# **GUIDELINE FOR**

# **'SHAPHARI' - CERTIFICATION OF FARMS**

# for the production of antibiotic residue free shrimp







The Marine Products Export Development Authority (Ministry of Commerce & Industry, Government of India) Kochi-682 036, Kerala

# **Guideline for 'SHAPHARI'-CERTIFICATION OF FARMS** FOR THE PRODUCTION OF ANTIBIOTIC RESIDUE FREE SHRIMP

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#### DEFINITIONS

'SHAPHARI' is a Sanskrit word meaning 'Superior quality fish suitable for consumption for even an Ascetic". Shaphari is a process certification applicable to an Aqua FARM that conforms to the basic guidelines for Good Aquaculture Practices (GAP) and meeting the standards of SHAPHARI.

**'SHAPHARI PLUS+'** is an add-on process certification. This certificate is to ensure the absence of banned antibiotic residues like Nitrofuran metabolites and Chloramphenicol in the farmed shrimp. Farmers are eligible for this certification when all the ponds are brought under Pre Harvest Test (PHT) schedule of MPEDA and tested negative for two consecutive crops.

**Export Oriented Species**: Shrimp Species having export potential including *P.monodon, L.vannamei, P.indicus, P.merguiensis, Scampi, or any other species* to be decided by the Competent Authority. The new species will be added to the list on fulfilling the following criteria:

- *i.* Export Potential of the species
- *ii. Availability of suitable technology*
- *iii. Suitability of the species for farming.*

Unit: A Farm, involved in rearing of seeds/young ones to marketable size.

*Aqua Farm*: An aqua farm is a grow-out facility producing export oriented species.

Aqua farm cluster : A group of aquaculture farms in the same geographical area sharing common resources, culturing same candidate species, following same schedule of farm operations including stocking, water exchange, harvesting etc and same production system. It can be an association, society, a group of farmers having a written agreement between the individuals etc. with a minimum of 5 farmers and maximum of 50 members.

**Good Aquaculture Practices**: sustainable aquaculture methods respecting the environment, assuring an adequate use of authorized inputs and ensuring that aquaculture products comply with relevant hygiene standards and requirements for contaminants and residues when harvested, before reaching processing establishments.

**Hatchery:** A hatchery is a place for artificial breeding, hatching, and rearing through the early life stages of aquatic animals - finfish and shellfish in particular. The term also includes the Nauplii Rearing hatcheries, which source nauplii from other sources and rear to Post Larval stages for supplying to farms.

**Antibiotics and Pharmacologically active substances**: Medicines used to prevent & treat infections for shrimp.

**Certification**: A process that assesses conformity of a product or process to the certification standards. It adopts a procedure by which accredited Certification Bodies, based on an audit, provide written or equivalent assurance that food safety management systems and their implementation conform to specified requirements of product or process

Authorized Signatory of the application: The person authorized to apply for

certification under the scheme for certification of farms. Such authorization is valid only if all the partners/members of Executive Board of Society/Trust/Board of Directors unanimously approved by a special resolution (Certified by Managing Director in case of Private/ Public Ltd Companies).

**Competent Authority**: The Competent Authority for the scheme will be the

Chairman, MPEDA or an officer duly authorized by a written office order from Chairman, MPEDA.

**Standards**: The standards mean the standards defined for the purpose of enabling the Aqua farm operators to match the farm infrastructure and farm GAPs in order to qualify for certification under the scheme.

**Compliance levels**: The level of compliance required to be met by the Aqua Farm for different standards prescribed are classified as Major, Minor and Recommendations. The Major compliance requirements are of mandatory in nature and have to be achieved by the farm for getting the certification. The minor compliance requirements are essential to maintain the quality of the Shrimp, comply environment protection and social responsibility, however, not mandatory requirement for Certification. As regards to the requirements of the recommendatory nature, the standards are advisories for maintaining shrimp quality and to meet the social and environmental responsibility.

#### **2.0. INTRODUCTION**

India is the second largest fish producer in the world with a total production of 13.7 million metric tonnes in 2018-19 showing a consistent growth in the total gross value added with one percent GDP contribution and providing meaningful employment to 14 million people across the value chain in harvesting, processing packaging, and distribution (Salim, 2020). During 2019-20, India exported 12.89 lakh MT of seafood worth US\$6.68 Billion. The commodity basket of Indian fishery export is highly diversified and bulk of the exports is traded in the frozen form.

Frozen shrimp is the largest exported item, both in terms of quantity and value during the last decade. India exported 6.52 lakh MT of frozen shrimp worth US\$4889.12 million during 2019-20. Frozen shrimp constitute 50.58% in quantity and 73.21% in terms of total USD earnings. Largest market for Indian frozen shrimp is USA followed by South East Asia, European Union, China, Japan and Middle East countries. Farmed *L.vannamei* shrimp is the single largest contributor for the seafood export basked by contributing 5.12 lakh MT.

Over the past few years, frequent recalls of import rejections by developing countries has increased consumer awareness on health hazards antibiotics residue and pharmacologically active substances present in the seafood, resulted in great deal of public concern particularly in the developed countries where food safety concerns are dealt at the Governmental level.

**Rationale:** When antibiotics like Chloramphenicol are unintentionally ingested as residues in food may cause direct health concerns, such as aplastic anaemia and Leukemia and pose significant risks to human health. Similarly, Nitrofurans, which is a class of synthetic antibiotics used for the treatment of bacterial and protozoan infections in animals, inhibit a number of microbial enzymes involved in carbohydrate metabolism. They are easily metabolized in the body of animals and are known to be carcinogenic and genotoxic.

The application of antimicrobials affects targeted pathogens as well as a wide

variety of environmental bacteria, resulting in selection of AMR strains that increase the risk of horizontal gene transfer to potential human pathogens. The spread of antimicrobial resistance (AMR) has been classified by the World Health Organization (WHO) as one of the major threats facing the human population this century. The trans-boundary diffusion of AMR pathogens may occur at greater pace, it may seriously impacts the seafood trade in near future (Ravishankar, 2018).

Antibiotics are used in aquaculture either for disease prevention or prophylaxis. Although in India there is no approved list of veterinary drugs specifically for aquaculture and no agency for authorization of aquaculture drug exists, export rejection due to presence of antibiotic residues is reported. As it is not always possible to administer the antibacterial agent by injection or bath treatment, medicated feeds are used most of the times. Some of the major issues related antibiotic residues are Chloramphenicol and nitrofuran metabolites in cultured shrimps and oxytetracycline at higher levels (>100 ppb) in culture fish and shrimp (Panda, 2019)

**Regulations on Antibiotic use in Aquaculture:** Ministry of Commerce and Industry (MOCI), Government of India has notified MRLs of antibiotics and heavy metals in the marine products exported (Notification SO 792 (E) dated Aug 17, 2001). As per the MOCI notification five antibiotics viz

Chloramphenicol, Furazolidone, Neomycin, Nalidixic acid and Sulphamethaxazole are banned and no residues should be left in the animal body.

There are nine substances included of Regulation 2377/90/EEC that may not be used in food producing species because no safe level of residue can be determined: Chloramphenicol, Chloroform, Chlorpromazine, Colchicine, Dapsone, Dimetridazole, Metronidazole, Nitrofurans (including Furazolidone) and Ronidazole. The presence of such substance residues (including metabolites) is *prima facie* evidence of the use of prohibited substances in a food animal species.

#### **3.0 BACKGROUND**

European Union which is a 28 member guild of nation's accounts for 15.77 percent worth \$7.08 billion of Indian seafood exports in 2017-18 has implemented stringent norms for accepting the consignments due to quality issues. Shrimp is the most critical species in high demand after Tuna and Cod in the EU market. Major portion (98%) of this demand is met by imports and more than half is contributed by the imports from Ecuador, India, China, Vietnam, Bangladesh, and Thailand. Sample size for testing Indian consignments have been increased from 10% to 50% and this has resulted in higher cost and risk for the exporter thus shying away from sending consignments to EU. Annual shrimp requirement of EU is estimated at about million tonnes and if quality of the shrimp produced is improved, there is huge potential to tap the market.

Markets in EU have zero tolerance on antibiotic residue in seafood. There are

instances where export consignments were rejected due to the presence of traces of residues in the products above the permitted limit prescribed by International standards. The demand for residue free shrimp by international markets has necessitated freeing aquaculture sector from the use of antibiotics and other pharmacologically active substances.

**OIE listed pathogens and export:** Till recent years, disease issues in farms were known to affect only the farmer, but now it began to affect the Indian shrimp exporter as well. Countries like Australia, Saudi Arabia, Kuwait, Canada and Thailand have banned import of uncooked shrimp from India due to presence of OIE listed shrimp pathogens in the frozen consignments. There are 7 OIE listed shrimp pathogens that are known to cause serious damage to crops. Recently, China also rejected consignments due to the detection of WSSV (White Spot Syndrome Virus) in the shrimp consignment and have banned import of seafood from 10 processing units.

**Importance of Certification**: Certification of Aquaculture for production of antibiotic free shrimp has emerged as one of the main interventions to free Indian aquaculture from the use of antibiotics. This is also seen as a tool to improve the consumer confidence.

Quality Certifications issued by international bodies are expensive and beyond the reach of small and marginal producers. In this circumstance, MPEDA formulated a scheme for Certification of Aquaculture for production of

antibiotic free products in consultation with Farmer representatives, Hatchery representatives, Fisheries research institutions, EIA and CAA.

**Preparatory work for Certification of Aquaculture:** Apart from National Residue Control Programme (NRCP) and Pre Harvest Test (PHT) initiatives implemented by MPEDA, development of Certification in Aquaculture which is named as 'SHAPHARI' meaning superior quality of fishery product suitable for human consumption is another milestone initiative to address the above issue on food security.

**Stake holder meetings** were conducted in association with Society of Aquaculture Professionals (SAP) in shrimp farming areas in Tamil Nadu and Andhra Pradesh during 2018-19 to find a lasting solution to issues related to food security aspects in aquaculture production. One of the decisions of the stakeholder consultations was to start a certification scheme for export oriented aquaculture production systems that include both hatcheries and farms. Farmers were also concerned on the quality of seeds supplied by the hatcheries.

**Trial production on antibiotic free seed production protocol:** A trial study was taken up by MPEDA-RD-Vijayawada during 2019 for the production of Antibiotic free and disease free shrimp PL production using application of bacteriophage and probiotics. RD-Vijayawada conducted a total of three trials by participating 5 hatcheries in different locations.

The study clearly demonstrated that the seed production with bacteriophage and probiotic protocol is possible and the survival rate can be increased substantially by standardizing the application rates and by gaining more experience in the antibiotic free operations. Certification of Hatcheries for the production antibiotic free seeds: Based stakeholder meeting interactions, MPEDA decided to the initiate on certification of export oriented aquaculture production systems in India as a voluntary scheme. To this end, MPEDA constituted a committee comprising two representatives of All India Shrimp Hatcheries Association (AISHA), representatives of Prawn Farmers Federation of India (PFFI) and officials of MPEDA for formulating the scheme for certification of hatcheries for production of antibiotic free seeds. Draft guideline for certification prepared after a series of consultations were placed before various national and international institutions related to fisheries and Aquaculture for their comments and suggestions. Comments and suggestions were critically analysed by the committee and necessary amendments were made in the scheme and prepared the final document. The scheme is under pilot phase of its implementation with the participation of 13 hatcheries.

**Pilot phase of Shaphari certification of hatcheries:** MPEDA pilot phase of hatchery certification scheme was initiated with the participation of 13 willing shrimp hatcheries engaged in seed production since May 2020.These hatcheries were willing to undergo audit by the designated auditors and agreed to be part of the surveillance program for shrimp seed quality. These hatcheries have also shared 50% of the estimate expenditure for the certification cost.

It is anticipated that by March 2021,the above hatcheries shall complete the essential audits viz. Preliminary audit, Committee audit and Surveillance audits (4 numbers) and will be eligible/non eligible for Certification based on the audit outcome. By April 2021, MPEDA will be ready for launching the scheme for about 350 shrimp hatcheries in the country.

**Web portal for SHAPHARI:** In order to improve the consistency, credibility and transparency of the Certification process, a webportal has been designed with an intention to streamline the auditing process. The online process passes through a series of steps before issuing the certificate. Processors & exporters who are desirous of buying quality shrimp for their farms can verify the claim of the farmer by visiting the SHAPHARI web portal. SHAPHARI webportal may be linked to E SANTA web site of NaCSA for realizing maximum value for their farm produce



# 4. STANDARDS FOR 'SHAPHARI' CERTIFICATION OF FARMS

According to FAO, the minimum substantive criteria for developing aquaculture certification standards are

- a) Animal health and welfare;
- b) Food safety;
- c) Environmental integrity; and
- d) Socio-economic aspects.

The extent to which a certification scheme seeks to address the issues depends on the objectives of the scheme, which should be explicitly and transparentlystated by the scheme. Development of certification schemes should consider the importance of being able to measure performance of aquaculture systemsand practices, and the ability to assess conformity with certification standards.

The standards for certification of farms for production of antibiotic free shrimp are developed through a process of consultations with the experts in the field of farm/hatchery operation, government agencies involved in R&D, Regulatory agencies, and developmental bodies and general public. The standards proposed will be improved on a continuous basis in keeping with the modification in the scope of the scheme, improvements in the technology and scientific knowledge to ensure high quality, disease free and residue free shrimp production. The standard developed is as follows:

**4.1 SHAPHARI**: is a process certification applicable to an Aqua FARM that conforms to the basic guidelines for Good Aquaculture Practices (GAP) and meeting the standards of SHAPHARI. This certification encourages the farmer to adopt good aquaculture practices that improve the food safety of the aquaculture product.

**S-1. Farm registration**: Farm shall be enrolled with MPEDA. They may have registration with Coastal Aquaculture Authorityor the concerned State Government.

Compliance level: Major

Inspection method: Verification of documents.

**S-2. Bio-security measures**: Farms must establish adequate bio-security measures to prevent entry of bio-security threats.

Compliance level: Major

Inspection method: Visual inspection

**S-3.** <u>Pond preparation</u>: Any science based protocol to be followed for preparation of pond before stocking. Non-composted manures shall not be used.

<u>Compliance level</u>: Minor

Inspection method: Visual inspection and verification of records

**S-4.** <u>Seed quality</u>: The seeds shall be procured only from a CAA registered hatchery or SHAPHARI certified hatchery.

<u>Compliance level</u>: Major

Inspection method: Verification of record

**S-5** <u>Seed stocking and nursery rearing</u>: Maximum stocking density is as per the limit prescribed by Coastal Aquaculture Authority from time to time for nursery and grow out operations. However, stocking density should be decided based on the availability of infrastructure facilities, quality and quantity of water source, operating management etc. subject to the maximum prescribed by Coastal Aquaculture Authority.

<u>Compliance level</u>: Minor

<u>Inspection method</u>: Verification of stocking record, assess from daily feed ration and pond sampling.

**S-6.** <u>Soil and water management</u>: The Guidelines prescribed by CAA for regulation of Coastal Aquaculture to be followed. CAA registered Probiotics only to be used as soil and water conditioner.

Compliance level: Minor

Inspection method: Visual inspection and verification of record.

**S-7.** <u>Feed management</u>: Feed management should be science based and directed towards reducing feed wastage and improving the Feed Conversion Ratio. Quality feed with adequate water stability and nutritional profile and registered by CAA shall be used.

<u>Compliance level</u>: Major

<u>Inspection method</u>: Verification of feed stock registers and seed stocking record. Field monitoring of check trays and pond sampling data.

**<u>S-8. Health management</u>**: Health management is an important aspect contributing to the success of farming activity. Health Management should be oriented towards prevention of deterioration of shrimp health by providing optimal soil & water quality conditions, daily monitoring of shrimp behavior and periodic health check.

Information on disease outbreak shall be communicated to the authorised officer/designated fishery officer and follow the directions as per the rules & regulations.

<u>Compliance level</u>: Major

Inspection method: physical inspection and verification of records.

<u>S-9. Use of Antibiotics</u>: banned antibiotics & pharmacologically active substances as per CAA list / FSSAI list should not be used.

<u>Compliance level</u>: Major

Inspection method: Verification of records.

<u>S-10. Effluent management</u>: Discharge of effluents must be done through a sedimentation pond/drain/canal, which will prevent re-suspension of sediment. The effluent parameters should meet the standards set by the Coastal Aquaculture Authority. Minimize release of water to the surroundings. Saline effluent pond water should not be discharged into freshwater canals. Cluster based effluent

management system can also be adopted.

Compliance level: Minor

Inspection method: Verification of records.

**S-11. Harvest**: Shrimp harvest and transportation must be planned in advance wherever possible. The farm should have an emergency harvest plan in case of natural calamities, diseases and challenges in the market.

Harvest and transportation should be carried out to ensure freshness of the produce when it reaches the processing plants.

<u>Compliance level</u>: Minor

Inspection method: Verification of records

# S-12. Traceability & recall/withdrawal :

Farm shall have records for all the activities viz

POND PREPARATION: Record on soil conditions: Major

Treatments used for soil/water during pond preparation: Minor

BIO SECURITY: data of entry of vehicles & men: Minor

Data on filtration system & disinfection system at intake point: Major

SEED : Record of source and number of seeds, test reports, procurement & stocking, hapa survival etc. Minor

FEED: CAA registered feed/manufacturer certified feed for not having antibiotic residues, feed consumption data, data on feed supplements used: Major

POND MANAGEMENT: records on Physico-chemical parameters, microbiological data, details of probiotics and chemicals applied.: Minor

HEALTH MANAGEMENT: Pond-wise health observation during periodic samplings, PCR test reports, drug application if any.: Minor

HARVEST: Pond-wise harvest details, – count / size at time of harvest, quantity in kg, name & contact details of the person who has purchased the raw material- Major

Time of harvest, ambient temperature, quantity of ice used, duration of transportation to the processing unit, report from the processor on the quality of the product-Minor DATABASE and Identification of harvested stock shall be maintained for

traceability and recall/withdrawal, if needed: Minor

Inspection method: Verification of records and SOPs.

# S-13 Food safety in the farms:

Shrimp farming facilities should be designed and operated in ways that prevent contamination of shrimp by workers, sewage toilets, domestic animals, machinery, oil/fuel and other possible sources.

Compliance level: Major

Inspection method: Visual inspection and lay out available with the farmer

# S-14 Safety and welfare of farm workers:

Shrimp farm workers should not be exposed to hazards which may pose danger to their health and safety.

Working conditions, wages, benefits and working conditions in the shrimp farm should be in compliance with local and national legislation

Safety equipment should be provided to workers

Children shall not be engaged for labour.

Compliance level: Minor

Inspection method: Verification of records and SOP's.

### S-15 Technical competency of technical manpower:

The technician/Manager should be trained on good aquatic animal health and husbandry practices to ensure they are aware of their roles and responsibilities in maintaining shrimp health.

Compliance level: Major

Inspection method: documents regarding the qualification & trainings.

**<u>4.2 SHAPHARI Plus+</u>** : This is an add-on Process certification. This certificate is to ensure the absence of banned antibiotic residues like Nitrofuran metabolites and Chloramphenicol in the farmed product used as raw material for export.

**S+-1**. Shaphari Plus+ certification is issued only to a 'Shaphari' Certified farm.

<u>Compliance level</u>: Major

Inspection method: Verification of records

**S+-2**. Farm brought under Pre Harvest Tests for all the ponds and with NO positive results for two consecutive crops. Further to Certification, testing all the ponds in the farm is mandatory for every crop to maintain the Shaphari Plus+ Certificationstatus.

Compliance level: Major

<u>Inspection method</u>: Verification of records with the farmer and monitoring through the MPEDA – 'Shaphari' web portal

# **5.0 FARM CERTIFICATION PROCESS**

# **Application:**

SHAPHARI, Certification of farms for the production of antibiotic free shrimp production is purely a voluntary one. Farms having basic infrastructure facilities and willing to operate their farms with a clear intention of producing healthy and antibiotic residue free shrimp should apply through the online platform <a href="https://aquacert.mpeda.gov.in\_to">https://aquacert.mpeda.gov.in\_to</a> get certified. Upon entry of the MPEDA-Farm enrollment number, all the details of the farmer shall be auto populated from the enrollment database. There is a provision to update the communication details auto-populated from the empanelment webportal, if desired. Only remaining details pertaining to the farm need to be entered by the farmer. If the farm is not yet enrolled, the SHAPHARI webportal will redirect the farmer to the farm empanelment web portal to complete the process and apply for the Farm Certification.

If the application is complete in all respects and the unit meets the eligibility conditions, the farm will have to pass through two levels of audit viz. <u>Gap audit</u>

and <u>Certification audit</u> to qualify for the issue of certificate.

# Gap Audit:

Gap audit is meant to assess the gaps in the farm vis-à-vis the standards for Shaphari Certification and help the farmer to prepare for the Certification audit. The online application submitted by the farmer first reaches the field office. Field office conduct a preliminary evaluation based on the past information and farm enrollment details of the farm and confirms its suitability for Certification and forward the application to Certification Cell. Certification cell (CC) accepts the application and nominate an empanelled auditor to conduct the Gap audit. The Auditor visits the farm and carries out the Gap audit as per the procedure and records the details in the webportal. Non conformity (NC) to the SHAPHARI standards if any will be intimated to the farmer online/sms/WA and the farmer has to close the NC's within 365 days.

The farm with Gap Audit NC's will be placed under Aquaculture Improvement Programme wherein all possible avenues for assistance will be extended to the farmer to clear NC's recorded during the Gap audit. Failure to close the NC's within the stipulated period will lead to the rejection of the application. If everything is as per the standards, CC recommends the farm for Certification audit. The farmers may avail the assistance of the field office of MPEDA for clearing the NCs.



Fig.II: Shaphari Farm Certification process



Fig. III: Shaphari Plus+ Farm Certification process

# **Certification Audit:**

The CC assigns the Audit to a committee of auditors consisting of three members with a minimum quorum of two members by visiting the farm and submitting the details in the web portal. Field office shall intimate the farmer in advance through sms/WA/phone/email for uploading essential documents in the webportal for the perusal of the Auditors. The Auditors may peruse the documents prior to the visit to the farm and ask for more information if required. Further, auditors conduct the audit wherein the original documents may be presented by the farmer for verification of the records to confirm whether the farm follows the standards for Shaphari Certification and as per CAA guidelines for the production of good quality shrimp free from residues of banned antibiotics/pharmacologically active substances. Farms with NC's during Certification audit will be placed in Aquaculture recorded Improvement Programme (AIP) for a maximum period of 365 days from date of Certification audit during which all possible avenues for assistance will be extended to the farmer to clear NC's recorded during the certification audit. Failure to close the NC's within the stipulated period will lead to the rejection of the application.

# Farm certification process for an Aqua farm cluster:

Same Shaphari standards applicable to an individual aqua farm are applicable to an aqua farm cluster with additional requirements to adhere to the SOP devised for the operation and management of farms in the cluster. It is the mandate of cluster to assure that the individual member farms adhere to the Standards and support in preparing for the audit.

There shall be a Coordinator who possesses minimum qualifications to understand the standards, who can process the applications and documents, who can formulate SOP and help member farmers to maintain the records. The cluster shall maintain a register with details of all member farmers and farms. The Coordinator shall keep a record of minutes of internal meetings with regard to the operation and management of the cluster.

At the various stages of auditing to qualify towards achieving certification, not all member farms will be audited. A representative number of farms will be audited for compliance subject to the condition that the internal measures are strongly implemented.

#### **Issue of Certificate**

Farms that successfully pass Certification audit will qualify for issue of SHAPHARI certificate for production under Good Aquaculture Practices.

#### Validity of Certificate

The Certificate issued is valid for a period of two (2) years from the date of issuing the Certificate.

#### Surveillance Audit:

Post Certification of the farm, the farmer is responsible to furnish the crop details (once in 6 months) in the SHAPHARI webportal in a prescribed format which is a pre- requisite to retain the validity of the Certification. Non – Conformity to the above will lead to Suspension of the Certificate and trigger surveillance audit. The surveillance audit shall

- i. recommend for withdrawal of suspension of the Certificate upon clearance of NC's
- ii. recommend cancellation of Certification, upon confirming breach of standards/terms & conditions,

Surveillance audit shall be conducted by a three member committee with a minimum quorum of two members. Surveillance audit shall also be conducted on a random basis to confirm that the farms are conforming to the standards and the information uploaded by the farmer during the self audit is genuine.

#### **Grievance redressal body:**

Farmers may post their grievance with regard to Shaphari Certification in the Shaphari webportal. Certification cell (CC) will resolve the grievance within 30 days of posting the grievance. Serious issues that CC cannot resolve will be placed before the Grievance redressal body for consideration and resolution.

#### 6.0 SCHEME GOVERNANCE:

The Marine Products Export Development Authority (MPEDA) is the custodian of the Scheme. The governance of the scheme will be as given below.

**Competent Authority:** The Competent Authority for the scheme will be the Chairman, MPEDA.

#### Standard setting, Steering and Ethics Committee

Standard setting, Steering and Ethics committee is an advisory body that is made up of senior stakeholders and experts to ensure that certification process align with the set objectives, to monitor progress, approving changes related to scope or budgets, conflict resolution, provide guidance on different issues that will help the certification scheme to produce deliverables eventually. The committee ensure that the entire certification process progress in an atmosphere of transparency and accountability. Feedback collected from the stakeholders shall also be included in standard development. The committee will review those standards at least once in a year. Recent scientific studies as well other relevant international norms or sector- specific standards will be considered for inclusion by the committee as and when required.

The committee shall be headed by the Chairman, MPEDA with members as follows:

- 1. Director, MPEDA, or an officer nominated by Chairman, MPEDA.
- 2. Representative of CAA
- 3. Representative of CIBA
- 4. Representative of CIFT
- 5. Representative of EIC
- 6. Representative of Farmer's Association
- 7. Representative of Hatchery Association
- 8. Representative of Seafood Exporters Association
- 9. Nominated subject expert
- 10. Nominated subject expert

# **Certification Cell:**

Certification cell will be responsible for implementation of the scheme and day to day operational monitoring of the scheme. Certification cell shall be responsible for

- a. Identification and empanelment of Auditors.
- b. Organising training for Auditors and field officers.
- c. Allotment of auditors for Gap audit and certification audit of the farm applied for the registration.
- d. Database maintenance with regard to received applications for certification, audit reports, surveillance reports, Non Compliance reports, compliance reports, sample collection and lab analysis reports pertaining to each farm applicant.
- e. Issuing certificate for the eligible farms based on the approved guidelines.
- f. Uploading real-time information in MPEDA website.
- g. Initiate compliance resolution process as per the guidelines with regard to certification from the farms.
- h. Convening Standard, Steering and Ethics committee meeting, Grievance redressal committee meeting, as and when required for the smooth conduct of the certification scheme.

- i. Co-ordination of the activities of various committees.
- j. Maintenance/modification & upkeep of the webportal

The Certification cell consists of the following

members:

- 1. Deputy Director (Aqua), MPEDA.
- 2. Asst. Director (Aqua), MPEDA.
- 3. Jr.Technical Officer or equivalent.

Additional staff if required may be engaged on contract basis.

# **Grievance Redressal body:**

This body is responsible for resolving conflicts, complaints and eligibility issues, with regard to the Certification application which could not be resolved by the Certification cell.

This appellate body is a three member committee of experts with the following members.

- 1. Director, MPEDA or an officer nominated by Chairman, MPEDA.
- 2. Representative of the Farmer's Association.
- 3. Representative from CIBA

This body will be constituted by inviting nominations from the said organizations/departments for acting as members of the committee.

# 7.0 AUDIT AND AUDITORS

The certification procedures involve audit of the farm and surveillance of the implementation of the GAPs in farm operation. Audit will be conducted during the farm operations period. Auditors are selected and empaneled by a designated auditor selection committee that will follow prescribed norms for selection of auditors. Auditors may be chosen from different fields such as farming, quality control and environmental protection. Independent third party audit institutions will also be considered for conducting the audit.

The auditors will be empanelled based on the stipulated qualification and experience. Empanelled auditors will be provided with necessary training on Auditing with the help of professional trainers.

Auditors will be assigned to audit farms on a random basis by the Certification cell based on the availability. All the audits shall be conducted with prior notice and in consultation with the farmer.

The auditors will have to follow the farm audit format and guidelines provided to them and enter their observations/findings in the respective columns in the web portal within 10 days of the audit.

#### 8.0 GUIDELINES FOR GOOD AQUACULTURE PRACTICES (GAP)

For producing residue free and pathogen free shrimp, it is imperative to ensure good bio-security as well as responsible use of chemicals, while adopting CAA guidelines for farm operation. Good Aquaculture Practice is sustainable aquaculture methods respecting the environment, assuring an adequate use of authorized inputs and ensuring that aquaculture products comply with relevant hygiene standards and requirements for contaminants and residues when harvested, before reaching processing establishments. CAA guideline for regulating coastal aquaculture as annexed (An-I) will be the benchmark for verification/auditing.

#### 9.0 CONCLUSION

Benefits to the farmer is as follows:

- Farmer is benefitted by receiving training on recent advances in shrimp farm operations through workshop conducted as part of the Certification scheme.
  Farmers will be provided with necessary amenities required for maintaining farm records.
- 2) MPEDA propose to provide publicity to the farms brought under Certification among the processors/exporters for better market access and pricing.
- 3) Certified products shall help the farmer to get better price for the shrimp produced in the farm.
- 4) Processors and exporters may source the shrimp at a premium for exports to markets like EU/Japan etc. without the risk of rejections due to antibiotic residues.

Outcome of the pilot project on Certification will be evident from the second year of operation itself. Accordingly, an independent committee may assess the impact of Certification on the quality of shrimp produced and take a decision to extend the Certification to more farmers. Unlike the traditional certification processes, utilisation of webportal will considerably reduce the cost of Certification and improve the efficiency and transparency.

In a world in which the demand for fishery products are increasing certification appears to be a possible way to bring about a greater degree of control and sanity in the system and supply of safe seafood with better quality. The role of certification programs will not only provide consumers with a safe product but it will also ensure better returns to farmers, reduction in rejections of export consignments and will lead to increased export earnings.

#### Appendix: I

# **SHAPHARI- CERTIFICATION OF FARMS** for the production of antibiotic residue free shrimp

- I. <u>Guideline formulating Committee</u>
- 1. Dr.M. Karthikeyan, Director, MPEDA.
- 2. Shri.A.Antony Xavier, Director (Tech), CAA.
- 3. Shri.Balasubramaniam V, Gen. Secretary, PFFI.
- 4. Shri.D.Ramraj, President, AISHA.
- 5. Shri.G.Pawan Kumar, SEAI representative.
- 6. Dr.P.K.Patil, Principal Scientist, CIBA.
- 7. Dr. Satyen Kumar Panda, P.S, CIFT.
- 8. Dr.M.K.Ram Mohan, Joint Director (QC), MPEDA.
- 9. Shri.Anilkumar P, Joint Director (M), MPEDA.
- 10. Dr.A.Ansar Ali, Deputy Director (A), MPEDA.

#### II. <u>Guideline drafting Committee</u>

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- 2. Shri.Saji Chacko, Farmer representative, Gujarat.
- 3. Shri.Surya Rao, Farmer representative, Andhra Pradesh.
- 4. Shri.Mathew Sebastian, MD, INDOCERT.
- 5. Shri.V.Vinod, DD (QC), MPEDA.
- 6. Shri.M.Viswakumar, AD, MPEDA.
- 7. Dr.P.Jayagopal, AD, MPEDA.