

(Bihar Act---, 2018)

THE BIHAR FISH SEED CERTIFICATION & ACCREDITATION ACT-2018
AN
ACT

Preamble:

To provide quality fish seeds which ensure production and potentiality in the grow-out farm in a scientific manner for a successful and sustainable enterprises. To strengthen seed certification and accreditation to meet the requirement of qualitative & quantitative seeds for sustainable aquaculture.

Be it enacted by the legislature of the State of Bihar in sixty eighth year of the Republic of India as follows:-

1. Short title, Extent and Commencement –

- (i) This Act may be called The Bihar fish seed certification & accreditation Act, 2018
- (ii) It shall extend to the whole of the State of Bihar.
- (iii) It shall come into force with immediate effect.

2. Definitions: - In this Act, unless the context otherwise requires:-

- (i) **Accreditation-** a procedure by which a competent authority gives formal recognition that an eligible fish seed farm is competent to carry out fish breeding, rearing of seed.
- (ii) **"fish"** includes shell fish and fish in all stage in its life-history.
- (iii) **Brood fish:** - A mature/gravid fish (male & female) having ripened gametes for producing hatchling/spawn.
- (iv) **Brood bank:** - Stocking of genetically matured fishes ready for breeding purposes.
- (v) **Certification:** - A procedure by which a fish seed farm recognized by accrediting agency gives written assurance those product/services of fish hatchery confirms to the specific requirement.
- (vi) **Certified fish seed:** - Seed produced by an accredited fish hatchery or fry raised by an accredited fish seed farm duly certified by the producers that their produce (spawn/seed) is in consonance with specific norms. Certified fish seed shall be used only for table fish and not for raising brood stock/breeding purposes.
- (vii) **Exotic fish:** - A group of culturable fishes from outside the Indian subcontinent introduced with proper quarantine measures.
- (viii) **Fish Feed:** - Formulated feed made from cereals, bran, Soya cake/Mustard oil cake etc. enriched with mineral mixture and other vitamin generally available in mash, sinking and floating form.
- (ix) **Fish Seed Farm:** -Farms used to raise quality fish fry, fingerlings/yearlings to be used in aquaculture practices from accredited hatchery.
- (x) **Fish breeding:** - Captive propagation technology by which brood/gravid fish are artificially made active to produce their progeny/early stages of life cycle/spawn.
- (xi) **Fish Hatchery:** - Fish hatchery is a production unit that uses brood stock, breeding and husbandry practices as per norms and produces quality fish seed at the earlier

stage of life cycle of fish such as spawn or equivalent stages specific to species through.

- (xii) **Indigenous cultivable species:** - A group of native fresh water cultivable fishes found in geographical areas of Indian sub-continent.
- (xiii) **“Control Breeding”** means natural/induced breeding of fish made in confined water bodies
- (xiv) **In-breeding:** - Breeding between two closely related species or individuals.
- (xv) **“Cross Breeding”** means breeding of fish made artificially between two different species
- (xvi) **Multiple/Repeated breeding:** - Breeding of carps more than once within a single breeding season.
- (xvii) **Nursery Tank:** - Small, shallow tank measuring not less than 5 to 10 decimal used for stocking/nursing fish spawn to raise fry stage.
- (xviii) **Rearing Tank:** - Medium size tank with considerable depth measuring 10 to 25 decimal used for stocking/nursing fry size to raise fingerling stage.
- (xix) **Seed Bank:** - Stocking of genetically improved and active seed.
- (xx) **Spent brooder:** - Brood fishes after spawning.
- (xxi) **Sterilization of Nets:** - Nets immersed in prophylactic medium to prevent any contamination in aquatic eco system.

3. Constitution of a State Level Seed Certification & Accreditation Committee

The State Government shall within six months from the date of commencement of this Act, by notification in the Official Gazette, constitute a committee to be called the *State Level Seed Certification & Accreditation Committee (SLSC & AC)* to exercise the powers conferred on and the functions assigned to it under this Act.

(i) The *State Level Seed Certification & Accreditation Committee (SLSC & AC)* will be constituted comprising of the following members:-

- | | | |
|---|---|-------------------|
| a) Director of Fisheries | - | Chairman, |
| b) Representative, ICAR, Patna | - | Member, |
| c) Representative, College of Fisheries | - | Member, |
| d) Joint Director Fisheries, (Research) | - | Member, |
| e) Joint Director Fisheries (State Project Unit) | - | Member Secretary, |
| f) Deputy Director Fisheries (State Project Unit) | - | Member. |

(ii) Duties of the State Level Seed Certification & Accreditation Committee

The State Level Seed Certification & Accreditation Committee shall have the following duties:—

- (a) Suggestions to the Government on all matters relating to fish/seed production, rearing, stocking, marketing, transport, import and export of fish seed and its monitoring throughout the State;
- (b) Registration of the fish seed farms and hatcheries.
- (c) Decide requisite protocol for Fish seed certification and Accreditation;
- (d) The standard operational practices of fish feed; fish seed rearing and fish culture;

(e) To make such other suggestions as may be required for carrying out the provisions of this Act and to perform any other duties which are supplemental, incidental or consequential to the aforesaid duties.

(iii) Functions of the State Level Seed Certification & Accreditation Committee

(a) The State Level Seed Certification & Accreditation Committee shall issue, advisory & directions for the regulation of fish seed and fish feed for fish seed rearing and fish culture.

(b) The State Level Seed Certification & Accreditation Committee shall identify the public water bodies, ponds, etc. for conducting fish seed rearing and fish culture with the prior approval of the Government and declare such water bodies or ponds as fish seed farm for carrying out the fish seed rearing and fish culture.

4. Constitution of a District Level Seed Certification & Accreditation Committee

The Government may, within six months after the commencement of the Act by notification establish District Level Seed Certification & Accreditation Committee.

(i) The District Level Seed Certification & Accreditation Committee will be constituted comprising of the following members:-

- | | | |
|---|---|------------------|
| a) Deputy Director of Fisheries of the Range | - | Chairman , |
| b) District Fisheries Officer-cum-Chief Executive Officer | - | Member Secretary |
| c) Fisheries Expert from University/ College/KVK etc. | - | Member, |
| d) Representative of Progressive Fish Farmer | - | Member |
| e) Representative of Fishermen Cooperative Societies | - | Member. |

(ii) Duties of the District Level Seed Certification & Accreditation Committee.

The District Level Seed Certification & Accreditation Committee shall have the following duties:—

- (a) to advise the State Level Seed Certification & Accreditation Committee on all matters relating to registration of fish seed farms and hatcheries and fish seed certification;
- (b) to provide licences for the fish seed rearing and fish culture to fish seed farms and hatcheries;
- (c) to enforce the provisions of the Act and the rules made there-under.

The District Fisheries Officer-cum-Chief Executive Officer shall execute all decisions of the District Level Seed Certification & Accreditation Committee.

5. Establishment and Functions of Fish Seed Laboratories

i. (a) The Government may, by notification, establish State/Range/District level fish seed/feed laboratories or declare any existing laboratory as a fish feed /seed laboratory where analysis of fish feed/seeds of any notified kind or variety shall be carried out by Fisheries Expert and to carry out any other functions entrusted to it by or under this Act or the rules made there-under.

(b) The laboratories referred to in sub-section (a) shall also act as nodal labs for control and co-ordination of laboratories established in the private sector and public sector.

ii. Power to notify kind or variety of fish seed

(a) If the Government, after consultation with the State Level Seed Certification & Accreditation Committee, is of opinion that it is necessary or expedient to regulate the quality of fish seed of any species to be sold for purposes of fish seed rearing or fish culture, it may, by notification declare such kind species to be a notified for the purposes of this Act and may notify different species for different areas of the state.

(b) The Government may, by notification, ban or prohibit the collection or sale of fish seed from natural sources for a specific period for any reason as a conservation measure.

iii. Power to specify size of different species of fish seed

The Government may, in consultation with the State Level Seed Certification & Accreditation Committee, by notification, specify,—

(a) the minimum size with respect to fish seed of notified species;

(b) the mark or label to indicate that fish seed conforms to the size, source of seed and free from disease and pathogen, infections and other particulars as may be specified from time to time by Government.

6. REGISTRATION AND GRANT OF LICENCE

A. Regulation of fish seed rearing, fish culture and sale of notified fish seed—

No person, society, association, agency, firm, entrepreneur, private Ltd company, NGO or body of persons shall, himself/herself or by any other person on his/her behalf, carry on fish seed rearing or fish culture in any fish farm or hatchery or do marketing, export, import of any fish seed of any notified species, unless,—

(a) a registration certificate for the fish seed farm or hatchery has been obtained .

(b) a licence for fish seed rearing and fish culture and marketing of fish seed has been obtained from the District Level Seed Certification & Accreditation Committee

B. Registration of Fish Seed Farm and Hatchery—

(a) Application for the certificate of registration of fish seed farm or hatchery shall be submitted in such form and in such manner accompanied by such fees as may be prescribed before the State Level Seed Certification & Accreditation Committee either directly or through the District Level Seed Certification & Accreditation Committee three month before the beginning of every financial year.

(b) The fish seed farms and hatcheries shall register in such form in such manner after realising such fee as prescribed.

(c) The certificate of registration shall continue to be in force for five years from the date of issue unless it is otherwise cancelled: Provided that no such cancellation shall be made except after giving a reasonable opportunity of being heard.

(d) Where the State Level Seed Certification & Accreditation Committee considers it necessary, the owner or lessee of the fish seed farm or hatchery shall be required to exhibit the certificate of registration clearly visible at the site of fish seed farm or hatchery .

C. Grant of licence for conducting fish seed rearing, fish culture, marketing, export or import of fish seed—

(a) Application for the licence for conducting fish seed rearing, fish culture, marketing, export or import of any fish seed shall be presented before the District Level Seed Certification & Accreditation Committee three month before the beginning of financial year, in such form and manner as may be prescribed.

(b) Application forms shall be obtained from the District Level Seed Certification & Accreditation Committee or may be downloaded from the website.

(c) The District Level Seed Certification & Accreditation Committee on receipt of such application accompanied by prescribed fee shall conduct enquiry, through its office.

(d) The District Level Seed Certification & Accreditation Committee shall take a decision on the enquiry report, if it is satisfied, licence shall be issued by the District Fisheries Officer-Cum- Chief Executive Officer.

(e) The licence shall continue to be in force for the period for which registration persists from the date of its

issue unless it is otherwise cancelled:

Provided that, no such cancellation shall be made except after giving the holder of the licence a reasonable opportunity of being heard.

D. Renewal of Registration

(a) Application for the renewal of registration of fish seed farm and hatchery shall be presented in such form, in such manner and accompanied by fees, before the State Level Seed Certification & Accreditation Committee either directly or through the District Level Seed Certification & Accreditation Committee before two months of the expiry of such registration.

(b) Applications for renewal of registration shall be allowed for a further period of five years only.

(c) The State Level Seed Certification & Accreditation Committee on receipt of such application may hand it over to the District Level Seed Certification & Accreditation Committee for further enquiry and verification.

(d) The District Level Seed Certification & Accreditation Committee on receipt of these applications shall make enquiries regarding performance of previous years and if satisfied that the registration is to be renewed, prepare and forward a report as such or otherwise with reasons for the refusal to the State Level Seed Certification & Accreditation Committee.

(e) On receipt of the application together with the enclosed records, and the reports forwarded by the District Level Seed Certification & Accreditation Committee, the State Level Seed Certification & Accreditation Committee shall renew the registration in such form as may be prescribed after realizing the renewal fee as may be prescribed or refuse to renew the registration and intimate the reason for the refusal in writing to the applicant within ten days after passing such orders.

(f) The State Level Seed Certification & Accreditation Committee shall enter the renewal details of such registration in the register kept in its office in such form as may be prescribed.

E. Revocation of Certificate

If the State Level Seed Certification & Accreditation Committee is satisfied, either on a reference made to it in this behalf or otherwise, that,—

(a) the certificate granted by it has been obtained by misrepresentation as to an essential fact; or

(b) the holder of the certificate has, without reasonable cause, failed to comply with the conditions subject to which the certificate has been granted or has contravened any of the provisions of this Act or the rules made there-under; Without prejudice the State Level Seed Certification & Accreditation Committee may, after giving the holder of the certificate an opportunity of show cause, and proper enquiry if found guilty may revoke the certificate.

7. Prohibition in hatchery operations:-

- a. Use of dynamite or explosives, poison and harmful poisonous chemicals for fishing or any other operations shall be strictly prohibited.
- b. Sale of brooders is strictly prohibited.
- c. Fishes undergoing mortality due to any unavoidable reasons may be dispensed with discretion and proper care.

8. Power to make rules:

The State Government may by notification, make Rules for implementation of all or any of the provisions of this Act.

9. Bar of Jurisdiction of Court: - Save in so far as expressly provided in this Act, no Civil or Revenue Court shall have any jurisdiction in respect of dispute concerned with seed certification, accreditation, hatchery operations and allied activities.

10. Offences and Penalties:-

- (i) It shall be an offence under this Act if
- (a) Any hatchery operator/authorised staff having proper accreditation, intentionally neglects or refuses to do any act required to be done or to furnish any information required to be furnished by this Act.
 - (b) Any hatchery operator/authorised staff having proper accreditation, willfully makes a false return or false information.
 - (c) Any hatchery operator/authorised staff give or provide facility of breeding/rearing of fish seed to any unauthorised agency or person.
 - (d) Intentional water pollution/unhygienic environment in and around hatchery premises.
 - (e) In spite of direction of regulatory authority, if the hatchery operator/authorised staff fails to comply with the order/hand over the required records /Register.
- (ii) Any hatchery operator/authorised staff/any person who shall commit offences under sub-section (i) of this section, shall be punishable with the imprisonment up to six months or a fine of Rs. 500 or confiscation of the farm or with all. Such offence shall be cognizable.

11. Cognizance of offence:-

- (i) No court inferior to that of a Magistrate of the Second Class shall try any offence under this Act.
- (ii) Any legal proceeding for prosecution for an offence committed under this Act shall not be initiated without the previous sanction of the Director Fisheries, and he shall give the person a reasonable opportunity of being heard before giving sanction of prosecution.

12. Appeal

- (a) Any person aggrieved by a decision of the District Level Seed Certification & Accreditation Committee may within thirty days from the date on which the decision is communicated to him and on payment of such fees as may be prescribed, prefer an appeal to the State Level Seed Certification & Accreditation Committee.
- (b) Any person aggrieved by a decision of the State Level Seed Certification & Accreditation Committee may within thirty days from the date on which the decision is communicated to him and on payment of such fees as may be prescribed, prefer an appeal to the Principal Secretary/Secretary, Animal & Fish Resources, Govt. of Bihar,.
- (c) On receipt of an appeal, after giving an opportunity of being heard, dispose of the appeal as expeditiously as possible.
- (d) Every order passed by the Principal Secretary/Secretary, Animal & Fish Resources, Govt. of Bihar on an appeal preferred to them under this section, shall be final.

13. Removal of Difficulty:-

- i. If any practical difficulty arises in implementation of the provisions of this Act the State Government may, as occasion may require, by notification published in official gazette, do anything which is not inconsistent with the provisions of this Act for the purpose of removing the difficulty.
- ii. If any doubt arises in context of constitution or interpretation of the provisions of this Act then it may be referred to State Government for decision.

14. Repeal and Savings

- (i) All departmental rules / orders / circulars concerned with hatchery operations and allied activities which are contrary to provisions of this Act are hereby repealed.
- (ii) Notwithstanding anything contrary in any other law, Act, ordinance or any rules, regulations, circulars being into force for the time being; this act shall have overriding effect.
- (iii) Anything done or any action taken before the commencement of this Act shall be deemed to be done or action taken under this Act as if it were into force for the time being.

By order of the Governor,

(Dr. N. Vijaylakshmi)
Secretary

Animal & Fish Resources Department, Govt. of Bihar

Documents to be enclosed for the application of Accreditation of a fish seed hatchery / fish Seed farm

- 1) Identity proof of the Owner/Manager / Applicant
- 2) Land Ownership documents/ Lease document of hatchery (minimum five years)
- 3) Proof of financing, if hypothecated to financial institution
- 4) Challan (generated through GRIPS) of Accreditation fee of Rs. 500/-.

Annexure-1(A)

APPLICATION FORM FOR ACCREDITATION OF FISH HATCHERY/FISH SEED FARM

1.	Name of the fish Hatchery/Seed Farm					
2.	Address of the hatchery / Seed Farm			Village- P.O.- District- Pin- Phone No.- Fax- Email- Mobile No.-		
3.	Ownership (Govt. / Society / Individual / Private Limited Company / NGO/Corporate House)					
4.	Year of Establishment					
5.	Location of the hatchery / farm			Village- Gram Panchayat - Block- Police Station - District- Nearest Railway Station-		
6.	Educational qualifications and experience of the Proprietor/ Hatchery Manager					
7.	Farm Details					
	a). Total Land Area (ha):					
	b). Total water area (ha):					
	c). Land (ha): (own, on lease / others-specify)					
	d). Rearing Space					
	i. Brood stock ponds (No. / Area)					
	ii. Nursery ponds (No. / Area)					
	e). Hatchery infrastructure					
	i. No./ size of breeding pool (m x m x m)					
	ii. No. / size of incubation pool (m x m X m)					
	iii. Details of Brood fish maintained :					
Sl. No.	Year	Name of Species	Sex	Number	Average weight	Source

8.	Source of water (Bore well/Reservoir/Irrigation Canal/River/Dug well)					
9.	Source of energy (Electric/ Diesel or other)					

10.	Details of Seed Sale, Species-wise :	
-----	--------------------------------------	--

	Year	Number
Spawn		
Fry		
Fingerlings		
Yearlings		

11.	History of Brood stock				
	A. Origin of First Brood stock				
	i) Source, (River/Open Water Body (wild collection). Hatchery/Aquaculture farm)				
	ii) Place and Year of Collection				
	iii) Size range and Number of stocking.				
	B. History of Replenishment				
	i) Source, (River/Open Water Body (wild collection). Hatchery/Aquaculture farm)				
	ii) Place and Year of Collection				
	iii) Size range and Number of stocking.				
	C. Own Brooder raising program (Year wise)				
12.	History of Disease Outbreak, if any				
	Year	Disease	Description/Remarks	Cause	Treatment/preventive measures adopted

Date:

Signature of Applicant

Place:

Recommendation:

Certified that the above informations are correct to the best of my knowledge.

Signature & seal of

Date:

Place:

District Fisheries Officer-cum-
Chief Executive Officer.....

Annexure-1(B)

RENEWAL APPLICATION FORM FOR ACCREDITED HATCHERY/FISH SEED FARM

1.	Name of the Hatchery/Seed Farm	
2(a)	Address of the Hatchery / Seed Farm	Village - P.O. - District Pin Phone No.- Fax E-mail Mobile No. -
2(b).	Previous Accreditation No. & Date	No. Date:
3.	Proof of Ownership.	
4.	Year of Establishment	
5.	Location of the hatchery/fish seed farm	Village- Gram Panchayat - Block- Police Station - District- Nearest Railway Station-
6.	Educational qualifications and experience of the Proprietor/ Hatchery Manager	
7.	Farm Details	
	a). Total Land Area (ha):	
	b). Total water area (ha):	
	c). Land (ha): (own, on lease / others-specify)	
	d). Rearing Space	

		i. Brood stock ponds (No. / Area)				
		ii. Nursery ponds (No. / Area)				
		e). Hatchery infrastructure				
		i. No./ size of breeding pool (m x m x m)				
		ii. No. / size of incubation pool (m x m X m)				
		iii. Brood fish maintained for the last 5 years:				
Sl. No.	Year	Name of Species	Sex	Number	Average weight	Source
8.	Source of water (Bore well/Reservoir/Irrigation Canal/River/Dug well)					
9.	Source of energy (Electric/ Diesel or other)					
10.	Seed Sale, Species-wise:					
			Year	Number		

Spawn		
Fry		
Fingerlings		
Yearlings		

11.	History of Brood stock				
	A. Origin of First Brood stock				
	i) Source, (River/Open Water Body (wild collection). Hatchery/Aquaculture farm)				
	ii) Place and Year of Collection				
	iii) Size range and Number of stocking.				
	B. History of Replenishment				
	i) Source, (River/Open Water Body (wild collection). Hatchery/Aquaculture farm)				
	ii) Place and Year of Collection				
	iii) Size range and Number of stocking.				
	C. Own Brooder raising program (Year wise)				
12.	History of Disease Outbreak, if any				
	Year	Disease	Description/Remarks	Cause	Treatment/preventive measures adopted

Date:

Place:

Signature of Applicant

Recommendation:

Certified that the above informations are correct to the best of my knowledge.

Date:

Signature & seal of

Place:

District Fisheries Officer-cum-
Chief Executive Officer.....

Annexure - II

Enquiry report of Seed Certification & Accreditation of Fish Hatchery/ Fish Seed Production Unit in the District.....

The Application of Shri/Smt..... S/o W/o of under P.S. was enquired by me onfor his/her/their (Name of hatchery/ seed producing unit) which is located at for obtaining Seed Certificate & Accreditation in Bihar.

- 2. Type of Hatchery/seed producing unit (Carps/Air Breathing/Ornamental/Fresh water Prawn/Tilapia)
- 3. Necessary Infrastructural facility available in the hatchery (specify area in meter in each item. Separate sheet may be used)
(a) Overhead Tank. - Yes/No (b) Breeding Pool - Yes/No (c) Incubation Pool - Yes/No
- 4. Technical manpower nos. engaged for breeding operation, nursery management & Brood Stock Management.
- 5. Total area ha and water areaha is in possession of the applicant covering nursing tanks, rearing tank & brooder stocking tank.
- 6. Water qualities - Test Report/ Analysis Report enclosed - Satisfactory/Not Satisfactory
- 7. History of disease outbreak if any:

Sl.No	Name	Year	Treatment	Remarks
(i)	Spawn			
(ii)	Fry			
(iii)	Fingerlings			
(iv)	Naupli			
(v)	Post larvae			

- 9. Source of water (in case of Bore well /irrigated Canal / Reservoir/River / Stream) suitable for hatchery - Yes/No
- 10. Fee deposited for Certification & Accreditation Rs.500/- (Five hundred) only Vide T. R. Challan No. Dated as a) Fee:.....
b) Fine:
- 11. Feeding Schedule:
a) Is the ingredients used for brood stocking tank / nursery tank / rearing tank is of good quality?-Yes/No. b) Hormone / Antibiotics used - (under optimum level) - Yes/No.
- 12. Is the Seed Production Unit well equipped with the arrangement for oxygen packing for the fish seed to be transported? - Yes/No.
- 13. Health assessment of Fish Seed (Spawn/Fry/Fingerlings)-(i) Very good..... (ii) Good..... (iii) Not-suitable.....
- 14. Whether Standard Metric weight/Container/ Bati is used by the applicant in each transaction - Yes/No

15. Remarks if any :

Should be mentioned clearly whether-

- i) Genetic Introgression/Genetically degraded Hybridization is done or not.....
- ii) % of deformed seed in the hatchery unit..... (Should be less than 0.5%) (iii) Seed Certificate may be / may not be issued in favour of the applicant subject to the notification vide Memo.....date-----.

Date:

Place:

Signature of the enquiring Officer
with Designation

Memo No..... /

dt.....

Seen and verified the contents of the application. Recommended and forwarded for necessary and appropriate action for issuance of certificate in favour of the hatchery unit/ fish seed farm.

Date:

Place:

District Fisheries Officer-cum-
Chief Executive Officer.....

Annexure-III

SELECTION OF SPECIES IN THE FISH HATCHERY UNIT

All type of fish seed to be healthy, no external sign of infection, swimming condition is very good and swiftly moving.

Species Recommended:

- (1) (A) **Carp**s: (a) Indian Major Carps: (IMC)
Catla catla, *Labeo rohita*, *Labeo calbasu*, *Cirrhinus mirigala*
b) **Minor Carps** :- *Labeo bata*,
c) **Chinese Carps**: *Cyprinus carpio*, *Ctenopharyngodon idella*, *Hypophthalmichthys molitrix*, (Common carp, Grass carp, Silver carp)
- (2) Female Catla and male Rohu (**Nadan**) or any other hybrid varieties developed through Captive breeding of the parents between two taxonomical entities,
- (3) **Improved variety**: Genetically improved variety, developed through breeding programme from parents of the same genus.
- (B) IMC Seed:
Spawn: upto 8.00 mm
Early fry: 9 - 25 mm
Fry: 26 to 50 mm
Advanced Fry: 51 to 100 mm
Fingerling more than 100 mm

(1 ml volume of spawn count is less than 600 nos).

It is very important to note that any species particularly the exotic species/strains introduced without approval of the SLSC & AC, Bihar will be a high risk to the entire certification process.

(C) **Air breathing**: 3 Air breathing catfishes viz *Magur (Clarias batrachus)*, *Singhi (Heteropneustes fossilis)*, *Koi (Anabas sps.)* are cultured in Bihar out of which two (magur & singhi) are being cultured on commercial basis.

(D) **Pangasius sps.** - is a prospective Catfishes conducive for commercial/culture practices.

(E) **Fresh water prawn**: *Macrobrachium sps.* are widely cultured in fresh water in Bihar

(F) **Ornamental fishes**: Aquatic species of fresh/brackish/marine water origin having commercial value as a live display or exhibition item due to their appearance, colour, shape, and any other morphological or behavioural traits.

Tropical ornamental fishes like Angel fish, Gourami, Platy fish, Sword tail, Gold fish, Siamese fighting fish (fighter) etc. beside it, different indigenous sps. readily available in the aquatic ecosystem of Bihar can also be used as ornamental fishes in the State of Bihar.

Stocking Density:

Carps: Not less than 2 kg. in size in the hatchery unit (Stocking density 1000-3000 kg/ha.)

Catfish: 2-3 nos./sq m (size-15 - 20 mm)

Fresh water prawn: 1 - 2nos./sq m ; size more than 20 mm ; clear smooth shell, without any black spot or appendage loss

Ornamental fishes- Selective nos.50-100/sq m (Direct Ground water is preferred, free from algal blooms).

Annexure-IV

A. VARIOUS WATER QUALITY PARAMETERS

For accreditation of hatchery, an assessment of water quality will be made twice a year. First assessment during the period of hatchery operation and second after six month. The following are the water supply and quality parameters/requirements for a fish seed production unit.

water	parameters/requirements
Water supply	Adequate , from a regular and dependable source
Types of water sources	Direct ground water (to be collected in open pond before pumping) open water body such as rivers, streams, lake etc, (To be allowed only if found to be free from any kind of pollution/contamination)
Water Quality	Free from algal blooms , Free from pesticides and heavy metal contamination, Free from pathogens causing relevant diseases, and Test report/ analysis are mandatory generated through standard test procedures needs to be enclosed.

Annexure-V

Screening for pathogen and disease

Screening for swimming and food acceptability	<p><u>Active</u> Actively swimming in the water column non directional movement Ready acceptability/immediate gulping of natural/artificial feed</p> <p><u>Inactive</u> Surface and sluggish swimming, circular range bound motion Non inclination for feeding Note: Inactive seed should be less than 5%</p>
Screening for structural abnormality	<p><u>Normal</u> Straight curvature distinctly differentiated into head trunk and tail.</p> <p><u>Abnormal</u> Bend trunk and tail Note: Structurally abnormal seed should be less than 1%</p>
Screening for diseases	No external sign of infections
Screening for genetic introgression and hybrids	Negative report in visual examination of morphological features (from fingerling stage onwards)

Annexure-VI

Infrastructure facilities for all varieties of fishes:

1. The infrastructure facilities for hatchery and fish seed raising units should be indicative and not exhaustive, need to vary from different seed production facilities.
2. The appropriate level of flexibility can be allowed, with respect to the construction and layout of the physical facilities at the time of verification, depending upon the local circumstances provided the specified capacities, water quality, Brood stock assessment reports are compliant to the norms.
3. Component viz soil and water quality testing facilities, store room, staff quarters and security systems are optional and should be built as per requirements and convenience.