

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



Ministry of Fisheries, Marine Resources and Agriculture

Male', Republic of Maldives

## Aquaculture Regulation

Regulation No: 2020/R-94

Volume:49 | Number: 215 | Date: 3<sup>rd</sup> October 2020

### UNOFFICIAL TRANSLATION

The Government of Maldives shall not accept any liability or responsibility arising out of any reliance on the translation contained herein. In the event of conflict between the translations contained herein and the *Dhivehi* text, the latter shall prevail for all purposes.

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Ministry of Fisheries, Marine Resources and Agriculture,  
Male',  
Republic of Maldives

## **Aquaculture Regulation**

### **Chapter 1 General Provisions**

#### **Introduction and Name**

1. (a) This regulation is made by the Ministry under the power vested in it pursuant to Section 55 of the Act No.: 14/2019 (Fisheries Act of the Maldives).
- (b) This regulation shall be cited as "Aquaculture Regulation".

#### **Purpose of the Regulation**

2. The purpose of this regulation is to ensure sustainable aquaculture development in the Maldives and in its maritime zones including the sea, internal waters of atolls, reefs, lagoons, water ponds and islands; and that all stages of aquaculture is carried out in a manner that ensures protection of the ecosystem, biodiversity and in a manner that enables the beauty of natural resources of the Maldives to be sustained for the current and the future generations.

#### **Applicability**

3. This regulation shall apply to all persons who undertakes aquaculture within the Maldives and its maritime zones, including the seas, internal waters of the atolls, reefs, lagoons, ponds and islands.

#### **Exemptions**

4. Aquaculture works carried out by the Ministry in relation to management of fishing, or observation of operations of fishing, or any activity related to fishing, shall be exempt from having to acquire permits pursuant to this Regulation.

#### **Commencement**

5. This regulation shall be enforced and implemented from the date of publishing of the regulation on the Government Gazette.

## Chapter 2

### Licensing

#### Obtaining Licenses for Aquaculture

6. (a) Aquaculture activities in an aquaculture facility shall be carried out after obtaining licenses under Regulation No.: 2020/R-92 (Regulation on licensing and permits for fishing, activities related to fishing and Aquaculture).
- (b) Aquaculture licenses shall be issued for the following activities. The licenses to carry out these activities shall be issued as per the following licensing categories.
- (1) For experimentation of aquaculture technology or for production of a new species – “Aquaculture Experience License”
- (2) For commercial undertakings of aquaculture – “Aquaculture License”
- (c) Aquaculture license shall not be issued unless the following requirements have been satisfied.
- (1) Other economic activities carried in the area are not adversely affected if aquaculture activities are licensed in such area;
- (2) No adverse environmental impact results from the issuing of aquaculture license.
- (3) The area allocated for aquaculture shall be suitable for aquaculture or for specific type of fish to be farmed by aquaculture.
- (d) Any productions produced under an “Aquaculture Experience License” can only be used for commercial purposes after obtaining the “Aquaculture License”. Any productions produced under an “Aquaculture Experience License” shall not be used otherwise for commercial purposes.

#### Requirements of an Aquaculture License

7. All parties with the license, shall satisfy the following requirements during the license period.
- (a) Compliance with this regulation, Act No.: 14/2019 (Fisheries Act of the Maldives, all the regulations made pursuant to

the aforementioned act and the fisheries management plans.

- (b) Any organisms farmed through aquaculture shall not be released into the ecosystem of the Maldives. All necessary measures required to mitigate the risk of releasing such species shall be taken if aquaculture is carried out by using cages and bait cage in the natural ecosystem.
- (c) All the information shall be recorded pursuant to part 6 of this Regulation and the same shall be provided to the Ministry regularly, during the license period.
- (d) A legitimate copy of the license shall be available in the facility to which the license is issued to, at all times. License shall be shown to any persons authorized by the Ministry upon request.
- (e) Any organisms produced through aquaculture shall be processed or exported in accordance with the requirements set forth for that species in the Fisheries Management Plan.
- (f) The Ministry's approval shall be obtained prior to transferring the organisms that has been farmed in the allocated places specified in the license, to another place.
- (g) The requirements specified in this Regulation shall be followed prior to transferring ill or dead organisms due to an illness, from one place to another.
- (h) The requirements specified in this Regulation shall be followed while disposing of ill organisms or dead organisms.

**Activities related to  
Aquaculture**

8. (a) Any aquaculture activity in the Maldives shall be carried out with a legitimate and a valid permit issued under Regulation No.: 2020/R-92 (Regulation on licensing and permits for fishing, activities related to fishing and Aquaculture).
- (b) Only the parties that undertake aquaculture with hatcheries shall be permitted to obtain a permit to operate a quarantine facility. And only the organisms imported for the use of the aforementioned parties shall be quarantined under this permit.
  - (c) Prior to issuance of permit to operate a quarantine facility, an authorized person from the Ministry shall visit the facility, and shall check if the standards stated in the point 1

of the schedule 3 - "Standards of a Quarantine Facility" of this regulation are satisfied.

### Chapter 3

#### Areas allocated for Aquaculture

**Specification of premises or areas allocated for aquaculture**

9. The aquaculture facilities shall display the license number issued to carry out aquaculture activities.

**Transferring Organisms Produced Through Aquaculture, from One Place to Another**

10. (a) The Ministry's approval shall be obtained prior to transferring organisms grown in the licensed facilities or organisms at any stages of life, or organisms that are living, to be used for the purposes of aquaculture.
- (b) A permit to transfer organisms grown through aquaculture, as stipulated in the subsection (a) herein, shall only be issued to the facilities that hold an Aquaculture License.
- (c) The permit shall be obtained from the Ministry prior to 14 (fourteen) days, to transfer organisms grown through aquaculture as stipulated in subsection (a) herein.
- (d) It shall be prohibited to transfer ill organisms and organisms that have died due to an illness, from one place to another.
- (e) Notwithstanding subsection (d) herein, ill organisms and organisms that have died due to an illness, shall be transferred from one place to another for elimination, after the following requirements are satisfied.
1. Ministry shall be notified without delay, if organisms grown at an aquaculture facility have died due to an illness and has to be transferred for the elimination of the dead organisms;
  2. Any one method of elimination stated in the subsection (f) must be available at the place proposed for the elimination of the organisms that have died to due to an illness.
- (f) Elimination of the dead organisms due to any occurrence specified in subsection(e) shall be carried out through any one of the following methods: -

- (1) Burial;
- (2) Burning or incineration.

#### **Chapter 4**

##### **Importation of Aquatic Organisms for Aquaculture**

#### **Types of Import Permits**

- 11. (a) Only the aquatic organisms stated in the schedule 1 – “Lists of Aquatic Organisms that can be imported for the purpose of Aquaculture” of this regulation, shall be permitted to import to the Maldives under this Regulation.
- (b) Notwithstanding subsection (a) herein, the Ministry shall have the discretion to issue a special permit to import aquatic organisms that are not stated in the schedule 1 of this regulation for research purposes, by a relevant government authority, taking into consideration that which is stipulated in the section 12 of this Regulation.

#### **Amendments to the list of Aquatic Organisms that are Permitted to Import**

- 12. The Ministry has the discretion to amend the list stated in the Section 11 of this Regulation, in consideration of the following.
  - (a) Whether the type of aquatic organism has been recorded to live in the ecosystem of the Maldives or not.
  - (b) Organisms should be grown in a reputable aquaculture facility in an exporting country.
  - (c) The organism should not be removed from their natural habitat.
  - (d) An assessment shall be carried out by a relevant scientific institution to study whether the type of organism can cause adverse effect to the ecosystem and the biodiversity of the Maldives.
  - (e) The type of organism should not be an invasive species or have the potential to become an invasive species.
  - (f) International standards should be complied with, if it is a “genetically modified” or “modified living organism”.
  - (g) Growing of the type of organism should yield great benefits to the economy of the Maldives.

- (h) Fisheries Technical Committee, which provides expertise knowledge on fisheries, should approve the import of the type of organism.
- (i) To enforce any amendments which may be made for the commercialized use of an organism, under an international treaty or an agreement signed by the Maldives
- Requirements of the parties seeking import permits**
13. (a) The following requirements shall be satisfied by the parties applying for an import permit.
1. Party shall hold an aquaculture license.
  2. Quarantine facilities shall be available at the Ministry or at the importer's facility, for the type of organisms that are to be imported.
- (b) The party shall only commence operations of importation after complying with the requirements stipulated in the subsection (a) herein, and only after the Ministry has authorized the import.
- (c) Import permits issued to a party under this Regulation may not be transferred to any other party.
- Requirements of International Facilities from which the Aquatic Organisms are to be Imported from**
14. The following requirement shall be complied by the hatcheries or the facilities, from which the aquatic organisms are to be imported from, in order to protect the environment and marine ecosystem of the Maldives from any adverse effects of importing aquatic organisms.
- (a) Hatchery shall be registered at the relevant country and must be in compliance with all the laws and regulations of the country.
  - (b) Hatchery shall regularly screen the aquatic organisms for any diseases of aquatic organisms stipulated in the schedule 2.
  - (c) Hatchery shall agree to share all the health records of the stock that are to be imported to the Maldives, with the Ministry.
- Application for Import Permit**
15. (a) Approval of the Ministry shall be obtained by any party that wishes to import aquatic organisms for the purpose of aquaculture, 1 (one) month prior to the date of the import of every shipment. This approval can only be obtained for the list of aquatic organisms stipulated in Schedule 1 (one)

- (b) Application for the permit stated in subsection (a), shall be obtained by submitting the form prepared and published by the Ministry for importation of aquatic organisms for the purposes of aquaculture, or via the online application process arranged by the Ministry.
- (c) Application form for importation of aquatic organisms for the purposes of aquaculture and the details of the instructions in relation to the aforementioned application form shall be made available on the Ministry's website.
- Issuance of Import Permit**
16. (a) Ministry's decision in relation to the application for the permit stipulated in the Section 15 of this regulation shall be informed to the applicant, within 1 (one) month from submission of the application.
- (b) If the Ministry requires further information in relation to an application as per subsection (a) herein, this shall be informed to applicant in writing, within 7 (seven) working days from submission of the form.
- (c) Notwithstanding subsection (b) herein, the Ministry shall have the discretion to decide if the Ministry has to seek further information in relation to the type of aquatic organism that is proposed to be imported to the Maldives, within a period of not more than 45 (forty-five) days.
- Ports permitted to Import**
17. (a) The import of aquatic organisms into the Maldives shall only be via the designated ports by the Ministry. The ports determined by the Ministry shall be published at commencement of implementation of this regulation.
- Requirements to be complied with prior to importation**
18. (a) The stock of aquatic organisms that are to be imported to the Maldives, shall be separated and cared for up to a period of 7 (seven days) at the hatchery or nursery of the exporting country, prior to importing.
- (b) A report prepared with the following information shall be submitted to the Ministry, after monitoring the health of the stock arranged for importing, within the period indicated in Subsection (a) herein.
1. Reference Number;
  2. Name, address and the email address of the facility;



3. Type of organism that were separated to be exported (scientific name, common name), total number, average size and the stage of life;
  4. The start date and the end date in which the stock was separated to be exported;
  5. Details of any symptoms of disease, if observed during the period in which the stock was separated to be exported;
  6. Details of inspections or results of tests, if any tests were undertaken, to prove that the diseases stipulated in schedule 2 of this regulation is not present;
  7. Name of the chemical/drugs, quantity of usage of the chemical/drugs, details of the reason for usage of the chemical/drugs, if any chemicals or drugs were used for the purpose of treating for a disease or any other purposes, at the period in which the stock was separated to be exported;
  8. Statement stipulating that proper monitoring was undertaken;
  9. Seal of the facility.
- (c) If the report prepared pursuant to Subsection (b) herein, indicates that a symptom of a disease listed in the schedule 2 was observed, that stock shall not be permitted to be imported into the Maldives.
- Documents required along with the import shipment**
19. (a) A fisheries ranger appointed by the Ministry, along with Maldives Customs Services shall search and inspect the organisms imported under the import permits issued pursuant to this Regulation, at the port of import.
- (b) During the search and inspection, if it is found that the shipment is not in accordance with the documents stipulated in Section 18 of the Regulation, the shipment shall be held.
- (c) The Ministry shall have the discretion to order to eliminate or to re-export the shipment held, pursuant to subsection (b) herein.

- (d) The shipment shall directly be taken to the designated quarantine facility, after the organisms are searched and inspected at the border inspection area.
- Quarantine**
20. (a) After the requirements stipulated in Section 19(d) of the Regulation are satisfied, the organisms shall be quarantined at a quarantine facility of the Ministry, at the expense of the importer.
- (b) Notwithstanding subsection (a) herein, if the requirements stipulated in Section 8 (c) of the Regulation are complied with, and if a permit is obtained under the Regulation No.: 2020/R-92 (Regulation on procedures on issuance of licenses for fisheries, fisheries related activities, and aquaculture) to undertake aquaculture, the organisms imported to undertake aquaculture can be quarantined at the quarantine facility.
- (d) Quarantine facility stated in the subsection (b) herein, shall follow the protocol of quarantine and the period of quarantine, as stipulated on the Schedule 3 of the Regulation - "Standards of the Quarantine Facility and the Quarantine Procedure (Quarantine Protocol)".
- Elimination of Quarantined Organisms**
21. (a) If the organisms are observed to be infected or display a symptom of a disease that has an adverse effect on the ecosystem and the people of the Maldives during the quarantine period, this shall be notified to the Ministry and shall be disposed of in accordance with the procedures.
- (b) The Ministry shall not provide any compensation for the eliminated organisms, pursuant to subsection (a) herein.
- (c) The elimination of organisms pursuant to subsection (a) herein, shall be undertaken at the presence of a person determined by the Ministry.
- (d) In the event of elimination of quarantined organisms, this shall be done through incineration.

## Chapter 5

### Maintenance of the health of organisms grown in aquaculture facilities

- Publishing of Diseases Affecting Aquaculture**
22. A list of diseases affecting aquaculture shall be published by the Ministry. If any new diseases of organisms produced in aquaculture in the Maldives are found and these are recorded at places that undertake aquaculture, and amendments are brought

to the international treaties related to biosecurity and maintenance of health of aquatic organisms that Maldives is part of, the aforementioned list shall be reviewed accordingly.

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| <b>Reporting Diseases</b>                 | 23. If any disease or a symptom of a disease is observed in organisms produced through aquaculture, or if organisms produced through aquaculture is dying at an unnatural rate, this shall be reported to the Ministry without delay.  |
| <b>Waste Discharge</b>                    | <p>24. (a) Common waste such as biodegradable household waste and the waste discharged from an aquaculture facility shall be disposed of, in accordance with the Regulation No.: 2013/R-58 (Waste Management Regulation).</p> <p>(b) In the event of usage of chemical or a drug in treatment of a disease found at an aquaculture facility, the water from the facility shall not be discharged into the ecosystem of the Maldives, unless the water discharged from the facility is treated to a degree determined by the Ministry.</p> <p>(c) The water used for aquaculture or the water used in treatment of organisms in an aquaculture facility, shall not be discharged into the ecosystem of the Maldives, unless the water is treated to the quality as follows:-</p> <ol style="list-style-type: none"><li>1. P.H 6.0 – 9.0;</li><li>2. Suspended Solids: Less than 100 (one hundred) milligrams per liter of water (100 milligram per liter);</li><li>3. Total Phosphorous: Less than 0.5 (zero point five) per liter of water;</li><li>4. Total ammonia nitrogen: Less than 5 (five) milligram per liter;</li><li>5. 5 days of biological oxygen demand: 50 (fifty) milligrams per liter;</li><li>6. Dissolved oxygen: 4 (four) milligrams per liter.</li></ol> |
| <b>Food and other dietary supplements</b> | <p>25. (a) Food and dietary supplements used for aquaculture shall be produced by an aquafeed license holder, shall comply with the international standards and shall be approved by the Ministry.</p> <p>(b) Food and dietary supplements produced for the purpose of aquaculture shall comply with the following requirements.</p>   |

1. Shall not include hormones;
2. No antibiotics other than that which is specified in Schedule 4, that are registered at the authority responsible for regulating drugs and related substances in the Maldives, shall be included.
3. A list of ingredients shall be stated on the label of the prepackaged food.

**Drugs and chemicals  
used in aquaculture**

26. (a) The substances listed in the schedule 4, shall be used to treat diseases or to prevent diseases or to treat water at aquaculture facilities.
- (b) Any antibiotics, other than the antibiotics stipulated on schedule 4 of the regulation shall not be used in medical treatments of organisms produced through aquaculture.
- (c) The list of chemicals set forth in subsection (a) shall be used in compliance with the safety measures established by the regulatory authority on drugs and other related substances, and the dosage shall be administered as advised by the manufacturer of the chemical, or according to the international best practice for aquaculture established for the use of the chemical in treatment of a specific illness and for the specific type of infected organism.

**Elimination and  
Control of Diseases in  
Aquaculture Facilities**

27. (a) The Ministry shall have the discretion to quarantine a part or the whole of an aquaculture facility, according to the quarantine standards determined by the Ministry, in the event of identification of a disease or a symptom of a disease, listed in Schedule 2 of the Regulation, depending on the general level of risk.
- (b) License holders shall work to treat and control the diseases according to the procedures determined by the Ministry for the treatable and controllable diseases in the period in which an aquaculture facility is quarantined. In the event in which the disease cannot be treated, infected stock shall be eliminated and the aquaculture facility and aquaculture products shall be disinfected, pursuant to the point on disinfection of aquaculture products in a quarantine facility stipulated in schedule 3 of the Regulation.
- (c) If the disease spreading in an aquaculture facility is a danger to to the general health of the public, the details of the disease, the measures taken to treat the disease, measures

taken to control the disease, and the measures taken to protect the employees of the facility shall be shared with all the institutions that carry out works related to general health of the public.

## **Chapter 6**

### **Data Recording and Reporting**

#### **Collection of Information to Control Diseases Affecting Aquatic Organisms**

28. (a) "Aquaculture License" holders shall properly maintain records of all the information related to works undertaken under the license.
- (b) The log book issued by the Ministry to aquaculture license holders for the collection of information related to aquaculture, shall be completed, and the information acquired shall be shared with the Ministry by the license holders, in accordance with the procedures set down by the Ministry.
- (c) During the tenure of "Aquaculture Experience License" a report indicating the progress of the project shall be submitted to the Ministry every 3 (three) months. Instructions on reporting the details of the progress of the project shall be published on the Ministry's website on the date this Regulation comes in to effect.
- (d) The information provided to the Ministry or the information collected or maintained to be provided to the Ministry shall be genuine and accurate. Such information provided shall not be false or inaccurate.

#### **Maintenance and Dissemination of Information**

29. (a) Information about death of organisms at any stage, any identified symptoms of a disease, the results of a test, if tested for any diseases and other significant information on diseases and controlling diseases shall be maintained from the date in which the stock is brought to the licensed facility, until the organisms are sold or eliminated; in order to control the diseases affecting organisms produced through aquaculture.
- (b) Aquaculture license holders shall provide records maintained pursuant to subsection (a) herein, upon request from the Ministry.

**Chapter 7****Penalties**

- Violation of Regulation** 30. (a) It shall be an offence to conduct an act that is prohibited under this Regulation, or to conduct an act in contravention of the manner stipulated in this Regulation, and to violate aquaculture license conditions.
- (b) To conduct an act or failure to conduct an act in contravention of the manner stipulated in this Regulation or failure to conduct an act in accordance with the Regulation, shall be deemed as a violation of the Regulation. In determining penalties under this Section, for such acts in violation of this Regulation, each act shall be deemed as a separate offence.
- (c) If a party commits an offence pursuant to subsection (a) herein, a penalty shall be imposed according to the procedures stipulated in the Regulation No.: 2020/R-74 (Regulation on Administration of Penalties and Imposing Fines for Fisheries Related Offences).
- (d) Penalties for offenses and acts which warrant administrative action pursuant to this Regulation, shall be in accordance with Schedule 5 and Schedule 6 herein.

**Chapter 8****Definitions**

- Definitions** 31. Unless otherwise expressly provided herein, the following terms and phrases shall be defined as follows.
- (a) “Minister” means the minister responsible for fisheries, including aquaculture.
- (b) “Ministry” means the ministry responsible for fisheries, including aquaculture.
- (c) “Sea” means the reef, lagoon, reef crest, shallow waters, strait, external water outside of the atoll.
- (d) “Island Lagoon” means the lagoon between the shoreline and the reef edge.

- (c) “Water” means fresh water and water with some degree of saltiness.
- (d) “Aquatic organisms” means living organisms that live in the water.
- (c) “Organism” means any entity that embodies life and all the stages of life.
- (d) “Growing” means culture of, propagation, keeping, raising, and ranching of aquatic living resource by human beings.
- (e) “Aquaculture” means all the activities stipulated in the Section 88 (b) of the Law Number 14/2019 (Fisheries Act of the Maldives).
- (f) “Experience” means process of undertaking an action, experimenting or obtaining information through investigation.
- (g) “Invasive Species” means an invasive species that has the capability to invade an environment and cause adverse effect to the ecosystem, humans, economy and health of humans and
- (h) “Biosecurity” means the measures aimed at preventing harmful effects to the organisms living in the sea of the Maldives by the harmful biological organisms or biochemicals produced by such organisms.
- (i) “Aquaculture related activities” means establishment of quarantine facilities, operations, production of food for aquaculture and other related activities.
- (j) “Fisheries Management Plan” means the plan with regard to fisheries planning, management and development in relation to Chapter Three of Law number 14/2019 (Fisheries Act of the Maldives).
- (i) “Maritime Zones of the Maldives” means internal waters of the Maldives, archipelagic waters, territorial sea and exclusive economic zone as stipulated in the Act No.: 6/96 (Maldives Maritime Zones Act).
- (j) “Territory” means the territory of the Maldives as defined in Article 3 of the Constitution of the Republic of Maldives.

**Schedule 1****List of species that are permitted to be imported in to the Maldives for the purpose of aquaculture**

| Scientific Name                  | Common English Name   | Common Dhivehi Name     | Stages of life that a permitted to be import |
|----------------------------------|-----------------------|-------------------------|--|
| <i>Epinephelus fuscoguttatus</i> | Brown-marbled grouper | <i>Kas faana</i>        | Young (7-10 centimeters)                     |
| <i>Holothuria scabra</i>         | Sandfish              | <i>Veli Huifilandaa</i> | Young and adults                             |



**Schedule 2****List of diseases affecting Aquatic Organisms****1. Diseases Affecting Groupers**

- (a) Viral Nervous Necrosis (V.N.N) or Viral Encephalopathy and Retinopathy (V.E.R)
- (b) Viral Vacuolating Encephalopathy and Retinopathy
- (c) Paralytic Syndrome, Spinning Grouper Disease, Fish
- (d) Encephalitis, Piscine Neuropathy, Whirling Disease
- (e) Red Seabream Iridovirus Disease (RSIVD)
- (f) Sleepy Grouper Disease (S.G.P)
- (h) Grouper Iridovirus Disease of Taiwan (T.G.I.V.D)
- (i) Singapore Grouper Iridovirus Disease (S.G.I.V.D)

**2. Diseases Affecting Sea Cucumbers**

- (a) Skin Ulcerative Disease (This disease affects young sea cucumbers.)
- (b) Bacteria Ulceration Disease (This disease affects adult sea cucumbers.)
- (c) Fungal Diseases
- (d) Parasitic Diseases, Platy Helminthiasis
- (e) Skin Ulcerative Disease (This disease affects young sea cucumbers.)

**Schedule 3****Standards of Quarantine Facilities and Procedures for Quarantine (Quarantine Protocol)****1. Standards of Quarantine Facilities**

- a) Availability to filter and treat water that enters into the facility using ultraviolet (U.V), in order to eliminate the germs contaminating the water;
- b) Entry and exit should only be authorized and controlled by the employees operating the facility. A footbath should be placed at one of the entrance doors to the quarantine facility;
- c) Ventilation (windows, ventilation panels) of the facilities should be screened to prevent the entry of insects.
- d) Each individual tank in the facility should be operated separately (For example, each tank should be closed separately, even if the tanks are connected to the same water pipe and the drainage);
- e) The water used in the tanks should be filtered, and storage should be made available depending on the amount of water discharged from the facility;
- f) The floor and the walls should be effectively sealed such that the quarantine area is capable of containing all leaks that might occur. The quarantine facility should be constructed to enable proper disinfection (It should be designed with less pipes and other objects on the floor);
- g) An incinerator based on the capacity of the facility, should be available at the facility, to dispose dead organisms and consumable goods used during the period of quarantine at the facility. Such waste disposal facilities and incinerators should be separate from the quarantine facility;
- h) Secure storage facilities to store food required for the quarantined stock should be available, depending on the number of stocks quarantined at a single time;
- i) Storage facilities for spare parts for the equipment and machinery used at the quarantine facility should be available;
- j) A laboratory capable of identifying diseases that affect organisms quarantined at the facility should be available;
- k) Biosecurity measures at a quarantine facility should be undertaken, as declared by the Ministry.

## **2. Quarantine Procedure (Quarantine Protocol)**

### **a) Water Used in the Facility**

The water used in the facility should be filtered and treated by ultraviolet (U.V) to protect the organisms quarantined in the facility from the germs in the water that are harmful to these organisms.

### **b) Water discharged from the Facility**

All the wastewater discharged (including the water used to pack the organisms while importing to the Maldives) into the environment, should be treated properly to sterilize it from potential germs. Wastewater can be sterilized through any one of the following methods:

(1) Chlorination: After separating the “suspended solids” from the water, the water should be treated for minimum of 1 (one) hour in sodium hypochlorite (bleach) of minimum of 200 (two hundred) parts per million. For such treatment, the water should be aerated. If bleach is used in aforementioned amount for chlorination, 1.6 (one point six) millimeter of bleach should be used for every one liter of water. Chlorinated wastewater should be neutralized before discharging it into the environment. If aforementioned amount of chlorine is added to the water, 1.25 sodium thiosulphate can be added and the water can be aerated. Facility should keep a record of chlorination. Chlorination records should be maintained noting: the amount of chlorine added, volume of the treated water, pH level of the treated water, the amount of chlorine in the water, after 1 (one) hour post-treatment of the water, the amount of sodium thiosulphate added to achieve neutralization. The amount of chlorine in the water discharged from the facility, should be less than a microgram per 2 (two) liters of water.

(2) Ultraviolet Treatment: Suspended particles should be filtered and separated from the water, prior to UV treatment, to maximize sterilization of water from harmful germs. Commercial UV water treatment units operating in the spectral range of 190-280 nm (254 nm recommended) delivering doses of at least 130 milliwatt second per square centimeter (mWs/cm<sup>2</sup>), should be used.

## **3. Equipment used in the Quarantine Facility**

Equipment must be thoroughly cleaned and disinfected, before removal from the quarantine facility, or at the time of restocking organisms to quarantine. The following: -

(a) Equipment should be kept in chlorinated water or potassium iodide added water for at least 50 (fifty) minutes.

(b) Filters used to clean water and other related equipment should be autoclaved, before removal from the facility.

(c) Packages in which the organisms were imported into the Maldives, masks, gloves and other related waste products used in the facility should be kept in chlorinated water or potassium iodide added water for 50 (fifty) minutes.

(d) Chlorinated water should be discharged from the facility after dechlorinating the water with sodium thiosulphate. The amount of chlorine in the water discharged from the facility, should be less than a microgram per 2 (two) liters of water.

#### **4. Entering/Exiting Facility**

(a) Operators of the facility should provide the employees of the facility, with special slippers, foot wear and other related items. Items that are used in the facility should not be removed from the facility.

(b) The water in the footbath placed to disinfect shoes and slippers should be chlorinated, or iodine should be added. The water should be replaced regularly.

(c) If a person comes in contact with a quarantined organism, or the water in which the organism is kept in, that person should wash their hands or clean the area of contact.

#### **5. Stocking the organisms at the quarantine facility, the quarantine period**

(a) If the imported organisms are quarantined at a facility, other than that of the importers', the following documents related to the organisms should be available.

1. Import Permit issued to Import Aquatic Organisms by the Ministry;
2. Original Shipment Packing list;
3. Certificate of Completion of Border Quarantine at the Exporting Country;
4. Health Certificate.

(b) After transferring the organisms to the quarantine facility, it shall be treated with clean water to disinfect the outer layer to remove the parasites and other organisms, prior to putting the organisms in their quarantine tanks.

(c) The period of quarantine of the imported organisms: -

- (1) Brown-marbled grouper: 14 (fourteen) days;
- (2) Sandfish: 7 (seven) days.

Ministry has the discretion to prolong the quarantine period, if the quarantined organisms are susceptible to any disease. If any symptoms of the diseases stipulated in schedule 2 of this regulation, is observed, the quarantined organisms should be eliminated through incineration.

#### **6. Monitoring the health of the quarantined organisms**

- (a) The organisms should be monitored and supervised during the quarantine period. If a number of organisms die unnaturally, or a symptom of a disease is observed, or any other extraordinary occurrence is observed, this should be reported to the designated official of the Ministry, without delay.
- (b) Tests should be carried out to find the cause of the occurrence. If the result of the tests shows the cause of the disease, or if it's a disease that is caused by harmful germs or parasites, the imported stock should be eliminated completely.
- (c) The usage of chemicals and drugs on the quarantined organisms should be recorded.

#### **7. Elimination of the dead organisms**

- (a) All the dead organisms that are found in the shipment on arrival to the facility, should be preserved in a chemical that is permitted to be tested, or kept under refrigeration. The information on the labels of the stored dead organisms should include the shipment, type of aquatic organism, tank number, total number of dead organisms, day of death.
- (b) All the organisms that die during the quarantine period, should be stored in a deep freezer specialized to store dead organisms, till it can be eliminated.
- (c) The dead organisms in the facility should be eliminated through incineration, after obtaining approval of the Ministry.

#### **8. Completion of Quarantine**

- (a) Completion of quarantine certificate should be issued to the importer, if no symptoms of a disease are detected from the organisms during the quarantine period.
- (b) The operators of the facility should guarantee that the organisms that complete the quarantine period, should not be removed the facility without the approval of the Ministry.
- (c) Organisms that complete the quarantine period can be stocked to undertake aquaculture, after the Ministry grants approval to remove the organisms from the facility. The organisms that are removed from the facility should be stored in filtered and disinfected salt water.

(d) The Ministry has the discretion to dispose organisms, in the presence of quarantine official, without compensation, if it is found that the stocked organisms are infected with a disease, after completion of the quarantine period.

## **9. Cleaning the Quarantine Facility after Completion of Quarantine**

(a) After completion of the quarantine, all the tanks used for quarantine purposes, objects, the floor of the facility should be cleaned by using chlorinated water and disinfected.

## **10. Maintaining Records**

(a) All the information related to the organisms stocked in the quarantine facility should be recorded. All the information, including information of the shipment, all the health certificates submitted to import the shipment, copy of the permit issued after completion of quarantine should be kept at the facility. Furthermore, the following information related to quarantined stock should be summarized and maintained: -

- (1) Exporter, country of export, airway bill;
- (2) Date of arrival to the Maldives;
- (3) Date of removal of the organisms from the quarantine facility;
- (4) Total number of organisms imported, number of dead organisms at arrival;
- (5) Total number of tanks in which the organisms were stocked in, Number of organisms stocked in each tank.
- (6) If an organism or organisms in a particular tank was observed to have a condition of a disease, the complete information of each particular tank should be maintained (information including, the date in which the condition was observed and the details of the condition, number of organisms observed to have the condition);
- (7) Number of dead organisms from each tank;
- (8) Details of the health certificate, if issued;
- (9) Details of the test result, if any tests were undertaken to identify a disease;
- (10) Number of organisms eliminated, after identification of a disease, average size, details on disposal of such organisms;
- (11) Total number of organisms released from the quarantine facility, after completion of quarantine, date of issuance of organisms from the facility, information on the location in which the issued organisms will be stocked.

(b) All the information of each tank in which the organisms are kept in the quarantine facility should be recorded separately. The following information should be maintained in relation this: -

- 1) Tank number;
- 2) Total Number of organisms in the tank;
- 3) Details of the exporter, country of export;
- 4) Date in which the organisms were stocked in the tank;
- 5) Shipment or Airway bill number;
- 6) Details of any observed disease conditions;

- 7) Daily records of number of dead organisms in the tank;
- 8) Details of any treatments given;
- 9) Details of storage of dead organisms;
- 10) Details of disinfection and cleaning of the tank.

(c) Details of wastewater treatment, cleaning or replacement of the filters, should be recorded and maintained.

(d) A logbook should be used to record the details of entry and exit of authorized personnel into the Quarantine Facility. Authorization to enter and exit the facility should be given to the minimum number of employees, to carry out works inside the facility.

#### **11. Contingency Plan**

The operator should develop a contingency plan addressing actions to be taken in the event of a vehicle breakdown during transport of organisms to the facility and for any extraordinary events that might occur during the operation of the facility. This plan should be provided to the Ministry. In case of any occurrence of such an event, the Ministry should be notified without delay.

**Schedule 4****List of approved chemicals, drugs and antibiotics that can be used in treatment of organisms produced through aquaculture**

1. Chloramine-T
2. Formalin
3. Hydrogen peroxide
4. Oxytetracycline hydrochloride
5. Tricaine methanesulphonate
6. Chorionic gonadotropin
7. Florfenicol
8. Oxytetracycline dihydrate



**Schedule 5****Penalties and Fine for Conducts in Breach of the Regulation**

| #  | Conduct  | Fine Amount  | Fine for continuation/repetition of offence   |
|----|--|--------------|---|
| 1  | Undertaking aquaculture without proper license   | MVR 5000 /-  | MVR 5000 will be added to the previous fine, each time the offence is repeated (maximum fine amount is MVR 50,000)  |
| 2. | Undertaking aquaculture related activities without a legitimate permit   | MVR 5000/-   | -   |
| 3. | Failure to maintain records pursuant Part 6 of the regulation, and/or failure to submit the aforementioned records to the Ministry     | MVR 3000/-   | MVR 500 will be added to the previous fine, each time the offence is repeated (maximum fine amount is MVR 10,000)   |
| 4. | Submission of false or inaccurate information pursuant to Part 6 of the regulation   | MVR 5000/-   | MVR 1000 will be added to the previous fine, each time the offence is repeated. If the offence is repeated for a third time, the aquaculture license issued to the party will be cancelled. |
| 5. | Transfer of organisms produced in the licensed facility, from one place to another without obtaining approval from the Ministry.       | MVR 5000/-   | MVR 1000 will be added to the previous fine, each time the offence is repeated (maximum fine amount is MVR 50,000)  |
| 6. | Transfer of infected or dead organisms from one place to another, not in compliance with the requirements set forth in the regulation. | MVR 10,000/- | MVR 2000 will be added to the previous fine, each time the offence is repeated (maximum fine amount is MVR 100,000)   |
| 7. | Disposal of infected or dead organisms, not in compliance with the requirements set forth in the regulation.                           | MVR 10,000/- | MVR 2000 will be added to the previous fine each time, if the offence is repeated (maximum fine amount is MVR 100,000)  |
| 8. | Importing a type of organism, that is not stipulated in schedule 1 of the regulation, without the proper permit.                       | MVR 10,000/- | MVR 2000 will be added to the previous fine and the aquaculture license issued to the party will be cancelled, if the offence is repeated for a second time.                                |
| 9. | Importing organisms to a port, that is not permitted under this regulation.  | MVR 10,000/- | MVR 2000 will be added to the previous fine and the aquaculture license issued to the party will be cancelled, if the offence is repeated for a second time.                                |

|     |  |               |  |
|-----|--|---------------|--|
| 10. | Using false or inaccurate information to import organisms.   | MVR 10,000/-  | MVR 2000 will be added to the previous fine, each time the offence is repeated (maximum fine amount is MVR 100,000)  |
| 11. | Stocking imported organisms without quarantining.  | MVR 10,000/-  | MVR 2000 will be added to the previous fine, each time the offence is repeated. In the event of repetition of the offence for a third time, the aquaculture license issued to the party will be cancelled.   |
| 12. | Not in full compliance with the quarantine requirements stipulated in schedule 3 of the regulation.  | MVR 5,000/-   | MVR 1000 will be added to the previous fine, each time the offence is repeated (maximum fine amount is MVR 200,000)  |
| 13. | Delay in reporting a disease or a symptom of a disease.  | MVR 10,000/-  | MVR 1000 will be added to the previous fine, each time the offence is repeated (maximum fine amount is MVR 200,000)  |
| 14. | Using chemicals that are not permitted for the purpose treatment, or prevention of disease or to clean the water in an aquaculture facility. | MVR 100,000/- | MVR 10,000 will be added to the previous fine, each time the offence is repeated. In the event of repetition of the offence for a third time, the aquaculture license issued to the party will be cancelled. |
| 15. | Using food that contains hormones and/or antibiotics that is not stipulated in schedule 4 of the regulation for the purposes of aquaculture. | MVR 50,000/-  | MVR 20,000 will be added to the previous fine, each time the offence is repeated (maximum fine amount is MVR 200,000)  |

**Schedule 6****Calculation of Fines for Offences**

| #  | Conduct  | Fine Amount                   | Factors to consider in determining a fine amount  |
|----|--|-------------------------------|---|
| 1  | Releasing organisms produced through aquaculture, into the ecosystem of the Maldives   | Maximum Amount of MVR 200,000 | <ul style="list-style-type: none"> <li>- Type and amount of the organisms.</li> <li>- Significance of the environment in which the organisms is released into.</li> <li>- Estimated damage to the environment due to the release of organisms.</li> </ul> |
| 2. | Discharge of the water used in aquaculture into the ecosystem of the Maldives, without the proper treatment as instructed by the Ministry  | Maximum Amount of MVR 200,000 | <ul style="list-style-type: none"> <li>- Amount discharged.</li> <li>- Significance of the environment in which the wastewater is discharged.</li> <li>- Estimated damage to the environment due to the discharge of the wastewater.</li> </ul>           |
| 3. | Discharge of water in to the ecosystem of the Maldives, in which drug or chemical is added for the treatment of a disease, without treating the water as instructed by the Ministry. | MVR 200,000/-                 | <ul style="list-style-type: none"> <li>- Amount of water discharged.</li> <li>- Significance of the environment in which the wastewater is discharged.</li> <li>- Estimated damage to the environment due to the discharge of the wastewater.</li> </ul>  |