent treatment system.
 - (5) Screening for World Organisation for Animal Health listed pathogens and pathogens of concern to India shall be done.
 - (6) During quarantine period, samples may be collected using non-lethal methods (pleopod or faecal matter) from individual brooders for screening.
 - (7) The sample shall be referred to ^{2***} Indian Council of Agricultural Research- Central Institute of Brackishwater Aquaculture laboratory or any other accredited laboratory for testing of relevant pathogens.
 - (8) Based on the test report of the sample, the quarantined shrimp shall be shifted to ²[wild stock] holding tanks after the quarantine period, if no pathogen is detected.
 - (9) In the event of detection of any relevant pathogen, the sample shall be sent to Indian Council of Agricultural Research- Central Institute of Brackishwater Aquaculture as referral lab for validation/confirmation.
 - (10) In case of confirmation, the unit operator shall destruct the infected stock duly following the appropriate method and report to the Authority.
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1. Subs. by s. 1(c), S.O.552(E) dated 27.01.2026 (w.e.f. 04.02.2026)

2. The words "Aquatic Quarantine Facility laboratory at Neelankarai or" omitted by s. 1(d), *ibid* (w.e.f. 04.02.2026)

8. **¹[Wild stock] Maintenance.** - (1) The ¹[wild stock] shall be preferably reared in tanks having adequate space for its movement.
- (2) Salinity, temperature, pH, dissolved oxygen, total ammonia, and nitrite shall be maintained as per water quality parameters as specified in the para 4 of the Guidelines for regulating coastal aquaculture and have to be monitored regularly.
 - (3) ¹[Wild stock] shall be fed with specific pathogen free Polychaete, frozen squid and formulated maturation feed.
 - (4) A flow through system or water recirculatory system may be maintained for better water quality.
 - (5) Maturation section shall be isolated with dark and noise free environment to simulate natural conditions for successful spawning.
9. **Seed production and sale.**- (1) Prohibited Pharmacologically active substances and antimicrobial agents as specified under clause (c) of sub-rule (1) of rule 18 of the said rules shall not be used in the seed production.
- (2) Nauplii shall be sold only to the hatcheries permitted by the Authority to rear the seed of indigenous shrimp following biosecurity protocols as specified in para 2 of these guidelines.
 - (3) Hatcheries rearing nauplii to the post-larvae stage for sale shall maintain record of the number of nauplii received and the post-larvae produced and sold and submit in their quarterly compliance reports in Form J-1 to the Authority on a regular basis, failing which the hatcheries shall be derecognised to receive nauplii in future.
 - (4) Post-larvae shall be sold only to the farmers who have registered with the Authority specifically for the culture of indigenous species.
 - (5) A copy of the certificate of registration issued by the Authority shall be retained by the hatchery operator for inspection.
 - (6) The detailed record of the seed production as well as sale including the name and address of the buyer or farmer shall be maintained.
10. **Disease reporting and record maintenance.**- (1) Any disease outbreak in the hatchery shall be reported immediately to the Authority.
- (2) The hatcheries shall maintain a record of the procurement of ¹[wild stock] with details of source, quantity procured, the number of mortality, eggs produced, nauplii produced, post-larvae produced, post-larvae sold, name and address of the farmer to whom sold, date

2. Subs. by s. 1(c), S.O.552(E) dated 27.01.2026 , for “broodstock” (w.e.f. 04.02.2026)

and number of the registration and permission certificate issued by the Authority and quarterly compliance report shall be submitted to the Authority in Form J-1 of these guidelines.

11. **Inspection.-** A person authorised by the Authority shall periodically visit and check the status of the ¹[wild stock], the seed production and sale.
12. **Bank guarantee.-** The approved hatcheries shall pay rupees fifty thousand towards monitoring fee and deposit a bank guarantee for two lakh rupees in favour of the Coastal Aquaculture Authority in accordance with the said rules, to ensure compliance with these guidelines and in the event of any violation, the bank guarantee shall be invoked.

PART II

Norms and Regulations for Approval and Operation of Farms

1. **Eligibility criteria for farms.-** (1) Aquaculture farmers shall submit an application in Form I of the said rules to the Sub Divisional Level Committee or District Level Committee concerned duly enclosing therewith the required documents as specified in the Schedule II of the said rules and payment of registration fee as specified in the Schedule I of the said rules for registration of farms of indigenous shrimp in accordance with the procedure laid down in rule 9 of the said rules.
 - (2) The inspection team authorised by the Authority shall inspect the farm as per the procedure laid down in rule 10 of the said rules and based on its recommendation regarding the suitability of the facility for farming of indigenous shrimp, applications shall be processed by the Secretary of the Authority, for consideration of the Authority for registering the farms for farming of indigenous shrimp.
 - (3) Farms shall establish the biosecurity measures such as fencing, reservoir ponds for water treatment, bird-scare, separate implements for each of the ponds etc., and be managed by personnel who are trained or experienced in the management of biosecurity measures.
2. **Water discharge protocols.-** (1) In case of any outbreak of disease, distress harvesting shall only be done through netting and the water shall be chlorinated and dechlorinated before release into drainage system.
 - (2) Wastewater shall be retained in the Effluent Treatment System for a minimum period of two days and in case of any outbreak of disease, disinfection protocols shall be followed in the Effluent Treatment System before discharging into the drainage system.

- (3) Farms which follow Zero Water Exchange system of farming may also take up shrimp farming with indigenous species.
3. **Biosecurity considerations.-** (1) Farms approved for culture of indigenous shrimp shall not be permitted for simultaneous farming of Specific Pathogen Free species in the same farm.
 - (2) For shifting culture from one species to another, dry out period shall be maintained during pond preparation in accordance with the norms issued by the Authority for this purpose from time to time.
4. **Norms for culture of indigenous shrimp.-** The following norms shall be applied for culture of indigenous shrimp, namely:-
 - (1) Tested and certified seed shall be procured only from hatcheries authorised for production of indigenous shrimp.
 - (2) Stocking densities shall not exceed 60 no. / m² in case of *P. indicus* and 30 no/m² for all other indigenous species for conventional earthen pond systems.
 - (3) Strict compliance with the wastewater standards shall be mandatory requirement and inspection team authorised by the Authority in each case shall monitor the quality of wastewater as per the procedure laid down in the Coastal Aquaculture Authority Regulations, 2008.
 - (4) Prohibited pharmacologically active substances and antimicrobial agents as specified in clause (c) of sub-rule (1) of rules 18 of the said rules shall not be used.
5. **Record maintenance at farms.-** (1) The farmers shall maintain a detailed record of the name and address of the hatchery from where they procured the seed, including quantity procured, number and date of the valid registration of the hatchery.
 - (2) The farmers shall record the quantity of shrimp produced, sold, and the name and address of the processor or representative or agent to whom sold.
 - (3) The farm record shall be made available to the inspection team authorised by the Authority during inspection.
6. Penalty for violation shall be in accordance with the said Act and rules made thereunder.

Form J-1

[See Part-I, paragraph 9 (3) and 10 (2)]

Format for quarterly compliance report from hatcheries

The report shall contain the following information, namely:-

1. Name and Address of the hatchery
2. Date and number of certificate of registration
3. Number of 1[wild stock] procured, males and females
4. Source of the 1[wild stock],
5. Transport mortality
6. Quarantine mortality
7. Total number of spawning's
8. Total number of eggs produced
9. Total number of nauplii produced
10. Total number of post larvae produced
11. Report on general aquatic health monitoring and any unusual mortality
12. Total number of post larvae sold to the farmers
13. Details of the farmers to whom sold (shall include information on the name, address, registration number) and copy of the registration certificate for culturing of indigenous shrimp issued by Coastal Aquaculture Authority.

HATCHERIES AND REARING UNITS FOR MARINE OR BRACKISHWATER ORNAMENTAL ORGANISMS GUIDELINES, 2025

Dated: 26th June, 2025

S.O. 2904(E). — In pursuance of the section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (k) of rule 3 of the Coastal Aquaculture Authority Rules, 2024, the Central Government hereby notifies the following guidelines for regulating hatcheries and rearing units for seed production and culture of marine and brackishwater ornamental organisms, namely: -

- 1. Short title and commencement.** - (1) These guidelines may be called Hatcheries and Rearing Units for Marine or Brackishwater Ornamental Organisms Guidelines, 2025.
(2) They shall come into force from the date of their publication in the Official Gazette.

PART I

Safeguards and regulations for operation of units for seed production of marine or brackishwater ornamental organisms

- 1. Application criteria for seed production of marine or brackishwater ornamental organisms.-** (1) The hatcheries engaged or intending to be engaged in seed production of marine or brackishwater ornamental organisms having the required biosecurity facilities and in-house quarantine facility as specified by the Coastal Aquaculture Authority shall be eligible to apply for registration under the Coastal Aquaculture Authority Act, 2005 (24 of 2005) (herein after referred as the said Act) and the Coastal Aquaculture Authority Rules, 2024 (herein after referred as the said rules) to produce and sell the marine ornamental organisms.
(2) The hatchery operator shall submit an application in the Form II of the said rules to the Authority duly enclosing therewith the required documents as specified in the Schedule II of the said rules and payment of registration fee of rupees ten thousand for registration of hatchery in accordance with the procedure laid down in rule 9 of the said rules.
(3) A detailed project report indicating the infrastructure, production capacity, technology support, employment generation, economics of operation, etc., shall be submitted along with the application.
(4) Approval of the hatchery for seed production of marine or brackishwater ornamental organisms shall be given by the Authority after due inspection of the hatchery facilities by a team constituted by the Authority for this purpose in accordance with the procedure laid down in rule 11 of the said rules.

2. **Marine or brackishwater ornamental organisms.** - (1) Seed production and culture of marine or brackishwater ornamental organisms refer to the process of reproducing in captivity, cultivating and rearing upto juvenile stage through the management of environmental conditions, feeding regimes, and other factors for further growth in aquaria or marine or brackishwater environments.
 - (2) The term marine ornamental organisms includes all marine or brackishwater ornamental fishes, shrimps, crabs, cray fishes, echinoderms, molluscs, sea anemones, plants and any other organisms which are permitted by the Central Government for commercial scale breeding and rearing purposes.
3. **Sanitary requirement.** - (1) Entry to the hatchery shall be restricted to the personnel assigned to work exclusively in the area and a record of personnel entering the facility be maintained by the security personnel.
 - (2) A provision shall be made for disinfection of feet (foot baths containing 50 ppm of Potassium permanganate/ 20 ppm of hypochlorite solution), and hands [bottles containing iodine-PVP (20 ppm and / or 70% alcohol)] to be used upon entering and exiting the unit.
 - (3) All the cleaning chemicals, sanitary chemicals and other inputs materials shall be stored separately with proper labelling outside the production area.
 - (4) Surroundings of the hatchery shall be maintained hygienically through out the production cycle without any accumulation of waste materials.
4. **Water intake.** - (1) Each functional unit of the hatchery shall have independent water treatment facility isolated from all other water supply systems and separate recirculation systems may be used for each functional unit of hatchery to reduce water usage and improve biosecurity, especially in high-risk areas.
 - (2) Water for the hatchery shall be filtered and treated to prevent the entry of vectors and pathogens that may be present in the source water by initial filtering through sub-sand well points, sand filters (gravity or pressure), or mesh bag filters, into the first reservoir or settling tank.
 - (3) After primary disinfection by chlorination or ozonation and after settlement, the water shall be filtered again with a finer filter and then disinfected using ultraviolet light or ozone.
 - (4) The water supply system shall include use of activated carbon filters, ethylene diamine tetra acetic acid and temperature and salinity regulation.

5. **Water treatment and discharge of wastewater.** - (1) The discharged water from the hatchery shall be held temporarily and treated with hypochlorite solution (>20 ppm active chlorine for not less than sixty minutes) prior to discharge.
 - (2) The seawater or brackishwater to be used in the facility shall be delivered into a storage tank where it shall be treated with hypochlorite solution (20 ppm active ingredient for not less than thirty minutes) followed by sodium thiosulphate (1 ppm for every ppm of residual chlorine) or ozonation and strong aeration.
 - (3) No wastewater shall be released out of the hatchery without chlorination and dechlorination, to prevent the escape of the pathogens or parasites into the natural waters and Effluent Treatment System shall be designed as specified by the Authority.
6. **Hatchery infrastructure.** - (1) Sections of the hatchery like the broodstock holding tanks, egg incubation units, larval rearing units, mechanical filtration units, UV/Ozone plant, indoor algal culture, rotifer and copepod production, etc., should be physically isolated and shall follow single entry and exit to avoid contamination.
 - (2) The hatchery perimeter shall be secured with fencing to deter entry of animals and unauthorized persons.
7. **Disinfection of implements.** - (1) Used containers and hoses shall be washed and disinfected with hypochlorite solution (20 ppm) before further use.
 - (2) Each broodstock and larval rearing tanks shall have a separate set of implements which shall be clearly marked and placed near the tanks and disinfection of all the implements shall be done at the end of each day's use.
8. **Broodstock collection.** - (1) Sub adults and adult broodstock of marine or brackishwater ornamental organisms may be procured or collected from wild or brood bank to make them mature at hatchery rearing facility and such organisms shall be free from pathogens, injuries or deformities, can be transported to the facility in broodstock bags or tanks with oxygenated water.
 - (2) Collection and exploitation of these marine or brackishwater ornamental organisms for commercial sale shall be discouraged and only parental stock shall be used in a sustainable way for breeding purposes.

- (3) Collection of such marine or brackishwater ornamental organisms shall be ensured in strict compliance with the provisions of Wild Life Protection Act, 1972 (53 of 1972) (as amended from time to time) without affecting the biodiversity of the existing stock and without using any destructive gears and methods for collection.
9. **Broodstock quarantine.** - (1) The hatchery or rearing unit operator shall establish a proper and fully bio-secured facility and broodstock collected shall be quarantined and tested for World Organisation for Animal Health listed pathogens and pathogens concern to India in in-house quarantine facility.
 - (2) Quarantine discharge water shall be treated separately before releasing into effluent treatment system.
10. **Import of marine ornamental organisms.** - Marine or brackishwater ornamental organisms permitted for import by the Central Government shall be maintained in separate in-house quarantine facility by duly following the standard operating procedures or guidelines for imported stock as prescribed by the government from time to time.
11. **Maintenance of marine or brackishwater ornamental organisms.** - (1) Marine or brackishwater ornamental organisms shall be shifted from the quarantine facility to maturation or broodstock holding tanks fitted with flow through or Recirculating Aquaculture System.
 - (2) Breeding pairs with desirable traits and good health shall be selected to avoid inbreeding and to maintain genetic diversity.
 - (3) Spawning shall be triggered by simulating natural environmental cues that includes adjusting water temperature, photo period (lighting conditions), or water quality parameters. Some species may require specific triggers, such as a sudden drop in salinity or other environmental parameters and hormones.
12. **Feed management.** - (1) Live feeds like phyto-planktons and zooplanktons of good quality shall be screened for the presence of pathogens before using in larval rearing section.
 - (2) Functional feeds or nutrients shall be used to enhance their reproduction or propagation. While feeding with live feeds, fresh meat of squid, crab, fish and shrimp, adequate care shall be taken to prevent the entry of diseases causing pathogens and parasites into the hatchery facility.

- 13. Probiotics and chemical agents.** - (1) Coastal Aquaculture Authority approved feed supplements or inputs or additives shall be used as recommended by the fisheries officials or scientists or technical staff.
- (2) Prohibited pharmacologically active substances and antimicrobial agents as specified in clause (c) of sub-rule (1) of rule 18 of the said rules shall not be used in the hatchery.
- 14. Packing and transport.** - (1) The seed of Marine or brackishwater ornamental organisms shall be transported in bags or containers in oxygenated water.
- (2) The seed of Marine or brackishwater ornamental organisms shall be acclimatized in the hatchery itself for salinity as per the requirement of the farmer based on the salinity levels in the rearing units.
- 15. Disease reporting and record maintenance.** - (1) Any disease outbreak in the marine or brackishwater ornamental hatchery shall be reported immediately to the Authority.
- (2) The hatchery operator shall maintain day to day records of the operations and the record shall contain all the activities including broodstock details, spawning details, larval survival, feeding time, live feed or inert feeds used, chemical usage, pathogen test results, water quality reports, record of animal stock, details of seed sales, etc.
- (3) The hatchery operator shall submit a quarterly compliance report to the Authority in Form K-1 of these guidelines.
- 16. Inspection.** - A person authorised by the Authority shall periodically visit and check the status of the broodstock, seed production and sale.
- 17. Bank guarantee.** - The approved hatcheries shall pay rupees fifty thousand towards monitoring fee and deposit a bank guarantee for rupees fifty thousand in favour of the Coastal Aquaculture Authority in accordance with the said rules, to ensure compliance with these guidelines and in the event of any violation, the bank guarantee shall be invoked.

PART II

Norms and Regulations for Approval and Operation Rearing Units for marine ornamental organisms

1. **Eligibility criteria for rearing units or farms.-** (1) The farmers for registration of rearing unit or farm for marine ornamental organisms shall submit an application Form I of the said rules to the Sub-Divisional Level Committee or District Level Committee concerned duly enclosing therewith the required documents as specified in the Schedule II of the said rules and payment of registration fee as specified in the Schedule I of the said rules for registration of rearing units or farms in accordance with the procedure laid down in rule 9 of the said rules.
 - (2) The inspection team authorised by the Authority shall inspect the rearing unit or farm as per the procedure laid down in rule 10 of the said rules and based on its recommendation regarding the suitability of the facility for rearing unit or farm for marine or brackishwater ornamental organisms, applications shall be processed by the Secretary of the Authority, for consideration of the Authority for registering the rearing unit or farm.
 - (3) Rearing unit or farm for marine or brackishwater ornamental organisms shall establish the biosecurity measures such as fencing, reservoir ponds for water treatment, bird-scare, separate implements for each of the ponds etc., and be managed by personnel who are trained or experienced in management of biosecurity measures.
2. **Water discharge protocols. -** (1) In case of any outbreak of disease, distress harvesting shall only be done through netting and the water shall be chlorinated and dechlorinated before release into drainage system.
 - (2) Wastewater shall be retained in the Effluent Treatment System for a minimum period of two days.
 - (3) Rearing unit or farm for marine or brackishwater ornamental organisms which follow Zero Water Exchange system of farming may also take care of the discharge water treatment.
 - (4) Strict compliance for the waste water standards is a mandatory requirement and the Inspection team authorised by the Coastal Aquaculture Authority shall monitor the quality of waste water or rearing unit drain water as per the procedures laid down in the guidelines for regulating coastal aquaculture.

- 3. Norms for culture of marine or brackishwater ornamental organisms. -**
The following norms shall be adopted for culture of marine or brackishwater ornamental organisms, namely:-
- (1) Species selection:** Farming requires a variety of species with the basic characters like, attractive colours, suitability for marketing, market demand, consumer acceptance, easy to culture, adaptability to the varying salinity, acceptance to artificial diets, faster growth rate, resistant to common diseases, etc.,
 - (2) Seed selection and stocking:**
 - (i) tested and certified seed shall be procured only from the Coastal Aquaculture Authority approved or registered hatcheries. Test reports from authorised Government lab shall be considered;
 - (ii) the seed size of various ornamental organisms may be preferred based on the species reared and stock at appropriate stocking density and avoid overcrowding, competition for living space and food.
 - (3) Acclimatization and stocking of seed:**
 - (i) seed brought from the approved hatchery should be acclimatized in tanks or ponds for a shorter period to observe their health condition. If abnormal behaviour or infection symptoms are noticed, such seeds have to be isolated and reared separately;
 - (ii) to avoid the spread of diseases, seed infected with pathogens shall be given proper treatment;
 - (iii) the Coastal Aquaculture Authority certified inputs shall be used for treating the diseases in consultation with the fisheries officials or Indian Council of Agricultural Research scientists;
 - (iv) the standing biomass in the pond will increase due to progresses of culture period and therefore, optimal water quality parameters such as dissolved oxygen, pH, ammonia and nitrite as prescribed in the para 4 of the Guidelines for regulating Coastal aquaculture shall be maintained and have to be monitored regularly. Proper aeration equipment may be used to enhance the Dissolved Oxygen level in the tank or pond and water exchange can be provided if required periodically.

(4) Feed Management:

- (i) functional feeds or nutrients shall be used to enhance their reproduction or propagation. While feeding with live feeds, fresh meat of squid, crab, fish and shrimp, adequate care shall be taken to prevent the entry of diseases causing pathogens and parasites into the rearing facility;
- (ii) extruded formulated pellet feed shall be used to reduce organic matters in water;
- (iii) feed quantity has to be reduced when the ornamental organisms are under stress or during rough weather or during low water temperature; and
- (iv) the nutritional requirements vary with different variety of species, sizes, growth stages and feeding habits and accordingly quantity of formulated feeds shall be used.

(5) Use of fertilisers and other aquaculture inputs:

- (i) to increase the primary production and to maintain the optimum pH and other water quality parameters such as dissolved oxygen, ammonia and nitrite, biodegradable organic plant extracts and Coastal Aquaculture Authority certified inputs shall be used;
- (ii) the Coastal Aquaculture Authority approved feed supplements or inputs or additives shall be used as recommended by the fisheries officials or Scientists or technical staff; and
- (iii) prohibited pharmacologically active substances and antimicrobial agents as prescribed in clause (c) of sub-rule (1) of rule 18 of the said rules shall not be used.

(6) Prevention and treatment of fish diseases:

- (i) regular observation of reared ornamental organisms is required to identify altered behaviour, disease causes and appropriate treatments;
- (ii) pathogens like bacteria, viruses, fungi and parasites are existing in the natural environment and hence, health of the marine ornamental organisms shall have adequate resistance against them;
- (iii) to prevent and control diseases, maintaining a good farming environment and use of hygienic and nutritious feed to boost immunity may minimise the chance of disease outbreak; and
- (iv) in case of any disease outbreak, remedial measures shall be taken in consultation with Scientists or qualified technicians.

- (7) **Harvesting:**
- (i) harvesting of organisms by drag nets or cast nets or hand nets or hand picking or any other suitable method which does not cause any damage to the ornamental organisms shall be adopted; and
 - (ii) for marketing the live ornamental organisms, care shall be taken to transport live organisms with proper aeration and water quality arrangements.
4. **Maintenance of records at rearing unit or farm.** - (1) The farmers shall maintain records of procurement of seed, stocking density, water quality parameters, feeding quantities, health management, growth parameters, inputs used, harvesting and marketing details etc.
- (2) The farmer shall produce the farm records on demand by the authorised personnel or officials.
5. Penalty for violation shall be in accordance with the said Act and the rules made thereunder.

Form K-1
[See paragraph 15 (3)]

Format for quarterly compliance report from hatcheries or rearing units of marine or brackishwater ornamental organisms

The report shall contain the following information, namely: -

1. Name and Address of the hatchery or rearing unit
2. Date and number of certificate of registration and permission to import
3. Number of sub-adult or broodstock procured or imported, males and females
4. Source of sub-adult or broodstock procured or imported
5. Transport mortality
6. Quarantine mortality
7. Total number of spawning's
8. Total number of eggs produced
9. Total number of fry or seed produced
10. Report on general aquatic health monitoring and any unusual mortality
11. Total number of fry or seed sold
12. Details of the sales of fry or seed to whom marine or brackishwater ornamental organisms sold

GUIDELINES FOR REGULATING SEAWEED SEEDLING PRODUCTION AND FARMING IN MARINE AND BRACKISH WATER, 2025

Dated: 24th July, 2025

S.O. 3458(E). - In pursuance of the provisions of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (l) of rule 3 of the Coastal Aquaculture Authority Rules, 2024 (hereinafter referred to as the said rules), the Central Government hereby makes the following guidelines for regulating seaweed seedling production and farming in marine and brackish water, namely: -

- 1. Short title and commencement.** - (1) These guidelines may be called the Guidelines for Regulating Seaweed Seedling Production and Farming in Marine and Brackish water, 2025.
(2) They shall come into force from the date of their publication in the Official Gazette.
- 2. Criteria and procedure for registration of seaweed seedlings production units.** - (1) Seaweed seedlings production units engaged or intending to be engaged in seed production of marine and brackish water seaweed spores and seedlings under controlled conditions having the required biosecurity facilities and in-house quarantine facility as specified by the Coastal Aquaculture Authority shall be eligible to apply for registration.
(2) The seedlings production unit operator shall submit an application in Form-II of the said rules to the Authority along with documents as specified in the Schedule II of the said rules.
(3) A detailed project report indicating the infrastructure, production capacity, technology support, employment generation and the cost of operation shall be submitted along with the application.
(4) Approval of the seedlings production unit for production of marine and brackish water seaweed seeds or spores or seedlings shall be given by the Authority after due inspection of the facilities by a team constituted by the Authority for this purpose in accordance with rule 11 of the said rules.
- 3. Sanitary requirement** - (1) Entry to the seaweed spore or seedling production unit shall be restricted to the personnel assigned to work exclusively in this area and a record of personnel entering the facility shall be maintained by the security personnel.
(2) Any person including the staff entering the unit shall strictly adhere to the biosecurity protocols or the standard operating procedures laid down for the day to day operations of the unit.

- (3) A provision shall be made for disinfection of vehicle tyres (tyre baths at the gate with > 100 ppm of active ingredients Sodium/calcium hypochlorite solution), feet (foot baths containing 50 ppm of Potassium permanganate/20 ppm of hypochlorite solution) and hands [bottles containing iodine-PVP (20 ppm and / or 70% alcohol)] to be used upon entering and exiting the unit.
 - (4) All the cleaning chemicals, sanitary chemicals and other inputs materials shall be stored separately with proper labelling outside the production area.
 - (5) Hatchery surrounding shall be maintained hygienically throughout the production cycle without any accumulation of waste materials.
- 4. Water intake.** - (1) Seaweed spore or seedling production unit shall have independent water treatment facility isolated from all other water supply systems and separate recirculation systems may be used for each spore, seedlings or saplings production to improve biosecurity especially in high-risk areas.
- (2) Water for the Seaweed spore or seedling production unit shall be filtered and treated to prevent the entry of vectors and pathogens that may be present in the source water by initial filtering through sub-sand well points, sand filters (gravity or pressure) or mesh bag filters into the first reservoir or settling tank.
 - (3) After primary disinfection by chlorination or ozonation or such other appropriate disinfectants and after settlement, the water shall be filtered again with a finer filter and then disinfected using ultraviolet light or ozone.
 - (4) The water supply system may include use of activated carbon filters, the addition of ethylene diamine tetra acetic acid and temperature and salinity regulation.
- 5. Water treatment and discharge of wastewater.** -(1) The seawater to be used in the facility shall be delivered into a storage tank where it may be treated with hypochlorite solution (not less than 10 ppm active ingredient for not less than thirty minutes) followed by sodium thiosulphate (1 ppm for every ppm of residual chlorine) or ozonation and strong aeration.
- (2) The discharged water from the seaweed spore or seedling production unit shall be held temporarily and treated with hypochlorite solution (not less than 10 ppm active chlorine for not less than sixty minutes) or ozonation or other effective disinfectant prior to discharge.

6. **Seaweed spore or seedling production unit.** - (1) Seaweed spore or sapling production units may be established close to the areas where large scale commercial cultivation of seaweeds are done to avoid long distance transportation by the farmers.
- (2) Seaweed spore or seedling production units shall ensure that seeds are free from contaminants and pests and have a high germination rate for obtaining healthy seedlings.
 - (3) These units supplying seed material shall be free from diseases for the last three months from the date of collection.
 - (4) Seaweed spores or seedlings may be produced through tissue culture techniques or any other appropriate methods in consultation with Indian Council of Agricultural Research, Council of Scientific and Industrial Research or other Government institutions or Government approved organisations having the required technology.
 - (5) Spore or seedling production units shall supply seedlings that are uniform in size, shape and colour to promote consistent growth and crop health.
 - (6) Seaweed spore or seedling production units shall use seed material that has not yet entered into reproductive stage.
 - (7) Seaweed seedling production unit shall have fibre reinforced plastic or polypropylene or cement tanks or glass tanks for spore production, seedling rearing, biosecured pure stock and culture maintenance section.
 - (8) The seaweed seedling production units shall have water filtration units, water supply and storage tanks and packing area for the nurseries to ensure a consistent supply of high-quality seaweed seedlings.
 - (9) The seaweed spore or seedling production unit perimeter shall be secured with fencing to deter entry of animals and unauthorised persons.
7. **Disinfection of implements.** - (1) Containers and hoses that are used shall be washed and disinfected with hypochlorite solution (20 ppm) before further use.
- (2) Each seaweed spore or seedling production section of a unit shall have a separate set of implements which shall be clearly marked and placed in the sections and all the implements shall be disinfected after use at the end of each day.

- 8. Parent seaweed stock collection and in house quarantine facility for imported spores or seedling of mature plants.** - (1) Young plants of appropriate size, having no deformities or nutritional deficiencies may be procured or collected from the wild or farmer's pond or other seedlings rearing units for use as a parental stock in the unit.
- (2) The young seaweed planting materials shall have more apical tips for faster growth and spore production.
 - (3) Parent stock of seaweed seed, sapling or mature plant may be transported to the facility with adequate aeration and appropriate packing and transportation means.
 - (4) Record on the traceability of the source of these stocks shall be maintained.
 - (5) The seaweed spore or seedling production unit shall establish a proper and fully bio-secured quarantine facility for holding the imported spores or seedlings or mature plants.
 - (6) Import of such materials shall be done in accordance with the rules and the guidelines laid by the Central Government for the said purpose.
 - (7) Water discharged from the quarantine facility shall be treated separately before its release into the effluent treatment system.
- 9. Standard operating procedure for in-house quarantine facility.** -(1) Vehicle shall pass through tyre bath at the hatchery premises before reaching the receiving point.
- (2) The entire consignment shall be unloaded at the in-house quarantine facility and all the personnel involved in unloading shall disinfect their hands, apron, coat and shoes before and after unloading.
 - (3) The quarantine tanks shall have adequate space for movement of spores, seedlings or mature plants and shall be maintained under optimal water quality parameters.
 - (4) During quarantine period, spores, seedlings or mature plants samples shall be collected for screening of pathogens by following the guidelines for import of live seaweed into India notified by the Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India (F.No. j-1503529/5/2024-DOF (E-24345) dated the 21st October, 2024).

- (5) The sample shall be referred to the plant quarantine analytical laboratory or National Accreditation Board for Testing and Calibration Laboratories-accredited or Indian Council of Agricultural Research or Council of Scientific and Industrial Research or Government laboratories for testing of pathogens of concern to India.
 - (6) Based on the test report of the sample, the quarantined spores, seedlings or mature plants shall be shifted to the unit after the quarantine period if no pathogen is detected.
 - (7) In the event of detection of any relevant pathogen, the sample shall be sent to Indian Council of Agricultural Research or Council of Scientific and Industrial Research or Government laboratories or to any approved laboratory notified by the Central Government for validation or confirmation.
 - (8) In case of confirmation, the unit operator shall destroy the entire infected stock and incinerate for containment of the spread of the infection under intimation to the Authority.
- 10. Maintenance of spores, seedlings or mature plants.** - Imported or locally procured spores, seedlings or mature plants may be shifted from the quarantine facility to the parental stock holding facility and shall be maintained under appropriate photo thermal controls and nutritional supplements.
- 11. Management chemical agents and nutrients.** - (1) Seaweed spores or seedlings production units shall use approved inputs in the spore or seedling production cycles.
- (2) Prohibited pharmacologically active substances and antimicrobial agents shall not be used in the production system.
- 12. Seaweed seed banks.** - (1) Procuring the spores or seedlings from the approved spores or seedlings production unit or seaweed seed banks may be established for growth of the seed material until supply to the seaweed farmers.
- (2) The seaweed seed banks shall be established by the units or individuals near the seaweed farming sites in ponds, creeks, backwaters and coastal waters.
 - (3) The seaweed seed banks shall get the rearing sites, such as, open brackish water bodies and coastal waters, by applying to the Central Government or the State Government or any organisation or local body authorised by the Government.

- (4) The sites suitable for establishing seaweed seed bank may be allotted to the individual, self help groups, joint liability groups, fish farmer producer organisations, societies, farmers, entrepreneurs or technocrats with specific geo-coordinates or geo-fencing to enable the authority to consider such allotted sites for registration for seaweed seed bank units.
 - (5) The seaweed seed bank with appropriate cultivation methods may be taken up in the allotted sites in consultation with Indian Council of Agricultural Research, Council of Scientific and Industrial Research or other Central institutes by assessing the techno economic viability by the individual, self-help groups, joint liability groups, fish farmer producer organisations, societies, farmers, entrepreneurs or technocrats.
13. **Packing and transport.** - Appropriate packing methods for spores or seedlings or mature plants shall be used without affecting the growth of the plant material.
 14. **Disease reporting and record maintenance.** - (1) Any disease outbreak in the spores or seedlings production unit shall be reported immediately to the Authority.
(2) The unit operator shall maintain day to day records of the operations and this record shall contain all the activities including parent stock details, chemical usage, pathogen test results, water quality reports, record of spore or seedling production, stock, sale data including farmer's details and report these in their quarterly compliance report to be submitted to the Authority in Form L-1 of these guidelines.
 15. **Inspection.** - A person authorised by the Authority shall periodically visit and check the status of the seaweed spores or seedling production unit.
 16. **Bank guarantee.** - The approved unit shall pay rupees fifty thousand towards monitoring fee and deposit a bank guarantee of rupees fifty thousand in favour of the Coastal Aquaculture Authority in accordance with the said rules, to ensure compliance with these guidelines and in the event of any violation, the bank guarantee shall be invoked.
 17. **Eligibility criteria for registration of seaweed culture units.** - (1) Application for registration of seaweed culture units shall be made in accordance with rule 9 of the said rules.
(2) The inspection team authorised by the Authority shall inspect the farm in accordance with rule 10 of the said Rules and based on its recommendations regarding the suitability of the farm for farming of seaweed, applications shall be processed by the Secretary of the Authority for registering the units for seaweed farming.

- (3) Farms shall establish adequate biosecurity measures to avoid infestation of fouling and boring organisms and entry of herbivores or browsers and shall be managed by personnel who are trained or experienced in seaweed farming.

18 Seaweeds farming.- (1) The potential species for culture shall include-

- (a) seaweed species suitable for cultivation in marine and brackish water includes *Kappaphycus alvarezii*, *Gracilaria salicornia*, *Gracilaria crassa*, *Gracilaria verrucosa*, *Agarophyton tenuistipitatum*, *Gracilaria edulis*, *Gracilaria dura*, *Gracilaria debilis*, *Hypnea musciformis*, *Gelidiella acerosa*, *Ulva lactuca*, *Ulva intestinalis* and *Caulerpa* species or any other species permitted by the Central Government; and
 - (b) seaweed with other amenable aquatic species shall also be permitted as a co-culture or integrated multi trophic aquaculture.
- (2) The suitable sites for seaweed farming in creeks, backwaters and open coastal waters shall be identified by Indian Council of Agricultural Research, Council of Scientific and Industrial Research and other authorised Government institutions and seaweed farming shall be promoted in such identified locations only.
 - (3) Sites with good tidal amplitude, clear sandy or clay bottoms devoid of silt and muddy areas shall be selected for seaweed farming.
 - (4) The Central Government, any State Government or any organisations or local body authorised by the Government may allocate suitable sites to the individual, self help groups, joint liability groups, fish farmer producer organisations, societies, farmers, entrepreneurs or technocrats with specific geo-coordinates or geo-fencing to enable the authority to consider such allotted sites for registration for seaweed farming.
 - (5) The seaweed farming with appropriate cultivation methods such as off-bottom cultivation, raft or floating methods, tube net, mono line and longline methods may be taken up in the Government allotted sites in consultation with institutes under the Indian Council of Agricultural Research or Council of Scientific and Industrial Research or other central institutes by assessing the techno-economic viability by the individual or communal farmers or entrepreneurs.
 - (6) Adequate road connectivity to the farming site for transporting seeds and harvested seaweed shall be ensured.

- (7) Land-based cultivation in tanks, ponds, and raceways shall be adopted for edible seaweeds for better control over quality and to avoid toxic impurities.
- (8) To minimize conflict of interest along the coastline, seaweed farming shall be taken up in sites away from existing commercial shipping and navigational lanes, areas designated for fishing, ports and harbours, restricted defence sensitive areas, wave or tidal energy projects, pipelines, recreational activities, ecologically sensitive areas, etc.
- (9) Seaweed farming site shall have a minimum depth of 1.2 metres during low tide to avoid temperature shock and similar depth shall also be maintained for pond based farming.
- (10) The sites having high inflow of freshwater and effluent discharge points shall be avoided.
- (11) Physical environmental factors such as water currents, wave action, shelter from storms, and tidal exposure shall be accounted for as they not only influence the growth but may also impact the design and engineering of the structures used in seaweed culture.
- (12) The optimum range of water quality parameters suitable for seaweed farming shall be as specified in the table below, namely: -

Table

Sl.No	Parameters	Optimum range
(1)	(2)	(3)
1.	pH	7.5-8.5
2.	DO (mg/L)	>5
3.	Salinity (ppt)	15-35
4.	Water temperature ()	25-31
5.	NO ₂ (mg/L)	< 0.2
6.	Unionized Ammonia (mg/L)	< 0.1

- (13) The optimum range of environmental criteria for seaweed farming shall be as specified in the table below, namely: -

Table

Sl.No	Parameters	Optimum range
(1)	(2)	(3)
1.	Wind speed (m/s)	1-3
2.	Water depth (m)	0.6-1.5
3.	Water current (m/s)	0.10-0.30

- (14) The seed material shall ideally come through dedicated hatcheries or seed production centres which maintain elite germplasm and seed development facilities.
- (15) Seedlings shall be taken from healthy stock and free from animal attachment and epiphytes, preferably from the young portion of the plant with more apical portions.
- (16) If seedlings are taken from other districts or states, it shall be placed in a clean net or jute bags and kept at bottom (1-2 m depth) of the sea or brackish water for few days before planting for acclimatisation.
- (17) Seaweed seeds material shall have superior genetics for fast growth, high yield, disease resistance and environmental adaptability.
- (18) Seedlings developed through tissue or spore culture under controlled conditions shall be preferable than the vegetative propagation stock.
- (19) Seaweed farming shall be undertaken by the following methods, namely: –
 - (a) **longline or rope culture:** -
 - (i) in longline or rope culture method, seaweed seedlings with an initial stocking density of 20-50g shall be typically attached at intervals of 10 to 15 cm along the length of the rope and the exact spacing and seed material quantity shall vary depending on seaweed species, growth conditions and farming location;
 - (ii) polypropylene monoline ropes of appropriate thickness tied at both ends of the posts, positioned parallel to each other with adequate floats shall be used;
 - (iii) spacing between the seedlings shall be adequate to allow the growth of the seed material;
 - (iv) fencing net with appropriate mesh size shall be fixed at the periphery of the culture unit to protect the seaweeds from grazing by herbivorous and other organisms.
 - (b) **raft culture:** -
 - (i) seaweed may be fastened onto ropes or monoline tube nets attached within floating rafts;
 - (ii) primary frame of the raft shall be made with any suitable material made of wood, Polyvinyl Chloride or High-Density Polyethylene;

- (iii) primary frame shall be of adequate size to produce sufficient quantity of seaweeds based on the availability of space in the cultivation location and feasibility for handling;
- (iv) high-density polyethylene fishing net with appropriate mesh size shall be fixed at the bottom of the raft to protect the seaweeds from grazing by herbivorous and other organisms.

(c) tube net culture: -

- (i) tube net cultivation of seaweeds shall be taken up with cylindrical mesh tubes with a minimum mesh diameter of 25 mm and above, secured with polypropylene rope of appropriate thickness;
 - (ii) tube nets shall be placed horizontally or vertically to provide buoyancy with anchoring and floats. ;
 - (iii) cultivation tubes nets shall be adequately provided with appropriate net of suitable mesh size at periphery to protect from grazing organisms.
- (d) Any other suitable and approved methods such as off-bottom methods may also be adopted for seaweed farming.

19. Monitoring or maintenance. - (1) Epiphytic growth and sediments attached to seaweeds, fouling organisms on ropes, net tubes and frames shall be removed at periodic intervals.

- (2) Broken and drifted plants or discarded or unusable bamboo poles, ropes, braiders, nets etc. shall be removed from the farming site from time to time.
- (3) All unhealthy and loose plants shall be removed entirely and shall be replaced with fresh stock to maintain desired density and to get optimal productivity.
- (4) Growth and health parameters shall be monitored periodically.
- (5) Prohibited Pharmacologically active substances and antimicrobial agents shall not be used in the seaweed farming.

20. Harvesting and drying. - (1) Harvesting of seaweed may be carried out within a span of 30 to 45 days of the farming duration based on the species cultivated.

- (2) Tube nets or ropes ready for harvest shall be removed from the raft or monoline and transported to the shore for harvesting.

- (3) Harvesting shall be done by handpicking or using appropriate equipment and in case of tube net, seaweed outgrowth shall be cut or plucked from the tube net retaining sufficient seaweed biomass as seed inside the tube net for subsequent farming.
 - (4) Drying seaweed on elevated drying platforms or on tarpaulin sheets shall be carried out for faster drying and yielding quality produce without extraneous materials like sand, stones, dirt etc.
 - (5) During this drying process, impurities like stones, shells, and other foreign matter shall be removed.
 - (6) To shield against moisture during rainy seasons, harvested and dried seaweed shall be covered with tarpaulin sheets.
 - (7) Once dried, the seaweed shall be carefully packed in sacks and stored in a clean, dry place.
- 21. Storage of seaweed seedlings in the offseason.** - (1) During crop holidays, monsoons and unfavourable weather, seeds shall be stored in a clean net bag and placed at the bottom in 1-2m deep areas, preferably in the sandy bottom, strongly anchored or tied to fixed structures in the coastal waters preferably in protected bays.
- (2) Seaweed seed material shall also be stored in land-based seawater tanks or ponds if available with adequate good water quality suitable for seaweed.
- 22. Record maintenance.** - (1) Record on source of seed material, stocking quantity, culture duration, materials used, harvested quantity and buyer details shall be maintained by the farmers for traceability purposes.
- (2) The farmer shall produce the farm records on demand by the authorised personnel.

Form L-1

[See paragraph 13 (2)]

(The quarterly compliance report from hatcheries)

The compliance report shall contain the following information, namely: -

1. Name and Address of the hatchery;
2. Date and number of certificate of registration and permission;
3. Name of the species of seedling produced;
4. Details of parent stock of seaweed seed, sapling or mature plant procured;
5. Source of parent stock of seaweed seed, sapling or mature plant;
6. Transport mortality;
7. Quarantine mortality;
8. Total number of seaweed seeds, spores or seedlings;
9. Report on general aquatic health monitoring and any unusual mortality;
10. Total number of seaweed seeds, spores or seedlings sold to the farmers;
11. Details of the farmers to whom sold (shall include information about the name, address, registration number) and copy of the registration certificate for culturing seaweed issued by Coastal Aquaculture Authority.

Place:

Signature

Date:

Name of the authorised signatory

GUIDELINES FOR REGULATING CAGE AND PEN CULTURE OF MARINE OR BRACKISH WATER AQUACULTURE SPECIES, 2025

Dated: 24th July, 2025

S.O. 3462(E). - In pursuance of the provisions of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (m) of rule 3 of the Coastal Aquaculture Authority Rules, 2024 (hereinafter referred to as the said rules), the Central Government hereby makes the following guidelines for regulating cage and pen culture of marine or brackish water aquaculture species which includes, finfish, shellfish, seaweed and any other organisms approved by the Central Government, namely:

- 1. Short title and commencement.** - (1) These guidelines may be called the Guidelines for Regulating Cage and Pen Culture of Marine or Brackish Water Aquaculture Species, 2025.
 - (2) They shall come into force from the date of their publication in the Official Gazette.

- 2. Criteria for application for undertaking cage or pen culture of marine or brackish water aquaculture species.** - (1) Individual or self-help groups or joint liability groups or fish farmer producer organisations or societies or farmers or entrepreneurs or technocrats, etc., shall submit an application in accordance with the procedure laid down in rule 9 of the said rules.
 - (2) A detailed project report indicating the infrastructure, production capacity, technology support, employment generation, economics of operation, etc., shall be submitted along with the application.
 - (3) The inspection team authorised by the Authority shall inspect the unit as per the procedure laid down in rule 10 of the said rules and based on its recommendation regarding the suitability of the site and unit for farming of marine or brackish water finfish or shellfish or seaweed, etc., applications shall be processed by the Secretary of the Authority, for consideration of the Authority for registering the cage or pen culture units.

- 3. Site selection.** - (1) A feasibility study shall be carried out using marine geospatial analysis, incorporating major physico-chemical, social, and biological parameters to ascertain species-specific requirements of the site and to assess potential sites based on ecological suitability, water quality, accessibility, and infrastructure availability for various types of mariculture practices.

- (2) The site selected for cage culture shall be a sandy or silty bottom with good water clarity or transparency with the following parameters, namely: -
- (a) the suitable substrata for pen culture with good primary production is preferable based on the species cultured;
 - (b) a beach landing or jetty facility shall be available within close vicinity of the proposed cage culture site for day-to-day feeding and maintenance management work;
 - (c) a good road transport facility shall be available for transporting the fish yield to the market;
 - (d) enclosed or semi-enclosed bays are highly preferred zones however open sea areas may also be selected for cage culture;
 - (e) areas with moderate wave action and free from silt deposits with good water quality are preferable;
 - (f) accessibility or availability of farm inputs, transportation, marketing, watch and ward;
 - (g) areas shall be away from freshwater runoff and domestic or agro-industrial effluent discharge;
 - (h) potential sites identified by the research organisations or fisheries department or other government agencies shall be considered;
 - (i) the farming area in every site shall be demarcated by arriving at local or regional or stakeholder consensus considering the alternative use of marine space;
 - (j) open sea cage culture locations shall be earmarked with geographical boundaries with geo-location tagging;
 - (k) cage or pen culture of marine and brackish water fishes shall be taken up in suitable locations in estuaries, backwaters, lagoons and coastal waters which shall be identified by the Indian Council of Agricultural Research or Ministry of Earth Sciences-National Institute of Ocean Technology or Council of Scientific and Industrial Research or other Central Government Institutes based on the oceanographic and carrying capacity studies;
 - (l) the Central Government or the State Government or any organisations or local bodies authorised by the Government shall allocate the suitable sites to the individual or self help groups or joint liability groups or fish farmer producer organisations or societies or farmers or entrepreneurs or technocrats, etc., with

specific geo-coordinates or geo-fencing to enable the authority to consider such allotted sites for registration for cage or pen culture units;

- (m) to minimize conflicts of interest along the coastline, cage or pen culture shall be taken up in sites away from existing commercial shipping and navigational lanes, areas designated for fishing, ports and harbours, waste water discharge points, restricted defence sensitive areas, wave or tidal energy projects, pipelines, recreational activities, ecologically sensitive areas, etc.;
- (n) optimum range of water quality parameters suitable for cage or pen culture shall be as specified in the Table below, namely: -

Table

Sl.No (1)	Parameters (2)	Optimum range (3)
1.	pH	7.5-8.5
2.	DO (mg/L)	5-7
3.	Salinity (ppt)	15-35
4.	Water temperature ()	25-31
5.	NO ₂ (mg/L)	≤ 0.2
6.	Ammonia (mg/L)	< 0.1

- (o) environmental criteria optimum range for cage or pen culture sites shall be as specified in the table below, namely: -

Table

Sl.No (1)	Parameters (2)	Optimum range (3)
1.	Wind speed (m/s)	1-5
2.	Water depth (m) in low tide	>5 meters (for cage farming)
3.	Water depth (m) in low tide	>1 meter (for pen farming)
4.	Water current (m/s)	0.30-1.0

- 4. **Spacing between cage clusters.** - (1) The distance between one open sea cage culture cluster and another open sea cage culture cluster shall be minimum five hundred meters.

- (2) The open sea cage culture system shall not obstruct regular navigation between and within the system.

5. Cage structure and installation. - (1) Cage size and design shall be as square or rectangular or circular to suit the species cultured and location.

- (2) Cage shall be designed with hand rail and buoyant collars to support the net and worker's safety.
- (3) Cage frames shall be made of wood or galvanised iron pipes or high-density polyethene material, depending on the location and investment plan and high-density polyethene material may be used to fabricate cage frames to have long durability, floatability, and sturdiness.
- (4) Cage frames shall be supported with appropriate floats made of plastic drums or fibre reinforced plastic barrels to provide sufficient floatation.
- (5) Cages shall be moored with site-specific anchoring materials technically vetted by the institutes under the Indian Council of Agricultural Research or Ministry of Earth Sciences- National Institute of Ocean Technology or Council of Scientific and Industrial Research or other Central Government Institutes based on the bathymetric studies.
- (6) Cages shall be moored individually or in a grid mooring system in the locations approved by the Central Government or the State Government or local bodies.
- (7) Submersible cages may be promoted in consultation with the Indian Council of Agricultural Research or Ministry of Earth Sciences- National Institute of Ocean Technology or Council of Scientific and Industrial Research or other Central Government Institutes for the technical suitability, sturdiness and operational convenience and without hindering the existing activities of the selected location.
- (8) Wherever possible, cage culture units shall be integrated with seaweed rafts and oyster or mussel culture rafts under integrated multi trophic aquaculture for environmental mitigation and additional production of extractive organisms.
- (9) Pen culture units shall be established with appropriate size of net mesh to avoid escape of cultured fish and to prevent the entry of predators.

- (10) Pen culture units should be installed with adequate support materials to withstand the adverse agro climatic conditions.
- 6. Technical Guidelines for cage or pen culture operations.** - (1) Native or non-invasive species suitable for cage or pen culture shall be considered duly prioritising the species having market demand, resilient to local conditions and have low environmental impact.
- (2) Only healthy and pathogen-free seeds from registered farms or nurseries shall be used for stocking.
 - (3) For better survival, seed length of 3-4 inches shall be selected for the open sea cage culture program.
 - (4) Grow out culture protocols including stocking density, feed management, disease prevention, and waste management shall be adopted.
 - (5) Cage or pen culture units shall be supported with units for captive nursery rearing in land-based tanks or in happas or nursery cages installed in coastal waters near to the cage farming site to rear the fish fry to stockable size fingerlings.
 - (6) Fish seeds brought from the approved hatchery have to be acclimatized in tanks or pens or nursery cages for a shorter period to observe their health condition. If abnormal behaviour or infection symptoms are noticed, such seeds have to be isolated and reared separately.
 - (7) Before stocking of the seed into the cage or pen culture units, it shall be acclimatised to the cultivating environment.
 - (8) To avoid the spread of diseases, seeds infected with pathogens shall be safely discarded or stocked temporarily in small cages or pens after appropriate treatment in consultation with the institutes under the Indian Council of Agricultural Research or Ministry of Earth Sciences-National Institute of Ocean Technology or Council of Scientific and Industrial Research or other Central Government Institutes.
 - (9) Adoption of sustainable practices such as integrated multi-trophic aquaculture or any other environmental friendly approaches shall be encouraged.
 - (10) Regular monitoring of water quality, biodiversity impacts, and disease outbreaks shall be done.

- (11) Over stocking of seeds shall be avoided and growth rate on a fortnightly or monthly basis to be monitored to finalise the good quality and right quantity of feed.
7. **Feed management.** - (1) Optimal feed shall be used so as to improve the farming environment and ensure healthy fish stock (use of extruded formulated pellet feed instead of low value fish will reduce organic matters in water).
- (2) Feed quantity has to be reduced when the fishes are under stress or during rough weather or during low water temperature.
- (3) The nutritional requirements vary with different fish species, sizes, growth stages and feeding habits and accordingly feeds shall be used.
8. **Net exchange and use of aquaculture inputs.** - (1) To ensure free flow of water, the cage or pen nets shall be cleaned periodically and inner and outer nets of the cages shall be exchanged with higher mesh size for free flow of water and according to the size of the fish.
- (2) Spare cages shall be maintained to thin down the stocked fish and to accelerate the growth rate and to provide more space for movement of the fishes.
- (3) To prevent biofouling of algal growth and barnacles on cage nets and cage frames, it shall be cleaned manually or with appropriate equipment at regular intervals.
- (4) Antifouling paints and chemicals shall be avoided.
- (5) Regular inspection of mooring, net and raft components shall be done.
- (6) Feed supplements or inputs or additives approved by the Authority shall be used as recommended by the fisheries officials or scientists or technical staff.
9. **Prevention and treatment of fish diseases.** - (1) Fish shall be observed regularly to identify altered swimming behaviour, diseases causes and appropriate treatments.
- (2) Stocking density as recommended by Indian Council of Agricultural Research or Council of Scientific and Industrial Research or Government institutions and nutritious feed shall be maintained to boost resistance in the fish and to control fish diseases.
- (3) In case of any disease outbreak, remedial measures as recommended by ICAR/CSIR/Government institutions shall be adopted to prevent the spread to other cage or pen culture units.

- (4) Prohibited pharmacologically active substances and antimicrobial agents as prescribed under clause (c) of sub-rule (1) of rule 18 of the said rules shall not be used in the units.
- 10. Harvesting.** - (1) Harvesting of fish shall be done partially or fully from the cage or pen culture units depending on the market demand and requirement by the vendors and icing shall be done immediately after the harvest to prevent the spoilage.
- (2) In case of harvest for live fish marketing, care should be taken to harvest fish from the cages or pens without any injury and transport them with proper aeration and water quality arrangements.
- (3) The fish grown in the cage shall be harvested by lifting of net and taking the fish with scoop nets.
- (4) The grown-out fish shall be harvested in the early hour's day and stored in cold brine immediately after harvest.
- (5) Total harvest can be planned based on the market demand and secured order.
- (6) Periodical and partial harvesting may also be planned based on market demand.
- (7) The harvested fish may be stored in a cold storage facility (-20°C) for a short period of up to two months to have a better market rate.
- 11. Maintenance of farm management records.** - (1) Cage or pen culture farmers shall maintain records on procurement of seed, stocking density, water quality parameters, feeding quantities, health management, growth parameters, inputs used, harvesting and marketing details etc.
- (2) The farmer shall produce the farm records on demand by the authorised personnel or officials.
- 12. Penalty for violation.** - If any unauthorised practice is noticed during the inspection of the units by the inspection team of the Authority, the inspection team may confiscate, dispose of or destroy the stock, including imposing penalties as prescribed under section 14 of the Coastal Aquaculture Authority Act, 2005.

GUIDELINES FOR LIVE FEED CULTURE UNITS AND MANAGEMENT IN COASTAL AQUACULTURE, 2025

Dated: 29th August, 2025

S.O. 3982(E).—In pursuance of the provisions of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (n) of rule 3 of the Coastal Aquaculture Authority Rules, 2024 (hereinafter referred to as the said rules), the Central Government hereby make the following guidelines for regulating live feed culture units and management in coastal aquaculture, namely:-

- 1. Short title and commencement.** - (1) These guidelines may be called the Guidelines for Live Feed Culture Units and Management in Coastal Aquaculture, 2025.
(2) They shall come into force from the date of their publication in the Official Gazette.
- 2. Application criteria for live feed units.**- (1) Live feed units engaged or intending to be engaged in the production of live feed having the required biosecurity facilities and in-house quarantine facility as specified under paragraph 10 of these Guidelines, shall be eligible to apply for registration in accordance to the provisions of the Coastal Aquaculture Authority Act, 2005 (24 of 2005) (hereinafter referred as the said Act) and the rules made thereunder, to produce and sell live feed for coastal aquaculture units.
(2) The unit operator shall submit an application in the prescribed Form II of the said rules, to the Authority, duly enclosing the required documents as specified in Schedule II of the said rules, and payment of a registration fee of rupees ten thousand for registration of live feed unit in accordance with the procedure prescribed in rule 9 of the said rules.
(3) A detailed project report indicating the infrastructure, bio-security measures, production capacity, technology support, employment generation, the economics of operation, etc., shall be submitted along with the application.
(4) Approval of the unit for live feed production shall be given by the Authority after due inspection of the unit by a team constituted by the Authority for this purpose in accordance with the procedure laid down in rule 11 of the said rules.
- 3. Selection of suitable live feeds.**- (1) Phytoplankton (different species of microalgae), zooplankton (rotifers, Artemia, copepods, amphipods) and polychaete worms may be considered as live feeds.

- (2) Identification of species shall be done scientifically morphologically and molecular tools using standard procedure and the record of the same shall be kept properly.
 - (3) Live feeds that match the size and nutritional requirements of the candidate species shall be chosen for its different life stages.
4. **Site selection.-** (1) The live feed units are to be preferably located near the hatcheries or farming sites and they shall be isolated from the other production facilities in view of bio-security reasons.
 - (2) Where the live feed units are located in separate locations, care shall be taken to avoid entry of pathogens and cross contamination.
 - (3) There shall be adequate quality water and parameters shall be maintained in accordance with paragraph 4 of the Guidelines for Regulating Coastal Aquaculture notified vide S.O. 1496(E), dated the 20th March, 2024.
5. **Requirements for live feed culture units.-** (1) Culture tanks or containers or carboys or flasks made of Fibre Reinforced Plastic cement or Reinforced Cement Concrete or glass or plastic or High-Density Polyethylene or Polyethylene or Polyvinyl Chloride shall be used for the live feed culture.
 - (2) Indoor, intermediate and outdoor culture units for microalgae shall be made.
 - (3) The stock culture room for live feeds for maintaining pure stocks shall be made.
 - (4) Separate culture units to avoid cross-contamination (such as microalgae and rotifers) shall be made.
 - (5) Proper aeration, temperature control, and lighting conditions to optimize the growth of live feed shall be made.
6. **Water quality management.-** (1) Regular monitoring of water quality parameters, including temperature, pH, salinity, and dissolved oxygen for optimal levels in accordance with paragraph 4 of the Guidelines for regulating coastal aquaculture to support live feed growth shall be ensured.
 - (2) The water used for the live feed culture shall be treated or filtered properly using sand filters, cartridge filters and Ultraviolet filters.
 - (3) The filtered water shall be sterilized, ozonized, and de-ozonized for indoor or stock cultures.
7. **Water discharge protocols for live feed units.-** (1) In case of any crashed cultures from outdoor units or outbreak of diseases, the culture water shall be chlorinated and dechlorinated before release into the drainage system.

- (2) The units shall not discharge wastewater directly to open water bodies.
 - (3) Wastewater shall be retained in the effluent treatment system for a minimum period of two days.
- 8. Culture conditions.-** (1) Nutrients to support the growth of live feeds (especially microalgae) typically through the addition of nutrient media in consultation with the Fisheries officials or Scientists of ICAR/CSIR/ Government Institutes shall be ensured.
- (2) Nutrient levels as recommended by the Fisheries officials or Scientists of Indian Council of Agricultural Research or Council of Scientific and Industrial Research or Government Institutes shall be maintained to avoid overgrowth of harmful microorganisms.
 - (3) Appropriate light sources and photoperiods as recommended by the Fisheries officials or Scientists of Indian Council of Agricultural Research or Council of Scientific and Industrial Research or Government Institutes shall be arranged to promote the growth of microalgae or other live feeds in the culture system.
 - (4) Light intensity and duration based on the specific requirements of the microalgae species as recommended by the Fisheries officials or Scientists of Indian Council of Agricultural Research or Council of Scientific and Industrial Research or Government Institutes shall be maintained.
 - (5) Appropriate stocking density of live feeds as recommended by the Fisheries officials or Scientists of Indian Council of Agricultural Research or Council of Scientific and Industrial Research or Government Institutes to prevent overcrowding (especially polychaete worms not exceeding 0.5 kg/m²) shall be maintained.
 - (6) Prohibited pharmacologically active substances and antimicrobial agents as prescribed under sub-rule (1) (c) of rule 18 of the said rules shall not be used in the production system.
- 9. Health monitoring.-** (1) Regular monitoring of health parameters and density for the live feed culture as recommended by the Fisheries officials or Scientists of Indian Council of Agricultural Research or Council of Scientific and Industrial Research or Government Institutes, shall be done to regulate the contamination or overgrowth of unwanted organisms.
- (2) Microscopic examinations shall be done to assess the quality and size of the live feeds.
 - (3) Dedicated technical persons shall be engaged to handle the live feed unit.

- 10. In-house quarantine facility.-** (1) Vehicle shall pass through tyre bath at the hatchery or live feed unit premises before reaching the receiving point.
- (2) The entire consignment shall be unloaded at the in-house quarantine facility.
 - (3) All the personnel involved in unloading must disinfect their hands, apron, coat and shoes before and after unloading.
 - (4) The quarantine section shall have sufficient space for the maintenance of cultured live feed.
 - (5) The species contaminated with pathogens shall not be used for culture.
 - (6) The isolates of live feeds or wild collected samples (eg. Microalgae, rotifers, copepods, amphipods and polychaete worms) shall be screened for pathogens as listed by World Organization for Animal Health and pathogens of concern to India in the in-house quarantine facility.
 - (7) As specific pathogen free polychaete is recommended to avoid infections in the cultures, the polychaete used in the aquaculture as live feed shall be free from all world organization for animal health listed pathogens and pathogens of concern to India.
 - (8) The sample shall be referred to aquatic quarantine facility laboratory at Neelankarai or Indian Council of Agricultural Research – Central Institute of Brackishwater Aquaculture laboratory or any other accredited laboratory for testing of relevant pathogens of concern to India.
 - (9) In the event of detection of any relevant pathogen, the sample shall be sent to Indian Council of Agricultural Research – Central Institute of Brackishwater Aquaculture as a referral lab for validation or confirmation.
 - (10) In case of confirmation, the unit operator shall destroy the infected stock and incinerate for containment of the spread of the infection under intimation to the Authority.
- 11. Quality control and biosecurity.-** (1) The quality of the live feeds by regularly testing for their nutritional content shall be ensured based on the requirement culture conditions.
- (2) Live feeds shall be stored properly to maintain their quality between harvests.

- (3) Biosecurity for the live feed culture system shall be implemented in consultation with the Fisheries officials or Scientists of Indian Council of Agricultural Research or Council of Scientific and Industrial Research or Government Institutes.
- 12. Harvesting Techniques.-** (1) Gentle harvesting methods shall be used to avoid damaging or stressing the live feeds.
 - (2) Live feeds shall be harvested at the appropriate stage of development to ensure they are nutritionally suitable for the candidate species of different life stages.
 - (3) Live feed produce shall be sold to the Coastal Aquaculture Authority registered hatcheries or units and the Government approved units only.
- 13. Maintenance of records.-** (1) Unit operators shall maintain records on procurement or import of live feed, stocking density, water quality parameters, feeding quantities, health management, growth parameters, inputs used, harvesting and marketing details etc., and report these in their quarterly compliance report to be submitted to the Authority in Form N-1 of these Guidelines.
 - (2) Unit operator shall produce the records on demand by the authorised personnel or officials.
- 14. Penalty for violation.-** If any unauthorised live feed production or any other practice is noticed during the inspection of the units by the inspection team of the Authority, the inspection team may confiscate, dispose of or destroy the stock including imposing penalties as prescribed under section 14 of the said Act, as it thinks fit.

Form N-1
[See Paragraph 13(1)]

Format for quarterly compliance report from live feed units

The report shall contain the following information, namely:-

1. Name and Address of the unit
2. Date and number of certificate of registration and permission to import
3. Source of pure/stock culture procured/imported
4. Quantity of pure/stock culture procured/imported (ml/l/kg/g/mt)
5. Transport mortality (%)
6. Quarantine mortality (%)
7. Total number of cycles/batches
8. Total quantity of pure/stock culture produced (ml/l/kg/g/mt)
9. Report on general aquatic health monitoring and any unusual mortality/ under production
10. Total quantity of pure/stock culture sold (ml/l/kg/g/mt)
11. Details of the live feed sales (shall include information on the name, address, registration number to whom sold) (copy of the registration certificate of hatcheries/units issued by Coastal Aquaculture Authority/Govt. shall be enclosed)

Place :

Signature

Date:

Name of the authorised signatory

BIO-FLOC, RE-CIRCULATORY AQUACULTURE SYSTEMS AND NURSERY BASED AQUA FARMING SYSTEMS GUIDELINES, 2025

Dated: 29th August, 2025

S.O. 3983(E). -In pursuance of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (o) of rule 3 of the Coastal Aquaculture Authority Rules, 2024 (hereinafter referred to as the said rules), the Central Government hereby notifies the following guidelines for regulating Bio-floc, Re-circulatory Aquaculture Systems and Nursery based Aqua Farming Systems, namely:-

- 1. Short title and commencement.**- (1) These guidelines may be called the Bio-floc, Re-circulatory Aquaculture Systems and Nursery based Aqua Farming Systems Guidelines, 2025.

(2) They shall come into force from the date of their publication in the Official Gazette.
- 2. Application criteria for Bio-floc, Re-circulatory Aquaculture System and Nursery based Aqua Farming Systems.**- (1) Any person desirous of establishing or operating any unit of Bio-floc or Re-circulatory Aquaculture System or Nursery based Aqua Farming Systems having the required biosecurity facilities as specified by the Coastal Aquaculture Authority shall be eligible to apply for registration under the Coastal Aquaculture Authority Act, 2005 (24 of 2005) hereinafter referred as the said Act, and in the said rules.

(2) The unit operator shall submit application in Form I to the Sub-Divisional Level Committee or the District Level Committee concerned along with the documents as specified in Schedule II and payment of registration fee as specified in Schedule I of the said rules in accordance with the procedure laid down in rule 9 of the said rules.

(3) A project report indicating the infrastructure, bio-security measures, production capacity, technology support, employment generation, economics of operation, etc., shall be submitted along with the application.

(4) The inspection team authorised by the Authority shall inspect the unit as per the procedure laid down in rule 10 of the said rules and based on its recommendation regarding the suitability of the facility, applications shall be processed by the Secretary of the Authority, for registering the units.

- (5) Units shall have biosecurity measures including fencing, reservoir ponds for water treatment, bird-scare, separate implements for each of the ponds, etc., and be managed by personnel who are trained or experienced in management of units.
- 3. Site selection.-** (1) Site shall be near to the water source and sufficiently elevated to have complete drain during water exchange and harvesting.
- (2) Generally clayey loam soils are preferred to avoid high-water percolation through the sandy soils and consequential environmental damage.
 - (3) For bio-floc and nursery based aqua systems, site with sandy or loamy soil may be used for construction of lined pond.
 - (4) In the case of sandy soil, the pond shall be lined with proper material such as polyethylene sheet, canvas, etc., for water holding capacity.
 - (5) Where the site is moderately elevated, the choice of farming system shall be an elevated tank system, which need more capital investment.
 - (6) The quality of soil shall be ascertained for soil pH, permeability, bearing capacity and heavy metal content for earthen nursery based systems and soil with pH below 5, acid sulphate soils and soils with high concentrations of heavy metals shall be avoided.
 - (7) A minimum water depth of 100 centimeter shall be maintained for bio-floc and nursery based farming systems.
- 4. Pond or tank design considerations.-** (1) Natural based soil shall be avoided in Biofloc or Recirculatory Aquaculture System based aqua farming system.
- (2) Circular tank or pond with central drain and sufficient slope shall be preferred for intensive farming with high stocking density of standing biomass over 1 kg/cubic meter.
 - (3) High-density polyethylene tanks or lined ponds may be used, depending on the available capital investment.
 - (4) Earthen ponds and tanks built over the land with steel frame and plastic sheets may be opted for more cost effective and less initial capital investments.
 - (5) The pond size of each Biofloc or Recirculatory Aquaculture System unit shall not exceed 2000 m² (0.2 ha).
- 5. Water quality management.-** (1) Regular monitoring of water quality parameters, including temperature, pH, alkalinity, salinity, dissolved oxygen, ammonia, nitrite, etc., shall be specified in paragraph 4 of the Guidelines for regulating coastal aquaculture to support the production system.

- (2) The water used in the units may be treated or filtered with appropriate filtration system such as using sand filters, cartridge filters, Ultraviolet filters, etc.

6. Water discharge protocols.- (1) In case of any outbreak of disease, water shall be chlorinated and dechlorinated before release into drainage system.

- (2) Wastewater shall be retained in the effluent treatment system for a minimum period of two days.
- (3) Units shall be promoted with zero or minimal water exchange system so as to regulate the contamination.

7. Culture conditions.- (1) Nutrient levels within the desired range shall be maintained to avoid overgrowth of harmful microorganisms as specified by the Central Government.

- (2) Appropriate light sources and photoperiods as specified by the Central Government may be provided to promote the growth of microalgae or other live feeds or heterotrophic bacteria, depending on the following parameters and optimal level of the culture system:

Table	
Parameter	Optimal level
Temperature	28 - 30°C
pH	7.5 - 8.4
Suspended Solids	100 - 300 ppm
Settleable Solids And Volatiles	5 - 20 mL/L (shrimp); 15 - 50 mL/L for tilapia
Dissolve Oxygen	5 - 8 ppm
Alkalinity	100 - 150 ppm as CaCO ₃
Turbidity	75 - 150 NTU
TAN	<2ppm
Nitrite-Nitrogen	1 ppm
Nitrate--Nitrogen	<10 ppm

Note 1: For microbial floc based (brown) biofloc, Use of shade net (60 to 80% light penetration) or indoor facility.

Note 2: For algal based green biofloc system, natural photoperiodicity can be maintained.

- (3) Appropriate stocking density of live feeds to prevent overcrowding (especially polychaete worms), which can lead to competition for nutrients and lower growth rates as specified by the Central Government shall be followed.

- (4) Aeration systems.- In Recirculatory Aquaculture System or Nursery system, minimum Dissolved Oxygen level of 5ppm shall be maintained for the culture of aquatic organisms, such as shrimp or fish;
- (5) In Biofloc technology, (a) microbial flocs, which are aerobic dense aggregates of bacteria, algae, and other microorganisms that help to maintain water quality by consuming organic matter shall be used and the aeration requirements may vary based on factors such as the stocking density, water temperature, and the specific needs of the cultured species. (b) diffused aeration, venturi jet type aeration and paddlewheel aerators shall be provided to ensure minimum Dissolved Oxygen level of 5 ppm.
- (6) The following stocking density shall be maintained for Biofloc or Recirculatory Aquaculture System for shrimp culture, namely:-
 - (a) In the case of nursery.-
 - (i) Conventional pond based nursery – not exceeding 500 PL/ m²;
 - (ii) Circular lined ponds with central drain – not exceeding 2000 PL/ m²;
 - (iii) Circular tanks and raceways with provisions for solid disposal - not exceeding 4000 PL/ m²;
 - (b) In the case of grow-out:
 - (i) Conventional pond-based systems - not exceeding 60 nos/ m² ;
 - (ii) Non circular Lined Pond based systems with central drain - not exceeding 100 nos / m²;
 - (iii) Circular lined ponds with central drain - not exceeding 200 nos/m²;
 - (iv) Circular tanks and raceways with provisions for solid disposal: not exceeding 300 nos/ m²;
 - (c) in case of fish culture, in nursery and grow-out ponds with biofloc or Recirculatory Aquaculture System, the stocking density shall be based on the type or size or habitat of the candidate species;
 - (d) In case of crab, the megalopae or crab instars shall be reared in nursery at 50 nos./m² for a period of 45 to 60 days, and crab juveniles shall be reared in grow out pond or pen culture not exceeding 5,000 nos. per ha.

- (7) Carbon to Nitrogen Ratio for biofloc system shall be as follows, namely:-
 - (a) healthy biofloc bacteria shall be maintained with suitable Carbon to Nitrogen Ratio of not exceeding 15:1;
 - (b) carbon (C) is typically supplied through organic carbon sources, such as molasses, wheat bran, rice bran or flour, millet flour or other carbohydrate-rich substances;
 - (c) the optimal Carbon to Nitrogen Ratio varies depending on the specifics of the aquaculture system, species being cultured, and environmental conditions.
 - (8) Prohibited pharmacologically active substances and antimicrobial agents as prescribed in sub-rule 1(c) of rule 18 of the Coastal Aquaculture Authority Rules, 2024 shall not be used in the production system.
- 8. Feed management.-** (1) Feeds with an 24 to 40% of protein content shall be selected for the species being cultured.
- (2) Supplemental feed additives that promote the growth of beneficial microorganisms shall be used.
 - (3) Regular monitoring and adjustments shall be made for maintaining a stable and productive biofloc system.
 - (4) In order to maintain a balance between carbon and nitrogen, feeds with lower protein content compared to traditional aquaculture systems shall be used.
 - (5) Where the feed is low in protein, the feed shall be balanced and complete in nutrient profile.
 - (6) The feed ration and feeding frequency shall be adjusted and monitored closely.
 - (7) Overfeeding shall be prohibited.
 - (8) Consulting with experts in biofloc Recirculatory Aquaculture System or Nursery management shall be mandatory to obtain the technical guidance for specific aquaculture setup.
- 9. Health monitoring.-** (1) Regular monitoring of the cultured species shall be done to check abnormal symptoms if any, diagnose to find cause and take corrective action in consultation with the fisheries health experts in Government Institutes and keep the record.

- (2) Dedicated technical persons shall be engaged to handle the production system.
- 10. Harvesting techniques.-** (1) Gentle harvesting methods shall be used to avoid damaging or stressing to the cultured species.
 - (2) Harvesting shall be done through the central drainage system or drag netting or complete draining.
- 11. Maintenance of farm management records.-** (1) Unit operators shall maintain records on stocking density, water quality parameters, feeding quantities, health management, growth parameters, inputs used, harvesting and marketing details etc.
 - (2) Unit operator shall produce the records on demand by the authorised personnel or officials.
- 12.** The contravention of any provisions of these Guidelines shall attract the penalty specified in Section 14 of the Act.

GUIDELINES FOR NOTIFYING THE AQUA ZONES AND AQUA MAPPING, 2025

Dated: 24th July, 2025

S.O. 3463(E). -In pursuance of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (p) of rule 3 of the Coastal Aquaculture Authority Rules, 2024, the Central Government hereby makes the following guidelines for notifying the aqua zones and aqua mapping, namely:-

- 1. Short title and commencement.** - (1) These guidelines may be called the Guidelines for notifying the Aqua Zones and Aqua Mapping, 2025.
(2) They shall come into force from the date of their publication in the Official Gazette.
- 2. Aqua zonation and aqua mapping.**- (1) The Authority and the State Government shall develop aqua zonation and aqua mapping for environmentally sustainable coastal aquaculture.
(2) The aqua zoning and aqua mapping shall be developed by:-
 - (a) use of high-resolution geographic information system maps, integrated with land surveys, sub-divisions, boundaries and land ownership merged with the land use map and regulatory requirements;
 - (b) identifying and locating the potential areas, based on the following parameters, namely, the water source such as the sea front, estuary, river, creek, backwater and the type of land through the multi-criteria decision support system that is validated by the field surveys;
 - (c) defining broad zones suitable for different types of aquaculture and other allied activities or species or stocking density or a combination of all in such zones to deter and abate any environmental hazard.
- 3. Procedure of aqua zonation and mapping.**- (1) The aquaculture zones for land-based aquaculture and aquaculture in open water bodies shall be earmarked after considering the environmental suitability and other resource use plans through spatial planning.
(2) Suitable zones for aquaculture shall be identified considering the present land use, extent of utilisation of resources, carrying capacity of the source water bodies, site-specific water quality parameters, soil quality and culture species.

- (3) Agricultural lands, mangroves, wetlands, forest lands, flood-prone regions, water-holding area during the rainy season, land meant for public purpose and ecologically sensitive areas like national parks and sanctuaries or any land used for agriculture or horticulture shall not be converted to aquaculture units.
- (4) Aquaculture units in an aquaculture zone shall be regulated based on stocking density, cultivation methods, carrying capacity, biosecurity, biodiversity, and other relevant parameters.
- (5) Aquaculture units shall maintain buffer zones from other productive ecosystems such as mangroves, agricultural lands, and ecologically sensitive areas like sanctuaries and marine parks. Aquaculture units shall be permitted in the aquaculture zone based on the carrying capacity of the water body and shall maintain environmental sustainability.
- (6) Each map of potential aquaculture zones shall be generated based on the available resource-sharing capacity and unproductive lands available.
- (7) Broad carrying capacity estimation for aquaculture zones shall be done by identifying the carrying capacity limit of water bodies and using them for aquaculture siting, registration, licensing, and production limits.
- (8) Geospatial mapping of suitable lands for pond aquaculture shall integrate land use, soil characteristics, water quality from source water bodies, environmental regulations, other user conflicts in the particular region and access to infrastructure and the ranking of parameters shall be scored for each criterion on a defined scale from most suitable to not suitable.
- (9) The mapping of aqua zones shall also consider socio-cultural attributes, social issues, local area master plans and other logistics required for mapping to protect the livelihoods of the local people engaged in fishing and their access to fishing grounds and avoid conflict with other users.
- (10) Every aquaculture unit within the aquaculture zone shall have proof of ownership or lease of land.
- (11) Biosecurity and zoning strategies shall include aquaculture management of areas that are clusters of farms that share a common water supply and are in such proximity that disease and water quality management practices are best managed collectively rather than by individual farms.
- (12) The zones for aquaculture shall be designated and for the said purpose spatial plans that identify suitable areas for aquaculture while considering and addressing diverse uses and users of space shall be developed and published.

4. **Criteria for aqua zoning and mapping.**- The following criteria shall be considered for identifying land for aqua zoning and mapping, namely:-
- (a) lands not suitable for agriculture, nonproductive in the past, ecologically important regions and buffer zones from eco-sensitive areas, shall be demarcated;
 - (b) no aquaculture activity shall be allowed in ecologically important areas along the coast and estuaries with biodiversity, critical habitats and endangered species including coastal and marine ecologically sensitive areas and protected areas notified under the Environment Protection Act, 1986;
 - (c) assessment of availability of water by source and by seasonality in estuary, backwaters, canals, rivers, creeks and drains;
 - (d) assessment of water quality parameters such as pH, hardness and salinity in creeks, canals, rivers and drains;
 - (e) soil quality (clay loam, silty clay, silty clay loam or clay) for management measures;
 - (f) assessment of suitable soils requiring consideration of both soil pH and soil texture;
 - (g) unproductive lands surrounded by aquaculture ponds or lands that are alkaline, less productive and un-productive for agriculture, having high salinity and alkalinity shall be identified;
 - (h) other factors such elevated land, storm hazard vulnerability and tidal range shall be considered based on the availability of data;
 - (i) prevention of pollution of receiving water bodies, soil, groundwater and adverse impacts on nearby agriculture and horticulture crops shall be ensured;
 - (j) species culture shall be carried out depending on the following water salinity:-
 - (i) high saline coastal areas: above 15 ppt - Shrimp (*L. vannamei*, *P. indicus*), Mudcrab, Seaweeds, Cobia, seabass, Silver pompano, Groupers, Snappers, Oysters, mussels, marine ornamental fish, and any other species permitted by the Central Government;
 - (ii) brackishwater areas: 5-15 ppt- Shrimp (*L. vannamei*, *P. monodon*, *P. indicus*), Mudcrab, Seabass, Tilapia, brackishwater ornamental fish, seaweed and any other species permitted by the Central Government.

- 5. Aqua zonation and mapping process.-** (1) An aquaculture zone shall comprise of units within a panchayat or a village.
- (2) In each panchayat or village, the coastal aquaculture area within the jurisdiction of the Authority shall be identified with survey numbers and Coastal Aquaculture Authority registration numbers.
 - (3) Geo-tagging shall be done by the Committee constituted with representatives from the departments of Fisheries, Revenue, Irrigation, Agriculture, Forest, Panchayat Raj and Environment.
 - (4) Farmer-wise data shall be collected in the Form P-1.
 - (5) In each panchayat or village, potential lands suitable for aquaculture shall be identified with survey numbers and geo-coordinates farmer-wise by the Committee in Form P-2.
 - (6) Classification of land available shall be as per the records available of the Revenue or Agriculture Department.
 - (7) Geospatial information and district-wise maps with the Coastal Regulation Zone demarcation for the existing aquaculture lands and potential lands - Satellite-based maps from Remote sensing or Space Application Centre shall be used.
 - (8) Water resources available with the Public Works Department, Irrigation Department or Water Resources Department shall be used.
 - (9) Brackishwater aquaculture farms and the lands suitable for aquaculture shall be listed on the basis of farmer-wise information collected in Form P-1 and Form P-2, village or panchayat information in Form P-3 and potential lands suitable for aquaculture in Form P-4.
 - (10) All stakeholders shall be consulted while identifying the aqua zones and potential lands by conducting meetings of the Gram Sabha, Taluk or Mandal and District Level.
 - (11) Wide publication of the data shall be made through notice boards at Panchayats, conspicuous public places and Government offices, District webportal and through other electronic, print and social media, inviting objections on the identified aqua zones and potential lands by the Committee and the grievances so received shall be duly considered and the final data with the approval of the Gram Sabha concerned shall be published on the notice board of the village or panchayat and district.

- (12) The committee mentioned in sub-regulation (3) shall forward the approved aqua zone data along with potential lands details suitable for aquaculture at the village or panchayat level to the District Level Committee for finalization.
- (13) The District Level Committee constituted under rule 10 of the said rules shall finalise the aquaculture area in the Form P-3 and the potential lands suitable for aquaculture in Form P-4 and also specify the required infrastructure facilities to be developed in the aquaculture zones and recommend the same to the Commissioner or Director of Fisheries concerned for taking further action.
- (14) The Commissioner or Director of Fisheries concerned shall scrutinise the aquaculture area and place before the High-Level Committee at the State level consisting of representatives line Departments not below the rank of Director and headed by Secretary, Fisheries for examining and recommending an appropriate course of action to the Government.
- (15) The Commissioner or Director of Fisheries concerned shall share the data of aqua zones notified within the jurisdiction of Coastal Aquaculture Authority to the Authority for publishing the same at national level.
- (16) The data of aqua zones along with aqua maps generated shall be made available at the panchayat or village level, Taluk or Mandal and District level.

Form P-1

(See sub-paragraphs (4) and (7) of paragraph 5)

Survey format for existing coastal aquaculture farm(s) for declaration of aqua zones

1. Date of survey :
2. Ownership of the farm (self owned by farmer/lease/ Government land/ forest / others (Specify) :
3. If owned by the farmer or on lease, farmer's details
 - (a) Name of the farmer (In block letters) :
 - (b) Father/Husband Name :
 - (c) Residential address :
 - (d) Mobile No. :
 - (e) E mail ID :
 - (f) Aadhaar Number (voluntary) :
4. Coastal aquaculture farm location details
 - (a) Village/ Panchayat :
 - (b) Taluk/ Mandal :
 - (c) District with Pin Code :
 - (d) Survey Number :
 - (e) Geo-coordinates
 - (I) Longitude :
 - (II) Latitude :
5. Total farm area (Hectare) :
6. Water Spread Area (Hectare) :
7. Number of ponds existing :
8. Source of water (sea/creek/canal/backwaters /others (Specify) :
9. Name of the source water :
10. Date and year of commencement of aquaculture :

11. Whether the farm registered with Coastal Aquaculture Authority (Yes/No) :
 - (a) If registered, registration Number :
 - (b) Date of registration :
 - (c) Registration/ Renewal period valid upto :

12. Soil characteristics of the farm
 - (a) Soil type (clay loam, silty clay, silty clay loam and clay etc.) specify :
 - (b) pH :

13. Water quality parameters
 - (a) Salinity levels :
(Above 5 ppt and upto 15 ppt/ Above 15 ppt, pl. specify)
 - (b) pH :
 - (c) Alkalinity (ppm as CaCO_3) :
 - (d) Hardness (ppm as CaCO_3) :

14. Whether whole/ part of the farm falls under any of the following categories (Yes/No)
 - (a) Agriculture land :
 - (b) Forest land/ Govt. land :
 - (c) Land for village/public common purpose :
 - (d) Mangroves/ ecological sensitive areas :

15. Indicate the distance of the farm site from
 - (a) High Tide Line :
 - (b) Nearest drinking water source :
 - (c) Agriculture land :
 - (d) Mangrove/ecological sensitive areas :
 - (e) Human settlements :
 - (f) Sanctuaries/heritage areas :
 - (g) Reserve forest :

16. Details of bio-security facilities established
 - (a) Crab/Human fencing (Yes/No) :
 - (b) Bird fencing (Yes/No) :
 - (c) Foot dip with disinfectant (Yes/No) :
 - (d) Hand dip with disinfectant (Yes/No) :
 - (e) Inlet with proper filtration (Yes/No) :
 - (f) Outlet with mesh bags (Yes/No) :
 - (g) Effluent Treatment System (Yes/No) :
 - (h) If yes, % of farm area earmarked for Effluent Treatment System :
 - (i) Green belt development (Yes/No) :
 - (j) Solid Waste Management (Yes/No) :
 - (k) Separate implements for each pond(Yes/No) :
17. Species culturing details:
 - (a) Shrimp (specify the species) :
 - (b) Crab (specify the species) :
 - (c) Marine fin fish (specify the species) :
 - (d) Others (specify the species) :
 - (e) Stocking density (Seed/ sq. m) :
18. Whether the coastal aquaculture farm has any adverse impact on the nearby sources (Effect on agriculture lands, drinking water, mangrove, ecologically sensitives areas, livelihood of fishers/other users or human habitations etc.), If yes, please specify :
19. Recommendation of the Committee to declare the farm under aqua zonation :

Signatures of the Committee members

Form P-2

(See sub-paragraphs (5) and (7) of paragraph 5)

Survey format for identification of potential lands suitable for coastal aquaculture

1. Date of survey :
2. Ownership details of the potential land :
(self owned by farmer/ lease/ Government land/ Forest land/ others (specify)
3. If self owned by farmer/lease, farmer details :
 - (a) Name of the farmer (In block letters) :
 - (b) Father/Husband Name :
 - (c) Residential address :
 - (d) Mobile Number :
 - (e) E mail ID :
 - (f) Aadhaar Number (voluntary) :
4. Location of the potential land :
 - (a) Village/ Panchayat :
 - (b) Taluk/ Mandal :
 - (c) District with Pin code :
 - (d) Survey No's :
 - (e) Geo-coordinates :
 - (I) Longitude :
 - (II) Latitude :
5. Total extent of the land (Hectare) :
6. Category of potential land (Low productive) /Alkaline/ Saline/low lying/others (specify) :
7. Present utility of the land :
(Agriculture crop/ barren/ others specify)
8. Soil characteristics of the potential land :
 - (a) Soil type (clay loam, silty clay, silty clay loam and clay etc.) specify :
 - (b) pH :
9. Available source of saline water :
(sea/creek/canal/backwaters/others)

10. Name of the source water :
11. Salinity levels (ppt range) :
12. Whether whole/ part of potential land falls under any of the following categories(Yes/No)
 - (a) Agriculture land :
 - (b) Forest land/ Govt. land :
 - (c) Land for village/public common purpose :
 - (d) Mangroves/ ecological sensitive areas :
13. Indicate the distance of the farm site from
 - (a) High Tide Line :
 - (b) Nearest drinking water source :
 - (c) Agriculture land :
 - (d) Mangrove/ecological sensitive areas :
 - (e) Human settlements :
 - (f) Sanctuaries/heritage areas :
 - (g) Reserve forest :
14. Whether the potential land, in case of conversion to aquaculture farm will have any effect on the nearby sources (Effect on agriculture lands, drinking water, mangrove, ecologically sensitives areas, livelihood of fishers/ other users and human habitations), If yes, please specify :
15. Recommendation of the Committee to declare as potential land suitable for coastal aquaculture :

Signatures of the Committee members

Form P-3

(SEE SUB-PARAGRAPHS (7) AND (II) OF PARAGRAPH 5)

Panchayat/ Village wise report for existing aquaculture area proposed for declaration of Aquaculture Zones in the District																	
District :		Taluk/Mandal :						Panchayat/Village:									
Total area existing in agriculture & other crops (in ha):																	
Sl. No.	Own-ership of the farm	If the farmer's own land, Name of the farmer	Father/ Husband name	Survey Number (s) / Khata / Plot no(s)	Farm Extent (in hectare)	Geo-coordinates		Water Source	Soil Characteristics as per the soil health cards.			Water Source water source (Range to be mentioned)	Whether the farm has any impact on the nearby resources, if yes specify	Remarks/ Recommendation of the Committee to declare as aqua zones (18)			
						Longi-tude	Lati-tude		Soil type	pH	C:N ratio				pH	Salim-ity	Alka-linity
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)

Colm-2: Ownership of the farm: Farmer's own/lease/Government land/Forest/other specify

Colm-9: Water Source (Sea/ backwater/Drain/ Creeks/ Canals/ etc)

Colm-10: Soil type (clay loam, silty clay, silty clay loam, clay etc.)

Colm-17: Effect on agricultural lands, drinking water, mangrove, ecologically sensitive areas, livelihood of fishers/other users, human habitations etc (Yes/No), if yes specify

Signatures of the Committee Members

Form P-4
(See sub-paragraphs (7) and (11) of paragraph 5)

Panchayat/ Village wise survey report on identification of potential land suitable for conversion into coastal aquaculture										District					
District:										Panchayat/Village:					
Existing area under agriculture & other crops: Total area identified as potential land suitable for aquaculture (in ha):										Existing area under aquaculture (in hectare):					
Sl. No.	Own-ership of the land	If farmer's own land, Name of the farmer	Father/Husband name	Survey Number.	Extent of the potential land (in hectare)	Geo-coordinates		Present utility of land	Category of the land	Available saline water source	Salinity of available water source (ppt -range)	Soil Characteristics as per the soil health card	Whether the identified potential land has any impact on the nearby resources, if yes specify	Remarks/ Recommendation of the Committee to declare as potential land for conversion into coastal aquaculture.	
						Longi-tude	Lati-tude								Soil type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)

Colm-2: Ownership of the land (Farmer's own/ lease/Government land/Forest/others (Specify)

Colm-9: Present utility of land (Under agriculture crops/barren/ others (Specify)

Colm-10: Category of the land (Low productive/ Alkaline/ Saline/others (Specify)

Colm-11: Available saline water source (Sea/Drain/ Creeks/ Canals/ etc)

Colm-13: Soil type (clay loam, silty clay, silty clay loam, clay etc.)

Colm-15: Effect on agricultural lands, drinking water, mangrove, ecologically sensitive areas, livelihood of fishers/other users, human habitations etc (Yes/No), if yes specify

Signatures of the Committee Members

SEED PRODUCTION AND FARMING OF BIVALVES IN MARINE AND BRACKISH WATER GUIDELINES, 2025

Dated: 24th July, 2025

S.O. 3464(E).-In pursuance of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005) read with clause (q) of the Coastal Aquaculture Authority Rules, 2024 (hereinafter referred to as the said rules), the Central Government hereby makes the following guidelines for regulating seed production and farming of bivalves including clams, mussels, edible oysters, pearl oysters and any other bivalves permitted by the Central Government in brackish and marine waters, namely:-

1. **Short title and commencement.**- (1) These guidelines may be called the Seed Production and Farming of Bivalves in Marine and Brackish Water Guidelines, 2025.
(2) They shall come into force from the date of their publication in the Official Gazette.

PART I

Safeguards and specifications for operation of Hatcheries for Bivalves

1. **Criteria and procedure for registration of hatchery for bivalves.**- (1) Any person engaged in the operation of hatcheries or intending to engage in bivalve seed production which includes clams, mussels, edible oysters, pearl oysters and any other bivalves permitted by the Central Government having the required biosecurity facilities and in-house quarantine facility as specified by the Coastal Aquaculture Authority may apply for registration to the Authority for hatchery and seed rearing.
(2) The hatchery shall have strict biosecurity control through physical separation or isolation of the different production facilities or isolation through the construction of barriers and implementation of process and product flow controls.
(3) The hatchery shall have a wall or a fence around the periphery of the premises, with adequate height to prevent the entry of animals and unauthorised persons in order to reduce the risk of pathogen introduction and to improve overall security.
(4) The hatchery operator shall submit an application for registration in Form II of the Coastal Aquaculture Authority Rules, 2024 alongwith the documents as specified in Schedule II of the said rules and a fee of rupees ten thousand as per rule 9 of the said rules.

- (5) Approval of the hatchery for rearing bivalve seed shall be given by the Authority after considering the inspection report of the hatchery facilities of a team constituted by the Authority for this purpose.
2. **Site Selection.-** (1) Site adjacent to the sea shall be preferred for setting up of a bivalve hatchery.
 - (2) Consistency in seawater salinity shall be maintained at 30-35 parts per thousand for successful operations.
 - (3) Areas with thriving bivalve beds shall be preferred for setting up of a bivalve hatchery.
 - (4) Construction of hatchery in cyclone-prone areas and regions susceptible to natural calamities and harmful algal blooms shall be avoided.
 3. **Design and construction of bivalve hatchery.-** (1) The design and construction of a bivalve hatchery shall be carefully considered, to ensure the on efficient management and environmental preservation.
 - (2) Basic requirements for a bivalve hatchery shall include facilities for conditioning and spawning adult bivalves, rearing and settling larvae, promoting juvenile growth and establishment of systems for abundant algae production to sustain all developmental stages.
 4. **Sanitary requirement.-** (1) Entry to the hatchery shall be restricted to the personnel assigned to work exclusively in this area and a record of personnel entering the facility shall be maintained by the personnel entrusted with the security of the hatchery.
 - (2) Any person entering the hatchery shall take a shower and change into working clothes including boots before entering into the facility.
 - (3) A provision shall be made for disinfection of vehicle tyres (tyre baths at the gate with > 100 ppm of active ingredients Sodium/calcium hypochlorite solution), feet (foot baths containing 50 ppm of Potassium permanganate/ 20 ppm of hypochlorite solution), and hands [bottles containing iodine-PVP (20 ppm and / or 70% alcohol)] to be used upon entering and exiting the unit.
 - (4) All the cleaning chemicals, sanitary chemicals and other input materials shall be stored separately with proper labelling outside the production area.
 - (5) Hatchery surrounding shall be maintained hygienically throughout the production cycle without any accumulation of waste materials.

- 5. Water intake.-** (1) Each functional unit of the hatchery shall have independent water treatment facility isolated from all other water supply systems and separate recirculation systems may be used for each functional unit of hatchery to reduce water usage and improve biosecurity especially in high-risk areas.
- (2) Water for the hatchery shall be filtered and treated to prevent the entry of vectors and pathogens that may be present in the source water by initial filtering through sub-sand well points, sand filters (gravity or pressure) or mesh bag filters into the first reservoir or settling tank.
- (3) After primary disinfection by chlorination or ozonation or such other appropriate disinfectants and after settlement, the water shall be filtered again with a finer filter and then disinfected using ultraviolet light or ozone.
- (4) The water supply system shall include use of activated carbon filters, the addition of Ethylene Diamine Tetra Acetic acid and temperature and salinity regulation.
- (5) The following optimal levels of water quality parameters of bivalve hatchery shall be maintained, namely:-

Serial Number (1)	Water Quality Parameters (2)	Optimal Level (3)
1	Temperature (° C)	28 - 33
2	pH	7.5 - 8.5
3	Dissolved oxygen (ppm)	5- 7(above 50% air saturation)
4	Salinity (ppt)	30 - 35
5	Total alkalinity (ppm)	200
6	Dissolved inorganic phosphate (ppm)	0.1 - 0.2
7	Nitrate - N (ppm)	< 0.03
8	Nitrite - N (ppm)	< 0.01
9	Ammonia - N (ppm)	< 0.01

- 6. Water treatment and discharge of wastewater.-** (1) The waste water from the hatchery shall be held temporarily and treated with hypochlorite solution (>20 ppm active chlorine for not less than sixty minutes) or other effective disinfectant before its discharge.

- (2) The seawater to be used in the facility shall be delivered into a storage tank where it may be treated with hypochlorite solution (20 ppm active ingredient for not less than thirty minutes) followed by sodium thiosulphate (1 ppm for every ppm of residual chlorine)/ozonation and strong aeration.
 - (3) No wastewater shall be released out of the hatchery without chlorination and dechlorination, so as to prevent the escape of the pathogens or parasites into the natural waters and the effluent treatment system shall be designed as per the Guidelines for Regulating Hatcheries and Farms for Seed Production and Culture of SPF *L. vannamei*.
7. **Disinfection of implements.-** (1) Containers and hoses that are used shall be washed and disinfected with hypochlorite solution (> 50 ppm) before further use.
 - (2) Each broodstock and larval rearing tanks shall have a separate set of implements which shall be clearly marked and placed near the tanks and all the implements shall be disinfected after use at the end of each day.
8. **Broodstock collection and management.-** (1) A dedicated space within the hatchery shall be kept for broodstock conditioning or position condition tanks in a quiet area to minimise disturbances.
 - (2) Healthy and suitable broodstock shall be collected from natural beds.
 - (3) Steps shall be taken to ensure the health of collected adult bivalves or broodstock to ensure quality seed production.
 - (4) Proper care shall be taken to maintain optimal salinity, aeration and temperature during transportation of adult bivalves or broodstock, to avoid the stress and mortality.
 - (5) Before introducing collected spawners or broodstock into the hatchery or maturation system, it shall be ensured that the same are of good health, free from deformities and disease-causing pathogens and parasites.
 - (6) Cultured marine algal species shall be used as a primary food source during conditioning and alternatively natural phytoplankton that are commercially available algae paste shall be used as food resources.
9. **Quarantine.-** (1) For the purpose of broodstock quarantine,-
 - (a) the hatchery operator shall have a proper and fully bio-secured facility;
 - (b) adult bivalve or broodstock that are collected shall be quarantined in the in-house quarantine facility before entry in to the hatchery;
 - (c) periodic disease surveillance shall be carried out for domesticated broodstock;

- (d) water discharged from the quarantine facility shall be treated separately before its release into the effluent treatment system.
- (2) For the screening of pathogens,- (a) screening shall be done for all the pathogens recommended by the Government institutes;
 - (b) samples shall be collected using non-lethal methods from individual adult bivalve or broodstock;
 - (c) the sample shall be referred to the Aquatic Quarantine Facility laboratory at Neelankarai, Chennai or Indian Council of Agricultural Research or Council of Scientific and Industrial Research or any other accredited laboratory for testing of pathogens;
 - (d) the quarantined bivalves shall be shifted to broodstock holding tanks after the quarantine period, if no pathogen is detected in the test report of the sample;
 - (e) in the event of detection of any relevant pathogen, the sample shall be sent to the Indian Council of Agricultural Research - Central Institute of Brackishwater Aquaculture or Central Marine Fisheries Research Institute as referral laboratory for validation or confirmation;
 - (f) in case of confirmation, the unit operator shall destroy the entire infected stock and incinerate for containment of the spread of the infection under intimation to the Authority.
- 10. Seed production and sale.** - (1) Prohibited pharmacologically active substances and antimicrobial agents as specified in clause (c) of sub-rule 1 of rule 18 of the said rules shall not be used in the seed production system.
 - (2) Only healthy seeds free from any fouler or borers or deformities that are tested for quality and free from pathogens shall be sold to the approved farms to rear the seed of bivalves as per the due biosecurity protocols specified in the said rules.
 - (3) Hatchery operator shall maintain record of the number of adult or broodstock bivalve received, the seed produced and sold, and submit the same in the quarterly compliance reports in Form Q-1 of these guidelines.
 - (4) A copy of the certificate of registration referred to in paragraph 1 shall be retained by the hatchery operator and produced at the time of inspection.
 - (5) The detailed record of the seed production and sale including the name and address of the buyer or farmer shall be maintained by the hatchery operator.

11. **Disease reporting and record maintenance.-** (1) Any disease outbreak in the hatchery shall be reported immediately to the Authority.
 - (2) The hatcheries shall maintain a record of the procurement of adult or broodstock bivalve with details of source, quantity procured, the number of mortality, eggs produced, seed produced, seed sold, name and address of the farmer to whom the same is sold, date and number of the registration such details shall also be mentioned in the quarterly compliance report submitted to the Authority in Form Q-1.
12. **Inspection.-** A person authorised by the Authority shall periodically visit the hatcheries and check the status of the adult or broodstock bivalves, the seed production and sale thereof.
13. **Bank Guarantee.-** The approved hatcheries shall pay a sum of rupees fifty thousand as monitoring fee and deposit a bank guarantee for rupees fifty thousand in favour of the Coastal Aquaculture Authority in accordance with the said rules, to ensure compliance with these Guidelines and in the event of any violation, the bank guarantee shall be invoked.

Part - II

Norms and specifications for approval and operation for bivalve farming

14. **Criteria for registration of bivalve farming.-** (1) Bivalve farmers shall submit an application in Form I Sub-Divisional Level Committee or District Level Committee concerned along with the documents and registration fee in accordance with the procedure laid down in rule 9 of the Coastal Aquaculture Authority Rules, 2024.
 - (2) The inspection team authorised by the Authority shall inspect the farm in accordance with rule 10 of the said rules and based on its recommendations regarding the suitability of the farm for farming of bivalves, the application shall be processed by the Secretary of the Authority for registering the units for bivalve farming.
 - (3) Farms shall lay down adequate biosecurity measures in the farm to avoid infestation of foulers, borers, predators and entry of other pathogens or parasites and shall be managed by personnel who are trained or experienced in bivalve farming.
15. **Bivalve farming.-** (1) Potential species for bivalve farming may include clams, mussels, edible oysters, pearl oysters or any other bivalves permitted by the Central Government.

- (2) The following culture conditions for bivalves shall be maintained, namely:-
- (a) the suitable sites for bivalve farming in creeks, backwaters and open coastal waters shall be identified by the Indian Council of Agricultural Research, Council of Scientific and Industrial Research institutes and other recognised Government institutions and the bivalve farming shall be promoted in such identified sites only;
 - (b) sites with good tidal amplitude, clear sandy or clay bottoms devoid of silt and muddy areas shall be selected for bivalve farming;
 - (c) the Central Government, the State Government or any organisations or local bodies authorised by the Government may allocate suitable sites to an individual or self help groups or joint liability groups or fish farmer producer organisations or societies or farmers or entrepreneurs or technocrats with specific geo-coordinates or geo-fencing to enable registration for bivalve farms by such persons.
 - (d) bivalve farming with cultivation methods such as bottom and off-bottom culture methods (stake or pole method, rack, raft and long-line method) shall be taken up in the allotted sites in consultation with the Indian Council of Agricultural Research, Council of Scientific and Industrial Research or other Central Institutes by assessing the techno economic viability;
 - (e) adequate road connectivity to the farming site for transporting seeds and harvested bivalve shall be ensured.;
 - (f) land-based cultivation in ponds or tanks or raceways shall be adopted for edible bivalve for better control over quality and to avoid toxic impurities;
 - (g) to minimize conflict of interest along the coastline, bivalve farming shall be taken up in sites away from existing commercial shipping and navigational lanes, areas designated for fishing, ports and harbours, restricted defence sensitive areas, wave or tidal energy projects, pipelines, recreational activities and ecologically sensitive areas;
 - (h) bivalve farming site shall have water depth ranging from 1-50 metres depending on the specific species;

- (i) the sites with high level of pollution and contaminants and harmful algal blooms shall be avoided;
- (j) moderate water flow shall be maintained for providing a constant supply of food particles and removal of waste and areas with strong currents shall be avoided as the same can dislodge or damage the bivalves;
- (k) the sites which are free from predators and competing species shall be identified for bivalve farming.;
- (l) the following water quality parameters suitable for bivalve farming shall be maintained, namely:-

Parameters	Optimum range
pH	7.5 - 8.5
DO (mg/L)	5 - 7
Salinity (ppt)	5 - 35
Water temperature (°C)	25 - 31
NO ₃ (mg/L)	< 0.01
NO ₂ (mg/L)	< 0.03
Ammonia	< 0.01

- (m) healthy and tested seed shall be stocked with a desirable stocking density based on the species and culture systems.

16. Bivalve farming systems.- (1) Bivalve farming may be undertaken by the following systems, namely:-

- (a) rack culture system which shall have, -
 - (i) shallow depths ranging between two and five meters;
 - (ii) teak or casuarina poles with a thickness of 4-5 inches which shall be vertically erected into the substratum in shallow areas and horizontally-oriented poles shall be used to connect the vertical poles, tied together with coir ropes;
 - (iii) rectangular racks and situated just above the highest high tide level;
 - (iv) a 30 square meter rack to accommodate approximately 100 rens, seeded ropes or cages.

- (b) raft culture system which shall have,- (i) sheltered bays with considerable depth;
 - (ii) adjustable raft size preferably 6x5 meter based on site convenience;
 - (iii) logs of teak, venteak, or casuarina wood for its construction;
 - (iv) buoys with appropriate weight of the anchors based on the tidal amplitude and depth of water for floating of the rafts;
 - (v) fiberglass-covered empty oil drums, mild steel drums, fibre-reinforced plastic or polystyrene floats for floatation devices;
 - (vi) moorings with anchors at opposite sides using tested quality chains with the direction of mooring determined by prevalent wind patterns at the site.
- (c) long line culture system which shall have,- (i) greater depth capable of withstanding high wind and wave motion to be used in open water;
 - (ii) a long synthetic rope (15-20 mm) with two main floats attached at each end;
 - (iii) smaller floats attached to the mainline, preferably at intervals of five meters, depending on the length of the long line;
 - (iv) anchor with long line for providing buoyancy to the culture units;
 - (v) lengthy lines arranged horizontally in succession, providing ample space for bivalves to grow;
 - (vi) submerged long lines with good mooring and protection for pearl farming.
- (d) onshore culture system which shall have,- (i) cement tanks with a surface area ranging from two hundred fifty to five hundred sq. meters for raising bivalves particularly pearl oyster seeds;
 - (ii) water level maintained at one meter;
 - (iii) polyvinyl chloride pipe grid system to keep the bivalves suspended above the tank's bottom;
 - (iv) stocking density based on the stage and size of the bivalves and 125 bivalves per square meter for pearl oysters farming;
 - (v) maintain 25 percent water exchange on daily basis.
- (2) Any other suitable and approved methods such as off-bottom methods may also be adopted for bivalve farming.

- 17. Health Management.-** (1) Prohibited pharmacologically active substances and antimicrobial agents shall not be used in the bivalve farming.
- (2) Regular monitoring of the health of the bivalves for signs of disease, stress or mortality shall be done.
 - (3) Fouling and boring issues shall be addressed regularly.
 - (4) Effective predator controls to protect the spat and juveniles, minimising the productivity loss shall be taken up by engaging trained or experienced technical personnel.
 - (5) Inspection of nets, barriers and other deterrents for any damage or sign of predator intrusion shall be carried out regularly.
- 18. Harvesting and processing.-** (1) Appropriate harvesting techniques shall be carried out whether manual or mechanical, to minimise the damage to the harvested bivalves.
- (2) Proper post harvesting procedures including cleaning, depuration, sorting and grading of bivalves shall be followed.
- 19. Record of maintenance.-** (1) Record of source of seed material, stocking quantity, culture duration, materials used, harvested quantity and buyer details shall be maintained in physical and electronic form by the farmers for traceability purposes.
- (2) The farmer shall produce the farm records on demand by the authorised personnel or officials.
- 20. Penalty for violation.-** Violation of the provisions of these regulations shall attract penalty under section 14 of the Act.

Form Q-1

**[See Sub-paragraph (3) of paragraph 10, sub-paragraph (2) of paragraph 11
and sub-paragraph (1)
of paragraph 13]**

(The Quarterly Compliance Report from Bivalve Hatcheries)

The quarterly report shall contain the following information, namely

1. Name and address of the hatchery:
2. Date and number of certificate of registration and permission to the hatchery:
3. Source of adult or broodstock procured:
4. Number of adult or broodstock procured:
5. Transport mortality:
6. Quarantine mortality:
7. Total number of spawnings:
8. Total number of eggs produced:
9. Total number of seed or spat produced:
10. Total number of juveniles produced:
11. Report on general aquatic health monitoring and any unusual mortality:
12. Total number of spat or juveniles sold to the farmers:
13. Details of the farmers to whom sold (shall include information about the name, address and registration number) and copy of the registration certificate for culturing bivalves issued by Coastal Aquaculture Authority.

**ASSESSMENT OF COST FOR THE DAMAGE TO
ENVIRONMENT AND COST OF DEMOLITION AND
UTILISATION OF ENVIRONMENT MONITORING FUND
GUIDELINES, 2025.**

Dated: 24th July, 2025

S.O. 3461(E). - In pursuance of section 3 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), read with clause (r) of rule 3 of the Coastal Aquaculture Authority Rules, 2024, the Central Government hereby makes the following guidelines for the assessment of cost for the damage, injury or loss to environment and cost of demolition and utilisation of environment monitoring fund, namely:-

- 1. Short title and commencement.** - (1) These guidelines may be called the Assessment of Cost for the Damage to Environment and Cost of Demolition and Utilisation of Environment Monitoring Fund Guidelines, 2025.
(2) They shall come into force from the date of their publication in the Official Gazette.
- 2. Public Grievances.** - (1) If any coastal aquaculture unit causes pollution to the coastal environment, any person may file a written complaint specifying details of the unit and nature of pollution caused by the unit to the Sub-Divisional Level Committee or District Level Committee concerned or the Authority.
(2) On receipt of the complaint under sub-paragraph (1), the concerned Sub-Divisional Level Committee or District Level Committee concerned or the person authorised by the Authority shall conduct preliminary enquiry and submit the field report to the Authority for further action.
(3) (a) The Authority, based on the report from Sub-Divisional Level Committee or District Level Committee concerned or the person authorised by the Authority shall issue a show-cause notice to the operator of the unit, indicating the nature of the contravention alleged to have been committed.
(b) The unit operator shall submit its explanation to the Authority within a period of fifteen days from the date of receipt of such show cause notice.
(4) If the Authority is not satisfied with the explanation of the operator, it shall refer the matter to the Environmental Monitoring Committee constituted under paragraph 3 for further action.

3. Constitution of Environmental Monitoring Committee.- There shall be an Environmental Monitoring Committee shall constituted in every coastal district, consisting of the following members, ex-officio, namely:

- (a) District Collector and Chairperson, District Level Committee : Chairperson;
- (b) District Revenue Officer or Revenue Divisional Officer : Member;
- (c) District Environmental Engineer, Pollution Control Board : Member;
- (d) District Agriculture Officer : Member;
- (e) District Head of Irrigation or Water Resources : Member;
- (f) Chief Executive Officer of Zila Parishad or equivalent : Member;
- (g) Any other officer or expert co-opted by the Chairman : Member;
- (h) Officer authorized under CAA Act : Member;
- (i) District Head of Fisheries Department : Member Convener.

4. Functions and powers of Environmental Monitoring Committee.- (1) The Environmental Monitoring Committee shall inspect the coastal aquaculture unit and review the activity on receipt of the report of the Sub- Divisional Level Committee or District Level Committee or the person authorised by the Authority that cause pollution and damage to environment.

- (2) On establishment of the damage to the environment, the Environmental Monitoring Committee shall depute officers from the Engineering Department or such other departments, as decided by the Chairperson of the Committee for the purpose of assessment of damage to the coastal environment, cost of demolition of coastal aquaculture units or activities that are polluting the coastal environment and submit report of the assessment to the Committee.
- (3) On receipt of the report of assessment under sub-paragraph (2), the Committee shall approve the report and issue a notice to the polluting unit in Form R-1 through electronic medium or by Speed post or by registered post providing the details of the damage, injury or loss caused to the coastal environment, the cost arrived for it and the cost of demolition of the unit or the activities payable by the operator of such polluting unit or activity under intimation to the Authority and the District Level Committee concerned.
- (4) The polluter shall bear the cost of the damage or loss of injury so caused.
- (5) The Committee shall recommend to the Authority as to the manner in which the cost paid under this paragraph towards damage, injury or loss caused to the coastal environment or the cost recovered for removal or demolition of such unit or activity shall be utilized.

- 5. Procedure for assessment of cost of damage to the coastal environment and removal or demolition of unit.-** (1) While preparing the assessment report, the officers authorised under sub-paragraph (2) of paragraph 4 shall take into account the technical parameters regarding the damage, injury or loss caused to the coastal environment and the cost of the injury, damage or loss caused to the coastal environment by considering the following resources, namely:-
- (a) watercourses in the vicinity;
 - (b) ground water quality;
 - (c) water quality of the resources;
 - (d) drinking water sources;
 - (e) any other resources as observed by the officers inspected.
- (2) The authorised officers shall assess the cost of demolition of the unit or activity by following the technical parameters such as topography, soil texture, volume and quantity of work to be done for demolition, mode of execution, manual or mechanical cost, other engineering aspects and arrive at the cost based on the schedule of rates of the Central Public Work Department or the State Public Works Department.
- (3) On assessment of the cost of damage to the coastal environment, cost of collection and analysis of sample and the cost of demolition of the unit or activity, the officers authorised shall submit the detailed estimate to the Environmental Monitoring Committee within fifteen days from the date of field inspection for onward communication to the concerned operator of the unit or activity for payment of cost accordingly.
- (4) The operator of the unit or activity shall also be liable for the payment of penalty under section 14 of Coastal Aquaculture Authority Act, 2005 including the cost of collection and testing of samples as communicated by the Environmental Monitoring Committee.
- 6. Payment of cost by the operator of unit or activity.-** On receipt of notice from the Environmental Monitoring Committee issued under sub-paragraph (3) of paragraph 4, the operator of the unit or activity shall comply with the following, namely:-
- (a) stop the operation of the unit or activity if so directed, from the date of receipt of notice;
 - (b) pay the cost of damage, injury or loss, cost of removal or demolition of the unit or activity or cost of collection and testing

of samples as communicated by the Environmental Monitoring Committee within thirty days from the date of receipt of notice to the Authority through Demand Draft in favour of the Coastal Aquaculture Authority payable at Chennai or through electronic means under intimation to the Environmental Monitoring Committee and the District Level Committee;

- (c) if the operator of the unit or activity fails to pay the cost of demolition of the unit or activity or cost of collection and analysis of sample or cost of damage to the coastal environment as communicated by the Committee within the stipulated period, such cost shall be recoverable as an arrear of land revenue under section 22A of the Coastal Aquaculture Authority Act, 2005;
- (d) the District Collector or Chairman of the District Level Committee shall initiate the action to recover the cost from the operator and deposit in the amount into the account of Coastal Aquaculture Authority through Demand Draft in favour of the Authority or through electronic means.

7. Conditions for removal or demolition of coastal aquaculture unit or activity.- The officer authorised by the Authority shall cause the removal or demolition of any unit or activity or structure causing damage to the environment as ordered by the Coastal Aquaculture Authority as per rule 7 of Coastal Aquaculture Authority Rules, 2024, and subject to the following conditions, namely, :-

- (a) issuance of a notice at least twenty-four hours in advance to the unit operator concerned, intimating the owner about the decisions of the Authority for the removal or demolition of the unit or activity or structure, provided that the Authority may waive the requirement of the notice in such cases as it thinks fit for specific reasons to be recorded in writing;
- (b) the removal or demolition of the unit or the activity shall be carried out in the presence of the owner or his representative;
- (c) removal or demolition of structures shall be conducted preferably during the daytime;
- (d) the procedure as specified in the Coastal Aquaculture Authority Regulations, 2008 shall be followed for the collection of samples of water, soil, aquaculture inputs, and farmed animals to detect prohibited antibiotics and other active compounds.

- 8. Utilisation of amount received towards cost of demolition of unit or activity.-** (1) The money from the account of the Authority shall be released to such executing agency as may be determined by the District Collector or Chairman of the District Level Committee, for removal or demolition of the coastal aquaculture unit or activity.
- (2) The officer authorised under paragraph 7 by the Authority shall monitor the progress of the work executed by the executing agency and report to the Environmental Monitoring Committee.
- (3) The officers deputed by the Environmental Monitoring Committee shall maintain the record of the amount released to the executing agency and furnish the report to the Environmental Monitoring Committee or the District Level Committee and to the Authority.
- (4) The Authority shall release fifty percent of the amount referred to in subparagraph (1) as an advance amount prior to commencement of the work and the remaining amount on completion of the work after considering the recommendation of the District Level Committee.
- (5) The Authority shall maintain proper records and registers of the amount received and its utilisation.
- 9. Utilisation of amount received towards the cost of damage to the environment:** (1) The amount received towards the cost of damage to the coastal environment shall be credited into the account of the Authority.
- (2) The executing agency shall execute the restoration of the damage to the coastal environment under the supervision of the officer authorised by the Authority.
- (3) The officers deputed by the Environmental Monitoring Committee shall assess the cost of work done for restoration of the coastal environment by the executing agency and report to the Environmental Monitoring Committee and the District Level Committee and the Authority.

Form R-1
[See Sub-paragraph (3) of paragraph 4]

Notice to the operator of the polluting coastal aquaculture unit/activity

1.	Name and address of the operator of the polluting coastal aquaculture unit/activity	
2.	Type of coastal aquaculture unit/activity (farm/ hatchery/ mariculture unit/ BMC/ NBC/ etc., (specify)	
3.	Location of the polluting unit / activity	
	a. Survey No(s).	
	b. Geo coordinates	Longitude: Latitude:
	c. Village	
	d. Taluk/Mandal	
	e. District	
	f. State	
	g. PIN Code	
4.	Registration No issued by the CAA (if applicable) with date of issue and validity period	
5.	Extent of the unit/ activity (ha) (Total Farm Area and Water Spread Area (ha) in case of farms)	
6.	Nature of the damage, injury or loss caused to the coastal environment	
7.	The cost arrived (Rupees)	
	a. Cost of the Damage to the Environment	
	b. Cost for demolition of the unit.	
	c. Cost for compensation to restore the environment	
	d. Cost of sample collection and analysis.	
	e. Expenditure towards TA, DA and other incidental expenditure for officers/staff involved in the survey and assessment, etc.	
	f. Any other expenditure (Specify)	
	Total cost payable	
8.	Due date for payment	

Assessment of Cost for the Damage to Environment and Cost of Demolition and
Utilisation of Environment Monitoring Fund Guidelines, 2025.

Note:

1. The payment shall be made through Demand Draft (DD) in favour of the Coastal Aquaculture Authority payable at Chennai or through electronic means.
2. The DD shall be submitted to the CAA through the District Level Committee (DLC)
3. In case of payment through electronic means, shall be deposited in the account of the Coastal Aquaculture Authority.
4. The DLC, on receipt of payment from the operator of the unit /activity shall forward to the CAA with detailed report.

Place:

Date:

Signature of the Chairperson,
DLC/ Environmental Monitoring
Committee with office seal

**NOTIFICATIONS AND ORDERS ISSUED UNDER
COASTAL AQUACULTURE AUTHORITY ACT, 2025**

**NOTIFICATIONS AND ORDERS ISSUED UNDER COASTAL
AQUACULTURE AUTHORITY ACT, 2025**

ARRANAGMENTS OF NOTIFICATIONS

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NOTIFICATION

New Delhi, the 4th February, 2026

S.O. 557(E).—In exercise of the powers conferred by sub-section (3) of section 4 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005), and in supersession of the notification of the Government of India, Ministry of Fisheries, Animal Husbandry and Dairying, Department of Fisheries, number S.O. 1341(E), dated the 20th March, 2025, published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii), except as respects things done or omitted to be done before such supersession, the Central Government hereby appoints the following persons as members of the Coastal Aquaculture Authority for the purpose of the said Act, namely :-

- (1) Chairperson appointed under clause (a) of sub-section (3) of section 4:
The Chairperson, who is, or has been,
a Judge of a High Court *(Vacant)*
- (2) Member appointed under clause (b) of sub-section (3) of section 4:
Director,
Central Institute of Brackishwater Aquaculture (CIBA),
Chennai, Ministry of Agriculture and Farmers Welfare,
Government of India. -Member;
- (3) Member appointed under clause (c) of sub-section (3) of section 4:
Director,
Centre for Marine Living Resources and Ecology, Kochi.
Ministry of Earth Sciences, Government of India. -Member;
- (4) Member appointed under clause (d) of sub-section (3) of section 4:
Director,
National Centre for Sustainable Coastal
Management (NCSCM), Chennai.
Ministry of Environment, Forest and Climate Change,
Government of India.- -Member;
- (5) Member appointed under clause (e) of sub-section (3) of section 4: Joint Secretary of the Department of
Agriculture and Farmers Welfare,
Ministry of Agriculture and Farmers Welfare,
Government of India. -Member;

(6) Member appointed under clause (f) of sub-section (3) of section 4:
Chairman, Marine Products Export Development Authority, Kochi. Ministry of Commerce and Industry, Government of India. - Member;

(7) Member appointed under clause (fa) of sub-section (3) of section 4:
Joint Secretary (Marine Fisheries), Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India. - Member;

Representatives of each of the Coastal States and Union territories appointed under clause (g) of sub- section (3) of section 4:

(8) Secretary (Fisheries) or his authorised representative, Government of Andaman and Nicobar Island. -Member;

(9) Secretary (Fisheries) or his authorised representative, Andhra Government of Pradesh. -Member;

(10) Secretary (Fisheries) or his authorised representative, Government of Dadra and Nagar Haveli and Daman and Diu. -Member;

(11) Secretary (Fisheries) or his authorised representative, Government of Goa -Member;

(12) Secretary (Fisheries) or his authorised representative, Government of Gujarat. -Member;

(13) Secretary (Fisheries) or his authorised representative,, Government of Karnataka. -Member;

(14) Secretary (Fisheries) or his authorised representative, Government of Kerala. -Member;

(15) Secretary (Fisheries) or his authorised representative, Government of Lakshadweep Island. -Member;

(16) Secretary (Fisheries) or his authorised representative, Government of Maharashtra. -Member;

(17) Secretary (Fisheries) or his authorised representative, Government of Odisha. -Member;

(18) Secretary (Fisheries) or his authorised representative, Government of Puducherry. -Member;

- (19) Secretary (Fisheries) or his authorised representative,
Government of Tamil Nadu. -Member; and
- (20) Secretary (Fisheries) or his authorised representative,
Government of West Bengal. -Member
2. The tenure of the Chairperson shall be three years from the date of assumption of charge of the post.
3. The term of other members of the Coastal Aquaculture Authority shall be for a period of three years from the date of publication of this notification in the Official Gazette.

Government of India
Ministry of Fisheries, Animal Husbandry and Dairying
Department of Fisheries

No.9-6/2017-Admn.V

Dated : 3rd February, 2025

ORDER

In pursuance of provisions under Section 4(3A) of Coastal Aquaculture Authority(CAA) Act, 2005, the Central Government hereby nominate Shri D.V. Swamy, Chairman, MPEDA, who is also a Member of the CAA, to exercise powers of Chairperson, CAA and to perform functions of the Chairperson. CAA, as per the CAA Rules, with immediate effect till the post is filled up on regular basis or till further orders, whichever is the earliest.

2. No additional remuneration will be paid to Shri Swamy for this assignment.
3. This has approval of Hon'ble Minister for Fisheries, Animal Husbandry and Dairying

COASTAL AQUACULTURE AUTHORITY
(Ministry of Fisheries, Animal Husbandry and Dairying, Department of Fisheries)
Government of India

5th Floor, Integrated Office Complex for Animal Husbandry and Fisheries
Department, Nandanam,
Chennai – 600 035, Tamil Nadu
Telephone No: 91 44 2435 3502, E-mail: caaheadoffice@caa.gov.in
Website: <https://caa.gov.in>

No. 83-01/2025

Date : 29.04.2025

ORDER

In exercise of the powers conferred by sub-section (1) of section 13A of the Coastal Aquaculture Authority Act, 2005 (Act No. 24 of 2005), the Coastal Aquaculture Authority hereby authorises the officers mentioned in column (3) of the Table below as the Authorised Officers for the coastal districts mentioned in column (2) of the said table in the States and Union territories at the working stations mentioned in the column (4) namely:-

Table

S. No.	District	Designation of the Authorised Officer	Working station of the Authorised Officer
(1)	(2)	(3)	(4)
ANDAMAN AND NICOBAR ISLANDS			
1	South Andaman	Assistant Director of Fisheries	South Andaman
ANDHRA PRADESH			
2	Srikakulam	Assistant Director of Fisheries	Srikakulam
3	Vizianagaram	Deputy Director of Fisheries	Vizianagaram
4	Visakhapatnam	Assistant Director of Fisheries	Visakhapatnam
5	Anakapalli	Assistant Director of Fisheries	Narsipatanam
6	Kakinada	Assistant Director of Fisheries	Kakinada
7	DR. B.R. Ambedkar Konaseema	Assistant Director of Fisheries	Razole
8	West Godavari	Assistant Director of Fisheries	West Godavari
9	Eluru	Assistant Director of Fisheries	Kaikaluru
10	Krishna	Assistant Director of Fisheries	Avanigadda
11	Bapatla	Assistant Director of Fisheries	Nizampatnam
12	Prakasam	Assistant Director of Fisheries	Ongole

Notifications and Orders under Coastal Aquaculture authority Act, 2025

13	SPSR Nellore	Assistant Director of Fisheries	Nellore
14	Tirupati	Assistant Director of Fisheries	Guduru
DADRA AND NAGAR HAVELI AND DAMAN AND DIU			
15	Daman	Deputy/Joint Secretary, Fisheries	Daman
16	Diu	Deputy Collector/ H.O. Fisheries	Diu
GOA			
17	North Goa	Superintendent of Fisheries	Panaji Goa
18	South Goa	Superintendent of Fisheries	Panaji Goa
GUJARAT			
19	Porbandar	Assistant Director of Fisheries	Porbandar
20	Junagadh	Assistant Director of Fisheries	Mangrol
21	Gir Somnath	Assistant Director of Fisheries	Veraval
22	Amreli	Assistant Director of Fisheries	Jafrabad
23	Bhavnagar	Assistant Director of Fisheries	Bhavnagar
24	Anand	Assistant Director of Fisheries	Anand
25	Bharuch	Assistant Director of Fisheries	Bharuch
26	Surat	Assistant Director of Fisheries	Surat
27	Navsari	Assistant Director of Fisheries	Navsari
28	Valsad	Assistant Director of Fisheries	Valsad
29	Kutch	Assistant Director of Fisheries	Bhuj
30	Devbhumi dwarka	Assistant Director of Fisheries	Okha
31	Jamnagar	Assistant Director of Fisheries	Jamnagar
32	Morbi	Assistant Director of Fisheries	Morbi
KARNATAKA			
33	Uttara Kannada	Assistant Director of Fisheries	Karwar
34	Udupi	Assistant Director of Fisheries	Kundapur
35	Dakshina Kannada	Assistant Director of Fisheries	Mangalore
KERALA			
36	Thiruvananthapuram	Assistant Director of Fisheries	Vizhinjam
37	Kollam	Assistant Director of Fisheries	Kollam
38	Alappuzha	Assistant Director of Fisheries	Alappuzha
39	Kottayam	Assistant Director of Fisheries	Kottayam
40	Ernakulam	Assistant Director of Fisheries	Vypin

CAA order authorising Officers

41	Thrissur	Assistant Director of Fisheries	Thrissur
42	Malappuram	Assistant Director of Fisheries	Malappuram
43	Kozhikode	Assistant Director of Fisheries	Beypore
44	Kannur	Assistant Director of Fisheries	Kannur
45	Kasaragod	Assistant Director of Fisheries	Kasaragod
LAKSHADWEEP			
46	Lakshadweep	Assistant Director of Fisheries	Kavaratti Island
MAHARASHTRA			
47	Thane	Assistant Commissioner of Fisheries	Palghar
48	Palghar	Assistant Commissioner of Fisheries	Palghar
48	Raigad	Assistant Commissioner of Fisheries	Raigad-Alibaug
50	Ratnagiri	Assistant Commissioner of Fisheries	Ratnagiri
51	Sindhudurg	Assistant Commissioner of Fisheries	Sindhudurg-Malvan
ODISHA			
52	Balasure	District Fisheries Officer	Balasure
53	Bhadrak	District Fisheries Officer	Bhadrak
54	Kendrapara	District Fisheries Officer	Kendrapara
55	Jagatsinghpur	District Fisheries Officer	Jagatsinghpur
56	Puri	District Fisheries Officer	Puri
57	Ganjam	District Fisheries Officer	Ganjam
PUDUCHERRY			
58	Puducherry	Assistant Director of Fisheries	Yanam
58	Karaikal	Deputy Director of Fisheries	Karaikal
TAMIL NADU			
60	Tiruvallur	Assistant Director of Fisheries	Tiruvallur
61	Chengalpattu	Assistant Director of Fisheries	Neelankarai
62	Chennai	Assistant Director of Fisheries	Royapuram
63	Villupuram	Assistant Director of Fisheries	Villupuram

64	Cuddalore	Assistant Director of Fisheries	Parangipettai
65	Nagapattinam	Assistant Director of Fisheries	Nagapattinam
66	Mayiladuthurai	Assistant Director of Fisheries	Mayiladuthurai
67	Thanjavur	Assistant Director of Fisheries	Thanjavur
68	Tiruvarur	Assistant Director of Fisheries	Tiruvarur
69	Pudukottai	Assistant Director of Fisheries	Pudukottai
70	Ramanathapuram	Assistant Director of Fisheries	Ramnad
71	Thoothukudi	Assistant Director of Fisheries	Thoothukudi
72	Radhapuram	Assistant Director of Fisheries	Radhapuram
73	Kanyakumari	Assistant Director of Fisheries	Colachel
WEST BENGAL			
74	South 24 Parganas	Assistant Director of Fisheries (BW)	Captain Bhery, South 24 Parganas
75	North 24 Parganas	Assistant Director of Fisheries (BW)	North 24 Parganas
76	Purba Medinipur	Assistant Director of Fisheries (BW)	Contai, Purba Medinipur

The Authorised Officers shall exercise the following powers, discharge the duties and perform the functions:

- (i) To take action as prescribed under Section 14 of the CAA Act, 2005 for imposing penalties for carrying on coastal aquaculture in contravention of the provisions of the CAA Act, 2005 or CAA Rules 2024 or any regulations made thereunder or any guidelines or notifications issued thereunder and report to the Adjudicating Officer to adjudicate the penalties imposed.
- (ii) To comply with the orders of the Adjudicating Officer, issued in exercise of the powers conferred under subsection (2) of Section 13A of the CAA Act, 2005

- (iii) To comply with the orders of the Appellate Authority, issued in exercise of the powers conferred under subsections (3) and (4) of Section 13A and Section 14A of the CAA Act, 2005.
- (iv) To exercise the powers as prescribed in Rules 7 and 8 of the CAA Rules, 2024.
- (v) To communicate the orders of the Adjudicating Officer and Appellate Authority, along with an action taken report to the Coastal Aquaculture Authority regularly.
- (vi) To attend to any other activities/responsibilities and exercise the powers as entrusted by the Authority from time to time.

This order shall come into force with immediate effect

NOTIFICATION

New Delhi, the 9th April, 2025

G.S.R. 233(E).— In exercise of the powers conferred by sub-section (2) and (3) of section 13A of the Coastal Aquaculture Authority Act, 2005 (Act No. 24 of 2005), the Central Government hereby notifies the officers mentioned in column (3) of the Table below as the Adjudicating Officers to adjudicate the penalties and the officer mentioned in column (5) of the said Table as the Appellate Authority to hear appeal against the order passed by the Adjudicating Officer for the coastal districts mentioned in column (2) of the said table in the States and Union territories at the working stations mentioned in the column (4) and (6) respectively, namely:-

Table

Sl No.	Name of district	Adjudicating Officer	Working station	Appellate Authority	Working station
(1)	(2)	(3)	(4)	(5)	(6)
ANDAMAN AND NICOBAR ISLANDS					
1	North and Middle Andaman	Joint Director of Fisheries	Sri Vijiya Puram	Director of Fisheries	Sri Vijiya Puram
2	South Andaman	Joint Director of Fisheries	Mayabunder	Director of Fisheries	Mayabunder
3	Nicobar	Joint Director of Fisheries	Car Nicobar	Director of Fisheries	Car Nicobar
ANDHRA PRADESH					
4	Srikakulam	Dy Director of Fisheries	Srikakulam	Joint Director of Fisheries	Visakhapatnam
5	Vizianagaram				
6	Visakhapatnam	Dy. Director of Fisheries	Anakapalli		
7	Anakapalli				
8	Dr.B.R.Ambedkar Konaseema	Dy. Director of Fisheries	Kakinada	Joint Director of Fisheries	Amalapuram, Dr. B.R.Ambedkar Konaseema District
9	Kakinada				
10	Eluru	Dy. Director of Fisheries	Eluru	Joint Director of Fisheries	Bhimavaram, West Godavari District
11	West Godavari				
12	Krishna	Dy. Director of Fisheries	Gudiwada	Joint Director of Fisheries	Machilipatnam, Krishna District

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13	Bapatla	Dy. Director of Fisheries	Bapatla	Joint Director of Fisheries	Nellore, SPSR Nellore District
14	Prakasam				
15	SPSR Nellore	Dy. Director of Fisheries	Thirupati		
16	Tirupati				
DADRA AND NAGAR HAVELI AND DAMAN AND DIU					
17	Daman	Director- cum- Joint Secretary (Fisheries)	Daman	Secretary (Fisheries)	Daman
18	Diu	Deputy Collector/ H.O. Fisheries	Diu		
19.	North Goa	Deputy Director Fisheries	Head Office, Panaji	Director of Fisheries	Head Office, Panaji
20.	South Goa	Deputy Director Fisheries	Head Office, Panaji	Director of Fisheries	Head Office, Panaji
GUJARAT					
21	Porbandar	Deputy Director of Fisheries	Veraval	Director of Fisheries	Gandhinagar
22	Gir Somnath				
23	Devbhumi Dwaraka (Okha)				
24	Junagadh (Mangrol)				
25	Jamnagar				
26	Amreli (Jafrabad)	Deputy Director of Fisheries	Rajkot		
27	Bhavnagar				
28	Morbi				
29	Bhuj	Deputy Director of Fisheries	Vadodara		
30	Anand				
31	Bharuch				
32	Surat	Deputy Director of Fisheries	Surat		
33	Navsari				
34	Valsad				

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KARNATAKA					
35	Mangalore	Deputy Director of Fisheries	Mangalore	Additional Director of Fisheries (Marine)	Directorate, Bangalore
36	Udupi	Deputy Director of Fisheries	Udupi		
37	Karwar	Deputy Director of Fisheries	Karwar		
KERALA					
38	Thiruvananthapuram	Deputy Director of Fisheries	Thiruvananthapuram	Additional Director of Fisheries	Thiruvananthapuram
39	Kollam	Deputy Director of Fisheries	Kollam		
40	Alappuzha	Deputy Director of Fisheries	Alappuzha		
41	Ernakulam	Deputy Director of Fisheries	Ernakulam		
42	Thrissur	Deputy Director of Fisheries	Thrissur		
43	Malappuram	Deputy Director of Fisheries	Malappuram		
44	Kozhikode	Deputy Director of Fisheries	Kozhikode		
45	Kannur	Deputy Director of Fisheries	Kannur		
46	Kasargode	Deputy Director of Fisheries	Kasargode		
LAKSHADWEEP					
47	Lakshadweep	Director of Fisheries	Kavaratti	Secretary (Fisheries)	Kavaratti

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MAHARASHTRA					
48	Thane	Regional Deputy Commissioner of Fisheries	Mumbai	Joint Commissioner of Fisheries (BW)	Mumbai
49	Palghar				
50	Ratnagiri				
51	Raigad				
52	Sindhudurg				
ODISHA					
53	Balasore	Deputy Director of Fisheries (Brackish water)	Directorate of Fisheries (Odisha), Cuttack	Joint Director of Fisheries (Coastal)	Directorate of Fisheries (Odisha), Cuttack
54	Bhadrak				
55	Kendrapara				
56	Jagatsinghpur				
57	Puri				
58	Ganjam				
PUDUCHERRY					
59	Puducherry	Director of Fisheries	Puducherry	Secretary (Fish- eries)	Puducherry
TAMIL NADU					
60	Tiruvallur	Joint Director of Fisheries	O/o JDF&FW (Regional), Chennai	Additional Director of Fisheries (Inland)	O/o The Department of Fisheries and Fisherman Welfare, Government of Tamil Nadu, Nandanam, Chennai
61	Chengalpattu				
62	Villupuram	Deputy Director of Fisheries	O/o DDF&FW, (Regional), Cuddalore		
63	Cuddalore				
64	Nagapattinam	Joint Director of Fisheries	O/o JDF&FW (Regional), Nagapat- tinam		
65	Mayiladuthurai				
66	Thanjavur				
67	Thiruvarur				
68	Pudukottai	Deputy Director of Fisheries	O/o DDF&FW (Regional), Trichy		

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69	Ramanathapuram	Deputy Director of Fisheries	O/o DDF&FW (Regional), Ramanathapuram	Additional Director of Fisheries (Inland)	O/o The Department of Fisheries and Fisherman Welfare, Government of Tamil Nadu, Nandanam, Chennai
70	Thoothukudi	Joint Director of Fisheries	O/o JDF&FW (Regional), Thoothukudi		
71	Tirunelveli				
72	Kanniyakumari	Deputy Director of Fisheries	O/o DDF&FW (Regional), Kanniyakumari		
WEST BENGAL					
73	East Midnapore	Additional Director of Fisheries- Technical (HQ)	Directorate of Fisheries, Kolkata	Director of Fisheries	Directorate of Fisheries, Kolkata
74	South 24 Parganas				
75	North 24 Parganas				

This notification shall come into force with immediate effect.

**MINISTRY OF AGRICULTURE
(Department of Animal Husbandry,
Dairying and Fisheries)**

NOTIFICATION

New Delhi, the 23rd January, 2006

S.O. 74 (E). -- In exercise of the powers conferred by clause (d) of Sub-section (1) of Section 2 of the Coastal Aquaculture Authority Act, 2005 (24 of 2005) the Central Government hereby specifies the following area to be coastal area for the purposes of the said Act, namely :-

“Area of land with in a distance of two kilometers from the High Tide Line (HTL) of seas, rivers, creeks and backwaters.”

Note :- 1. The delineating boundaries along rivers, creeks and backwaters shall be governed by the distance upto which the tidal effects are experienced and where salinity concentration is not less than 5 parts per thousand (ppt). For this purpose the salinity measurements shall be made during the driest period of the year.

Note:- 2. In the case of ecologically fragile areas such as Chilka Lake and Pulicat Lake, the coastal area shall extend upto a distance of two kms. from the boundary of the lakes.

**OTHER NOTIFICATIONS RELATED TO
COASTAL AQUACULTURE AUTHORITY**

**OTHER NOTIFICATIONS RELATED TO COASTAL AQUACULTURE
AUTHORITY**

ARRANAGMENTS OF NOTIFICATIONS

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1.	Guidelines for Import of Live Seaweeds into India	291
2.	Sanitary Protocol for Import of Specific Pathogen Free (SPF) Polychaete Worms Into India	313
3.	Notifications prohibiting the import, manufacture, sale and distribution of drugs in food producing animal rearing system	317
4.	Guidelines regulating the method of operation of Aquatic Quarantine for import of SPF <i>Litopenaeus vannamei</i> in to India	318

NOTIFICATION

GUIDELINES FOR IMPORT OF LIVE SEaweeds INTO INDIA.

F.No. j-1503529/5/2024-DOF (E-24345)—Whereas, Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying is the Nodal Department for development of fisheries and aquaculture sector in India; and develop the guidelines for import of live seaweeds into India in consultation with stakeholders.

2. Now, Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying hereby notifies the following guidelines, namely ‘the guidelines for import of live seaweeds into India’.

1. PREAMBLE

- 1.1 The global production of seaweed was 35 million tonnes (wet weight), worth around 16.5 billion USD according to FAO (2022). Almost 94% of the total production was contributed by 8 seaweed species viz., *Laminaria japonica*, *Euचेuma spp.*, *Gracilaria spp.*, *Undaria pinnatifida*, *Porphyra spp.*, *Kappaphycus alvarezii*, *Sargassum fusiforme* and *Euचेuma denticulatum*. According to ICAR-Central Marine Fisheries Research Institute (ICAR-CMFRI), the quantity of wild-harvested seaweed in India was 0.03 million tonnes (2021). As per the recent estimate by CMFRI, India has the potential to produce around 9.7 million tonnes of seaweed per year, while the current seaweed production is only 34 thousand tonnes. The major industrial applications of seaweeds are as a source of agar, agarose and carrageenan used in laboratories, pharmaceuticals, cosmetics, cardboard, paper, paint and processed foods. Currently, seaweed-based industries are not functioning up to their rated capacity, due to short-supply of raw materials.
- 1.2 India has a rich diversity of about 844 seaweed species of which the Red Algae *Gelidiella acerosa*, *Gracilaria edulis*, *G. crassa*, *G. foliifera* and *G. verrucosa* are farmed for manufacturing Agar and the Brown Algae *Sargassum spp.*, *Turbinaria spp.* and *Cystoseira trinodis* for the production of alginates and liquid seaweed fertilizer. Seaweed cultivation is a highly income yielding activity involving simple, low cost, low maintenance technology with short grow-out cycle.
- 1.3 The flagship scheme of Government of India namely *Pradhan Mantri Matsya sampada Yojana* (PMMSY) envisaged to revolutionize the seaweed sector, aiming to increase seaweed production of the country over 1.12 million tonnes by 2025. To carry out the culture activities, recently ICAR-CMFRI has geotagged 342 potential sites for cultivating marine plants and algae along the Indian coast. However, Indian seaweed

production is mostly depended upon culture of *Kappaphycus alvarezii* and other few native varieties. Over-dependence on *K. alvarezii*, which is losing its vigour of fast growth and became disease-prone over the years. This call for the import of new varieties and strains of seaweeds to improve production and productivity.

- 1.4 At present live seaweed materials are not included under the import and export guidelines of India for agriculture articles framed by the Directorate General of Foreign Trade (DGFT), Government of India. Our country has Indian plant quarantine regulations in place legislated under ‘Destructive Insects and Pests Act, 1914’ and ‘Plant Quarantine (regulation of import into India) order 2003’ for the purpose of regulating the import of agricultural articles into India. The existing PQ Order-2003 regulates the import of ‘Seaweeds – *Chondrus* spp./ *Ecklonia maxima*/ *Euचेuma* spp./ *Gelidium* spp./ *Gelidiella* spp./ *Gracilaria* spp./ *Kappaphycus* spp./ *Pterocladia* spp.’ in dried form for consumption under Schedule VII.
- 1.5 There are several factors that necessitate distinct quarantine and import guidelines for seaweed, as compared to the existing guidelines for terrestrial plants.
 - i. *Unique characteristics of seaweeds:* Seaweeds have distinct characteristics that differentiate them from terrestrial plants. Seaweeds are submerged in water and are exposed to different environmental conditions, such as varying salinity levels, water currents, and temperature fluctuations.
 - ii. *Biosecurity risks:* Seaweeds can harbour various diseases, pests, and pathogens that can spread rapidly in marine environments. These biosecurity risks can pose threats to wild seaweed populations, as well as to other aquaculture operations.
 - iii. *Biological factors:* Differences in reproductive strategies and genetics can impact the potential for spread, establishment, and persistence of seaweed in new environments.
 - iv. *Regulatory and Policy Factors:* Different countries like Philippines, Indonesia, Malaysia, and Tanzania have specific regulations and policies in place for the import, export, and release of seaweed and terrestrial plants. Hence, specific quarantine guidelines for seaweeds can help regulate the international trade and movement of seaweeds to minimize the risk of spreading diseases and pests across different regions.

- 1.6 In summary, the unique ecological, environmental, biological, genetic, regulatory, and policy factors associated with seaweed and terrestrial plants necessitate separate quarantine guidelines. These guidelines are required to effectively manage the risks associated with seaweed introductions and ensure responsible management of this valuable marine resource.

2. DEFINITIONS

- 2.1 **Authorized officer** means a person authorised by the Competent Authority to sign health/quarantine/phytosanitary certificates for seaweeds.
- 2.2 **Biosecurity** means a strategic and integrated approach to analyzing and managing relevant risks to human, animal (including aquatic), plant life and health and associated risks to the environment.
- 2.3 **Consignment** (also termed “shipment”) – a group/packages of live seaweed material described in a phytosanitary certificate and/or in a permit to import.
- 2.4 **Competent Authority** means the Authority responsible for management of aquatic plant germplasm health as may be notified by the Department of Fisheries, Government of India.
- 2.5 **Exporting country** means a country from which live seaweed materials are sent to a destination in another country.
- 2.6 **International trade** means import, export or transit of various forms of live seaweed material and biological products.
- 2.7 **Import** means an act of bringing into any part or place of territory of Republic of India any kind of seaweed material and other regulated article from a place outside India either by sea, land, air or across any customs frontier.
- 2.8 **Import permit** means an official document authorizing importation of a consignment in accordance with specified phytosanitary requirements.
- 2.9 **Importer** means person/company/government agency importing various forms of live seaweed material from outside the country.
- 3.0 **Invasive species** means non-indigenous species that adversely affect the habitats they invade economically, environmentally or ecologically.
- 3.1 **Live seaweed material** means any living seaweed that are collected from wild or genetically improved under laboratory conditions for commercial culture purposes.

- 3.2 Pest** means any biotic agent capable of causing any injury or damage to plants and plant products and include any form or stage of insects, mites, snails, slugs, worms, nematodes, algae, fungi, protozoa, bacteria, actinomycetes, viruses, viroids and molecutes and also include genetically engineered or modified organisms and weeds.
- 3.3 Phytosanitary certificate** means a certificate issued in the model format prescribed under the International Plant Protection Convention of the Food & Agricultural Organization and issued by an authorized officer at the country of origin of consignment or re-export.
- 3.4 Point of entry** means any sea port, airport, or land-border check-post or rail station, river port, foreign post office, courier terminal, container freight station or inland container depot notified by Department of Fisheries, Government of India.
- 3.5 Quarantine** means maintaining a live seaweed material in isolation with no direct or indirect contact with other aquatic biota/wild environments, in order to undergo observation for a specified length of time and, if appropriate, testing and treatment, including proper treatment of the effluent waters.
- 3.6 Quarantine officer** means a technically competent person authorized by the Competent Authority for purposes of inspecting and certifying compliance with the health requirements of the Competent Authority concerning the import and export of various forms of live seaweed material.
- 3.7 Quarantine period** means a minimum period of quarantine, typically as specified in a seaweed quarantine guidelines or other legally binding document (e.g. national or state regulations).
- 3.8 Risk analysis** means the complete process composed of hazard identification, risk assessment, risk management and risk communication.
- 3.9 Seaweed** means marine macroalgae which are photosynthetic aquatic organisms.
- 4.0 Seaweed Germplasm** means seaweed in whole or in parts and their propagules including seeds, vegetative parts, tissue cultures, cell cultures, genes and DNA based sequences that are held in a repository or collected from wild as the case may be and are utilized in genetic studies or breeding programmes for its improvement.
- 4.1 Shipment** means a group of aquatic animals or products thereof destined for transportation.

4.2 Surveillance means a systematic series of investigations of a given population of aquatic animals to detect the occurrence of disease for control purposes, and which may involve testing samples of a population.

4.3 Susceptible species/organism means a species of aquatic biota/ seaweed in which infection has been demonstrated by natural cases or by experimental exposures to the disease agent that mimics the natural pathways for infection.

3. GENERAL CONDITIONS FOR IMPORT

3.1 No import of the seaweed live material shall be allowed if the seaweed is found to be fall under the following categories:

- i. Seaweed is known to be a vector or carrier of pathogens or listed under the Convention on International Trade in Endangered Species (CITES) or in the threatened list of the International Union for Conservation of Nature (IUCN) or that of the exporting country's threatened list. However, if the exporting country's competent authority certifies it, it can be permitted.
- ii. Species under any other ban imposed on the import due to national legislation or international treaties/conventions.
- iii. Invasive species exhibiting well-documented deleterious impacts in India or other countries having environmental conditions similar to India.

3.2 No import of seaweed live material is permitted without a valid permit from Department of Fisheries, Government of India.

3.3 No seaweed shall be imported into India without complying the phytosanitary conditions as stipulated in the pre- import permit.

3.4 The issue of permit may be refused or withheld by the issuing authority after giving reasonable notice to the applicant and for reasons to be recorded in writing.

3.5 The import permit issued shall be valid for six months from the date of issue and valid for listed port access as per Annexure-VI and for multiple part shipments provided the exporter, importer and country of origin are the same for the entire consignment. Suppression of the facts or any material information while issue of import permit is liable to be cancelled or withdrawn.

3.6 The import permit issued shall not be transferable and no amendments to the permit shall be issued except for change of point of entry subject to reasons to be recorded in writing.

- 3.7 The seaweeds can be either from wild or genetically modified strains of certified laboratories. The indicative list of seaweed species to be considered for import is given in Annexure-I.
- 3.8 It should be devoid of epiphytes, any biotic agent capable of causing any injury or damage to seaweed and seaweed products and include any form or stage of insects, mites, snails, slugs, worms, nematodes, algae, fungi, protozoa, bacteria, actinomycetes, viruses and viroids, and also include genetically engineered or modified organisms and weeds. The indicative list of diseases is given in Annexure-II.
- 3.9 Request for import of a live seaweed shall be subject to clearance from National Committee on Introduction of Exotic Aquatic Species into Indian Waters.
- 3.10 The Phytosanitary clearance from the exporting country for the seaweed live material is required in the prescribed format as in Annexure- III.
- 3.11 Direct sale of imported seaweed in the domestic market or international market shall not be allowed.
- 3.12 All the consignments of live seaweed material shall be imported into India only through ports of entry and falling within the jurisdiction of Plant Quarantine Station /Animal Quarantine Certification & Services namely Chennai, Kochi and Ahmedabad or those notified by the Department of Fisheries from time to time.
- 3.13 On arrival, at the first point of entry the consignment shall be inspected by any officer duly authorized by Department of Fisheries, Government of India and appropriate samples shall be drawn for laboratory testing, in accordance with the guidelines issued by Department of Fisheries from time to time.
- 3.14 After inspection and laboratory testing, fumigation, disinfection or disinfestation, successful quarantine period as may be considered necessary, accord quarantine clearance for farming/grow out/research as per Annexure-VII and or order deportation or destruction of the consignment as per Annexure-VIII in the event of non-compliance with the restrictions and conditions specified in this Order.
- 3.15 Where fumigation or disinfestation or disinfection is considered necessary in respect of a consignment of live seaweed the importer shall on his own and at his cost arrange for the fumigation, disinfection or disinfestation of the consignment, through an agency approved by the any relevant Govt. agencies.
- 3.16 Neither the exporter nor the importer shall claim any intellectual property or other right on the imported material.

4. MODE OF APPLICATION

- 4.1 The importer intending to import live exotic seaweed material shall apply in the prescribed format as per Annexure- IV accompanied with particulars like scientific and common name of the seaweed, photographs of the seaweed including various body parts. Without these, the application for permit shall be rejected.
- 4.2. The permission of import shall be issued by the Competent Authority in the Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India, after examination of the proposal and due consideration of the recommendation of the National committee on introduction of exotic aquatic species into Indian waters. The permission in approved cases shall be communicated to the applicant within four weeks from the date of receipt of the complete proposal.
- 4.3 The import permit issued shall be non-transferable and valid for six months from the date of issue.
- 4.4 The issuing authority might consider one revalidation not exceeding maximum of three months provided such request for extension of validity is made to the issuing authority before the expiry of the permit with adequate justification.
- 4.5 Import of seaweed live material shall be allowed only through designated seaports/airports as per Annexure-VI.

5. APPLICATION FEE

- 5.1 Online payment of Rs. 300/- per application can be made to the Bharatkosh through the online payment gateway and the receipt of the same shall be attached with the application.

6. PACKAGING AND TRANSPORT

- 6.1 Seaweed live material must be packaged in leak-proof bags and must enable proper inspection and identification.
- 6.2 The packaging shall facilitate easy inspection of the consignment by the officer duly authorized by Department of Fisheries, Government of India at the port of entry.
- 6.3 Each box or carton must be clearly identified with label mentioning name and quantity of seaweed live material and identification number of each box/carton. In case, any preservative kind of material has been used during transport, it should be clearly mentioned in the packaging list.
- 6.4 The consignment must be accompanied by relevant documents including phytosanitary certificate and photograph of species, copy of import permit, copy of quarantine certificate (if applicable), invoices, certificate of origin, bill of lading and other documents issued by the transport authority of exporting country.

7 STANDARD OPERATING PROCEDURES (SOPs) FOR SEAWEED QUARANTINE

(where needed, detailed procedure and / or authorized institutes shall be notified)

- 7.1 Every species/strain of live seaweed imported into the country shall have to be subjected to the quarantine procedures in a quarantine facility designated by the Department of Fisheries, Government of India.
- 7.2 The quarantine fee shall be prescribed by the Quarantine facility in consultation with the Department of Fisheries, Government of India.
- 7.3 The cost of screening and testing shall be borne by the importer. The testing of samples shall be undertaken in the Institutes of Indian Council of Agricultural Research or the laboratory approved by the Directorate of Plant Protection, Quarantine & Storage / Department of Fisheries, Government of India.

7.4 Receiving and Transport of Consignment from Airport

- i. Upon arrival of the Consignment, accompanying pre-import permit and Phytosanitary Certificate and other relevant documents issued by the competent authority of exporting country should be verified and imported species should be rechecked at the quarantine facility and certificate of quarantine be issued by the designated authority.
- ii. Consignment, containing seaweed should be cleared in presence of the Aquatic Plant Quarantine Officer or any officer duly authorized by Department of Fisheries, Government of India who will take charge of the consignment. Gross observation of the consignment, damages if any will be recorded by the authorized officer in the presence of the importer or his representative.
- iii. Upon clearance from the port of entry, consignment shall be transferred immediately to the approved quarantine facility in a sanitised truck by the route designated by officer duly authorized by Department of Fisheries, Government of India. The quarantine of the imported material may be undertaken by the in-house quarantine facilities established by the importer and approved by Government of India or any designated facility by Department of Fisheries, Government of India. The basic requirements for the quarantine facility are annexed as Annexure-X.

7.5 Permitting the consignment at Aquatic Plant Quarantine Facility

- i. Only the bags with seaweed should be taken inside the quarantine unit.
- ii. Representative of the importing firm/agency shall be permitted to observe the condition of the seaweed. The representative will acknowledge the status of the consignment.
- iii. Except the seaweeds, other materials used for transport shall be incinerated by officials of Aquatic Plant Quarantine Facility or staff of any other facility designated for the similar purpose.

7.6 Inspection and sampling of consignments

- i. A representative sample from the seaweed will be drawn for each species / strain / variety to carry out laboratory testing.
- ii. Sampling regime for carrying out various laboratory testing of Seaweeds:

Seaweed Quantity (kg)	Sample to be drawn for each species / strain / variety to carry out laboratory testing
Less than 10	1% sample
11-100	2% sample
101-1000	2.5% sample
1001 -10000	1% sample

- iii. The inspecting officer shall ensure that the inspection/sampling procedures adopted are adequate for the detection of quarantine pests and /or regulated non-quarantine pests and are consistent with phytosanitary requirements of India.
- iv. The sample collected/forwarded for laboratory testing will be appropriately packed to prevent any escape of pest, sealed and labelled. The sampling label will provide detailed information viz., Lot/Batch Number, Name of the consignment (species/variety), Sample size, Place of inspection, Date of inspection, Name/Signature of Inspector.
- v. Samples should be tested for insects, worms and other infections due to fungi, bacteria and viruses.
- vi. Laboratory expert upon conducting all the tests will submit a detailed report. The report should indicate the type of tests carried out, seaweed species/variety examined and the degree of infestation/infection and quarantine status of the pest noticed along with recommendations, if any, and submit to the authorized officer.

- vii. The authorized officer, immediately after the receipt of inspection/testing report will verify with concerned laboratory expert.
- viii. If any risks are detected, the consignment will be recommended for deportation/destruction and the importer or his agent will be communicated the action taken in the prescribed format as per Annexure- VII.
- ix. In case no risks are detected, the Authorised officer shall issue a Quarantine Certificate.

7.7 Maintenance at Quarantine Facility

- i. The seaweed quarantine unit should be isolated from other aquaculture facilities for seaweed.
- ii. Quarantine process should be done in tank culture system to minimize risks caused by the exotic pathogen/pests that may be associated with imported seaweeds and have potential to be transferred into the local marine environment.
- iii. Seawater that is used in the tank system should be filtered with an appropriate water filtration system through 1 micron sieve and be treated with UV light.
- iv. Tank should be cleaned and disinfected (may use Chlorine solutions as disinfectant with appropriate concentrations).
- v. Prior to the quarantine process, the seawater should be checked for inorganic nutrients (e.g., NH_4 , NO_3 , and PO_4), salinity and temperature, to ensure that these parameters are optimum for seaweed culture (Values and Concentrations may differ according to the species).
- vi. The tank system should be adequately aerated, depending on the volume of the tank and checked to ensure optimum light intensity for photosynthesis ($60 - 80 \mu\text{mol photons m}^2 \text{ s}^{-1}$).
- vii. Equipment used in the quarantine facility, such as scrubbing brushes, thermometers, filters etc are to be treated with a chlorine dip after use.
- viii. Holding tanks are to be drained, scrubbed and clean at least twice a week.
- ix. Seaweed is to be thoroughly rinsed with fresh seawater before placement into holding tanks to remove any unwanted microorganisms.

- x. The imported seaweed stock would undergo quarantine in approved quarantine facility for two weeks (14 days).
- xi. The in-charge of quarantine facility shall ensure the optimal water quality for maintenance of imported seaweed.
- xii. During the process, the seedlings should be monitored daily for signs of color change, appearance of filamentous algae, and for growth performance.
- xiii. A log book shall be maintained for recording details of treatment, observations and clinical abnormalities if any on a daily basis.
- xiv. The discharged water from the quarantine should be held temporarily and treated with hypochloride solution (> 20 PPM active chlorine for not less than 60 minutes) or other effective disinfectant prior to discharge. This is particularly crucial where the water is to be discharged to the same location as the abstraction point.
- xv. There should be means provided for disinfection of vehicle tyre (tyre bath at gate) feet (foot bath containing hypochlorite solution at > 50 ppm active chlorine) and hands (bottles containing iodine- PVP 20 PPM and/or 70 % alcohol) to be used upon entering and exiting the facility.
- xvi. Entry of unauthorized person to be restricted.
- xvii. If the stock shows no signs of mortality or infections the stock shall be released to the importer packed in polythene bags.
- xviii. The importer shall be provided with delivery challan along with quarantine certificate.

8. POST QUARANTINE INSPECTION

- 8.1 Competent Authority have right to carry out the post quarantine inspection of rearing facility, farms, laboratories of the importers to confirm the specified norms for assuring the imported seaweed materials are used for the purpose for which they are imported.
- 8.2 The importer shall submit quarterly status report on transport, propagation, culture, laboratory experiments etc. after the import to Department of Fisheries, Government of India as per Annexure-IX.

9. ACTIONS AGAINST VIOLATIONS OF THE GUIDELINES

- 9.1 The importer shall keep in mind the biosafety, biohazards and economic interest of the nation. Any biosafety and other related hazards arising out of release of the imported seaweed live material into the natural waters shall entirely be the responsibility of importer/importing organization and shall be liable to be proceeded against in accordance with the relevant rules of Government of India.
- 9.2 If during the course of inspection, it comes to the notice of the Competent Authority that the importer wilfully suppressed certain important information/deliberately furnished wrong information or that the species sought to be imported and the one actually imported are not the same or that the imported specimens also consist of species for which approval has not been obtained, the import permit shall be cancelled forthwith and all the specimens imported destroyed without any notice to or permission of the importer.
- 9.3 The importer shall take abundant care to prevent any accidental escape and willful release of the seaweed from the farm/growing areas. In the event of accidental escape/ willful release of seaweed away from the growing areas or farm, the matter should be reported to the competent authority.

ANNEXURE-I

INDICATIVE LIST OF SEAWEED SPECIES/STRAINS TO BE CONSIDERED FOR IMPORT

SL. No.	Scientific name	Class
1.	<i>Euचेuma spp.</i>	Red seaweed
2.	<i>Euचेuma denticulatum</i>	Red seaweed
3.	<i>Gracilaria dura</i>	Red seaweed
4.	<i>Gracilaria debilis</i>	Red seaweed
5.	<i>Gracilaria spp.</i>	Red seaweed
6.	<i>Gracilaria verrucosa</i>	Red seaweed
7.	<i>Gelidium amansii</i>	Red seaweed
8.	<i>Kappaphycus alvarezii</i>	Red seaweed
9.	<i>Caulerpa spp.</i>	Green seaweeds
10.	<i>Enteromorpha clathrata</i>	Green seaweeds
11.	<i>Monostroma nitidum</i>	Green seaweeds
12.	<i>Sargassum fusiforme</i>	Brown seaweed
13.	<i>Codium fragile</i>	Green seaweeds

14.	<i>Laminaria japonica</i>	Brown seaweed
15.	<i>Undaria pinnatifida</i>	Brown seaweed
16.	<i>Porphyra spp.</i>	Red seaweed

**The species are indicative and are of commercial value. The list may be expanded by the Department of fisheries, Government of India as per the requirement in the Government, which may also notify a negative list for import from any specific country or a geographic region.*

ANNEXURE-II

INDICATIVE LIST OF PESTS/ DISEASES IN SEAWEEDS

- 1) Rotten thallus syndrome
- 2) Epiphytic filamentous algae
- 3) Ice-ice disease
- 4) Pitting
- 5) Sedimentation
- 6) Red rot disease
- 7) Tip Discolouration
- 8.) Olpidiopsis disease
- 9.) White spot disease
- 10) Anaaki disease
- 11) Diatom felt
- 12) Cyanobacteria felt
- 13) Green-spot diseases
- 14) White blight disease
- 15) Hole-rotten disease
- 16) Twisted frond diseases
- 17) Shot-hole disease
- 18) Spot-rotting diseases
- 19) Yellow- hole disease
- 20) Spot decay
- 21) Green Decay diseases
- 22) Pin-hole disease
- 23) Brown endophytic disease

**The above list of diseases is indicative and the exporter, importer and inspection authority should check for any diseases/abnormalities than those which are listed here.*

ANNEXURE-III

PHYTOSANITARY CERTIFICATE

No: _____

From Plant Protection Organisation of or any other authority as designated by Competent Authority of exporting country		To Joint Secretary, Department of Fisheries Govt. of India / Plant Protection Organisation (s) of	
Description of Consignment			
Name and address of exporter			
Name and Address of consignee			
Number and description of packages			
Place of origin			
Declared means of conveyance			
Declared point of entry into India			
Name of produce and quantity declared			
Scientific name of the species			
This is to certify that the seaweed materials described above have been inspected according to appropriate procedures and are considered to be free from quarantine pests and practically free from injurious pests and that they are considered to conform to the current phytosanitary regulations at the importing country.			
Details of Disinfestation and/ or Disinfection Treatment			
Date		Temperature	
Duration		Chemical (active ingredient)	
Treatment		Concentration	
Additional information			
Additional Declarations:			
Place of issue:	Stamp of Organization	Name, Signature and Seal of Authorized officer	
Date of issue:			

No financial liability with respect to this certificate shall attach to..... (Name of Plant Protection Organization/ any other authority as designated by competent authority of exporting country) or to any of its officers or representatives

**: *Optional clause*

ANNEXURE-IV

APPLICATION FOR PERMIT TO IMPORT LIVE SEAWEED INTO INDIA

To, Joint Secretary, Department of Fisheries, Govt of India (Issuing Authority)				
I/We hereby make an application in accordance with the guidelines of Import of Live Seaweeds into India for permission to import following live seaweed / seaweed material.				
1. Name and Address of Importer		2. Name and Address of Exporter		
3. Country of origin / re-export		4. Foreign port of shipment		
5. Approximate date of arrival of shipment				
6. Point of entry into India		7. Means of conveyance		
8. Description of seaweed (Species name/ Common name)		9.Variety / Hybrid	10. QUANTITY (WT/Nos)	11. NO. OF PACKAGES
				12. MODE OF PACKING
13. Whether Transgenic or not?				
14. Name of location of post-entry quarantine facility, where applicable?				
15. Purpose of import				
16. Precise Culture/Propagation / Research location				
17. Particulars of documents, if any attached				
<p>Declaration</p> <p>I/We hereby declare that the information furnished above is correct and complete in all respects and undertake to pay to an officer duly authorized by Department of Fisheries, Government of India, the prescribed fees towards inspection, treatment or post-entry quarantine inspection of the above consignment and abide by the instructions/guidelines issued by him.</p> <p>Date:</p> <p>Place: (Seal) (Name, Signature and seal of Importer or his authorized Agent)</p>				

Essential Enclosure: Photographs of seaweed species to be imported (the photograph should be of the specimens of the seaweed from where the import is proposed and not from published or sources).

Instruction for filling proforma : No column/row should be left blank. If information is not available if N.A and if the item is not relevant, N.A.

ANNEXURE- V

(Emblem) Government of India Ministry of Fisheries, Animal Husbandry and Dairying Department of Fisheries PERMIT FOR IMPORT OF LIVE SEaweEDS INTO INDIA Permit No. _____ Date of issue _____ Valid up to ____				
In accordance with the guidelines for Import of Live Seaweeds into India, I hereby grant permission to import the following live seaweed / seaweed material as detailed below:				
1.Name & Address of Importer		2. Name & Address of Exporter		
3.Country of origin / re-export		4. Point of Entry into India		
5. Description of seaweed (Species name/Common name)	6. Variety / Hybrid	7. Quantity (Wt/Nos)	8. No.of. Packages	9. Mode of packing
10. The above permission is granted subject to the following conditions: -				
1) The consignment of seaweed materials shall be free from weed species and diseases.				
2) (i) The consignment shall be accompanied by a Phytosanitary Certificate/ Phytosanitary Certificate for re-export issued by an authorized officer in the country of origin / re-export as the case may be with an additional declaration for the freedom from;				
a) _____				
b) _____				
c) _____				
(or) that the above-specified pests do not occur in the country or state of origin.				
(ii) Certified that the seaweed materials as described above obtained from the mother crop/ stock which was inspected on regular intervals by an appropriate authority in the country of origin and found free from _____.				

<p>3) The consignment shall be grown in an approved post-entry quarantine facility designated by the Department of Fisheries, Government of India for a period of (days/month) _____ .</p> <p>4) The permit is not transferable and shall be valid for six months from the date of issue and valid for multiple port access and multiple part shipments provided the exporter, importer and country of origin are the same for the entire consignment. The permit number shall be quoted on the phytosanitary certificate issued at the country of origin/re-export, as the case may be.</p>		
Date:	(Seal)	Name
Place:		Signature
		Designation of Issuing Authority

ANNEXURE-VI

DESIGNATED SEAPORTS/AIRPORTS FOR IMPORT OF LIVE SEaweeds INTO INDIA

- 1 All consignments of live seaweed/seaweed material shall only be imported into India through following port of entry or other points of entry as may be notified from time to time for this purpose.
 - I. Ahmedabad, Gujarat
 - II. Mumbai Airport/Seaport, Maharashtra
 - III. Bangalore, Karnataka
 - IV. Cochin Airport/Seaport, Kerala
 - V. Chennai Airport/Seaport, Tamil Nadu
 - VI. Kolkata Airport/Seaport, West Bengal

Note: All the imports are only allowed through seaports/ airport designated by Government of India and this may increase at later stage.

ANNEXURE-VII

(Emblem) Government of India Ministry of Fisheries, Animal Husbandry and Dairying Department of Fisheries RELEASE ORDER	
Ref No: _____	Date of Issue: _____
In accordance with the guidelines of Import of Live Seaweeds into India, the following consignment of live seaweed / seaweed material referred to this station has been inspected or treated and the same has been accorded quarantine clearance as detailed below:	
1. Name of the consignment (Common/scientific name)	
2. Quantity (Wt./nos.)	
3. Number of packages/containers and mode of packing	
4. Country of origin/re-export and foreign port of shipment	
5. Distinguishing marks	
6. Means of conveyance & date of arrival	
7. Point of entry into India	
8. Name and address of the importer	
9. Bill of entry no./shipping or airway bill no. and date	
10. Date of sampling/inspection/treatment	
Date: _____ Place: _____	Name: _____ Signature: _____ Competent Authority
Copy to: i) Collector of Customs ii) Inspection Authority iii) Deputy Director (Aquatic Quarantine), New Delhi <i>*Strike out which is not applicable</i>	

ANNEXURE - VIII

<p>(Emblem)</p> <p>Government of India</p> <p>Ministry of Fisheries, Animal Husbandry and Dairying</p> <p>Department of Fisheries</p> <p>DEPORTATION / DESTRUCTION ORDER</p>	
No: _____	Date of Issue: _____
<p>In accordance with the guidelines of Live Seaweeds into India, the following consignment of Live seaweed / seaweed material referred to this station has been inspected or treated and the same has been ordered for deportation/destruction as the same was imported in violation of the provisions of the above guidelines. The details are as under</p>	
1. Name of the consignment (Common/scientific name)	
2. Quantity (Wt./nos.)	
3. Number of packages/containers	
4. Country of origin/re-export and foreign port of shipment	
5. Distinguishing marks, if any	
6. Means of conveyance & date of arrival	
7. Point of entry into India	
8. Name and address of the importer	
9. Bill of entry no./shipping or airway bill no. and date	
10. Date of sampling/inspection/treatment	
<p>Nature of Non-Compliance</p>	
<p>(i) Consignment has been imported without valid Import Permit or Phytosanitary Certificate as stated in the guidelines of Import of Live Seaweeds into India.</p> <p>(ii) Consignment on inspection found to be infested/infected with a pest/diseases stated in the guidelines for Import of Live Seaweeds into India.</p> <p>(iii) Consignment on inspection found to be contaminated with quarantine weed</p> <p>(iv) Consignment is prohibited entry _____</p> <p>(v) Consignment found to be substantially contaminated with epiphytic algae/sand</p> <p>(vi) Consignment found packed with objectionable package material</p> <p>(vii) Any other reason (specify): _____</p> <p><i>Note: Tick-out, which ever applicable.</i></p>	
Date: Place:	Name: Signature: Competent Authority

Action to be taken by the importer or his authorized Agent.

The above stated consignment/container shall be deported within _____ days from the date of issue of this order for which the importer or his authorised agent shall submit the re-shipping bills for necessary endorsement failing which the same shall be arranged for destruction at his own cost in manner prescribed by the Department of Fisheries, Govt. of India

Date : Authorised Officers Name

Place : Designation

Signature

Seal

Copy to

- 1 Commissioner of _____
(Address of Commissioner ate of Customs)
- 2 Port Trust Authority/Airport Authority of _____
- 3 Deputy Director (Aquatic Quarantine), New Delhi

ANNEXURE -IX

FORMAT FOR QUARTERLY REPORT FROM SEAWEED IMPORTER

1.	Name and address of the importer	
2.	Contact number & email address	
3.	Permit number and date	
4.	Location of the farm/ laboratory	
5.	Common and scientific name of the imported species	
6.	Total quantity imported (in kgs)	
7.	Origination of imported live seaweed	
8.	Transport mortality (in kgs)	
9.	Quarantine mortality (in kgs)	
10.	Types of seaweed culture method	
11.	Report on general aquatic health monitoring and any unusual mortality	
12.	Any changes observed in water quality parameters after introducing the imported live seaweed in the aquatic environment	
13.	Any pest or disease is observed	
14.	Is any invasiveness observed on the surrounding environment from imported live seaweed	
15.	Total number of seaweed seeds/spores/seedlings sold to the farmers	
16.	Details of the farmers to whom sold (shall include information on the name, address, and registration number) and a copy of the registration certificate for culturing seaweed issued by Coastal Aquaculture Authority.	
<p>Place:</p> <p>Date: Signature</p> <p style="text-align: center;">Name of the authorised signatory</p>		

ANNEXURE-X

BASIC REQUIREMENTS OF QUARANTINE FACILITY*

- 1) The facility should be isolated from the aquaculture operations
- 2) Adequate quality and quantity of seawater
- 3) Proper system for handling and disposing of waste
- 4) Tank with appropriate size for holding seaweed material
- 5) Adequate filtration system to maintain water quality
- 6) Aeration system to ensure adequate oxygen levels
- 7) Instruments for measuring water quality parameters
- 8) Laboratory for conducting tests and analyses on seaweed specimens
- 9) Power supplies
- 10) Strict quarantine and hygiene protocol
- 11) Train staff in biosecurity practices and proper handling of seaweed
- 12) Pest control measures
- 13) Adequate biosecurity measures
- 14) Adequate Security measures should be in place to prevent unauthorized access
- 15) Any other relevant requirement that required to maintain quarantine facility

**The above list requirements are indicative*

Government of India
Ministry of Fisheries, Animal Husbandry and Dairying
Department of Fisheries

No.j - 1503529/7/2021-Fy (E-18472)

Dated : 9th August, 2021

**SANITARY PROTOCOL FOR IMPORT OF SPECIFIC PATHOGEN
FREE (SPF) POLYCHAETE WORMS INTO INDIA**

1. SCOPE OF THIS DOCUMENT

The importation of Specific Pathogen Free (SPF) Polychaete worms is considered vital as it is critically needed for shrimp hatcheries and used as maturation feed for the SPF shrimp broodstock. These sanitary protocol aims at ensuring entry of the disease free Polychaete worms into the country before allowing the imported stocks to be used in the production facilities.

2. ABBREVIATIONS

The following expressions which are used in the protocol are defined below:

- AQF : Aquatic Quarantine Facility
- AQ&CS : Animal Quarantine & Certification Services
- CAA : Coastal Aquaculture Authority
- CIBA : Central Institute of Brackishwater Aquaculture
- Consignment : Imported SPF Polychaete worms contained in polythene bags with oxygenated seawater packed in thermocol boxes along with coolant packs.
- MPEDA : The Marine Products Export Development Authority
- NFDB : National Fisheries Development Board
- Povidone iodine : A disinfecting compound
- RGCA : Rajiv Gandhi Centre for Aquaculture
- SIP : Sanitary Import Permit
- Vehicle : Insulated transport vehicle

3. PROCEDURE FOR IMPORT OF SPF POLYCHAETE WORMS

3.1. CONDITION FOR IMPORT

- Firms/companies approved by the Department of Fisheries, Ministry Fisheries, Animal Husbandry and Dairying, with a valid Sanitary Import Permit (SIP) can only import the SPF Polychaete worms into India.

- The importer shall import the SPF Polychaete worms only from the cultured source i.e. a farm or multiplication centre or breeding facility as the case may be, registered or recognised by the Competent Authority of the Exporting Country.
- The facility of the exporter must be an SPF facility with a history of good performance of the stock in the field within that country or any other country where the stock has been exported to.

3.2. CERTIFICATES TO ACCOMPANY THE CONSIGNMENT

- The following certificates in original, issued by the Competent Authority of the exporting country should accompany the consignment of SPF Polychaete worms and the certificate should be timely submitted to AQ&CS as per their procedural requirements:
 - o A certificate confirming the SPF status of the SPF Polychaete worms with reference to the pathogens relevant to SPF shrimps.
 - o A certificate indicating the history of disease occurrence in the breeding facility of the exporter for the last two years.
 - o A certificate indicating that the batch of exported SPF Polychaete worms was held in pre-quarantine for a period of 12 days and the stock was free from OIE listed pathogens as well as following pathogens of concerns for SPF shrimps:
 1. Necrotising hepatopancreatitis bacterium - Proteobacterium (NHPB)- (presently under study for inclusion in OIE list)
 2. EHP
 3. Decapod iridescent virus 1 (DIV1)
- The testing should have been done not earlier than 15 days before the actual shipment.

3.3. CLEARANCE AT THE AIRPORT AND TRANSPORTATION OF THE STOCK TO THE IN-HOUSE AQF AT THE IMPORTER'S PREMISES

- The consignment shall have the following details information in English on the label:
 - (a) Name of the species (Scientific name and the common name)
 - (b) Life stage and quantity

- (c) Country Of Origin: Name and address of the supplier of SPF Polychaete worms.
- (d) Destination: Importing country, name and address of the importer.
- The consignment shall be cleared by the AQ&CS on compliance of the sanitary requirements stipulated in the SIP and the designated staff of AQ&CS shall collect the sample from the imported consignment at the airport in the presence of a Scientist/Technician from CIBA / RGCA.
- After the clearance by AQ&CS, the consignment shall be handed over to the representative of the importer for transporting it to the site of in-house quarantine approved by a team of experts led by the Regional Quarantine Officer of AQ&CS with the representatives from CIBA and CAA as members.
- The importer shall transport the consignment from airport to the in-house AQF through a vehicle under bio-secure condition.
- The imported stock shall not be opened at any place during the transit.

4. STANDARD OPERATING PROCEDURE FOR IN-HOUSE AQF

4.1. RECEIVING AT IN-HOUSE AQF

Vehicle shall pass through tyre bath at the importer's premises before reaching the receiving point. The following procedures shall be adopted for unloading and further action;

- The entire consignment shall be unloaded at the receiving point. All the personnel involved in unloading must disinfect their hands, apron, coat and shoes before and after unloading.
- The polythene bags containing the polychaete worms shall be transferred to quarantine space in the presence of AQ&CS staff.
- The other packing material shall be discarded at the receiving points.

4.2. QUARANTINE SPACE

- Quarantine space is a bio-secured space for holding the imported stock of SPF polychaete worms under controlled temperature in the range from 80C to 100C.
- The imported stock of SPF polychaete worms shall be kept in the quarantine space at least 12 hours from the time of arrival at the Quarantine facility.

4.3. SAMPLING FOR PATHOGEN SCREENING

- The sample drawn from randomly selected bags/packets shall be pooled for screening of relevant pathogens by using appropriate technique in accordance with OIE protocol.
- The sample shall be referred to AQF laboratory at Neelankarai or CIBA laboratory or any other accredited laboratory for testing of relevant pathogens of SPF shrimp.

4.4. ISSUE OF QUARANTINE CERTIFICATE

- Based on the test report of the sample, the imported material will be cleared for intended use if no pathogen is detected. AQ&CS shall issue necessary Quarantine Certificate accordingly.
- In the event of detection of any relevant pathogen, the sample will be sent to CIBA as referral lab for validation/confirmation.
- In case of confirmation, the AQ&CS shall order for destruction of the imported stock appropriately.

4.5. RELEASE OF QURANTINED SPF POLYCHAETE WORMS

- Only after issuance of the necessary quarantine certificate, the importer shall be allowed to use the imported stock in production facility or for direct retail as the case may be.
- In case the import is intended for breeding and multiplication of SPF Polychaete worm, the importer shall establish a proper and fully bio-secured facility for this purpose before importing the SPF polychaete worms.
- In case of violation of any condition of the sanitary protocol, the SIP issued to the importer shall be cancelled and the importer shall not be allowed future import of SPF Polychaete worms.

4.6. RECORD KEEPING

- Importer shall maintain record of details inter alia including quantity imported, survival, mortality, disease found if any, production, retail of the SPF polychaete worms.
- The importer shall submit the requisite data/details to the Ministry as and when asked for.

MINISTRY OF HEALTH AND FAMILY WELFARE

(Department of Health and Family Welfare)

NOTIFICATION

New Delhi, the 12th March, 2025

S.O. 1158(E). - Whereas the Central Government is satisfied that the use of drug formulations containing Chloramphenicol or Nitrofurans drugs are likely to involve risk in any food producing animal rearing system whereas safer alternatives to the said drugs are available;

And, whereas, the Central Government is satisfied that it is necessary and expedient in the public interest to prohibit the import, manufacture, sale and distribution of all formulations containing Chloramphenicol or Nitrofurans drugs for use in any food producing animal rearing system;

Now, therefore, in exercise of powers conferred by section 26A of the Drugs and Cosmetics Act, 1940, and after consultation with the Drugs Technical Advisory Board, the Central Government hereby prohibits the import, manufacture, sale and distribution of the following drugs, for use in any food producing animal rearing system, with immediate effect, namely -

- “(1) Chloramphenicol and its formulations; and
- (2) Nitrofurans and its formulations.”

NOTIFICATION

S.O. 2482(E) Dated: 15th November, 2008

Guidelines regulating the method of operation of Aquatic Quarantine for import of SPF *Litopenaeus vannamei* into India

In exercise of the powers conferred by sub-section (1) of the Section 3 of the Livestock Importation Act, 1898 (Act 9 of 1898) as amended by **Livestock Importation Act, 2001 (Act 28 of 2001)**, the Central Government hereby notifies the guidelines regulating the method of operation of aquatic quarantine for the import of *Litopenaeus vannamei* into India as per the schedule annexed to this notification:

SCHEDULE

1.0 Biosecurity requirements for the quarantine:

- The quarantine facility should have a wall or fence around the periphery of the premises, with adequate height to prevent the entry of animals and unauthorized persons.
- Each functional unit of the quarantine should have independent water treatment facility and water supply systems, and should be isolated from the water supply systems of other functional units.
- Water for the quarantine should be filtered and treated to prevent entry of vectors and any pathogens that may be present in the source water. This may be achieved by initial filtering through sub-sand well points, sand filters (gravity or pressure), or mesh bag filters into the first reservoir or settling tank. Following primary disinfection by chlorination, and after settlement, the water should be filtered again with a finer filter and then disinfected using ultraviolet (UV) light and / or ozone.
- The discharged water from the quarantine should be held temporarily and treated with hypochlorite solution (>20 ppm active chlorine for not less than 60 minutes) or other effective disinfectant prior to discharge. This is particularly crucial where the water is to be discharged to the same location as the abstraction point.
- Entrance to the quarantine area should be restricted to the personnel assigned to work exclusively in this area and a record of personnel entering the facility should be maintained by the security personnel.

- Quarantine unit staff should enter through a shower / dressing room, where they remove their street clothes and take a shower before going to another dressing room to put on working clothes and boots. At the end of the working shift, the sequence should be reversed.
- There should be means provided for disinfection of vehicle tyres (tyre baths at the gate) feet (footbaths containing hypochlorite solution at >50 ppm active ingredient) and hands (bottles containing iodine-PVP (20 ppm and/or 70% alcohol) to be used upon entering and exiting the unit.
- An adequate number of containers should be available in the quarantine to facilitate effective daily routine movement of shrimp in and out of the facility.
- The quarantine facility should have an independent supply of water and air with separate treatment and disinfection systems and a system for the treatment of effluents to prevent the potential escape of pathogens into the environment.
- The seawater to be used in the facility must be directed to a storage tank where it will be treated with hypochlorite solution (20 ppm active ingredient for not less than 30 minutes) followed by sodium thiosulphate (1 ppm for every ppm of residual chlorine) and strong aeration.
- Used plastic containers and hoses must be washed and disinfected with hypochlorite solution (20 ppm) before reuse.
- Each holding tank should have a separate set of implements which must be clearly marked and placed near the tanks. Facilities for disinfection of all equipment at the end of each day should be available.

2.0 Import Permit and Port of entry :

- Permission for importing the broodstock of *L. vannamei* shall be granted by the Coastal Aquaculture Authority (CAA) according to the annual requirement of Specific Pathogen Free (SPF) *L. vannamei* broodstock to the eligible applicants.
- The CAA in consultation with National Fisheries Development Board (NFDB), Central Institute of Brackishwater Aquaculture (CIBA) and the Marine Products Export Development Authority (MPEDA) shall short-list the SPF *L. vannamei* suppliers based on the genetic base and disease status. Import of SPF broodstock shall be permitted only from such suppliers.

- Chennai shall be the designated port of entry for the import of SPF broodstock.

3.0 Pre-border quarantine requirement :

- The following certificates in original, issued by the competent authority of the exporting country should accompany the consignment of SPF broodstock and copies of the certificates should be made available to the quarantine officer at least 2 days before arrival of the consignment.
- A certificate indicating the SPF status of the broodstock in relation to the pathogens excluded in the shrimps.
- A certificate indicating the history of disease occurrence in the broodstock rearing facility of the exporter for the last two years.
- A certificate indicating that the batch of exported broodstock was held in pre-quarantine for a ¹[minimum] period of 12 days and the results of the tests for the following pathogens should be included.
 1. Taura syndrome virus (TSV) (OIE listed)
 2. Yellowhead virus (YHV) (OIE listed)
 3. Infectious myonecrosis virus (IMNV) (OIE listed)
 4. Infectious Hypodermal and Haematopoietic Necrosis Virus (IHHNV) (OIE listed) ²[]
 6. White spot syndrome virus (WSSV) (OIE listed)
 7. Necrotising hepatopancreatitis bacterium a-Proteobacterium (NHPB)]³
 8. ⁴[Acute hepatopancreatic necrosis disease (AHPND) (OIE listed)]
- The testing should have been done not earlier than ⁵[20 days before the actual shipment.]

Note : The principal notification was published vide No. S.O. 2482(E) dated the 15th October, 2008 in the Gazette of India, Extraordinary, Part II, Section 3, sub-section (ii), dated the 20th October, 2008 and subsequently amended vide number S.O. 2213(E) dated the 31st August, 2009 and S.O. 783(E) dated the 21st April, 2011.

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1. Substituted *vide* S.O. 783(E), dated 21.04.2011
 2. [Baculovirus penaei (BP)(OIE listed) deleted vide S.O. 1392(E), dated 19.06.2012
 3. This pathogen is presently under study for inclusion in OIE List
 4. Inserted *vide* S.O. 2284(E), dated 30.06.2016
 5. Substituted *vide* S.O. 783(E), dated 21.04.2011

- Before shipment, detailed information on the actual quantity / number of broodstock to be imported should be furnished in the form of package slip indicating the number of cartons they are packed in.

4.0 Quarantine requirements :

- The importers should book their space in the quarantine facility well in advance by providing copies of the relevant documents to the Animal Quarantine Officer and paying the requisite fees as may be fixed by the Ministry of Agriculture (Department of Animal Husbandry, Dairying & Fisheries).
- Clearance of the consignment of SPF broodstock at the airport, its transportation to quarantine facility along with the quarantine staff, maintenance at the quarantine facility and repacking and transportation to the hatcheries shall be the responsibility of the importer.
- The packing materials should be of good quality in order to avoid any accidental damage.
- The space in the carton should comply with acceptable densities specified for *L. vannamei*.
- The consignment should not be opened at any transit point. If it is found to be tampered, the entire consignment shall be rejected and the animals destroyed.
- The importer shall receive the consignment only at Chennai.
- Precautions should be taken to prevent spillage of water and damage to the containers during transportation.
- In the event of any accidental spillage of water during transport, the importer shall ensure the decontamination of water using OIE approved disinfecting procedures.
- There shall be a gross inspection of the consignment on arrival by the Animal Quarantine Officer but before its despatch to the quarantine facility. The quarantine staff may accompany the consignment till it reaches the quarantine site and the consignment will be opened at the specified site in the presence of the representatives from Coastal Aquaculture Authority (CAA) and Central Institute of Brackishwater Aquaculture (CIBA) to ensure that the supply has been received in good condition and as per the terms and conditions of the permission for import of *L. vannamei*.

- The samples from the imported shrimp should be collected before releasing them into the tanks at the quarantine facility.
- The vehicles used for transport of the exotic broodstock from the airport to the quarantine facility shall be disinfected immediately after the transfer of the animals to the quarantine and the containers used for the transport will be destroyed under supervision of the team as may be designated by the CAA.
- A [quarantine period of five days] in case of shrimp broodstock shall be observed to ensure that the consignment is free of diseases and poses no risk.
- The brooders in the quarantine will be tested by CIBA for all known pathogens through OIE prescribed methodologies. The health of the brooders shall be monitored everyday and the visual changes recorded in a register. Mortality, if any, shall be recorded in a separate register. The moribund or visibly weak animal shall be preserved in ethanol and formalin for further disease investigations.
- No live feed shall be given to the brooders during the quarantine period. Only pelleted feed of standard companies shall be used for feeding after check for any pathogen. The leftovers and metabolic wastes should be removed immediately as per the quarantine procedures.
- Disinfectant bath of 1 : 2000 KMnO_4 should be maintained in the quarantine facility and all persons entering or leaving should wash their hands and feet in the bath.
- During the initial ten days period of quarantine, if any exotic disease is observed the entire broodstock should be destroyed.
- An appropriate incinerator should be installed in the quarantine for destroying the infected stock.
- After clearance from the quarantine, the imported broodstock shall be handed over to the importer.

5.0 Disinfection methods:

A) Effluent Disinfection:

- All waste waters released from the quarantine / hatcheries should be disinfected with chlorine and then dechlorinated before release. The Effluent Treatment System (ETS) should be designed to handle the total water volume used in the quarantine.

B) Carcass disposal by incineration:

- The dead animals shall be incinerated.

C) Disinfection of equipments:

- 200 ppm of free chlorine shall be applied overnight for disinfection of equipment.

D) Disinfection of Buildings:

- 17.5 g potassium permanganate and 35 ml of 37% aqueous formalin per 100 cubic feet area should be used for disinfection of building.





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