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

Krishi Bhawan, New Delhi-110001  
Dated the 30<sup>th</sup> July, 2021

To,

Secretary (Fisheries),  
All the States and UTs

**Subject: Guidelines for import of Pangasius (*Pangasianodon hypophthalmus*) seed and broodstock in India-regarding**

Sir/Madam,

I am directed to enclose herewith a copy of the approved Guidelines for import of Pangasius (*Pangasianodon hypophthalmus*) seed and broodstock in India for information and necessary action.

**Encl.: As above**

Yours faithfully,

  
(I. A. Siddiqui)

Fisheries Development Commissioner (i/c)

**Copy for information to:**

1. Commissioner/Director of Fisheries , All the States and UTs
2. All the Quarantine Officers, Animal Quarantine and Certification Services.
3. Asst. Commissioner (Trade), DAHD, Chanderlok Building, Janpath, New Delhi

**Guidelines for import of Pangasius (*Pangasianodon hypophthalmus*) seed and brood stock into India**

**July, 2021**



सत्यमेव जयते

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

# Guidelines for import of *Pangasius (Pangasianodon hypophthalmus)* seed and brood stock in India

## 1. Preamble

Shark catfishes form assemblage of diverse species depicting different size range under the family Pangasiidae. The family comprised of about 30 species spread in fresh and brackish waters across southern Asia, from Pakistan to Borneo. Out of these, 28 species are distributed in South-East Asia and 2 in South Asia. Among these, *Pangasianodon gigas* is known as largest known fresh water fish. Several species are the basis of productive aquaculture industries in Vietnam's Mekong Delta including widely cultured *Pangasianodon hypophthalmus*. The present guidelines are targeted only for the species *P. hypophthalmus* and not for any other species under Pangasiidae.

*Pangasianodon hypophthalmus* (Sauvage, 1878) or *Pangasius sutchii*, Fowler, 1937, known as iridescent shark or Pangasius is one of the major cat fish species of the Mekong River system. *P. hypophthalmus* forms the largest and most important inland fisheries in the world. Aquaculture of the fish first began in Vietnam in 1940's and continues today along the Mekong river delta basin and also spreading in other regions. Owing to numerous cultivable traits i.e. hardy nature, resilient to diverse habitats, wider food spectrum, adaptability to stocking in higher density, readily acceptance to floating feed, amenable for artificial breeding and high demand in domestic and export market, the aquaculture of Pangasius is gaining popularity among the farmers and aqua-entrepreneurs, in the region. The fish have been introduced under aquaculture diversification plan to several other Asian countries including Bangladesh, China, India, Indonesia, Malaysia and Myanmar. The fish was first introduced into India during 1995-1996 from Thailand via Bangladesh named as *Pangasius sutchi*. In India, production of *P. hypophthalmus* was recorded more than 0.7 million tonnes. There has been a steady increase in the culture of *P. hypophthalmus* by small, marginal and progressive farmers of the country. Aquaculture of Pangasius is undertaken in polyculture, monoculture, high density culture in ponds & cages and re-circulatory systems.

Trans-boundary movement of Pangasius and other exotic fish species across the continent is likely to increase further in future with the objective to enhance the fish production, farmers income and to cater rising market demand. However, introduction of exotic aquatic species may pose risk in terms of genetic contamination, disease introduction and ecological alterations with possible threat to native genetic resources. Movements of live aquatic

animals and animal products have been known to cause introduction of exotic diseases into new areas causing severe losses in native species of animals. Therefore, it is essential to have guidelines for regulating the import of *Pangasius* seed/ brood-stock into India, in order to minimize the possible negative impacts.

The proposed guidelines are applicable for the import of *Pangasius* seed/broodstock for culture purpose by private farmers and entrepreneurs. These guidelines provide a framework for responsible fisheries with due consideration of relevant biological, technical, economic, social, environmental and commercial aspects.

## 2. Definitions

**Accidental escape** means escape of aquatic organisms into the natural water body unknowingly by the importer / farmer / culturist/ floods.

**Aquatic animals** means all life stages (including eggs and gametes) of fish, molluscs and crustaceans originating from aquaculture establishments or removed from the wild, for farming purposes, for release into the aquatic environment or for human consumption.

**Biohazard means** an organism, or substance derived from an organism, that poses a threat to (primarily) animal / human health. This can include medical waste or samples of a microorganism, virus or toxin (from a biological source) that can impact animal/human health.

**Biosecurity** means in general terms, a strategic and integrated approach to analyze and manage relevant risks to human, animal (including aquatic) and plant life and health and associated risks to the environment.

**Broodstock or brood fish** means a group of mature individuals used for breeding purposes.

**Certifying official** means a person authorized by the Competent Authority to sign health certificates for aquatic animals.

**Competent Authority** means the Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India. For the purpose of these guidelines, the Secretary, Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India will approve the proposals on recommendation of the National Committee on Introduction of Exotic Aquatic Species into Indian Waters, Chaired by the Joint Secretary (Fisheries).

**Consignment (also termed as shipment)** means group of live aquatic animals described in an aquatic animal import health standard, an international health certificate, a health certificate and/or in permit to import or export.

**DNA barcoding** is a taxonomic method that uses a designated portion of a specific gene or genes (proposed to be analogous to a barcode) to identify an organism to species

**Exporting country** means a country from which aquatic animals or aquatic animal products, biological products or pathological material are sent to a destination in another country.

**Fingerling** is the developmental stage of the fish after fry stage and continuing from first three to four month of life.

**Fish seed** means juvenile fishes used for stocking purposes like larvae, fry or fingerlings

**Fry** is the developmental stage of fish immediately after larvae or spawn of less than a week.

**Health certificate** is a certificate that certifies, after inspection by competent authorities, that the products are compliant with standards defined in applicable laws concerning production hygiene, microbiological standards for foodstuffs and the health condition of animal.

**International aquatic animal health certificate** means a certificate issued by a member of the personnel of the Competent Authority of the exporting country, certifying the state of health of the aquatic animals, and a declaration that the aquatic animals originate from a source subjected to official health surveillance according to the procedures described in the OIE Aquatic manual.

**International trade** means import, export or transit of aquatic animals, aquatic animal products, biological products and pathological material.

**Import license** means the requisite license for importing aquatic organism issued by the Competent Authority.

**Importer** means person / company importing aquatic organisms / aquarium accessories from outside the country.

**Invasive species** means non-indigenous species (e.g. plants or animals) that adversely affect the habitats they invade economically, environmentally or ecologically.

**Larvae** means hatchlings laden with yolk sac

**OIE-listed diseases** mean diseases that are referred to in Chapter 1.2.3. of the Aquatic Code. (Synonym: diseases listed by the Office International Des Epizooties (OIE).

**Pre-quarantine certificate** means health certificate issued by an exporting country's Competent Authority certifying the health status of a consignment of aquatic animals.

**Quarantine** means maintaining a group of aquatic animals in isolation with no direct or indirect contact with other aquatic animals, in order to undergo observation for a specified length of time and, if appropriate, testing and treatment, including proper treatment of the effluent waters.

**Quarantine officer** is 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 live aquatic animals.

**Quarantine period** means a minimum period of quarantine, typically as specified in an aquatic animal import health standard or other legally binding document (e.g. national or state regulations).

**Risk analysis** means the complete process composed of hazard identification, risk assessment, risk management and risk communication.

**Shipment** means a group of aquatic animals or products thereof destined for transportation.

**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.

**Susceptible species** means a species of aquatic animal in which infection has been demonstrated by natural causes or by experimental exposures to the disease agent that mimics the natural pathways for infection. Each disease chapter in the Aquatic Manual contains a list of currently known susceptible species.

### **3. Pre-requisites for import**

Permission to import *Pangasius* seed/ brood stock must be obtained in writing from the Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India.

### **4. Mode of application**

4.1. The farmer/ entrepreneur intending to import *Pangasius* seed/ broodstock shall apply in the prescribed format given in Annexure I.

4.2. The permission of import shall be issued by the Competent Authority in Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India, New Delhi, after examination of the proposal and due consideration of the recommendations 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.

The import permit issued:

- shall be valid for one year from the date of issue
- shall not be transferable
- no amendments to the permits shall be issued

4.3. The issuing authority may consider one revalidation of the permission not exceeding maximum of three months, provided such request for extension of validity is made to the issuing authority before the expiry of the permission with adequate justification.

4.4. Import of fish shall be allowed only through designated seaports/airports.

## **5. Import of seed and/ or brood-stock**

5.1 The importer should indicate the source of import of fish seed/ brood-stock as well as port of shipment.

5.2 Before shipment, information on actual number of seed/ fish to be imported, should be furnished.

5.3 The import consignment of seed and brood-stock will be finalized on the basis of capacity of quarantine, *i.e.* numbers that the facility can handle.

5.4 Pre quarantine and health certificate should be provided by the designated exporting agency to the competent authority.

5.5 The fish must come from an officially recognized country, zone, farm or establishment unaffected by the OIE listed diseases or any other emerging disease of significance relevant to *Pangasius* as susceptible host. The seed /fish have been subjected to an aquatic animal health surveillance programme according to the procedures as described in the “Aquatic Animal Health Code” from Office International Des Epizooties (OIE).

5.6 The broodstock or seed meant for raising brood stock must be sourced from registered farm located in a country of its native distribution (Mekong river basin). Such registered farms should have verifiable records of progeny and the imported lot of seed should be constituted by equi-proportion.

5.7 In addition to the above certificate, the shipment should undergo pre-quarantine for a minimum of two weeks and the report on diagnostic tests carried out, should accompany the shipment.

## **6. Packaging and Transport**

6.1. The packaging shall facilitate easy inspection of the consignment by the Quarantine Officer at the port of entry.

6.2. The fish to be imported must be packaged in leak-proof bags, each bag containing only one age group.

6.3 The bag must be transparent to enable proper inspection and identification of the fish and must not contain any extraneous matter, unapproved plant material, pests or unauthorized species.

6.4. The inclusion of inert material such as zeolite, activated carbon, shredded plastic or dried terrestrial plants is permitted provided the contents of the bag can be properly inspected.

6.5. No live feed is permitted during transport of seeds and broodstock.

6.6. Each bag must be placed within polystyrene boxes or cartons fitted with a plastic inner lining. Each box or carton must be clearly identified with label mentioning number and age of fish and identification number of each box/carton. In case, any sedative/anaesthetic has been used during transport, it should be clearly mentioned in the packaging list.

6.7. The consignment must be accompanied by relevant documents including case history paper including taxonomy of the imported fish, copy of import permit, copy of quarantine certificate, health certificate and other documents issued by the transport authority of exporting country.

6.8. Each consignment must only include fish seed that are sufficiently mature to permit accurate identification.

6.9 The imported seed can be subjected to taxonomic verification, in case of ambiguities.

6.10. Importer must make all reasonable efforts to expedite the clearance of the consignment and its transport to destination.

6.11. In case of trans-shipment, the consignment should be held in a sterile area of the trans-shipment point.

6.12. The consignment is identified by a legible label on the exterior of every packing bag or container with the following information:



- Name of establishment of origin or harvest
- Name of importer

## **7. Quarantine**

7.1. Each batch of consignment of Pangasius entering India (including packaging) will be examined on entry by Quarantine Officer at respective port of entry. The consignment should undergo quarantine at the importer's premises in a pre-designated area having necessary safeguards to check the spread of exotic pathogens as well as prevent the escape of the imported fish. Quarantine process will be monitored by a committee approved by the Competent Authority. They will evaluate the health of the fish, check that all documentation is in order, that only approved species are included, and that no material of quarantine concern is present. Any prohibited fish species will be re-exported or destroyed, while prohibited material or material of quarantine concern will be seized and destroyed, all at importer's expense.

7.2. The imported fish shall be accompanied by the permission of import issued by the Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India and import license issued by Directorate General of Foreign Trade (DGFT) along with pre-quarantine certificate issued by the competent authority of exporting country stating that the farm/ hatchery from where the consignment is exported, is covered under their national aquatic animal health surveillance or a pre-quarantine certificate showing status of the existing OIE and NACA listed fish diseases of the farms and exporting country with clear taxonomic specifications of the species.

7.3. On arrival of the consignment, accompanying pre-quarantine and health certificate should be verified and imported species should be rechecked at the quarantine facility and certificate of quarantine would be issued by the designated authority by checking the DNA barcode of fish.

7.4. Upon clearance from the port of entry, the consignment shall be transferred immediately to the approved quarantine facility.

7.5. On receipt of consignment at quarantine facility, the imported stock should be subjected to prescribed quarantine protocol

7.6. The imported fish would undergo quarantine in approved quarantine facility for two weeks.

7.7. During the quarantine period, animals will be screened for current OIE listed pathogen or any other emerging pathogen of significance relevant to Pangasius as susceptible host to

ascertain whether they are free from specified pathogens, as stipulated by the Competent Authority from time to time. If the stock is found containing any of the above pathogens, the stock will be destroyed by incineration or other approved methods, and water will be disinfected appropriately under the supervision of monitoring team. All the cost involved in the process shall be borne by the importer.

7.8. All bags, polystyrene boxes and cartons used for importing fish must be either incinerated or effectively disinfected by method approved by the competent authority prior to disposal.

7.9. All water imported with the consignment must be disinfected as per the standards of the competent authority prior to disposal.

7.10. After satisfactory completion of quarantine, the consignment shall be released to the importer with the quarantine certificate issued by the Quarantine Officer.

7.11. Direct sale of imported seed shall only be allowed by the registered re-seller who will maintain appropriate records of sale to the registered farms.

7.12. The imported seed/ brooders of *Pangasius* shall be used by the importer only in his own farm, approved by the competent authority, for culture purposes.

7.13. At any time at the discretion of DADF a permit/approval may be revoked or modified if these conditions are not met or if there is a change in quarantine risk.

## **8. Penalties for violations**

8.1. The importer shall strictly comply with the environmental safeguards and biosecurity requirements, exclusion and mitigation of biohazards and economic interest of the nation. The importer shall ensure that the imported fish is not released into the natural waters.

8.2. The importer shall take adequate care to prevent any accidental escape. In spite of this, in the event of accidental escape of imported fish into natural waters, the matter should be immediately reported to the competent authority and the nearest Quarantine Officer.

8.3. In case, the consignment does not pass quarantine, the entire consignment shall be destroyed at importer's cost as per the prescribed protocols.

8.4. 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 consignment actually imported are not the same or that the imported stock also consists of species for which approval has not been obtained, the import permit

shall be cancelled forthwith and all the imported stock destroyed without any notice to or permission of the importer.

8.5 Fine/punishment may be imposed by the Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India, New Delhi for the violation of the guideline.

## **9. Post quarantine Inspection:**

The Competent Authority shall have right to carry out the post-quarantine inspection of hatchery, rearing facility and farms of the importer to confirm the specified norms for assuring that the imported fishes are used for the purpose for which they are imported; and to look at the magnitude of multiplication and horizontal spread of the imported fish species. The Competent Authority may also assign this responsibility to any designated Agency/Committee as and when required. Depending upon the convenience and availability of staff, the monitoring and inspection can be carried out by any member of monitoring team or by whole team as may be decided and coordinated by the Ministry. The importer shall submit status report on transport, culture, rearing, breeding and retail etc. after the import. Report shall contain details on culture, pathogen screening, and disease, if any.

## **10. Breeding and culture of imported Pangasius**

10.1 Hatchery and fish farms intending to breed and culture Pangasius shall require to be registered with the State fisheries Department.

10.2 Inspection Team from National Committee on Introduction of Exotic Aquatic Species will visit the hatchery and farm and provide its recommendation on the suitability of the facility for breeding or rearing Pangasius fingerlings.

10.3 After the quarantine period, the brood stock will be taken to further maturations and it can be done in tanks of suitable sizes.

10.4 The breeding and seed production shall be undertaken in highly protected hatchery so as to prevent escape of larvae from the hatchery system; to ensure this the facility should be connected to a drain pond where the wastewater is collected and treated/disinfected.

10.5 In case of any outbreak of disease, the hatchery/farm may undertake distress harvesting if permitted by the Competent Authority or its designated agency. The distress harvesting shall be done through netting only and the water should be chlorinated and de-chlorinated before release into source water. However, this has to be done by informing the Competent

Authority. The concerned farm should get the disease problem investigated through Competent Authority by paying the costs for testing.

10.6 Security should be maintained to prevent theft of valuable brood-stock and the seed produced. Record of seed production (nos.) should be maintained and properly accounted for movement of seed outside the hatchery.

10.7 The imported Pangasius fingerlings, tested and certified, should be procured only from original authorized exporter.

10.8 Stocking densities for culture should not exceed beyond 20,000 fingerlings.

10.8 The farmers should maintain detailed records of the imported Pangasius culture and should be made available to the National Committee on Introduction of Exotic Aquatic Species through compliance reports (Annexure - II).

### **11. Submission of Reports by the Importer**

11.1 A standard record sheet of the each unit should be maintained. The hatcheries and farms which are permitted to rear Pangasius will submit performance report to the National Committee on Introduction of Exotic Aquatic Species indicating the number of seed produced, details of mortalities during rearing, the farms to which sold, the number of seed stocked the source and the production levels.

11.2 A record should be maintained for all water treatments.

11.3 All drugs/chemical treatment of aquatic animals must have the approval of the competent authority and record can be maintained.

11.4 Processing plant should procure Pangasius from the farms which are permitted to culture Pangasius and they should also send a report of Farm wise data on quantity of Pangasius procured, to National Committee on Introduction of Exotic Aquatic Species.

11.5 These reports will help in introducing a traceability mechanism in the entire process of Pangasius culture in the country.

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## Format of Application for importing the Pangasius seed and broodstock

- 1.0 Name of the country from where the fish is proposed to be imported:
- 2.0 Source (Wild/Cultured):
- 3.0 Purpose of the import (breeding/Culture/research):
- 4.0 Details of the import:
  - 4.1 Life stage to be imported (fingerlings; days post-hatch; broodstock):
  - 4.2 Number of seed imported
  - 4.3 Average and range of body weight (g)
  - 4.4 Average and range of total length (cm)
  - 4.5 Feed supplied (specify) during transportation (no live feed permitted)
- 5.0 Taxonomic profile
  - 5.1 If developed - Originals/ Stocks used for the development:
  - 5.2 Genetic mechanism used for developing (Selection/Hybridization/Genetic Engineering, if any )
- 6.0 Earlier import details:
  - 6.1 Approval No. and Date (issued by the Ministry):
  - 6.2 Details of License issued by DGFT:
  - 6.3 Year of import:
  - 6.4 Total number of fish imported against the permitted number:
  - 6.5 End use of the imported seed/ brood-stock in details:
- 7.0 Are the imported fish meant for export/internal market?
- 8.0 Name and Address of the firm/person importing the fish
- 9.0 The location of hatchery /farm where the imported fish will be kept:
- 10.0 Whether quarantine facility is there or not:

Date and Signature of importer with Seal

### Essential enclosures:

1. Photographs of fish to be imported (The photograph should be of the specimens of the fish from where the import is proposed and not from published or other sources).
2. Address of hatchery/farm where the fish will be maintained after importing

### Instructions for filling proforma:

No column should be left blank. If information is not available fill N.A. and if the item is not relevant, N.R.

**Compliance report from Farms**

1. Name and Address
2. Date and No. of Certificate of registration from State Fisheries Department
3. Date and No. of permission letter for culturing Pangasius
4. No of fingerlings/broodstock purchased
5. Name and address of the hatchery/ farm
6. No, and Date of the certificate of registration of the hatchery /farm
7. Letter from the hatchery indicating the number of fingerlings sold to the farmer
8. Total No. stocked
9. Total weight harvested
10. Average size at harvest
11. Days of culture
12. Details of Harvesting carried out
13. Dates on which Inspection committee visited and collected samples
14. Details of harvested fish sold to processing plants.

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