وزارة البيئة والمياه والزراعة
Ministry of Environment Water & Agriculture
Kingdom of Saudi Arabia المملكة العربية السعودية

**Kingdom of Saudi Arabia**

**Ministry of Agriculture**

**Deputy-Ministry for Fisheries Affairs**

# Regulations of Aquaculture Project License Issuance

**Department of Fisheries**

**(1435-2014)**

**In the Name of Allah the Most Gracious and the Most Merciful**

This translation is provided

for guidance. The governing

text is the Arabic text

Foreword

All praise is due to Allah Almighty, and peace be upon His servant and Messenger (PBUH);

Any observer of the agricultural development process in the Kingdom of Saudi Arabia notices the constructional changes in the agricultural sector, which conformed to the strategic objectives of the development plans, including the fisheries sector. That is to say, the agricultural sector contributed to achieving food security through providing animal protein and improving the level of public health, as well as realizing the sustainable economic development, providing job opportunities, strengthening partnership between public and private institutions and civil society, and adopting technical development as an approach to increase production efficiency and optimal utilization of natural resources necessary for aquaculture to develop rural communities.

The Ministry of Agriculture is taking serious and rapid steps towards enhancing aquaculture projects through an ambitious development plan that includes setting up a clear, transparent and comprehensive framework for planning, managing, monitoring and controlling this sector and supporting it through covering all areas of the Kingdom. In the light of this, the Ministry took the initiative to develop rules for the issuance of licenses for aquaculture projects and to monitor their activities, in order to encourage investments and achieve optimal utilization of natural resources in the Kingdom and managing them in a manner that achieves sustainable economic, social and environmental development and access to self-sufficiency in fish product.

Allah is the Arbiter of Success

Minister of Agriculture

Dr. Fahd bin Abdul Rahman Balghunaim

| Table of Contents | Page No. |
|---|---|
| **First: General Guidelines for the issuance of licenses for aquaculture projects.** | |
| Introduction | 10 |
| Definitions | **11** |
| Regulatory axes on the issuance of licenses | **12** |
| Control Standards for the issuance of licenses | 13 |
| Mechanisms for obtaining licenses | **14** |
| New projects licensing | **14** |
| Existing unlicensed projects | **18** |
| Responsible department to operationalize Projects | **19** |
| Inspection and monitoring | **20** |
| **Second: Procedures for obtaining licenses for aquaculture projects** | |
| Introduction | **24** |
| Procedures for requesting a license | **25** |
| Application procedures andpre-qualification | **25** |
| Submit an initial technical and economic feasibility study. | **25** |
| Conduct an interview and present before the decision committee to obtain its approval of submittal. | **26** |
| A security clearance from border guards (for marine projects) | **27** |
| Issuing an initial approval for site- testing (For marine projects) | **27** |
| Submit an environmental feasibility study for the project | **27** |
| Submit the final technical and economic feasibility study | **27** |
| Issuing project licenses (establishment and operation) | **28** |
| **Third: Regulations for the issuance of licenses for aquaculture projects** | **32** |
| Introduction | **32** |
| Definitions | **33** |
| Objectives and General Principles | **35** |
| Management and Control | **35** |
| Regulations for the issuance of licenses. | **37** |

## First: General Instructions for issuing Aquaculture Projects Licenses

### First: Definitions

**Instructions**

They are the administrative and technical directives explaining the outlines of the controls and procedures for issuing aquaculture projects licenses and controlling the businesses thereof.

**Competent Authority**

It is the Fish Farming Department working under the responsibility of the Deputy-Ministry for Fisheries Affairs in the Ministry of Agriculture, which is responsible for all aquaculture businesses in the Kingdom.

**Related Authorities**

They are the authorities having relationship with some interim procedures for project licenses in the Kingdom.

**Regulations**

They are a set of provisions regulating the issuance of licenses and the establishment and operation of aquaculture projects in the Kingdom

**Procedures**

They are a set of detailed executive steps of the controls of issuing licenses, establishing and operating aquaculture projects in the Kingdom

**Decision-making Committee**

It is the committee competent to decide on aquaculture projects applications in the kingdom, presided by H.E Deputy-Minister for Fisheries Affairs, with the membership of some specialists from the related departments, legal consultant and the Saudi Aquaculture Society.

**Committee of Five**

It is a committee formed to consider the applications of waterfront owners to conduct refilling and dredging operations. This committee comprises the Ministry of Municipal and Rural Affairs, the Ministry of Interior, (the General Directorate of Border Guard), the Ministry of Agriculture, the Ministry of Finance, and the General Authority of Meteorology and Environmental Protection.

**Responsible aquaculture**

**It is the production of marine organisms such as fishes, crustaceans, oysters, algae, aquatic weeds and others under families conditions and the control of breeding factors in accordance with all controls and standard reference criteria regulating production processes.**

**Second: Axes regulating licenses issuance**

**The hubs regulating the issuance of aquaculture projects licenses and controlling the businesses thereof include the following main items:**

**1- General instructions**

**1.1. The general instructions aim to clarify the controls and procedures' outlines of issuing aquaculture projects licenses and controlling the businesses thereof.**

**1.2. They clarify the nature of aquaculture projects and the controls and procedures system through which they must work.**

**2- Regulations**

**2.1. They are the main legal framework for aquaculture projects in the Kingdom.**

**2.2. They specify the powers and duties of the governmental authorities (the competent authority and other related authorities) and the main obligations of aquaculture projects.**

**2.3. They stress the legal capacity of the administrative and technical stipulations set forth in the procedures of issuing aquaculture projects licenses.**

**3- Procedures**

**3.1 Administrative procedures include the detailed lines related to the stages of issuing aquaculture projects licenses.**

**3.2 The technical procedures specify the optimal limits of aquaculture standards with regard to controlling works and obligatory inspection of production systems, environment management, veterinary quarantine and biosecurity.**

**Three: Standards of** Rules **of Aquaculture Project License Issuance, and Monitoring Activities:**

4. Rules of Aquaculture Project License Issuance and Monitoring Activities aims at enhancing the responsible aquaculture practices in the context of the sustainable development of aquaculture industry through a strong administrative and technical system allowing the development and improvement of aquaculture industry. This system is able to meet needs of local market and compete in global markets, in addition to protecting this industry from threats; such as pathogen, chemical pollution sources, and environmental damages that shall be resulted from organic overloads, etc.

5. Rules rely on sound administration principles, globally recognized standards, and administrative and technical best practices; such as:

5-1. Guaranteeing long-term administration and sustainable use of aquaculture and its resources in order to meet current and future generation needs.

5-2. Avoiding and eliminating negatives effects that shall be resulted from aquaculture practices on terrestrial, coastal, and sea environments.

5-3. Observance of rights, interests, and needs of aquaculture industry and its workers

5-4. Obligatory execution and application of such rules and related procedures

5-5. Application of good monitoring principles, questioning, and transparency

5-6. Coordination with Saudi Aquaculture Society (SAS) regarding related decisions.

6. Encouraging all aquaculture industry investments, ensuring investor participation in effective developing such industry, and focusing on targeting serious, qualified, and technically and financially able investors to obtain licenses under these rules.

**Four: Mechanism of Obtaining Aquaculture Project Licenses:**

7. License Requirements:

These rules require from all aquaculture projects in Saudi Arabia to obtain licenses that organize their works.

7-1. New Project Licenses

There are sequential stages that investors should follow in order to obtain aquaculture project license. These stages aim at ensuring the serious practices of investors and quality and appropriateness of those projects for production system and auditing those projects by The competent authority and other related bodies. Those stages are as follows:

7-1-1. Submitting the application and the initial qualification

7-1-2. Submitting initial technical and economic feasibility study of the project

7-1-3. Holding a meeting and the review by a committee for approval

7-1-4. Obtaining the security approval from Border Guard from sea projects (inside the sea)

7-1-5. Issuing the initial approval for location testing (sea projects)

7-1-6. Submitting environmental feasibility study of the project and obtaining the environmental approval. If the project needs a port, it will be raised to the 5-member committee for dredge and fill works

7-1-7. Submitting final technical and economic feasibility study for the project

7-1-8. Final approval and issuing project licenses (construction and operational)

Following is a brief introduction to each stage. In addition, all details and requirements of each stage are stated in related technical procedures:

7-1-1. First Stage: Submitting the application and the initial qualification:

This stage of submitting the application and ensuring the initial qualification of the investor stated in the application form aims at allowing the investor to submit the application on obtaining a license for an aquaculture project. Hence, the competent authority will ensure the compliance of the application with general principles of the appropriate aquaculture practices in context of the requirements of sustainable development of aquaculture industry in Saudi Arabia.

Application form contains information required for evaluating the initial qualification of the investor. Such application form can be found on the Ministry's website.

Upon the competent authority receiving the application, such authority will review it. This could require more information for the review process. Accordingly, the decision will be taken by inviting the investor to submit the initial feasibility study of the project, or informing such investor or the rejection.

7-1-2. Second Stage: Submitting initial technical and economic feasibility study of the project.

- Stage of submitting technical and economic feasibility study aims at providing the competent authority with initial details regarding the suggested project's feasibility and investor's financing sources.
- Sea Projects: competent authority, after approving the initial technical and economic feasibility study of the project, check the chosen location and ensure the initial technical appropriateness of such location.
- Initial technical and economic feasibility study of the project detailed in related technical procedures contains three elements as follows:

  7-1-2-1. Technical measure plans: contain the used kinds and specifications of the chosen location and appropriateness of such location for purpose, facilities, production

systems, biosecurity, production schedule, feed usages, and economical-aspects-related environmental and social considerations.

7-1-2-2. Economic Efficiency Requirements: evaluating costs, cash flow, required funding, sources of that funding, and investor's financial position.

7-1-2-3. Technical Efficiency Requirements: suggested administrative and technical team of the project, their experience in aquaculture, and investor's experience in this kind of projects.

7-1-3. Third Stage: Holding a meeting and the review by a committee for approval.

The competent authority will require a visual presentation, from the investor, showing contents of the initial technical and economic feasibility study of the project before a technical committee. Then, results will be raised to the approval committee for opinion.

7-1-4. Fourth Stage: Obtaining the security approval from Border Guard from sea projects (inside the sea):

After the decision of the approving committee, the competent authority will communicate with the Border Guard for security approval regarding the project location.

7-1-5. Fifth Stage: Issuing the initial approval for location testing (sea projects):

7-1-5-1. The competent authority will issue initial approval regarding the suggested location checking to the investor for one year, renewable, after approval regarding the initial technical and economic feasibility study of the project.

7-1-5-2. Purpose of issuing the initial approval of location checking:

- Evaluating the appropriateness of the location for establishing and operating the project.
- Conducting soil and water analysis in project's location.
- Determining the location capacity using simulated systems of a qualified company.

7-1-6. Sixth Stage: Submitting environmental feasibility study of the project:

A- Environmental Feasibility Study of Sea Projects:

After the initial checking regarding the appropriateness and the location capacity under targets of the initial feasibility study, the competent authority will communicate with Presidency of Meteorology and Environment (PME) to start the procedures of the environmental approval for the project. Investor will conduct required environmental studies from a technical office approved by PME.

- Main target of submitting project's environmental feasibility study is to ensure taking the required measures under the environmental standards.
- Aquaculture projects require conducting a full evaluation on the environmental effects under the environmental standards. Aquaculture project's feasibility studies are submitted to PME for review, approval, and issuing required environmental licenses. Such approval allows the investor to start developing project's final technical and economic feasibility studies mentioned in Seventh Stage.

B- Committee of Five Approval:

The competent authority will, if the project needs a port, contact the Committee of Five on studying the port request and the environmental and technical specifications, and approving the port establishment under the relevant systems. However, if a coastal land is required for the port, the land will be rented under the applicable laws.

C- Assessing the condition of the groundwater for the inland water projects.

Inland aquaculture projects require an assessment on the effects of the water usage on nature and condition of the groundwater to ensure the quantity and quality appropriateness of the water under the standard specifications. A report on which will be raised to the competent authority. Such approval will allow the investor to start developing the project's final technical and economic feasibility study.

- Water Management in the Project:
    - Fish project works on the open system and related to an agricultural project: water needs of the fish project should not exceed the water needs of the agricultural project.

- Fish project works on the closed system and related to an agricultural project: water change ratio should not exceed 50% of the total water volume. This should consist with the agricultural project needs.
- Fish project works on the closed system and no related to an agricultural project: fish project should work on the full rotation of the water in 95%.

7-1-7. Seventh Stage: Submitting final technical and economic feasibility study for the project:

This final study aims at providing the competent authority with detailed information for issuing the construction license:

Such assessment relies on the following:

7-1-7-1. Suggested project technical and economic feasibility

7-1-7-2. feasibility of the time schedule

7-1-7-3. Investor's technical and economic abilities

7-1-7-4. Appropriateness and applicability of the studies

7-1-7-5. Final technical and economic feasibility studies meeting the requirements stated in relevant technical procedures

7-1-7-6. Biosecurity plan, health precautions, infection treatment plan, and risk management resulted from vermin for the project

7-1-7-7. Reviewing project's final technical and economic feasibility study shall be undertaken by the competent authority. If accepted, project's license procedures shall continue.

7-1-8. Eighth Stage: Final approval and issuing project licenses (construction and operational):

This stage aims at the competent authority issuing the project's license as follows:

7-1-8-1. Issuing the project's construction license, and determining its term under the final technical and economic feasibility study.

7-1-8-2. Issuing the project's operational license with a period of thirty years (renewable) after ensuring the completion of the constructional stage under technical specifications of the final technical and economic feasibility study. In some cases, an experimental operation shall be allowed if construction needs long term.

7-1-8-3. If it is an existing project working in the full productive capacity, and the investor desires an expansion in an adjacent area, the investor will submit a request to the competent authority attached with all supporting reasons and studies for such request. The competent authority will review the request and decide on such in coordination with relevant authorities. Such request shall be subject to all above-mentioned license issuance stages. Hence, project's operational license will be amended to include the total space after the expansion and the new total productive capacity.

7-1-8-4. If the project is licensed with a certain space, and the operational processes are not activated in 30% of the full space, The competent authority will serve a warning to the investor on the necessity of completion of the operational processes in the remaining area of the location and completion of the targeted productive capacity set forth in the technical and economic feasibility study within a timeframe determined by the competent authority in coordination with the investor. If the investor fails to do so, project's license will be reissued under the actual used area and revoking the remaining area from the investor.

7-1-8-5. If the project is licensed with an operational license, and no operational works are conducted within two years as of the license issuance, the competent authority will serve a warning to the investor on the necessity of conducting operational processes in the project under the targeted productive capacity set forth in the technical and economic feasibility study. If the investor fails to do so, project's license will be revoked and the project will be reallocated to another serious investor, taking into consideration dealing with assets located in the location.

7-2. Unlicensed Existing Projects:

7-2-1. If the investor has an unlicensed aquaculture project, such investor should inform the competent authority or a branch of the Fisheries and Aquaculture Department as soon as

possible in a period not exceeding one year as of the application hereof. Otherwise, the project shall be subject to a revocation and penalties by the competent authority.

7-2-2. An ad hoc technical team from the Ministry or the Branch of the Fisheries and Aquaculture Department will arrange a visit to the project's location and conduct a check on the premises, for the following:

7-2-2-1. Determining any urgent steps to be taken immediately for saving the environmental and human health

7-2-2-2Issuing a transitional license of the project if the project proofed to be consistent with the standards

7-2-2-3. Providing consults regarding the other steps that shall be required for obtaining the license

7-2-2-4. Investor committing to any technical notes provided by the technical team and executing any obligations for the transitional license of aquaculture projects

7-2-2-5. Transitional license allows the continuity of the aquaculture activities until obtaining the operational license

**Five: Appropriate Management for Aquaculture Project Operational Processes:**

8. Rules of Appropriate Management for Aquaculture Project Operational Processes:

8-1. The Ministry grants aquaculture licenses under these rules in accordance with the technical, economic, and environmental feasibility studies provided to the competent authority and relevant bodies.

8-2. The investor shall hereby commence the performance of the project immediately upon the issuance of the construction license. Construction and operational stages of the project shall be conducted under the direct technical and administrative supervision of the competent authority in order to ensure that performance processes comply with technical standards and time

schedule and other measures, production methods, and responsible practices set forth in the final technical and economic feasibility study and the approved environmental study.

8-3. The investor shall comply with rules, procedures, and technical requirements issued or updated by the competent authority.

8-4. The competent authority shall issue, review, develop, and update rules and procedures regularly if necessary under updates of aquaculture industry, including:

8-4-1. Determining the minimum spaces between projects

8-4-2. Environmental management

8-4-3. Requirements; such as equipment and premises, etc.

8-4-4. Biosecurity

8-4-5. Preventing moving the project aquatic livings into natural environments

8-4-6. Saving nature reserves

8-4-7. Employing technically qualified workers to ensure the effectiveness of the aquaculture practices.

8-4-8. Using antibiotics, chemicals, and vaccines, etc.

8-5. Application of rules of responsible operational practices in order to allow moving the aquaculture project products into international markets

**Six: Inspection and Monitoring:**

9. Rules of Inspection and Monitoring:

9-1. All investors shall provide the competent authority with a regular progress report in the aquaculture project performance stages, including:

9-1-1. Progress of the project construction stages, in context of the construction license.

9-1-2. Progress conducted in the project operational, administrative, and productive processes, in context of the operational license.

9-2. Inspectors officially employed by the competent authority are entitled to visit the project location and any project related premises to follow up and monitor performance and operation stages, and to ensure the compliance with requirements of granted licenses and applicable laws. Biosecurity requirements shall be considered.

9-3. Inspectors shall serve the investor with a warning in case of a breach or a potential breach of any rules and requirements regulating aquaculture licenses or rules of construction or operational practices. Investor shall be required to take necessary procedures to fix the breach or to ensure the non-occurrence of a potential breach.

9-4. Non-compliance with the warning shall be deemed as a breach. Under the powers stated in the rules on applying penalties, suspending, or revoking the license, the competent authority is entitled to take remedial steps as seen fit and such steps will be charged to the investor.

**Second:**

Aquaculture Project License Obtaining Procedures

**Introduction:**

These procedures aim at developing methods of aquaculture project license issuance and monitoring their activities in Saudi Arabia.

Terms used in these procedures and defined in the rules shall have the same meaning stated in the rules.

**License Application Procedures:**

1. Application Submission Procedures and Initial Qualification:

   1.1. Any investor (individual or company) desiring to submit an application for obtaining an aquaculture project license shall submit an application to the competent authority containing the following:

      1.1.1. Technical description of the suggested project.

      1.1.2. A copy of:

         - National ID for Saudi Arabian citizens.
         - Passport for foreign investors (subject to approval of General Investment Authority).
         - CR for companies and firms.

      1.1.3. A proof of the financial solvency, in the form of a back certificate.

      1.1.4. Executing an acknowledgement on compliance with all applicable administrative and technical rules and requirements for establishing and operating the project, should the application be approved.

   1.2. Should the aquaculture project be in the inland water, the applicant shall, in addition to the above-mentioned, submit the following:

      - A proof that the aquaculture project is within an existing agricultural project.
      - A copy of the land document of title, or a certified copy of the lease agreement with a period not less than 10 years.

   1.3. The competent authority shall approve the application of the initial qualification in the following cases:

      - All documents and information required under (1.1) and (1.2) are submitted.
      - The competent authority ensured that such documents and information are accurate and correct.

2. Submission of Project's Initial Technical and Economic Feasibility Study:

Should the initial qualification application be approved, the competent authority shall invite the applicant to submit the initial technical and economic feasibility study for the suggested project describing size, features, economic targets, work plan and methods of the project, and to also submit a proof of the technical and financial ability to establish and operate the project.

The technical and economic feasibility study and visual presentation are evaluated under the content of the technical and financial feasibility study by:

1- Competent authority.

2- As appropriate, any other authority in Saudi Arabia related to the license's application, including:

- Ministry of Water and Electricity (MWE): for evaluating the appropriateness of the water needs of the inland project with the water supply capacity in the project's location.
- Deputy Ministry for Land Affairs (DMLA): for evaluation the land usages in case of sea and coastal aquaculture projects.
- Border Guard: for obtaining the security approvals for sea aquaculture projects (floating cages and fenced areas).

2.1. The competent authority shall approve the initial study if ensured the following:

2.1.1. No authority mentioned in (2) above stated a rejection on the project.

2.1.2. The suggested aquaculture project, as mentioned in the initial technical and economic feasibility study, is:

1- Technically applicable.

2- Economically feasible.

2.1.3. The suggested aquaculture project consists with the enhancement of the growth of the aquaculture industry in terms of requirements of the sustainable development ad responsible aquaculture practices on long term.

2.2. The competent authority shall:

- Provide the investor with reasons of rejection of the initial technical and economic feasibility study in writing.

- Provide the investor with clear recommendations upon approval of the initial technical and economic feasibility study, and request the correction of some paragraphs.

3. Holding a Meeting and Raising to the Executive Committee for Approval:

   The competent authority may request from the investor to submit a visual presentation explaining content of the initial technical and economic feasibility study before a technical committee formed by the competent authority, then the same shall be raised to the executive committee for approval.

4. Obtaining the Security Approval from Border Guard for Sea Projects:

   After the approval of the executive committee, the competent authority shall contact border guard to obtain the security approval for the project.

5. Project's Checking Initial Approval Issuance (Sea Projects):

   5.1. The competent authority shall issue an initial approval regarding the suggested location checking for the investor for a renewable period of one year, after approving the initial technical and economic feasibility study of the project.

   5.2. Purpose of Location Checking Initial Approval Issuance:

   - Evaluating the appropriateness of the location for establishing and operating the project.
   - Conducting soil and water analysis in the project's location.
   - Determining the locations capacity.
   - Evaluating the environmental impact of the project (environmental study).

6. Submission of Project's Environmental Feasibility Study:

   6.1. The investor shall submit:

   - Environmental impact evaluation, in case of sea aquaculture projects.
   - Evaluating the impact of using the water, in case of inland aquaculture projects.

   6.2. Environmental study shall comply with requirements and standards stated by the relevant governmental authorities.

7. Submission of Project's Final Technical and Economic Feasibility Study:

7.1. Should the environmental study be approved, the competent authority shall invite the investor to submit the final technical and economic feasibility study, containing the following:

- Technical management of project's facilities.
- Economic aspects of the project.
- Suggested measures for environmental management and biosecurity.
- Suggested control procedures.
- Engineering drawings of the project's facilities.

7.2. The competent authority may:

- Approve the project's final technical and economic feasibility study.
- Approve the project's final technical and economic feasibility study, with giving recommendations on the minor and major amendments.
- Reject the project's final technical and economic feasibility study, with giving reasons of the rejection in writing to the investor.

7.3. The competent authority shall approve the investor's application and issue the license under the aquaculture requirements, in case of satisfying the following:

- Approving the environmental study.
- Approving the project's final technical and economic feasibility study.
- Approval of DMLA regarding the project's location lease agreement in case of the coastal aquaculture projects.

8. Project License Issuance (Construction and Operational).

This procedure aims at issuing the project's license by the competent authority as follows:

8.1. Issuing the project's construction license, date of which is determined under the final technical and economic feasibility study.

8.2. Issuing the operational license of the project with the period of thirty years (renewable) after ensuring the completion of the constructional stage under the technical specifications stated in the final technical and economic feasibility study.

8.3. If it is an existing project working in the full productive capacity, and the investor desires to expand in an adjacent area, the investor shall submit a request to the competent authority attached with all supporting reasons and studies for such request.

8.4. If the project is licensed with a certain space, and the operational processes are not activated in 30% of the full space, the competent authority shall serve a warning to the investor on the necessity of completion of the operational processes in the remaining area of the location and completion of the targeted productive capacity set forth in the technical and economic feasibility study within a timeframe determined by the competent authority in coordination with the investor.

8.5. If the project is licensed with an operational license, and no operational works are conducted within two years as of the license issuance, the competent authority shall serve a warning to the investor on the necessity of conducting operational processes in the project under the targeted productive capacity set forth in the technical and economic feasibility study.

**Third:**

Rules of Aquaculture Project License Issuance

**Introduction:**

Aquaculture industry in Saudi Arabia relies on the best usage of the available natural resources by developing general policies, plans, and programs that organize the management and sustainable development of those resources. In addition, Act on Fishing, Exploitation, and Protection of the Marine Life in the Territorial Waters of Saudi Arabia enacted by Cabinet Resolution No. 14 dated 21/01/1408 AH under Royal Decree No. M/9 dated 27/03/1408 AH. The Ministry seeks to achieve the self-sufficiency in fish products, participate in achieving the national food security, diversify and update the productive base, make the best use of the available resources, improve the economic and marketing sufficiency, and provide the different high quality fish products in reasonable prices with exporting the surplus products.

Given the promising improvement in aquaculture fields and activities, it is urgent to keep pace with such improvement by developing modern rules and methods regulating the issuance of the aquaculture project licenses and monitoring their activities.

**First: Definitions:**

- **Procedures:** some detailed executive steps of rules of aquaculture project establishment and operation license issuance in Saudi Arabia.
- **Rules**: some provisions regulating aquaculture project license issuance, establishment and operation in Saudi Arabia.
- **Investor**: the legal person (individuals – companies – firms) requesting to obtain the aquaculture project license.
- **Aquaculture**: production of marine life such as fish, crustaceans, shellfish, algae, water grass, etc. in sites and with controlling the production factors.
- **Inland Aquaculture**: Increasing, caring, and feeding the marine life in the inland sites using the freshwater or potable water as a production environment.
- **Sea Aquaculture**: Increasing, caring, and feeding the marine life in the inland sites using the saltwater as a production environment.
- **Aquaculture Activities**: Any activity done or directly or indirectly related to aquaculture.
- **Aquaculture Facilities**: main production units (such as caring and raising tanks - fish hatchery – feed factory) and supporting units (such as water treatment unit – ventilation units – laboratories – storages – vessels – means of transportation).
- **The Competent Authority**: Fish Farm Administration (FFA) working under the responsibility of Deputy Ministry of Fish Wealth (DMFW) of Ministry of Agriculture that is responsible for all aquaculture activities in Saudi Arabia.
- **Relevant Bodies:** the bodies related to some stage procedures of aquaculture project license in Saudi Arabia.
- **Environmental Impact Evaluation**: the process of determining and evaluating the potential biological impacts of the suggested project on the natural environment, and all resulted effects.
- **The Licensed**: the Investor holding the license.
- **Location Checking Initial Approval**: an initial approval issued by the competent authority for commencing the checkup process and analysis on the project's location.

- **Responsible Aquaculture Practices**: production of marine life such as fish, crustaceans, shellfish, algae, water grass, etc. in sites and with controlling the production factors in accordance with all standard rules and criteria regulating the production processes.
- **Sustainable Aquaculture**: some aquaculture practices that ensure the continuity of the production processes in economically feasible and environmentally responsible methods.
- **Open Aquaculture System**: the system relying in the operation on the open tanks that needs a gradual change of water under the water quality specifications.
- **Closed Aquaculture System**: the system relying in the operation on the closed management of the water by recycling after the mechanical and biological treatment.
- **Executive Committee**: a committee competent to take decisions regarding aquaculture projects in Saudi Arabia chaired by Deputy Minister of Fish Wealth and membered by experts from relevant administrations and a legal councilor and Saudi Aquaculture Society (SAS).
- **Aquaculture Inspector**: the responsible person in the competent authority that is entitled to conduct monitoring and inspection works on aquaculture projects.

**Second: General Targets and Principles:**

1. Targets:

   These rules aim at supporting the improvement of the aquaculture industry in context of the sustainable development and responsible aquaculture practices on long term.

2. General Principles:

   The competent authority develops the aquaculture national policy for achieving the following general policies:

   2.1. Sustainable management of aquaculture industry in order to ensure the long-term management and protection of aquaculture projects and water resources to satisfy the needs of the present and future generations.

   2.2. Ensuring the long-term competitiveness of aquaculture industry in national and foreign markets.

2.3. Application of standards of management, protection, and development of aquaculture industry under international standards and recognized best practices.

2.4. Monitoring, studying, and evaluating impacts resulted from operational processes of aquaculture projects on inland, coastal, and sea environmental systems.

2.5. Collecting, documenting, and exchanging information and developing studies related to aquaculture fields.

2.6. Considering interests, needs, and rights of workers of aquaculture industry.

2.7. Involving investors and relevant bodies in decision making process.

**Third: Management and Monitoring:**

3. Competent Authority Responsibility:

   The competent authority shall manage and monitor aquaculture industry processes and activities on lands, coasts, and sea of Saudi Arabia.

4. Competent Authority Powers:

   4.1. The competent authority is fully responsible for executing these rules targeting improving, developing, and executing policies and laws necessary for the sound performance of the aquaculture sector.

   4.2. The competent authority may execute an agreement with any legal person, governmental agency, organization, or national or international agency for any purpose related to aquaculture sector in Saudi Arabia.

5. Aquaculture Rules and Procedures:

   The competent authority may:

   5.1. Determine detailed steps or administrative systems for any part of these rules and procedures.

   5.2. Determine the technical requirements, standards, procedures, and laws applicable for aquaculture activities, including different kinds and stages of aquaculture projects or parts of the present or future activities.

   5.3. Rules and procedures approved by the competent authority:

5.3.1. Determining the obligatory date for commencing the application on the aquaculture activities.

5.3.2. Announcing by the appropriate means to inform the investors of the Minister's approval.

5.4. These rules and procedures shall apply upon approval.

6. Coordination between Competent Authority and Relevant Bodies:

The competent authority shall hereby take into consideration the administrative methods and steps appropriate for the coordination with all relevant bodies in terms of aquaculture project license issuance and monitoring their activities.

7. Ad Hoc Committees:

The competent authority may, as seen fit, form any ad hoc administrative or technical committees to ensure the management and execution of these rules and procedures regulating the aquaculture activities in participation of SAS.

8. Appeals:

8.1. Any investor harmed from ay decision of the competent authority under these rules may first appeal against such decision before the Minister within 14 days as of the notice receipt.

8.2. Minister or representative thereof may look into any appeal under (8.1) and take the appropriate decision in such regard.

8.3. Decision of the Minister or representative thereof shall be final in any submitted appeal.

8.4. In case of any conflict between the investor and the Ministry, such conflict shall be resolved by the law related to such activity.

**Fourth: License Issuance Rules:**

This section discusses the types of the licenses of aquaculture projects and requirements and methods of obtaining such licenses, and the regulating procedures.

9. Project License Obtaining Obligation:

Involvement in aquaculture activities without an available license is a breach under these rules.

10. Types of Licenses:

Aquaculture license types issued by the competent authority consists of construction and operational licenses (for new projects), and transitional licenses (for unlicensed existing projects).

10.1. Construction Licenses:

10.1.1. The competent authority issues construction licenses for constructional stage of the aquaculture project, containing construction of infrastructure and equipment installations.

10.1.2. Construction license shall be issued under the project's technical and economic feasibility study.

10.1.3. Should the license be expired before the completion of the project construction, the competent authority is entitled to:

10.1.3.1. Expand the license for a more period.

10.1.3.2. Revoke the license.

10.2. Operational Licenses:

10.2.1. The competent authority shall issue the aquaculture project operational license if ensured the following:

10.2.1.1. The construction works are completed, including the infrastructure development and equipment installation, and in a sound condition.

10.2.1.2. The aquaculture project is able enough to commence the production under the terms of the license granted and other standards stated in these rules and procedures thereof.

10.2.2. Operational license shall be for thirty years, it may be renewed for other similar periods if the competent authority ensures that the project's licensed area is developed and operated in accordance with the production capacity mentioned in the technical and economic feasibility study.

10.2.3. The competent authority may serve a warning to the investor and decide on suspension or revocation of the operational license of the project, should the competent authority see that the investor is not serious and does not comply with rules and procedures regulating the operational processes under the project's technical and economic feasibility study.

10.3. Transitional Licenses:

10.3.1. The investor practicing the aquaculture activity without a license shall submit an application to the competent authority requesting to obtain a transitional license as determined by the competent authority.

10.3.2. Upon submitting the application mentioned in (10.3.1), the competent authority shall visit the unlicensed project's location for the following:

10.3.2.1. Checking and inspecting the facilities.

10.3.2.2. Preparing a report targeting to define any urgent steps to be taken immediately for protecting the environment and human health, or other adjacent aquaculture projects, and determining the timeframe needed for such steps.

10.3.2.3. Issuing transitional license for the project, should the competent authority ensured that the unlicensed aquaculture project can temporarily continue working without risks on the environment, human health, and other adjacent aquaculture projects.

10.3.3. The investor shall submit an application requesting to obtain an operational license for their project within one year as of the date of obtaining the transitional license.

10.3.4. The transitional license shall be expired should no application on obtaining the operational license be submitted within one year as of the date of issuing the transitional license in accordance with (10.3.3) above.

11. License Obtaining Procedures:

11.1. General Conditions:

11.1.1. The application shall be submitted under the form prepared by the competent authority.

11.1.2. The competent authority may make any administrative decision or develop a protocol under these rules containing the detailed requirements of the license obtaining application procedures.

11.2. Private Conditions

11.2.1. Inland Water Aquaculture Projects:

Licenses for inland water aquaculture projects shall be issued under the following:

11.2.1.1. If the project is working under the open system within an existing agricultural project, provided that the water needs of the fish project shall not exceed the water needs of the agricultural project.

11.2.1.2. If the project is working under the closed system within an existing agricultural project, provided that the water change rate of the fish project shall not exceed 20% of the total volume of the water in the fish project.

11.2.1.3. If the project is not working within an existing agricultural project, in such case, closed water management system shall apply provided that water change rate shall not exceed 5% of the total volume of the water in the fish project, and preparing a study on the uses of the waste water.

11.2.1.4. License stages generally contain the following:

11.2.1.4.1. Submission of the License Application by the Investor:

The investor shall fill the data of the aquaculture project license application form prepared by the competent authority. Such application shall be attached with all paper and documents required and detailed in the conditions of such kind of projects.

11.2.1.4.2. Submission of the Project Initial Technical and Economic Feasibility Study:

The competent authority may request from the investor to submit the project initial technical and economic feasibility study detailed in the relevant technical procedures, containing three main elements:

- Technical Measures: containing the used kinds, location, facilities, production systems, biosecurity standards, production schedule, feed usages, and environmental considerations.
- Economic Efficiency Requirements: containing evaluation of costs, cash flow, required funding and its sources, and investor's financial position.
- Technical Efficiency Requirements: containing the administrative and technical team suggested for managing the project, and stating their experience in aquaculture and experience of the investor in this kind of projects.

11.2.1.4.3. Report on Water Condition in the Project's Location:

- The competent authority may request from the Ministry of Water and Electricity a technical report on the nature, quantity, and kind of well water to ensure its appropriateness for the suggested project.

11.2.1.4.4. Submission of Project's Final Technical and Economic Feasibility Study:

- The competent authority may request from the investor to submit the project's final technical and economic feasibility study under the detailed standards stated in the relevant procedures.
- The competent authority may, as seen fit, make any amendments to the project's final technical and economic feasibility study. It also may invite the investor to amend

the studies, reports, or any other allocations. Upon the approval of the competent authority regarding the amended studies and reports, the competent authority may proceed with the legal procedures in such regard.

11.2.1.4.5. Construction License Issuance:

- Project's construction license issuance shall be subject to the approval of the competent authority. Period of such license shall be under the project's technical and economic feasibility study, and may be renewed for other periods, if needed.
- Construction license contains the project's construction stage conditions under the recommendations of the competent authority.

11.2.1.4.6. Operational License Issuance:

- Project's operational license shall be issued for a renewable period of thirty years after revision by the competent authority and ensuring the completion of the construction stage under conditions mentioned in the project's construction license.
- The competent authority may serve a warning to the investor not complying with the rules of the targeted production capacity mentioned in the technical and economic feasibility study on satisfying the same within a period determined by the competent authority.
- The competent authority may serve a warning to the investor holding an operational license that does not perform any operational works within the period determined in the study on the performance of the operational processes of the project. If the investor fails to

do so, a decision may be made on the suspension or revocation of the license granted to the project.

11.2.2. Coastal and Sea Aquaculture Projects:

11.2.2.1. Submission of the License Application by the Investor:

The investor shall fill the data of the coastal or sea aquaculture project license application form prepared by the competent authority. Such application shall be attached with all paper and documents required and detailed in the conditions of such kind of projects.

11.2.2.2. Submission of the Project's Initial Technical and Economic Feasibility Study:

11.2.2.2.1. The competent authority may request from the investor to submit the project initial technical and economic feasibility study detailed in the relevant technical procedures, containing three main elements:

- Technical Measures: containing the used kinds, location, facilities, production systems, biosecurity standards, production schedule, feed usages, and environmental considerations and social considerations related to the economic aspects.
- Economic Efficiency Requirements: containing evaluation of costs, cash flow, required funding and its sources, and investor's financial position.
- Technical Efficiency Requirements: containing the administrative team suggested for managing the project, and stating their experience in aquaculture and experience of the investor in this kind of projects.
- The competent authority may request from the investor to submit a visual presentation on the content of the initial technical and economic feasibility study of the project

before a technical committee formed by the competent authority, and results shall be raised to the executive committee for approval.

11.2.2.2.2. The competent authority shall, upon approving the project's technical and economic feasibility study, contact the border guard for obtaining the security approval on the suggested project's location.

11.2.2.2.3. After the security approval, the competent authority shall issue an initial approval for one year for conducting a checkup on the project's location (sea projects).

11.2.2.3. Initial Approval on the Location Checkup:

11.2.2.3.1. The competent authority may issue an initial approval on the location's checkup for conducting any necessary checkup to prepare the studies and analysis required for the technical and environmental evaluation of the location.

11.2.2.3.2. The competent authority may hereby take any action containing the detailed conditions for issuing the initial approval of the location checkup.

11.2.2.4. Submission of the Environmental Study:

11.2.2.4.1. The competent authority may instruct the investor to submit the project's environmental feasibility study to Presidency of Meteorology and Environment (PME) in order to evaluate the environmental feasibility of the project.

11.2.2.4.2. Should the project need an own port, the competent authority shall contact the Committee of Five to study the request of the port and the environmental and technical specifications, and approving the port building under the relevant laws.

11.2.2.5. Submission of the Final Technical and Economic Feasibility Study:

- The competent authority may request from the investor to submit the project's final technical and economic feasibility study under the detailed standards stated in the relevant procedures.
- The competent authority may, as seen fit, make any amendments to the project's final technical and economic feasibility study. It also may invite the investor to amend the studies, reports, or any other allocations. Upon the approval of the competent authority regarding the amended studies and reports, the competent authority may proceed with the legal procedures in such regard.

11.2.2.6. Construction License Issuance:

- Project's construction license issuance shall be subject to the approval of the competent authority. Period of such license shall be under the project's final technical and economic feasibility study, and may be renewed for other periods.
- Construction license contains the project's construction stage conditions under the recommendations of the competent authority.

11.2.2.7. Operational License Issuance:

- Project's operational license shall be issued for a renewable period of thirty years after the approval of the competent authority.
- If it is an existing project working in the full production capacity, and the investor desires an expansion in an adjacent area, the investor shall submit a request to competent authority attached with all supporting reasons and studies for such request. Competent authority shall

review the request and decide on such in coordination with relevant bodies. Such request shall be subject to all above-mentioned license issuance stages. Hence, project's operational license will be amended to include the total space after the expansion and the new total productive capacity.

- If the project is licensed with a certain space, and the operational processes are not activated in 30% of the full space, competent authority shall serve a warning to the investor on the necessity of completion of the operational processes in the remaining area of the location and completion of the targeted productive capacity set forth in the technical and economic feasibility study within a timeframe determined by the competent authority in coordination with the investor. If the investor fails to do so, project's license will be reissued under the actual used area and revoking the remaining area from the investor.
- If the project is licensed with an operational license, and no operational works are conducted within two years as of the license issuance, competent authority will serve a warning to the investor on the necessity of conducting operational processes in the project under the targeted productive capacity set forth in the technical and economic feasibility study. If the investor fails to do so, project's license will be revoked and the project will be reallocated to another serious investor.

11.3. License Renewal Rules:

11.3.1. The competent authority may renew the aquaculture project license after ensuring the following:

11.3.1.1. That the project consists with targets stated in the environmental study and the technical and economic feasibility study.

11.3.1.2. That the investor complies with rules and conditions of the issued license.

11.3.1.3. The technical and financial efficiency to proceed with the project production program under content of the technical and economic study and the issued operational license.

11.3.1.4. That the project does not have negative impacts on the environment.

11.3.2. The competent authority may reject the license renewal in the following cases:

11.3.2.1. Non-compliance of the investor with the rules and conditions of the issued license.

11.3.2.2. If the investor provides with the competent authority or the other relevant bodies with incorrect, incomplete, or false information.

11.3.2.3. If the investor holding the license performs another activity or practices that may harm the aquaculture industry.

11.4. Aquaculture Project Facility Addition Rules:

Licensed aquaculture project investors may hereunder add new facilities to the projects inside the licensed location under the approval of the competent authority and in compliance with the regulating conditions.

11.5. Aquaculture Project Expansion Rules:

Investors of licensed aquaculture project working in the full production capacity may hereunder expand the project outside the licensed location under the approval of the competent authority and in compliance with regulating conditions. Such request shall be subject to all above-mentioned license issuance stages. Hence, a new operational license shall be issued including the total space after the expansion and the new total productive capacity.

11.6. License Waiver Rules:

11.6.1. The license may not be waived without a written consent from the competent authority.

11.6.2. The license may not be waived, unless the competent authority ensures the following:

11.6.2.1. The receiving investor has the technical and financial efficiency required for establishment, continuing the establishment, or operation of an aquaculture project under the regulating rules issued by the competent authority.

11.6.2.2. Continuity of the project has no negative impacts on the environment.

11.6.3. The competent authority may take an action under these rules for the detailed conditions of the license waiver steps.

11.7. License Amendment Rules:

11.7.1. The competent authority shall hereunder amend the license under the reasons of the production plan amendment stated in the investor's request and the approval of the competent authority regarding the same.

11.7.2. The competent authority may hereunder request additional studies, plans, or other information as seen necessary for making the license amendment decision.

11.8. Responsible Operation Rules:

The competent authority may hereunder put an obligation of rehabilitation of the harmed area in case of the project's non-responsible operation, abandon, or waiver.

11.9. Consultant Office Rules:

11.9.1. Experienced and qualified consultant offices shall approved in the following fields:

11.9.1.1. Technical design of appropriate aquaculture projects in Saudi Arabia.

11.9.1.2. Economic and financial analysis of aquaculture projects.

11.9.1.3. Environmental management of aquaculture projects.

11.9.2. The competent authority may issue a license allowing the existing and new consultant offices to conduct the works related to preparing technical and economic studies for aquaculture projects under the governing regulations.

11.9.3. The competent authority may hereunder take an action in order to determine conditions and standards of approving and licensing the consultant offices.

11.9.4. The competent authority may hereunder suspend or revoke the license issued for a consultant office in case of breaching the license conditions subject to the breach type.

**Fifth: Rules of Aquaculture Responsible Practices:**

12. Space between Projects:

The competent authority may determine the minimum acceptable space that shall be maintained between aquaculture projects. Also, the competent authority may amend such acceptable space as seen fit.

13. Environmental Management:

13.1. Aquaculture facilities shall be established and operated in an environmentally responsible method.

13.2. The competent authority may issue detailed condition procedures in order to ensure the environmentally responsible raising of marine life.

13.3. The investor shall conduct the necessary environmental survey and document the project location environmental condition under the aquaculture project checking license issued by the competent authority.

14. Materials and Equipment:

14.1. Materials and Equipment chosen shall be appropriate for aquaculture activities, and shall be with good features, and used with appropriate precautions.

14.2. The competent authority may issue a procedure stating features and conditions of materials and equipment, and manufacturing, usages, and documents thereof.

15. Biosecurity Standards:

15.1. Aquaculture facilities shall be established and operated in compliance with imposed biosecurity standards and monitoring.

15.2. The competent authority may issue a procedure stating biosecurity requirements, standards, and monitoring in aquaculture projects.

16. Raised Marine Life Moving into Natural Environments:

16.1. Aquaculture facilities shall be established and operated in compliance with standards imposed for preventing raised marine life moving into natural environments.

16.2. The competent authority may issue a procedure stating rules of applying plans and steps of preventing the raised marine life moving into natural environment by the investor.

17. Rehabilitation of Harmed Project Area:

17.1. All investors working in aquaculture activities shall rehabilitate the location and adjacent areas should construction or production stage not be totally or partially completed; including the safe disposal of marine life, materials, and equipment, etc.

17.2. The competent authority may issue a procedure stating rules of rehabilitation of the areas harmed from the project operation.

18. Natural Reserves:

The competent authority may ban or amend the aquaculture activities place if necessary for saving natural reserves valuable for marine life.

19. Technical and Administrative Efficiency of Project Teams:

19.1. All investors working in aquaculture activities shall employ highly qualified technical and administrative employees for the project management.

19.2. The competent authority may issue a procedure stating the condition of employment of qualified technical and administrative employees, and conditions of experience testing and the minimum acceptable qualifications and experiences.

20. Antibiotics, Chemical Treatment, and Vaccines Usage:

20.1. Antibiotics, chemical treatment, and vaccines shall be used in aquaculture projects in accordance with regulating rules issued by the competent authority.

20.2. The competent authority may issue a procedure stating conditions related to the usage of antibiotics, chemical treatments, and vaccines in aquaculture projects.

21. Others:

The competent authority may hereunder issue a procedure on any other conditions in order to ensure the efficiency and responsibility of aquaculture practices.

**Sixth: Investor Obligation Rules:**

22. General Obligations of the Investor:

22.1. The investor shall perform the licensed aquaculture project within the determined time schedule stated in the final technical and economic feasibility study.

22.2. The investor shall preform the licensed aquaculture project in compliance with:

22.2.1. Technical and environmental standards, production methods, monitoring, and practices stated in the final technical and economic feasibility study.

22.2.2. Definitions and conditions stated in the license.

22.2.3. Any of the obligations, standards, and conditions stated in these rules and other relevant rules.

23. Compliance with General Obligations:

23.1. The competent authority may revoke the license should the investor fail to comply with the time schedule determined in the final technical and economic feasibility study, and not begin the operational activities of the project after obtaining the operational license.

23.2. The competent authority may suspend, revoke, or amend the license should any of the obligations, standards, and conditions stated in these rules or the final technical and economic feasibility study be breached.

23.3. The competent authority shall document the breach and serve the investor with a notice prior to the license suspension or revocation.

23.4. The competent authority shall check any complaints submitted by the investor before the license suspension or revocation.

24. Recordkeeping:

24.1. The investor shall keep a record on the aquaculture project information containing the following:

24.1.1. Production records containing amount of stored marine life, produced marine life, consumed feed amount, treating chemicals and usage thereof, average weight, and death rates, etc. regarding all production cycle.

24.1.2. Applied environmental monitoring standards.

24.1.3. Administrative procedures and operational policies.

24.1.4. Usage of antibiotics, chemical treatments, and vaccines.

24.2. The competent authorities may issue a procedure hereunder on detailed provisions of recordkeeping.

25. Informing Obligation:

Licensed investor shall immediately inform the competent authority upon occurrence of any of the following:

25.1. Unusual marine life death.

25.2. Pandemic.

25.3. The raised marine life moving into the natural environments.

25.4. Any tide or natural disaster that may affect the project.

26. Investor's Responsibility:

26.1. The investor shall be responsible for any loss that may arise from the following:

26.1.1. License breach including the non-compliance with the environmental monitoring, biosecurity, and other monitoring.

26.1.2. Not informing the competent authority of any issue that shall hereunder be informed.

26.1.3. Negligence arising from the project operational processes.

26.2. The investor shall submit all records and documents related to the project to the competent authority upon request hereunder.

**Seventh: Rules of Compliance, Monitoring, and Informing:**

27. Technical Reports:

The investor shall regularly submit a technical report in a form a style complied with the requirements of the competent authority on the following:

27.1.1. Progress in stage of the constructional works.

27.1.2. Progress in operational, management, and production stages.

28. Monitoring:

28.1. The competent authority may visit the project's location and facilities in any time in order to follow-up and monitor the constructional and operational stages.

28.2. The competent authority may coordinate with the relevant bodies regarding the regular inspection works as seen fit without informing the investor.

29. Inspectors:

29.1. The competent authority may choose an aquaculture inspector to check the following:

29.1.1. Aquaculture activities management, including:

29.1.1.1. The technical management of licensed aquaculture project operation.

29.1.1.2. Marine life health and safety management including normal and pandemic deaths and discovery of a new disease.

29.1.2. Compliance with these rules and license conditions.

29.2. Aquaculture inspector may access the project's facilities during the working hours in order to inspect the administrative and technical work measures.

29.3. No person may impede the inspector from performing duties thereof under these rules.

30. Checkups and Sample Collections:

30.1. The investor shall, upon the aquaculture inspector's request, submit any record or operational plan of the project for inspection.

30.2. The inspector may:

30.2.1. Conduct any checkup or investigation, if necessary, in order to determine the extent of the project's compliance with the license conditions.

30.2.2. Request to check and take copies of the license, record, document, or any other documents including electronic records or required documents related to operation of any facility, equipment, machine, or a mean of transportation in the project.

30.2.3. Request to check the marine life, chemicals, vaccines or any other material in the project.

30.2.4. Take samples of the water, sediments, or marine life from any tank, container, or box located in any place in the project location.

30.2.5. Check, take a photo of, or mark any part of the project's facilities or anything located therein.

30.3. The inspector may open or appoint any person to open any container or box in the project and take samples as seen by the inspector.

30.4. The inspector may impose a full or partial ban on the transfer of the marine life of the project, treatment, or disposal thereof or disposal of their production, any container or box.

30.5. The inspector, in case of any record or document recorded by a computer, may:

30.5.1. Access, check, or inspect such record or document, and inspect any used materials related to the record or document.

30.5.2. Call any responsible person or specialized in computers and other devices to give the help as seen fit.

30.6. The inspector may dispose any sample obtained if no longer needed.

30.7. The inspector may, when accessing the aquaculture projects, take other persons to complete the inspection works as required.

31. Inspectors Recognition:

The inspector performing any powers given hereunder shall the identification card that state the identification as an inspector upon request.

32. Privacy (Confidentiality):

32.1. No responsible person performing missions and responsibilities hereunder (including the competent authority's employees and inspectors) may disclose any private-nature information or data obtained under their powers, duties, or responsibilities to any person not having such powers, or practicing such missions and responsibilities, unless officially allowed.

32.2. The following information shall be deemed as private (confidential) hereunder:

32.2.1. Any information or data with a commercial nature in the records, reports, or documents of the project.

32.2.2. Any information or data that may be verified later.

32.3. The following shall, hereunder, be allowed:

32.3.1. Disclosing the confidential information to the competent authority.

32.3.2. The competent authority may disclose and publish the confidential information related to the project.

32.3.3. The competent authority may use the confidential information for the purpose of giving opinions and guidance.

**Eighth: Forced Execution Rules:**

33. Forced Execution Warnings:

33.1. The Investor shall serve a warning to the investor (forced execution warning) under this rule should the investor have breached, breach, or be expected to breach any of the license conditions.

33.2. The forced execution warning shall include the following:

33.2.1. The inspector's vision mentioned in (33.1).

33.2.2. Determining issues that form the breach or that will lead to a breach.

33.2.3. Determining the steps that shall be done in order to fix the breach or to ensure that this breach will not occur again and the timeframe needed for that.

33.3. Forced execution steps aim at:

33.3.1. Compliance of the aquaculture project operation with any condition of the license and these rules.

33.3.2. Fixing the effects arising from the pollution and damage resulting from the breach.

34. Forced Execution Warning Compliance Information:

The investor served with the forced execution warning shall immediately inform the inspector of the compliance with the warning requirements and details of the steps taken in order to comply with such requirements.

35. Compliance with the Warning:

35.1. Should the investor not comply with the forced execution warning requirements, the inspector is entitled to access the project facilities and take the steps as seen fit whether to ensure that compliance with all requirements stated in the warning or to fix the effects resulted from the non-compliance.

35.2. The inspector entering the project facilities may bring other persons, equipment, and means of transportation as necessary in order to continue the inspection works.

35.3. The inspector may take any procedures to confront the investor's non-compliance with the warning and requirements thereof. In addition, the competent authority may be reimbursed with all costs of execution such procedures as a debt on the investor.

36. Breaches:

36.1. The investor shall be deemed as a breaching party, and be proofed with the breach, in the following cases:

36.1.1. Operating the project without a license and not informing of the same.

36.1.2. Breaching conditions of the construction and operational licenses.

36.1.3. Non-compliance with the conditions or measures stated in the served forced execution warning.

36.1.4. The intentional disruption of the inspector's work or any person appointed by the inspector for practicing their powers given to the inspector hereunder.

36.1.5. Providing any incorrect information or reports to the competent authority intentionally or with negligence.

36.1.6. Intentional negligence in providing any informational materials.

37. Penalties:

37.1. Breaching investor shall hereunder pay a penalty. In case of more than one breach, a penalty shall be paid for each breach.

| N | Breach | First Breach | Second Breach | Third Breach |
|---|---|---|---|---|
| 1 | Operation without license | SAR100000 | SAR200000 | SAR300000 |
| 2 | Breaching license conditions | SAR100000 | SAR200000 | SAR300000 |
| 3 | Other breaches | SAR50000 | SAR100000 | SAR200000 |

37.2. The competent authority may impose any other penalties as seen fit for the breaching projects under the breach type.

37.3. The competent authority may suspend, revoke, or amend the project's license in the following cases:

37.3.1. Non-compliance of the investor with the license conditions and these rules.

37.3.2. For the public interest.

37.4. The competent authority may document the breach and inform the investor of the suspension, revocation, or amendment of the license. The warning shall include the following:

37.4.1. Type and nature of the breach.

37.4.2. The competent authority shall take into consideration before enforcing the penalty any appeals submitted by the investor.

**Fourth:**

**Inland Water Aquaculture Project License Issuance Procedures**

**Introduction:**

These procedures aim imposes inland water aquaculture project license issuance, and monitoring their activities.

1. Field:

These procedures include the field of raising and producing the marine life in inland waters, whether in rural or desert areas. This includes pools, tanks, waterways, and other aquaculture raising means, whether open or closed.

## 2. Definitions:

Definitions mentioned in the aquaculture rules will apply to these procedures, in addition to the following definitions:

- **Inland Waters**: the water that contains abundances of dissolved salts less than 2g of salt per liter (2 parts per thousand).
- **Potable Waters**: the water that contains abundances of dissolved salts from 2 to 30 g per liter (2 to 30 parts per thousand).
- **Broodstock**: a group of adult individuals used in aquaculture activities for the purpose of re production, and kept in families as a source of larvae. They are usually kept in pools or tanks that have an environmental control such as temperature, light, and acidity.
- **Indigenous Strain**: a strain grown naturally in a local area or environment.
- **Coming Strains**: Strains those are not indigenous in the local water environment.
- **Fingerlings**: marine life young ages before puberty.
- **Water needs**: volume and type of water appropriate for the suggested project.
- **Water Use Effect**: the reflection of water using in the project operational processes on the water's volume and type in the project's area.
- **Open Aquaculture System**: the system that depends on the open tanks with partial change of the water in accordance with the water's quality.
- **Closed Aquaculture System**: the system that depends on the water closed management with the recycling after the mechanical and biological treatment.

## 3. License Issuance Stages:

### 3.1. First Stage: Submission of the License Obtaining Application:

The official application form prepared by the competent authority shall be filled, such application contains the following:

A. General Information of the Project:

Project's Commercial Name:.....

Project's Address: Area..... City.....

Title Type:.....

| | | |
|---|---|---|
| ☐ | Owned | A copy of the deed shall be attached with the original |
| ☐ | Leased | A lease agreement of 10 years certified by a real estate office shall be attached |
| ☐ | Distributed by the Ministry | Distribution decision copy shall be attached |
| ☐ | Requested from the Ministry | The location shall be determined with a known spots on a site sketch showing the coordinates. |

Activities (Activity) of the Project:.....

Legal Title:

☐ Individual ☐ Firm ☐ Company ☐ Other

B. Allocated Space of the Project:..... hectare.

C. Project's System:

☐ Open System ☐ Closed System

Closed System ☐ Related to agricultural project ☐ Not related to agricultural project

D. Project's Funding:

☐ Private capital

☐ Loan from Agricultural Development Fund (AFD)

☐ Other sources

Metntion.....

.....

.....

3.2. Second Stage: Initial Technical and Economic Feasibility Study:

Generally containing the following:

- Technical measure plans: consists of the raised types, location, facilities, production methods, biosecurity, production rates, sources and volume of feeds, and environmental considerations.
- Economic Efficiency Requirements: consists of evaluation of the costs and funding required, sources thereof, and the financial position of the investor.
- Technical Efficiency Requirements: consists of the administrative and technical team of the suggested project, and the aquaculture experience thereof, in addition to the investor's experience in that kind of projects.

3.2.1. Detailed suggestions of the initial technical and economic feasibility study.

3.2.1.1. Raised Strains:

- Strain's name: using the Arabic, English and scientific names of the suggested strains and the sources thereof.

3.2.1.2. Location and Facilities:

A) Providing coordinates of the required land space of the project in an appropriate form that allows it to be inserted in the Ministry's geographic information system.

B) Determining the space in hectare for the following facilities:

- Facilities of hatchery, caring, and incubation.
- Raising facilities.
- Offices, workshops, materials, and residential areas.
- Total space to be used for the project.
- Illustration on the productive and non-productive areas.

3.2.1.3. Production Methods:

Providing a description of the following production elements:

A) Mother caring.

B) Hatchery and incubation.

C) Raising.

3.2.1.4. Water Supplies:

A) Water supply description.

B) Determining volume and amount of water used for each production stage.

C) Description of any process for water recycling in case of using the closed system, and a description of approximately daily water change rate in case of the open system.

D) Determining the salinity degree of the project's area.

3.2.1.5. Production Schedule and Fees Consumption:

A) Evaluating the anticipated feasibility of the project for 5 years of production.

B) Evaluating the feed consumption rates.

3.2.1.6. Environmental Consideration of the Raised Strains:

A) Providing technical information on the raised strains.

B) Environmental description of the water management in the project.

3.2.2. Economic Requirements:

A) Evaluating the cost and cash deficit.

B) Self-funding capacity.

3.2.3. Technical Requirements:

A) Project suggested administrative team.

B) Applicant's experience.

3.2.4. Personal meeting and executive committee approval.

3.3. Third Stage: Water Needs and Effect of Water Use:

This aims at evaluating the water needs and the effects of the water use in order to ensure the availability of water for the project. The competent authority shall coordinate with Ministry of Water and Electricity regarding developing a technical report on the number of wells and their productivity in the agricultural project.

Water use effect evaluation process shall consist of the following elements:

3.3.1. Description of project's location and environment:

A) Natural features of the location environment shall consist of a topographical plan of the location expanded for 1km from the suggested project location in all directions.

B) Details of the soil type, including:

- Natural description of the land, and any natural areas such as valleys, rubble land, and sand dressing.
- Biological features such as the nature of the vegetation cover.
- The existing agricultural and industrial activities, residential areas, and any other usages of the location.

3.3.2. Defining the anticipated effects:

Coordination with the relevant bodies in order to evaluate and document the anticipated positive and negative effects from the project operation, including:

A) Water usage: estimating the water needs for production.

B) Waste water type, to ensure the compliance with the environmental standards.

C) Interferences with the inland agricultural groups.

3.3.3. Monitoring:

Monitoring the regular water needs on long term, and controlling its quality.

3.4. Fourth Stage: Final technical and economic feasibility study:

3.4.1. Providing the final technical and economic feasibility study to the competent authority after the approval of the project water needs evaluation by the relevant competent authority under which the estimation of the aquaculture productive capacity is conducted.

3.4.2. Project final technical and economic feasibility study aims at providing the competent authority with the following:

- Required details of the suggested project technical and economic aspects.
- Required details of the investor's technical and economic abilities.

- Time schedule of the constructional execution plan.
- Guarantees on the compliance of the project with regulating conditions of the license issuance.

3.4.3. Project's final technical and economic feasibility study shall contain the following:

3.4.3.1. Technical and economic plan

A) Raised Strains:

- Strain's name: determining the Arabic, English, and scientific name of the raised strains.
- Mother's origin: determining that for each project containing hatcheries, as well as the projects that buys young water life from outside sources.

B) Spaces of the location and facilities:

1- Providing coordinates of the land space required in an appropriate form that allows it to be inserted in the Ministry's geographic information system.

2- Determining the space in hectare for the following facilities:

- Facilities of hatchery, caring, and incubation.
- Raising facilities.
- Offices, workshops, materials, and residential areas.
- Total space to be used for the project.

3- Providing standard plans and detailed drawings determining the suggested production areas in the project, water disposal system, and a plan on the land space.

C) Production facilities:

1- Mother Caring facilities:

- Detailed and quantitative description of facilities of mother caring attached with standards drawings of such facilities; including water supplies and mother raising system.

- Detailed description of the biosecurity standards to be applied for the mother caring.

2- Hatchery and Incubation:

- Detailed and quantitative description of the hatchery and incubation facilities; including the water supplies larvae and fingerlings raising system.

- Detailed description of the biosecurity standards to be applied to the hatchery and incubation.

- In case of insuring the small marine life from outside source, location (country or governorate) of the hatchery or incubation or both to be bought from shall be determined.

3- Raising:

- Detailed and quantitative description of the water supplies attached with standards drawings of such

facilities; including water entering points, supplying channels, and pumping facilities.

- Detailed and quantitative description of the spaces to be used for the raising attached with standard drawings; including amount, spaces, and establishments (such as unpadded sand tanks, padded sand tanks, cement storages, and fiberglass, etc.).

- Detailed and quantitative system of water disposal from the project attached with standard drawings of such facilities; including water pumping systems, any treatments, or depositions in order to control the disposed water quality and the disposal point.

- Detailed description of the biosecurity standards to be applied to the raising facilities.

- Average quantity storage for each $m^3$ (fish/$m^3$).

- Raised creature weight upon production (in gram)

D) Production Schedule and Feed Consumption:

1- Determining the following information for the timeframe suggested for the project:

- Dated of the beginning and the end of the project establishment (month/year).

- Date of the initial storage for the first raising commercially (month/year).

- Date of the first production commercially (month/year)

2- Providing the production schedule for the suggested schedule for the first five years of production as follows:

| Strains | Annual Production (Ton) | | | | |
|---|---|---|---|---|---|
| | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| Strain 1 | | | | | |
| Strain 2 | | | | | |
| Strain 3 | | | | | |

3- Feed consumption rates:

- Determining the anticipated average food conversion factor during the raising period.
- Providing a report on the total amount of feed anticipated to be consumed during the first five years of production on annual basis.
- Determining feed type and source.

E) Anticipations of total cost and income:

1- Total costs:

- Classification of the main terms containing the amount and brief description of all production inputs and outputs.
- Schedule of the total costs of the expenses during the first five years of the project.

2- Operational costs:

- Classification of the terms containing the amount and brief description of the terms containing the amount and brief description of all the variable costs.
- Schedule of variable costs during the first five years of the project.

3- Total income:

- Brief determination and description of the total income.
- Schedule of the total incomes during the first five years of the project.
- Anticipations of the cash flow on annual basis for the first five years as of the construction license issuance.

4- Profit and loss: analyzing profit and loss for the first five years of the project.

3.4.3.2. Environmental Management Plan:

The investor shall develop an environmental management plan based on the estimation of the water needs. Such plan shall contain the following:

A) Field, targets, and standards applied.

B) Brief of the processes related to the environmental management including a quantitative estimation of the environmental risk and environmental management methods used to prevent or eliminate such risks.

C) Environmental monitoring plan containing all facilities and processes in the project:

1- Location of all monitoring points and collecting samples.

2- Detailed list of the standards to be measured, the target of measuring such standards, and the standards and methodology of the analysis methods.

3- Sample collection system in terms of the time, number, and sequence thereof.

3.4.3.3. Executive Plan:

This plan shall be based on the evaluation of technical, economic, environmental management plan, containing the following:

A) Time schedule of the establishment of the suggested facilities, including establishment of all main facilities mentioned in the study.

B) Time schedule of the operation of the main facilities mentioned in the study on an annual basis for five years.

C) Detailed plan with a drawing determining location and size of all main facilities mentioned in the study.

3.4.3.4. Plan of funding from ADF.

The competent authority may raise to ADF should the project request to be funded, it shall be attached with a copy of the approved technical and economic feasibility study and other required documents.

3.5. Fifth Stage: License Issuance:

3.5.1. Issuance of the project construction license under the technical and economic feasibility study, containing the conditions of the construction stage of the project in accordance with discretion and recommendation of the competent authority.

3.5.2. Issuance of the project operational license (for thirty years, renewable for similar periods) after contacting the competent authority and ensuring the completion of the establishment of all project's facilities under the conditions set forth in the project's construction license.

3.5.3. The investor shall comply with the production capacity mentioned in the technical and economic feasibility study.

3.5.4. If the project is licensed with a construction license, and no construction works are performed within the timeframe stated in the final technical and economic feasibility study, the competent authority is entitled to serve a warning to the investor on the completion of the construction processes of the project under the drawings stated in the study. If the investor fails to do the same, the issued construction license shall be revoked.

3.5.5. If the project is licensed with a certain production capacity and the investor does not comply therewith, the competent authority is entitled to serve a warning to the investor on the completion of the targeted production capacity stated in the technical and economic feasibility study within a determined timeframe. If the investor fails to do the same, the license shall be suspended or revoked as seen fit by the competent authority.

3.5.6. If the project is licensed with an operational license, and no operational works are conducted within two years as of the license issuance, the competent authority shall serve a warning to the investor on the completion of the operational processes in the project under the targeted production

capacity set forth in the technical and economic feasibility study. If the investor fails to do the same, the issued license shall be revoked.

**Fourth:**

**Procedures of issuing the licenses of aquaculture projects in the interior water**

## Introduction

These procedures aim at acknowledging the mechanisms of issuing the licenses of aquaculture projects in the interior water, and observing its activities.

## 1. Field

These procedures include the field of cultivating, and harvesting the aquatic biota in the interior rural and desert area. This includes ponds, tanks, waterways, and other aquaculture methods whether they are open or closed.

2. **Definitions**:

Definitions mentioned in the aquaculture controls will apply to these procedures, as well as the following definitions:

- **Interior water**: water containing concentrations of dissolved salts which are less than 2 gr of salt per liter (2 thousandths).
- **Drinking water**: water containing concentrations of dissolved salts with a percentage that ranges between 2 to 30 gr per liter (2 to 30 thousandths).
- **Broodstock**: is a group of mature individuals used in aquaculture for breeding purposes. Broodstock are maintained as a source of larvae. In addition, they are kept in ponds or tanks where environmental conditions such as temperature, photoperiod and pH are controlled.
- **Indigenous strain**: a strain that naturally arose in an area or local environment.
- **Imported strains**: are the non- indigenous types of the local water environment.
- **Fingerlings**: are the young ages of the aquatic biota which extend up to the pre- sexual maturity.
- **Water needs**: are the quantity and quality of water appropriate for the proposed project.
- **Impact of water use**: reflection of water use in the project operational processes on its quantitative and qualitative quality in the project area.
- **Open aquaculture system**: is the system whose operation depends on the open ponds where water is partially changed according to its quality specifications.
- **Closed aquaculture system**: is the system whose operation depends on the closed management of water according to the recycling method after mechanically and biologically processing it.

**3. Stages of Issuing License**

3.1 First Stage: submittal of the license request

The stage of submitting the license request is when the official request form prepared by the competent authority is filled. It includes:

A. Project General Information:

Project commercial name: .....

Project address: district of ..... City .....

Ownership type: .....

| | |
|---|---|
| ☐ Owned | A copy of the legal deed shall be attached to the original one |
| ☐ Leased | A lease contract of 10 years shall be attached and approved by a real estate office |
| ☐ Distributed by the Ministry | A copy of the distribution decision shall be attached to the original copy |
| ☐ Required from the Ministry | Required location shall be determined and connected to landmarks recognized in a sketch with determined coordinates |

Project activity (ies): .....

Legal capacity:

☐ Individual ☐ Institution ☐ Company ☐ Other

B. Space allocated for the project: ..... Hectare

C. Project system:

☐ Open system ☐ Closed system

Closed system: ☐ related to an agriculture project ☐ not related to an agriculture project

D. Project financing:

☐ Private capital

☐ A loan from the Agriculture Development Fund

☐ Other resources

Note .....

3.2 Second Stage: preliminary technical and economic feasibility study

It generally includes the following:

- Technical plans of procedures: include all the cultivated types, location, facilities, production systems, biosafety, production averages, sources and quantities of feeding, and environmental considerations.
- Economic efficiency requirements: include the estimation of the costs and required financing, its sources and the financial status of the investor.
- Technical efficiency requirements: include the administrative and technical team proposed for the project; as well as their expertise statement regarding the aquaculture, in addition to the investor experience in this type of projects.

3.2.1 Detailed proposals of the preliminary technical and economic feasibility study

3.2.1.1 Cultivated strains

- Names of strains: determining the Arabic and English common names and the scientific names of the types proposed to be cultivated as well as their place of origin.

3.2.1.2 Location and facilities

A) Submitting the coordinates of land area location appropriately required so as to be included in the geographic information system of the Ministry.

B) Determining the area in hectares for the following facilities:

- Facilities of hatchery, cultivation, and brood.
- Facilities of breeding (fattening).
- Offices, workshops, equipment, and residential areas.

- Total space which will be used for the project.
- A diagram of the productive and non- productive areas.

3.2.1.3 Production systems

Submittal of a description of the following production elements:

A) Broodstock cultivation
B) Hatchery and brood
C) Breeding (fattening)

3.2.1.4 Water supplies

A) Description of the water source.
B) Determination of the quantity and volume of water used for each production stage.
C) Description of any water recycling process in case of using closed system. Description of the approximate changing daily water averages in case of using the open system.
D) Setting the water salinity level of the project area.

3.2.1.5 Production schedule and feeding consumption

A) Estimation of the project productivity expected for the first five years of production.
B) Estimation of the averages feeding consumption.

3.2.1.6 Environmental considerations of the cultivated strains

A) Submitting the technical information of the cultivate strains.
B) Environmental description of the project water management.

3.2.2 Economic Requirements

A) Estimation of the cash cost and cash flow.
B) Self- financing capacity.

3.2.3 Technical Requirements

A) Administrative team of the proposed project.
B) Expertise of the applicant.

3.2.4 Personal interview and the approval of the decision committee.

## 3.3 Third Stage: water needs and water use impact

It aims at estimating the water needs and assessing the impact of water use in order to ensure water availability for the project. The authority specialized in coordination with the Ministry of Water and Electricity regarding the preparation of technical report about the well numbers, and their productivity in the agriculture project.

Assessment process includes the water use impact on the following elements:

### 3.3.1 Description of the project location and environment

A) The natural characteristics of the location environment shall include the location topographic map extended for one kilometer from the project proposed location in all directions.

B) Details of the soil type, including the following:

- Natural description of the land and any other natural landmarks such as valleys, gravel land, or sand cover.
- Biological landmarks such as the nature of vegetative cover.
- Existing agricultures, industry, residential areas, and any other uses of the locations.

### 3.3.2 Recognition of the potential impacts

Coordination with the relevant authorities in order to evaluate and document the positive or negative impacts expected from the project operation, including the following:

A) Water use: estimation of the water needs of production.

B) Quality of the drained water in order to ensure its conformity with the environmental standards.

C) Interferences with the interior agriculture gathers.

3.3.3 Observation

Observation of the project periodic water needs in the long term; as well as its quality control.

3.4 Fourth stage: final technical and economic feasibility study

3.4.1 Submittal of the final technical and economic feasibility study to the competent authority after the assessment report of the project water needs is accepted by the relevant concerned authority, according to which the production capacity of the fish project will be estimated.

3.4.2 The final technical and economic feasibility study aims at providing the competent authority with the following:

- Required details of the economic and technical aspects of proposed project.
- Required details of the investor economic and technical capabilities.
- Timetable for the construction implementation plan.
- Guarantees of the project conformity with the requirements regulated for issuing the licenses.

3.4.3 The project final technical and economic feasibility study include the following elements:

3.4.3.1 Technical and economic plan

A) Cultivated strains

- Strain name: determination of the Arabic and English common names; as well as the scientific name of the proposed types.
- Broodstock place of origin: this shall be determined for each of the projects including hatcheries; in addition to the projects which purchase the young aquatic biota from external sources.

B) Spaces of location, facilities

1- Submittal of the coordinates of land space location appropriately required so as to be included in the geographic information system of the Ministry.

2- Space determination in hectares for the following standards:

- Facilities of the broodstock, hatchery, breeding.
- Facilities of cultivation (fattening).
- Offices, workshops, equipment, and other residential areas.
- Total space which will be used for the project.

3- Submittal of standard plans and detailed drawings illustrating the proposed production areas of the project; as well as water drainage system, and planning of land space.

C) Productive facilities

1- Broodstock care facilities

- Detailed and quantitative description of the broodstock care facilities, with standard diagrams of such facilities attached thereto including water supplies, and broodstock feeding systems.
- Detailed description of the biosafety standards which will be applied to the broodstock care.

2- Hatchery and brood

- Detailed and quantitative description of the hatchery and brood facilities, with standard diagrams of such facilities attached thereto including water supplies, and feeding systems of larvae and fingerlings.
- Detailed description of the biosafety standards which will be applied to the hatchery and brood.
- In case of securing the young aquatic biota by external sources, the location (country and governorate) of the hatchery, brood or

both of them which are proposed for purchase shall be mentioned.

3- Cultivation (fattening)

- Detailed and quantitative description of the water supplies with standard diagrams of such facilities attached thereto, including water entry points, water supply channels and pump facilities.
- Detailed and quantitative description of the spaces used for the purposes of cultivation, and feeding with standard diagrams of such facilities attached thereto, including number, spaces, and constructions (like unlined sand ponds, lined sand ponds, cement tanks, fiberglass,... etc.)
- Detailed and quantitative description of the water drainage system of the project with standard diagrams of such facilities attached thereto, including water pumping systems; as well as any processes or sedimentation of quality control regarding drained water and its drainage point.
- Detailed description of the biosafety standards which will be implemented to care for the cultivation facilities (fattening).
- Storage density average per cubic meter (fish/ $m^3$).
- Weight of the cultivated organism upon harvest (in gr).

D) Production schedule and feeding consumption

1- Determination of the following information according to the project proposed timetables:

- Commencement and end dates of project construction (month/ year).
- Preliminary storage date for the first cultivation (fattening) at the commercial level (month/ year).
- First harvest date at the commercial level (month/ year).

2- Submittal of the production schedule proposed for the project for the first five production years as follows:

| Strains | Annual Production (tons) | | | | |
|---|---|---|---|---|---|
| | 1 year | 2 year | 3 year | 4 year | 5 year |
| Strain 1 | | | | | |
| Strain 2 | | | | | |
| Strain 3 | | | | | |

3- Feeding consumption rates:

- Determination of the feed conversion factor expected during the cultivation period (fattening).
- Submittal of a report about the total quantity of the feeding expected to be consumed during the first five production years on an annual basis.
- Determination of the feeding type and source.

E) Expectations of cost and total income

1- Total cost

- Classification of the main items containing the quantity and brief description of all production inputs and outputs.
- Total cost schedule of the expenses during the first five years of the project.

2- Operational costs

- Classification of the items containing the quantity and brief description of all the elements of variable costs.
- Variable cost schedule during the first five years of the project.

3- Total income

- Determination and brief description of the total income.
- Schedule of the total inputs during the first five years of the project.
- Expectations of the cash flow on an annual basis for the first five years after giving the construction license.

4- Profit and loss: profit and loss analysis for the first five years of the project.

### 3.4.3.2 Environment management plan

The investor develops a plan for the environmental management which is based on the assessment of water needs. This plan is consisted of the following elements:

A) Field, goals and applied standards.
B) Summary of the processes related to the environment management including the quantitative assessment of the environmental risks and the environmental management means followed to prevent or reduce those risks.
C) The environmental observation plan containing all of the facilities and processes in the project.
   1- Location of all the observation and sampling points.
   2- Detailed list of the standards which will be measured, the intended target of measuring those standards, and methodology of the analysis methods.
   3- Sampling system regarding its withdrawal times, its number, and its frequency.

### 3.4.3.4. Implementation plan

This plan is based on the assessment of both of the technical and economic plan, and the environmental management plan. It is consisted of the following elements:

A) Timetable for the construction of proposed facilities, including the construction of all of the main facilities mentioned in the study.
B) Timetable for operating the main facilities mentioned in the study on an annual basis for (5) years.
C) Detailed map with a scale showing the location and volume of all of the main facilities mentioned in the study.

3.4.3.5. Financing plan of the Agriculture Development Fund

The competent authority may address the Agriculture Development Fund in case the project requests obtaining financing. A copy of the approved technical and economic feasibility study as well as the other required documents shall be attached thereto.

3.5 Fifth Stage: issuing licenses

3.5.1 Issuing the project construction license according to the technical and economic feasibility study; and stipulating therein the requirements of the construction stage based on the opinions and recommendations of the competent authority.

3.5.2 Issuing the project operational license (for a period of thirty years which shall be renewed for other similar periods) after the review of the competent authority and ensuring that all of the construction of project facilities has been finished according to the requirements mentioned in the construction license issued for the project.

3.5.3 Investor shall comply with the productive capability stipulated in the technical and economic feasibility study.

3.5.4 If a construction license was issued for the project and no construction works were implemented during the timetables specified in the final technical and economic feasibility studies, the competent authority shall notify the investor in order to complete the project construction processes according to plans stipulated in the study. In case the investor did not comply, the construction license issued for him shall be revoked.

3.5.5 If the project has been licensed for a specific production capability and the investor did not comply with it, the competent authority shall notify the investor in order to complete the targeted production capability of the project stipulated in the technical and economic feasibility study according to what the competent authority deems appropriate.

3.5.6 If an operational license has been issued for the project and no operational works has been implemented within two years from issuing the license, the competent authority shall notify the investor in order to complete the project operational

processes according to targeted production capability of the project stipulated in the technical and economic feasibility study. In case the investor did not comply, the license issued for him shall be revoked.

**Fifth:**

**Procedures of Issuing Licenses for Aquaculture Coastal Projects**

**Introduction**

These procedures aim at the creation of mechanisms of issuing licenses for aquaculture coastal projects and monitoring their activities.

The scope of these measures includes the management of the cultivation of living marine organisms in the coastal and near sea areas that use sea water as medium for the soil.

**1-Definitions**

The definitions, mentioned in the aquaculture regulations will apply to these measures, in addition to, the following definitions:

- **The Competent Authority**: the Fish Farmers Administration which operates under the responsibility of the Deputy Ministry of Fisheries affairs at the Ministry of Agriculture and is responsible for all aquaculture activities in the Kingdom.
- **Aquaculture:** The production of aquatic organisms such as fish, crustaceans, shellfish, aquatic weeds and others under conditions of captivity and control of soil factors.

- **Water Carrying Capacity**: It refers to the biomass that can be carried in a specific water space without deterioration in its specifications.
- **Broodstock:** they are a group of mature organisms that are used in aquaculture for purposes of reproduction and are kept in captivity as a source for larvae and are usually kept in ponds or tanks in which environmental conditions such as temperature, lighting and pH are controlled.
- **The young:** the young ages of the aquatic life that extends into pre-sexual materiality.
- **Nursery:** is the preservation of aquatic larvae in a certain volume of water until they grow and reach the fingerling stage.
- **The mesh fencing:** it's a fence fixed on the coast, its base is the sea floor and its sides and the cover consist of nets and it is used in aquaculture on the coast.
- **Resident strain**: a strain that arose naturally in an area or local environment.
- **Non-resident strain**: represents the species that are not resident in the local aquatic environment.
- **Location Tests Permit:** is an official permit, issued by the competent authority to start the project location tests and analyses.
- **The Coastal Area:** It is the area where the land and the marine water join together so it's constantly subject to changes due to sculpture body water.
- **Environmental and social impact evaluations:** It is a process of identification, expectation and evaluation natural, biological, social and other impacts, related to development before making decisions.

**2-Stages of License Issuance:**

**2-1The first stage: Submitting the license application**

The stage of submitting the license application in which the official application form, prepared by the competent authority is filled out and it includes:

A- General information about the project:

Project commercial name:.....

Project Title: Area: City:

Type of Ownership:

- Owned: A copy of legitimate deed is attached to the original
- Rented: A 10-year lease contract, certified by a real estate office is attached
- Distributed by the Ministry: A copy of the distribution decision is attached with the original
- Required by the Ministry. Required location is determined by known landmarks in a sketch and its coordinates are determined
- Project Activity (s):
- Legal Capacity :
- Individual
- Foundation
- Company
- Other: Specify

B- Area allocated for the project:..... Hectare.

C- Project system:

- Open system:
- Ponds
- Tanks
- Concrete basins
- Enclosures
- Closed system

D- Funding

E- Private capital

F- A loan from the Agricultural Development Fund

- Other resources Specify

2.2 The second stage: the preliminary technical and economic feasibility study

They generally include the following:

-Plans of technical measures: include cultured species, location, facilities, production systems, biosafety, production rates, sources and quantities of forage, and environmental considerations.

- Economic Efficiency Requirements: Include an estimate of costs, required financing, sources, and financial status financial of the investor.

- Technical competency requirements: include the proposed administrative and technical team for the project and a list of their experiences in the project aquaculture and investor experience in this type of projects.

2.2.1 Detailed proposals for a preliminary technical and economic feasibility study

2.2.1.1 The cultured strain

• The name and origin of the strain.

2.2.1.2 Location and marine and land facilities

• Providing the coordinates of the required marine location.

• Indicating of the total marine area (hectares).

• A sketch shows the productive areas for the proposed project.

2.2.1.3 Rearing systems

Description of production systems:

2.2.1.4 Production and forages consumption schedule

A) Evaluation of the expected productivity of the project for the first five years of production.

B) Evaluation of forages consumption rates.

C) Description of other uses in the project area as follows:

1. Proximity to maritime navigation lines and areas owned or leased.

2. Proximity to the areas of marine fishery.

3. Proximity to the areas nature reserves.

4. Proximity to settlements and human activities.

5. Proximity to any major infrastructure such as roads, industrial facilities and military installations.

2.2.2 Economic Requirements.

**2.2.2.1 Estimate cost and cash flow.**

2.2.2.2 Self-financing capacity.

2.2.3 Technical Requirements.

2.2.3.1 Proposed Management Team.

2.2.3.2 The applicant's experience.

2.2.4 Personal interview and approval of the decision committee.

2.2.5 Committee of Five Approval:

• After approval of the initial technical and economic feasibility study for the project and the approval of the decision committee, the competent authority addresses the Committee of Five to obtain its approval on the works of filling, burial and dredging of the proposed project.

• In the case of the approval of the Committee of Five, the competent authority issues an initial approval for a year to run project location tests.

**2.3 The third stage: issuing of initial approval for location tests.**

The competent authority issues an initial approval for the location tests for the investor after the approval of the initial technical and economic feasibility study, in order to enable the investor to perform the necessary tests, required preparing the studies and analyzes, required to evaluate the location technically and environmentally.

**2.4The fourth stage: the environmental feasibility study.**

The investor submits an environmental feasibility study to the Presidency of Meteorology and Environmental Protection, in order to ensure the environmental viability of the project. In addition to that, no negative environmental impacts occur in the project area and applying the appropriate procedures and means in accordance with the environmental benchmarks, issued in this regard.

2.5 The fifth stage: the final technical and economic feasibility study.

The final technical and economic feasibility study shall be submitted after the environmental study is accepted by the General Authority for Meteorology and Environmental Protection.

Objectives of the final technical and economic feasibility study of the project:

1. Providing the competent authority with all the technical and economic feasibility details of the proposed project, in order to be able to issue the construction license for the project or not.

2. Providing the competent authority with sufficient details about the investor's technical and economic capabilities to be able to issue the construction license for the project or not.

3. Providing the competent authorities with full details of the proposed project to enable them to approve of issuing a construction license for the project or not.

4. Providing the competent authority with a clear and time-bound implementation plan for construction.

5. Defining licensing conditions and procedures for their implementation to ensure that the project is consistent with general principles for the development of the long-term aquaculture industry in the frameworks of sustainable development and aquaculture in the Kingdom of Saudi Arabia.

The final technical and economic feasibility study includes the following elements:

**2.5.1 Technical and Economic Plan**

2.5.1.1 Proposed species for cultivation

• Breed Name: Define common vernacular names in Arabic and English and the scientific name of the proposed species.

• Original broodstocks: This shall be specified for each of the hatchery projects, as well as projects that purchase small-scale aquaculture from external sources.

2.5.1.2 Assessment of tidal risk

The investor provides the competent authority with an assessment of the tide risk on structures and structures infrastructure, stocks of aquatic organisms, labor force and livelihoods in the regions, surrounding the proposed project.

According to this, the investor shall:

A) Provide information on all watercourses (permanent, seasonal and intermittent), which pass through or over a distance of 5 km of the surrounding of project, this information shall include:

• Information on minimum, average and peak water flow rates, including frequency and their temporal patterns.

• Records of any major tidal accidents.

• Provides an assessment of the volume and frequency of water flows in each project area and construction precautions, taken to counter potential tidal waves.

B) Provide an assessment of the potential impacts of the following tidal waves on the infrastructure of the project.

C) Submit copies of any official emergency plan documents, in cases of tide and standard procedures, regarding to similar tide events.

2.5.1.3 Expected costs and revenues

Investment costs of capital

A) A description of all items of capital costs:

• Capital costs during the first five years of the project

B) Operating costs:

• Description of all items of operational costs

• Recurring costs over the first five years of the project

C) Revenue:

• Identification and briefly description all sources of income

• Revenue scheduling over the first five years of the project

• Projections of annual cash flow during the first five years that will come for granting the license.

D) Profitability: profit analysis for the first five years of the project.

2.5.1.4 Financing Plan from the Agricultural Development Fund

The competent authority has the right to submit a request to the Agricultural Development Fund, in the case the investor requests to obtain financing and the investor shall attach a copy of the approved technical and economic feasibility study and other required documents to it.

**2.5.2 Executive Plan**

The investor shall develop an implementation plan, based on both the technical and economic plan and the Environmental Management Plan.

The Environmental Management Plan shall consist of the following components:

A) The time schedule for building the proposed facility, in addition to construction features of all major facilities.

B) The schedule of annual production targets of all the described major facilities for a period of 10 years from the date of completion of the construction.

C) A detailed scale map shows the location and size of all the major facilities that have been described.

D) The schedule for establishing and operating any other facilities for the licensed proposed project.

**2.6 The sixth stage:**

**2.6.1 Issuing licenses**

The construction license for the project shall be issued, according to the technical and economic feasibility study, and provided therein on the requirements of the construction phase of the project, based on the opinions and recommendations of the competent authority.

2.6.2 Issuing the project's operating license for a period of thirty years; this period shall be renewed for other similar periods after reviewing the competent authority and the completion of the construction of all project facilities shall be ensured, in accordance with the requirements, contained in the construction license, issued for the project.

2.6.3 The investor commits to the production capacity, provided in the technical and economic feasibility study.

2.6.4 If a construction license has issued for the project and no construction works have been carried out within the specified timeline of the final technical and economic feasibility study, the competent authority shall warn the investor to complete the construction operations in the project, according to the plans, provided herein; in the case, that the investor does not comply, the construction license, granted to the project will be canceled.

2.6.5 If the project has been licensed for a specific production capacity and the investor has not been abided by it, the competent authority shall warn him to complete the target

production capacity, provided in the study of technical and economic feasibility within a specified period of time; in case of non-compliance by the investor, it shall be stopped or cancellation of the license as the competent authority deems appropriate.

2.6.6 If the project has been issued for an operating license and no operational works have been carried out within the specified schedule with the final technical and economic feasibility study, the competent authority shall warn the investor to complete the operations in the project, according to the target production capacity, as provided herein; in case the investor does not comply, the license, issued to him will be canceled.

**Sixth: Procedures of Aquaculture License Issuance in Floating Cages in the Sea**

**Introduction:**

These procedures aim at developing mechanisms of the issuance of aquaculture project licenses in the floating cages in seas, and monitoring their activities.

1. Definitions:

   Definitions stated in aquaculture rules shall apply to these procedures, in addition to the following definitions:

   The competent authority: Fish Farm Administration (FFA) working under the responsibility of Deputy Ministry of Fish Wealth (DMFW) of Ministry of Environment, Water, and Agriculture that is responsible for all aquaculture activities in Saudi Arabia.

   Aquaculture: production of marine life such as fish, crustaceans, shellfish, algae, water grass, etc. in sites and with controlling the production factors.

   Water Absorption: the capacity of a certain space of water to maintain the environmental stability without a negative effect on the natural, biological, or chemical specifications of water.

   Water Capacity: refers to the biomass than can be carried in a water space without causing damage to its specifications.

   Floating Cage: an aquaculture productive system made of a floating structure, net body, anchors, and buoys in circle or square structure in order to keep an amount of fish. It can be fixed at sea or any other water space with appropriate deepness.

   Aquaculture at sea (near to the coast): it is the aquaculture at sea, near to the coast, whether in the fenced areas, or the floating cages.

   Aquaculture at open sea (away from the coast): it is called the aquaculture at open sea in cages inside the sea away from the coast. It is put in deep water.

   Broodstock: group of adult creatures with standard specifications.

   Indigenous Strain: a strain naturally grown in the local environments.

   Coming Strains: the attracted strains that are not indigenous in the local environments.

   Resting: the process in which the locations of the floating cages used for raising fish is left In order to improve the biological and chemical water condition from two to three years.

Incubation: the process in which water larvae are cared to grow and become fingerlings.

The Small: young ages of marine life including stages before puberty.

Ebb and Flow Area: the coastal area above the water surface on the minimal ebb level; and under water surface on the maximum flow level.

Location Checkup License: an official acknowledgement issued by the competent authority on the commencement of the checkup and analysis of the project's location.

2. License Issuance Stages:

2.1. First Stage: Submission of the License Obtaining Application:

The official application form prepared by the competent authority shall be filled, such application contains the following technical information:

E. General Information of the Project:

Project's Commercial Name:.....

Project's Address: Area..... City.....

Project's Activity (Activities): .....

Legal Title:

☐ Individual ☐ Firm ☐ Company ☐ Other

F. Project's Coordinates:

East:..... North:.....

Location sketch determining the suggested project's borders, coast, and land service area.

G. Space Allocated for the Project:..... hectare.

H. Floating Cages Information:

Amount of Cages:.....

Cage Dimensions: ..... radius:..... deepness:.....

I. Project's Funding:

☐ Private capital
☐ Loan from Agricultural Development Fund (ADF)
☐ Other sources

Metntion.....

.....

.....

.....

2.2. Second Stage: Initial Technical and Economic Feasibility Study:

Generally containing the following:

- Technical measure plans: consists of the raised types, location, facilities, production methods, biosecurity, production rates, sources and volume of feeds, and environmental considerations.
- Economic Efficiency Requirements: consists of evaluation of the costs and funding required, sources thereof, and the financial position of the investor.
- Technical Efficiency Requirements: consists of the administrative and technical team of the suggested project, and the aquaculture experience thereof, in addition to the investor's experience in that kind of projects.

2.2.1. Detailed suggestions of the initial technical and economic feasibility study.

2.2.1.1. Raised Strain:

- Strain's name and origin.

2.2.1.2. Location and sea and land facilities:

- Providing coordinators of the required sea location.
- Referring to the total sea space (in hectare).
- A sketch showing the production areas of the suggested project.

2.2.1.3. Raising systems:

Production system description:

2.2.1.4. Production schedule and feed consumption:

A) Evaluating the anticipated project productivity for the first five years of production.

B) Evaluating feed consumption rates.

C) Descripting the other usages of the project location as follows:

1. Near to the sea lanes and owned and leased areas.
2. Near to the sea fishing areas.
3. Near to the natural reserve areas.

4. Near to residential and human activity areas.
5. Near to any main infrastructure; such as roads, or industrial and army establishments.

2.2.2. Economic Requirements:

2.2.2.1. Evaluating the cost and cash deficit.

2.2.2.2. Self-funding capacity.

2.2.3. Technical Requirements:

2.2.3.1. Suggested administrative team.

2.2.3.2. Applicant's experience.

2.3. Third Stage: Personal meeting and executive committee approval:

The competent authority shall request a visual presentation from the investor showing the content of the initial technical and economic feasibility study of the project to be raised before a technical committee formed by the competent authority, then the results shall be raised to the executive committee for approval.

2.4. Fourth Stage: Approval of Committee of Five:

The competent authority shall contact the Committee of Five for studying the filling, burying, and dredging works required for the project under the relevant laws.

2.5. Fifth Stage: Issuance of the Location Checkup Initial Approval:

The competent authority shall issue an initial approval on the location checkup to the investor after approving the initial technical and economic feasibility study in order to enable the investor to conduct the tests required for preparing the studies and analysis required for the technical and environmental evaluation of the location.

2.6. Sixth Stage: Environmental Feasibility Study:

The investor shall provide PME with the environmental feasibility study in order to ensure the environmental feasibility of the project and ensure the non-occurrence of any negative environmental effects in the project's location and applying the appropriate procedures and means under the standard environmental criteria issued in such regard.

**2.7. Seventh Stage: Final Technical and Economic Feasibility Study:**

Project's final technical and economic feasibility study shall be submitted to the competent authority after the approval of the environmental study by PME.

(A) Targets of studying the final technical and economic feasibility study are as follows:

1- Providing the competent authority with sufficient details about the technical and economic feasibility of the project in order to accept or reject issuance of the construction license for the project.
2- Providing the competent authority with the sufficient details about the technical and economic abilities of the investor in order to accept or reject issuance of the construction license for the project.
3- Providing the relevant bodies with sufficient details about the suggested project in order to accept or reject the suggested project.
4- Providing the competent authority with a clear executive plan with time determination for the establishments.
5- Determining the license conditions and the application procedures in order to ensure that the project complies with the general principles of the long-term aquaculture development under the sustainable development and responsible aquaculture practices in Saudi Arabia.

(B) Project's final technical and economic feasibility study shall be amended under:

- Recommendations of the competent authority in the evaluation of the technical and economic suggestions.
- Recommendations of PME regarding the environmental feasibility study.

Studying the final technical and economic feasibility study consists of the following:

### 2.7.1. Technical and economic plan:

2.7.1.1. Stain proposed to be raised:

- Strain's Name: determining the Arabic, English, and scientific name of the strain proposed to be raised.

- Mother's Origin: determining that for each project containing hatcheries, as well as projects raising small marine life from outside sources.

2.7.1.2. Location of land and sea facilities:

A) Providing coordinates of the sea location required in an appropriate form that allows it to be inserted in the Ministry's geographic information system.

B) Referring to the total sea space (in hectare) regarding the following:

1. Production spaces: to include the production units and resting areas.
2. Total sea space.

C) Providing deepness plan for the suggested project, and the minimum deepness of the production spaces (in meters).

D) Details of the suggested land location, including:

1. Location list, and a brief description of land facilities including offices, storages, laboratories, residences, workshops, water sources and treatment, power supplies, and distribution.
2. Location list and a brief description of the water facilities including all support vessels, boats, floating feed storages, distribution facilities, and boat port.

E) Providing detailed drawings with measurements showing the production areas of the suggested project, sea borders, coast, and drawing of the land location including all above-mentioned facilities in addition to other means of communication.

2.7.1.3. Raising systems:

This section discusses sea raising systems only. For land facilities (for example, larvae production, producing, and raising) protocol of sea coastal aquaculture projects can apply.

A) Production methods Description:

1. Production unit kind description; such as floating cages and fenced areas, etc.
2. Description of amount, sizes, and classes of the units (surface dimensions, and deepness of the window in meter), and total or the surface space. If these units are to be installed on stages, they shall be described as for their amount, dimensions, and total surface areas in each stage, considering time schedule details.
3. Description of production unit linking system, anchors, cables, and buoys.
4. Referring to storage density suggested for the beginning with the amount of the marine life per $m^3$.
5. Average weight of the fish upon production (in gram).
6. Description of the methods and practices used for ensuring the storage not moving into the adjacent natural environment. If that happens, required procedures shall be done to fix it.

B) Risk Deduction Method and Emergency Planning:

1. Description of the methods and practices that allows the facilities to survive the hard temperature conditions.
2. Description of the methods and practices used for storage loss.
3. Description of emergency plan to be used in case of a big damage to a facility (for example, an

accident of crashing a ship, or bad weather) causing storage loss into the outside environment.

C) Standards operational practices plans.

2.7.1.4. Production time schedule and feed usage.

A) Determining the following information about the project's time schedule.

1. Dates of the commencement and end of the project establishment (month/year)/
2. Date of first production after first storage (month/year).
3. Date of the first commercial produce (month/year).

B) Providing the time schedule for the project production anticipated for the first five years, as follows:

| Raised Strains | Annual Production (Ton) | | | | |
|---|---|---|---|---|---|
| | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| Strain 1 | | | | | |
| Strain 2 | | | | | |
| Strain 3 | | | | | |

C) Feed Consumption and Use:

1- Determining the anticipated average food conversion factor during the raising period.

2- Providing a report on the total amount of feed anticipated to be consumed during the first five years of production.

3- Referring to type and source of the feed using chemical analysis terms for feeds (dry matter, crude protein, crude fats, and protein-and-ash-free extracted matter).

4- Referring to the method of distributing feeds on:
    - Production area.
    - Production units.

2.7.1.5. Environmental, Social, and Economic Consideration:

A) Detailed information on the following environmental risks related to the raised strains use shall be submitted:
    1. Possible crossing of the raised strains that may be released into the adjacent environments with the local kinds.
    2. Competition of the creatures that may be released to the natural environments with the local kinds on place, food, and other resources.
    3. Risks of moving disease sources from marine creatures to the indigenous local strains.

B) Detailed description of the environmental conditions in the location proposed for the project with 1 km expansion in the project borders, including land areas, heights places, coastal swales; such as moors, valleys, lakes, bays, and open seas; and supporting maps and plans as follows:
    1- Description of the land type, sea bottom, and ground features in terms of soil type.
    2- Providing location's map determining the land height and levels of ebb and flow.
    3- Referring to any main facilities in land and sea areas; including any residential areas, agricultural areas, waterways, wells, mangrove trees, coral reefs, and sea grasses.

4- Description of sea currents, directions, and seasonal changes.
5- Description of information of wind speed and directions and seasonal changes.
6- Description of the water type in the area, as for temperature, salinity, acidity, dissolved oxygen, and levels of organic elements.
7- Description of sharp general air conditions in the area and the possibility of their occurrence in the future.
8- Description of the valleys, and other water disposals located in the range of 1km from the project area, including information of the historical events of torrents and their risks.

C) Detailed description of the other usages of the project area, as follows:
1. Near to the sea lanes and owned and leased areas.
2. Near to the sea fishing areas.
3. Near to the natural reserve areas.
4. Near to residential and human activity areas.
5. Near to any main infrastructure; such as roads, or industrial and army establishments.

2.7.1.6. Ebb and Flow Evaluation:

The investor shall provide the competent authority with an evaluation of the risks of the flow on the establishments, the infrastructure, and marine creatures' storage in the adjacent area of the suggested project.

Accordingly, the investor shall:

A) Provide the information of all waterways (permanent, seasonal, and intermittent) that passes through or 5km away from the project borders, such information shall include the following:
   - Hydrologic information of the minimum, average, and peak of the water flow, frequency, and the time patterns.
   - Records of any big flow incidents and human and financial losses from it.
   - Providing an evaluation of the water flow in each space of the project, and frequency and constructional precautions done in order to tackle the anticipated flow currents.

B) Provide an evaluation of the anticipated effects of the flow regarding the following:
   1- Project's infrastructure and personnel.
   2- Adjacent residential areas.

C) Provide any official information of the emergency plan in case of the flow and applied standard procedures in the similar flow incidents.

2.7.1.7. Anticipated costs and profits:

A) Investment costs of the capital:
   - Brief description of all capital cost terms.
   - Capital costs for the first five years of the project.

B) Operational costs:
   - Brief description of all operational cost terms.
   - Frequent costs for the first five years of the project.

C) Profits:

- Brief determining and description of all profit sources.
- Scheduling profits for the first five years of the project.
- Cash flow anticipations for the first five years following the license issuance.

D) Profit and loss: analyzing the profit and loss for the first five years of the project.

2.7.1.8. Funding plan from ADF:

The competent authority may refer to ADF if the investor requests to obtain a loan, attached with a copy of the approved technical and economic feasibility study and other required documents.

2.7.2. Executive Plan:

The investor shall develop an executive plan based on both technical and economic plan and environmental management plan, consisting of:

A) Time schedule of establishment of the suggested project, including milestones of establishing all main facilities.

B) Time schedule of the annual production targets from all main facilities for 10 years as of the completion of the establishments.

C) Detailed map with measurements showing the location and size of all main facilities described.

D) Time schedule of establishing and operating any other facilities of the licensed suggested project.

**2.8. Eight Stage: License Issuance:**

2.8.1. Issuance of the construction license of the project under the technical and economic feasibility study, mentioning the conditions of the constructional stage of the project in accordance with visual presentation and recommendations of the competent authority.

2.8.2. Issuance of the project operational license for thirty years, renewable for similar periods, after contacting the competent authority and ensuring the completion of the establishment of all project's facilities under the conditions set forth in the project's construction license.

2.8.3. If the project is licensed with a construction license, and no construction works are performed within the timeframe stated in the final technical and economic feasibility study, the competent authority is entitled to serve a warning to the investor on the completion of the construction processes of the project under the drawings stated in the study. If the investor fails to do the same, the issued construction license shall be revoked.

2.8.4. If the project is licensed with a certain production capacity and the investor does not comply therewith, the competent authority is entitled to serve a warning to the investor on the completion of the targeted production capacity stated in the technical and economic feasibility study within a determined timeframe. If the investor fails to do the same, the license shall be suspended or revoked as seen fit by the competent authority.

2.8.5. If the project is licensed with an operational license, and no operational works are conducted within the timeframe determined in the final technical and economic feasibility study, the competent authority shall serve a warning to the investor on the completion of the operational processes in the project under the targeted

production capacity set forth in the study. If the investor fails to do the same, the issued license shall be revoked.

2.8.6. The investor shall comply with the production capacity set forth in the technical and economic feasibility study.

**Seventh: Form and Conditions of Obtaining the Aquaculture Project License**

**Aquaculture Project License Obtaining Form:**

Investor:

☐ Individual ☐ Company ☐ Foreign ☐ Other

**Data to be legibly filled by the investor:**

Investor's Name:.....

ID No.: .....

CR No. (For companies): .....

Passport No.:..... issued from:..... dated:.....

Permanent address:..... city:.....

P.O:..... Postal Code:.....

Work Phone:.....

Mobile:.....

Fax:.....

Email:.....

**Information about the Project:**

Project's Commercial Name:.....

Project's Address:..... City.....

Title Type:.....

| | |
|---|---|
| ☐ Owned | A copy of the deed shall be attached with the original |
| ☐ Leased | A lease agreement of 10 years certified by a real estate office shall be attached |
| ☐ Distributed by the Ministry | Distribution decision copy shall be attached |

☐ Requested from the Ministry — The location shall be determined with a known spots on a site sketch showing the coordinates.

Project's Activity (Activities):

Legal Title:

☐ Individual ☐ Firm ☐ Company ☐ Other

Project's location:

Sea locations: ☐ Coastal land ☐ In the sea

Inland locations: ☐ Related to an agricultural project ☐ Not related to an agricultural project

Space allocated for the project:..... hectare.

Project's system:

Project's kind: ☐ Sea aquaculture ☐ Inland aquaculture

Sea locations:

☐ Open ☐ Lakes ☐ Fenced ☐ Concrete ☐ Floating cages

☐ Closed

Inland locations:

☐ Open ☐ Lakes ☐ Storages ☐ Concrete

☐ Closed ☐ Related to an agricultural project ☐ Not related to an agricultural project

Raised creature kind ☐ Fish ☐ Shrimp ☐ Other

**Name of the raised kind(s):**

Applicable Arabic name:.....

Applicable English name:.....

Scientific name:.....

Project's production capacity:..... ton/year.

**Project's funding:**

☐ Private capital

| | |
|---|---|
| | Loan from Agricultural Development Fund (ADF) |
| | Other sources |

Specify.....

.....

.....

**Aquaculture Project License Obtaining Conditions:**

**First: Inland Waters Projects:**

License Obtaining Conditions:

1. Providing an application to that department or a branch of the Fish Wealth Agency for establishing an aquaculture project mentioning its kind and production capacity attached with the following documents:
    - Individuals shall provide national ID copy, and companies and firms shall provide a copy of the national ID and certified copy of the CR.
    - A copy of the ownership deed, or a certified copy of the lease agreement of the project's location with a period of not less than ten years certified from a real estate office.
    - A sketch of the project's location and determining its coordinates.
    - Proofing the investor's financial position by providing a financial solvency from a national bank.
2. Providing the project's initial technical and economic feasibility study including the investor's funding sources, in addition to:
    - Technical measure plans: including the raised kinds, location, facilities, production methods, biosecurity, production time schedule, and feed usage.
    - Economic efficiency requirements: including evaluation of the costs, funding required, sources thereof, and the investor's financial position.
    - Technical efficiency requirements: including the administrative and technical team proposed for the project.
3. Conducting a meeting with the investor by the competent authority in order to provide a visual presentation showing the content of the initial technical and economic feasibility study of the project before a technical committee formed by the competent authority.
4. Evaluating the underground water condition in the project's area in order to ensure its type and quantity appropriateness in accordance with the project's needs:

A. If the project is working under the open system within an existing agricultural project, provided that the water needs of the fish project shall not exceed the water needs of the agricultural project.
B. If the project is working under the closed system within an existing agricultural project, provided that the water change rate of the fish project shall not exceed 20% of the total volume of the water in the fish project.
C. If the project is not working within an existing agricultural project, in such case, closed water management system shall apply provided that water change rate shall not exceed 5% of the total volume of the water in the fish project, and preparing a study on the uses of the waste water.

5. Executive committee approval.
6. Providing the project's final technical and economic feasibility study.
7. Issuing the project's license under the following:
   1- Project's construction license, its period to be determined under the final technical and economic feasibility study.
   2- Project's operational license with thirty years of period (renewable) after ensuring the completion of the constructional period under the technical specifications stated in the final technical and economic feasibility study.
8. The investor providing a written acknowledgement and complying with provisions of the agreement executed between the investor and the Ministry upon approving the license. Should the investor breach the agreement's provisions, such department is entitled to terminate the agreement.

**Second: Coastal Sea Projects:**

An application shall be submitted to the competent authority or a branch of the Fish Wealth Agency or and Agriculture branch attached with application on the establishment of a coastal investment aquaculture project after it being filled, attached with the following documents:

A. A sketch of the project's location, determining its coordinates.
B. A copy of the national ID, or a copy of the CR as for companies and firms, or a copy of the passport as for the foreign investors.
C. All relevant acknowledgments.

1. The investor shall bring a proof of the financial efficiency for establishing and operating the project (solvency statement from a bank).
2. Conducting a meeting with the investor and submitted a visual presentation and an initial technical and economic feasibility study showing the targets of the project and plan and methods of work.
3. Technical evaluation of the project's location and determining the space by experts of the competent authority.
4. Executive committee approval.
5. Investigation by the Deputy Ministry for Land Affairs on the reporting of the project to the Ministry.
6. Issuing the initial approval of the project location checkup.
7. Providing a specialized environmental study on the project to PME.
8. Five-member committee approval on the filling, burying, shoveling works.
9. Providing final technical and economic feasibility study to the competent authority with a capacity complying with the location's space and project's establishments prepared by a consultant office approved by the Ministry.
10. Issuing a lease agreement with the investor by the Deputy Ministry for Land Affairs.
11. Issuing the project's licenses by the competent authority under the following:
    A. Construction license: period to be determined under the final technical and economic feasibility study of the project.
    B. Operational license: with a renewable thirty years period.
12. Referring a copy of the final technical and economic feasibility study with a copy of the license issued for the project to ADF in order to fund the project under the laws upon the investor's request.

**Third: Sea Projects inside the sea (Floating Cages)**

An application shall be submitted to the competent authority or a branch of the Fish Wealth Agency or and Agriculture branch attached with application on the establishment of an investing aquaculture project inside the sea by the flowing cage system after it being filled, attached with the following documents:

A. A sketch of the project's location, determining its coordinates.

B. A copy of the national ID, or a copy of the CR as for companies and firms, or a copy of the passport as for the foreign investors.

C. All relevant acknowledgments. (Attached)

1. The investor shall bring a proof of the financial efficiency for establishing and operating the project (solvency statement from a bank).
2. Conducting a meeting with the investor and submitted a visual presentation and an initial technical and economic feasibility study showing the targets of the project and plan and methods of work.
3. Technical evaluation of the project's location and determining the space by experts of the competent authority.
4. Executive committee approval.
5. The security approval of General Directorate of Border Guard (GDBG) regarding the location.
6. Issuing the initial approval of the project location checkup.
7. Providing a specialized environmental study on the project to PME.
8. Five-member committee approval on the project's port, if needed.
9. Providing final technical and economic feasibility study to the competent authority with a capacity complying with the location's space and project's establishments prepared by a consultant office approved by the Ministry.
10. Issuing the project's licenses by the competent authority under the following:
    A. Construction license: period to be determined under the final technical and economic feasibility study of the project.
    B. Operational license: with a renewable thirty years period.

11. Referring a copy of the final technical and economic feasibility study with a copy of the license issued for the project to ADF in order to fund the project under the laws upon the investor's request.

**Acknowledgement:**

"The establishment of an aquaculture project in Saudi Arabia is forbidden without the approval of this Agency"

I, We ..... the applicant(s) of the request on obtaining a license for the project ..... in ..... Acknowledge the following:

1. Compliance with all terms stated in the rules and methods of issuance the aquaculture project license in the inland waters.
2. Opening records for stating all information related to my project.
3. Putting instructional sign in the nearest main road leading to the project including the project's name and location.
4. Non-expansion of the project or adding any production units without obtaining a written consent from this Agency.
5. The commencement of the project immediately upon the license issuance. The performance stages shall be conducted under the direct technical and administrative supervision of this department to ensure that the investor performs under the time schedule mentioned in the submitted feasibility study approved by this Ministry. This department may conduct visits to the project to follow-up and monitor the performance stages at any time.
6. Providing a monthly technical report to this department on the work progress in the project performance stages to define the progress and interrupts facing the performance processes. The investor shall remain providing this department with the monthly technical report on the project after the commencement of the operational and production processes (filling the survey on that).
7. Employing technical personnel qualified for the project management. A proof of that shall be submitted to this department, this department shall regularly monitor the technical performance of the personnel.

8. Employing a technical coordinator by the project to be the communication officer between the project and this department.
9. Performing the aquaculture project feasibility studies (a license requirements) by a consultant office approved by the Ministry.
10. For the coastal projects, the investor shall comply with article 5 of the (agreement) executed with them stating the following: "the investor may not waive, lease, or subcontract the leased location or a part thereof), without taking into consideration the waiver requests submitted to this sector in which the investor requests to waive to another investor.
11. Complying with the production capacities stated in the feasibility studies approved by this department under which the license is issued.
12. Allowing the representatives of this Agency to visit the projects to conduct the technical monitoring on the operational processes and take samples at any time as seen fit.
13. The investor shall apply the biosecurity standards to the project.

Name:.....

Signature:.....

Date:.....

## Eighth:

## Inland Aquaculture Project Repositioning Form and Procedures

**Rules of Aquaculture Project License Issuance, and Monitoring Activities in Saudi Arabia**

**Inland Aquaculture Project Repositioning Form**

Investor's Name:.....

ID No.: .....

Permanent address: Area..... city:.....

P.O:..... Postal Code:.....

Work Phone:.....

Mobile:.....

Fax:.....

Email:.....

Raised Creature ☐ Fish ☐ Ornamental Fish ☐ Other

**Name of the raised kind(s):**

Applicable Arabic name:.....

Applicable English name:.....

Scientific name:.....

Project's production capacity:..... ton/year.

**Rules of Aquaculture Project License Issuance, and Monitoring Activities in Saudi Arabia**

**Information of the Project:**

Project's commercial name:.....

Project's address: area..... city.....

Agriculture administration..... branch.....

CR No.: ..... Dated..... issued by.....

Land possession:

☐ Ownership ☐ Granted ☐ rehabilitated ☐ Rented
☐ Other

Project's position:

☐ Managed by the owner ☐ Rented

Requirements of (1) shall be satisfied.

Project's general activity:.....

Water source:..... Number of wells:..... flux rate (gallon/min.).....

Project's commencement date:..... First production date:.....

Project's total space:..... Unit.....

Fish allocated space:..... unit.....

Does the project have a hatchery?

☐ Yes ☐ No

Are there broodstock in the project?

☐ Yes ☐ No

Number of broodstocks' lakes ..... total space: ..... $m^2$

Number of hatching lakes:..... building type:..... total water volume..... $m^3$

Number of incubation lakes:..... building type:..... total water volume..... $m^3$

Number of raising lakes:..... building type:..... total water volume..... $m^3$

Number of feeding lakes:..... building type:..... total water volume..... $m^3$

**Rules of Aquaculture Project License Issuance, and Monitoring Activities in Saudi Arabia**

**Project's technical feasibility:**

**First: location's appropriateness:**

Water sufficiency:

☐ Sufficient ☐ Insufficient

Water type

☐ Appropriate ☐ Inappropriate

Soil type (in case of land lakes)

☐ Appropriate ☐ Inappropriate

Space allocated for the project:

☐ Sufficient ☐ Insufficient

☐ Needs an increase ☐ Doesn't need

☐ Increase is possible ☐ Not possible

Location temperature:

☐ Good ☐ Bad

Bad temperature conditions

.....

.....

.....

Temperature: ..... m

Road leading to the project: distance from the main road: ..... Km

☐ Asphalted ☐ Not asphalted

☐ Good ☐ Bad

Public services:

Electricity

☐ Available ☐ Unavailable

Telephone:

☐ Available ☐ Unavailable

Potable water

☐ From the project ☐ Outside ☐ From distance..... km

Nearest city..... distance .....km

Nearest shopping area .....

Nearest similar project ..... distance ..... km

**Second: Raised types:**

☐ Tilapia ☐ Carp ☐ catfish ☐ Other

Arabic name:.....

English name:.....

Scientific name:.....

Raised type is successful and appropriate for the environment:

☐ Yes ☐ No

Do you approve adding new types?

☐ Yes ☐ No

Source of larvae and fingerlings:

☐ The project ☐ Hatchery inside SA ☐ Hatchery outside SA

Hatchery's name and address:.....

Purchase costs:

Larvae..... SR/100 larvae

Fingerlings..... SR/fingerling.

Raising method:

☐ Expanded ☐ Semi intense ☐ Intense ☐ Extremely intense

Do you accept to turn the project into closed system ☐ Yes ☐ No

Storage density ..... fish/$m^3$

Production capacity: ..... Ton/year

Production cycle number/year ..... cycle.

**Third: Nutrition:**

Feed source:

☐ National
☐ Imported
☐ Feed factory available
☐ No feed factory
☐ Farm-produced feed
☐ No feed used

☐ Company's name:.....
☐ Company's name:.....
☐ Production capacity..... ton/year

Feed price per ton: SR.....

Daily feeding rate (% of the body weight).

Broodstock:.....%

Larvae:.....%

Fingerlings:.....%

Growing fish:.....%

Feeding method:

☐ Manual ☐ Automatic ☐ Other

Mention:.....

Feed warehouse:

☐ Available ☐ Unavailable

Space:.....$m^2$

**Fourth: Harvesting and Marketing**

Harvesting:

☐ Manually ☐ Automatically ☐ Other

Mention:.....

Harvesting times:

☐ Daily ☐ Weekly ☐ Monthly ☐ annually

Daily production:.....kg

Marketing volume:

☐ Tilapia Average:.....g

☐ Carp Average:.....g

☐ Catfish Average:.....g

☐ Other Average:.....g

Production Transportation Means:

Cooled car ☐ With a water tub ☐ Normal car ☐ other

Mention:.....

Type marketing ratio:

| Type | % | | |
|---|---|---|---|
| | Alive | Frozen | Other |
| ☐ Tilapia | | | |
| ☐ Carp | | | |

| | | | | |
|---|---|---|---|---|
| | Catfish | | | |
| | Ornamental Fish | | | |
| | Other | | | |

Marketing Place and ratio:

| | | | |
|---|---|---|---|
| | National | | Average:.....% |
| | Importation | | Average:.....% |
| | Fish Market | | Average:.....% |
| | Private shop | | Average:.....% |
| | Farm marketing | | Average:.....% |
| | Hotels and restaurants | | Average:.....% |
| | Other | | Average:.....% |

Marketing method and ratio:

| | | | |
|---|---|---|---|
| | wholesale | | Average:.....% |
| | Retail | | Average:.....% |
| | upon request | | Average:.....% |

Project's funding:

| | |
|---|---|
| | Private capital |
| | Loan from Agricultural Development Fund (AFD) |
| | Commercial Loan |
| | Other sources |

Metntion.....

.....

.....

Project's costs and profits:

First: fixed investment costs:.....

Second: annual maintenance and consumption:.....

Third: operational costs:.....

Profits:

**Annex (1)**

Lessee's Name:.....

Address:.....

Telephone: ..... Fax: .....

**Rules of Aquaculture Project License Issuance, and Monitoring Activities in Saudi Arabia**

Agreement Duration..... As of ..... Copy of the agreement to be attached.

Is the project established by the lessee?

☐ Yes ☐ No

Did the lessee add establishments?

☐ Yes ☐ No

Did the lessee change any of the technical feasibility terms of the project?

☐ Yes ☐ No

A brief of the important changes:

1. .....
2. .....
3. .....
4. .....
5. .....
6. .....
7. .....

Lessee's Name:.....

Signature:.....

**Rules of Aquaculture Project License Issuance, and Monitoring Activities in Saudi Arabia**

## Undertaking

I/We ..... the applicant(s) of the request on obtaining a license for the project ..... in ....., acknowledge the following:

1. Compliance with all terms stated in the rules and methods of issuance the aquaculture project license in the inland waters.
2. Opening records for stating all information related to my project.
3. Putting instructional sign in the nearest main road leading to the project including the project's name and location.
4. Non-expansion of the project or adding any production units without obtaining a written consent from this Agency.
5. Providing a monthly technical report to this department on the work progress in the project performance
6. Employing technical personnel qualified for the project management. A proof of that shall be submitted to this department, this department shall regularly monitor the technical performance of the personnel.
7. Employing a technical coordinator by the project to be the communication officer between the project and this department.
8. Performing the aquaculture project feasibility studies (a license requirements) by a consultant office approved by the Ministry.
9. For the coastal projects, the investor shall comply with article 5 of the (agreement) executed with them stating the following:) the investor may not waive, lease, or subcontract the leased location or a part thereof), without taking into consideration the waiver requests submitted to this sector in which the investor requests to waive to another investor.
10. Complying with the production capacities stated in the feasibility studies approved by this department under which the license is issued.
11. Allowing the representatives of this Agency to visit the projects to conduct the technical monitoring on the operational processes and take samples at any time as seen fit.
12. The investor shall apply the biosecurity standards to the project.

**Rules of Aquaculture Project License Issuance, and Monitoring Activities in Saudi Arabia**

Applicant Name:.....

Signature:.....

Relation to the project:.....

Date:.....

Supervised by:.....

Signature:.....

Date:.....

NOTE:

The study will be evaluated under the information mentioned by the department searchers before licensing the project. For more information, please coordinate with the competent authority in such regard.

**Rules of Aquaculture Project License Issuance, and Monitoring Activities in Saudi Arabia**

**Unlicensed Inland Existing Aquaculture Project Repositioning:**

1. The investor shall provide this department, a branch of the Fish Wealth Agency, or an Agriculture's branch with an application on repositioning an existing project, attached with the following documents:
    A. Copy of the land ownership deed, or a certified copy of the lease agreement with a period not less than 10 years.
    B. A sketch of the project's location with determining the coordinates.
    C. Copy of the national ID or a copy of the CR.
    D. All relevant acknowledgements.
2. An ad hoc technical team from this department or Fish Wealth branch shall visit the project and fill the form prepared by this department (Existing Project Repositioning Form).
3. Location visit (by this department, a branch of the Fish Wealth Agency, or Agriculture branches), defining the creature raised in the project and preparing a relevant technical report.
4. Contacting the branch of the Ministry of Water, Electricity and Agriculture of the project for preparing a technical report on the water productivity of the wells located in the project's area.
5. Upon the reports mentioned in (3 and 4), the production capacity of the aquaculture project shall be determined.
6. Contacting the investor to provide a technical and economic feasibility study of the project under the determined production capacity. This shall be prepared by a consultant office approved by this Ministry.
7. Project's technical and economic feasibility studies (a license requirement) shall be conducted by a consultant office approved by this Ministry.
8. Evaluating the technical and economic feasibility study by a technical committee formed from experts of this department within a period not exceeding three weeks.
9. This department shall issue the operational license of the project with a renewable period of ten years under the updates.

**Rules of Aquaculture Project License Issuance, and Monitoring Activities in Saudi Arabia**

**Ninth:**

**Aquaculture Project Technical and Economic Feasibility Study Office Rules**

**Rules of Aquaculture Project License Issuance, and Monitoring Activities in Saudi Arabia**

**Aquaculture Project Technical and Economic Feasibility Study Office Rules**

These rules aim at developing the general principles for preparing the detailed technical and economic feasibility studies provided to the Ministry of Water, Electricity, and Agriculture prepared by the feasibility study offices for individuals, companies, or commercial firms desiring to invest in aquaculture sector.

These rules are as follows:

1. The office shall be approved by the Ministry and have a valid license.
2. The office shall have experts and technicians specialized in preparing aquaculture project technical and economic feasibility study.
3. The office shall correct mistakes and amend terms revised and approved by the ad hoc technical committee appointed for evaluating the studies.
4. Technical opinions of the study office shall not be binding for the Ministry.
5. The office shall conduct the financial and economic analysis and the estimated costs of the project performance, profits, profitability and profit ratio on the invested capital.
6. The office shall prepare the engineering drawings of the project with drawing appropriate measurements, including the main drawing of the project and any other details with zoomed drawing measurements.
7. The study office may not make any amendment or change to the project or any of the drawings or documents thereof approved by the investor before unless after obtaining a written consent from the investor to be submitted to the Ministry.
8. The study office shall keep the confidentiality of the information of the investor provided to the project, and such information may not be disclosed.
9. The ministry may request any documents or papers from the study office related to the project.
10. The study office shall copy the original study in colors, with two copies.
11. The office may not add any advertising materials to the study or promote a certain product.
12. The study office shall be responsible for any scientific material stated in the study.
13. The Ministry may not consider any uncertain scientific material in the technical and economic feasibility studies.

14. The office shall comply with the technical rules imposed by the Ministry in performing the feasibility studies.
15. The study shall mainly contain the following sections in order:
    - Subjective presentation of the project mater and the raised types.
    - Aquaculture practice factors in the project's area.
    - Types proposed to be raised.
    - Engineering presentation of the project's facilities and equipment.
    - Aquaculture proposed system.
    - Harvesting and marketing.
    - Project' personnel.
    - Financial and economic analysis.
    - Project's environmental effects.
    - Biosecurity.
    - References.
    - Attachments: project's engineering drawings with clear contents complying with the specifications stated in the study.