CAMBODIA QUALITY SEAL (CQS) CERTIFICATION SCHEME FOR FISH AND FISHERY PRODUCTS

MANUAL

NOVEMBER 2022

CAMBODIA QUALITY SEAL (CQS) SCHEME CERTIFICATION MANUAL

VERSION I

FISHERIES ADMINISTRATION
MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES

PREFACE

Cambodia's fisheries and aquaculture sector has always been a major source of food and nutrition, employment, trade, culture, social and economic benefits. Around three million people (20 percent of the population) rely directly on fisheries for sustenance and livelihood. The contribution of the sector to the Gross Domestic Product (GDP) is about 5.5 percent. To maximize this potential, particularly with aiming to export the Cambodian fishery products to regional and international markets as well as to fulfill the increasing domestic demand for safe foods, the Cambodia Quality Seal (CQS) was developed under the Prakas No. 565 dated September 06, 2016, by the Ministry of Agriculture, Forestry and Fisheries (MAFF). The scheme is developed as a voluntary food safety certification scheme to promote the implementation of good hygiene practices, food safety, and quality management systems as well as to add value to the fish and fishery products in Cambodia to ensure public health.

Through the CAPFish Capture: Postharvest Fisheries Development project, co-funded by the European Union and implemented jointly by the Fisheries Administration (FIA) and United Nations Industrial Development Organization (UNIDO), the CQS certification scheme is further developed to promote food safety practices in post-harvest fisheries in line with regional and international market requirements.

This certification scheme manual will be the most important guideline for the CQS certification process. It ensures that the certification process is accurate and transparent, following the requirements of the CQS with credibility and acceptance to all relevant stakeholders. The CQS certification scheme clearly outlines the scope of CQS, roles and responsibilities of the certification body, the certification process and scheme quality control. This manual also describes the requirements in detail specifically for processing enterprises, collection point and landing site, as well as fishing vessel which fishery establishments need to implement to attain compliance with the CQS. This guidance manual has been discussed extensively with the stakeholders and validated in 2021 and 2022

CQS is a voluntary certification scheme which serves as a communication tool among the key actors of fisheries value chains towards building the confidence of consumers, protecting public health, and enhancing market access and export.

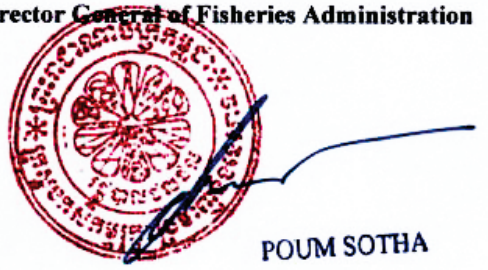
This manual based on the principles of CODEX guidelines provides direction for the certification to promote food safety best practices of Cambodia fisheries subsector with high integrity and reliability recognized by all parties. It is also clear evidence that shows the cooperation and efforts of all relevant partners from the public, private, national, and international development partners based on the common principles of GHP and GMP requirements of CODEX guidelines, and the existing food safety legal framework of Cambodia, ASEAN and other potential markets.

On behalf of Fisheries Administration of the Ministry of Agriculture, Forestry and Fisheries, I sincerely hope that all the relevant key actors including the certification body, private sector, I/NGOS and development partners will actively implement the CQS principles set out in this certification manual to enhance the value of the certification scheme for promoting the safety and quality of fish and fishery products in Cambodia as well as to gain trust from both national and international consumers. The continued participation of individuals and related institutions will promote CQS as the Cambodian national brand through quality and safety certification by using CQS logo. Consequently, it will facilitate international fish trade and protect public health.

Phnom Penh, Date: 04 Month: November Year 2022

Delegate of the Royal Government

Director General of Fisheries Administration



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LIABILITY

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Terms & Definitions

Concepts	Description
Batch	The quantity of material prepared or required for one production operation.
Calibration	A set of operations that establish the relationship between values of quantities indicated by a measuring instrument or measuring system. Or values represented by a material measure or reference material, and the corresponding values realized by the standard.
Critical Control Points (CCPs)	A step at which control can be applied and is essential to prevent or eliminate a fishery product safety hazard or reduce it to acceptable levels.
Complaint	A statement that is unsatisfactory or unacceptable.
Conformities	Is a fulfilled CQS, legal or quality requirement or a specific system requirement.
Consumer	The end user of the finished product.
Contact surface	The surface of equipment, tools and instruments or the human body that comes in contact with the fishery product.
Cross-contamination	The transfer of any material from one surface or fishery product to another.
Contamination	Introduction or occurrence of an unwanted organism, taint or substance to packaging, the fishery product, raw material or the food environment. Contamination can include physical, chemical, radiological and microbiological.
Corrective measures	A measure to eliminate the cause of a non-conformity.
Disinfection	A process that eliminates many or all microorganisms.
Employee	An individual whom works for someone else in exchange for compensation.
Expiration date	This is a previously determined date after which a product should no longer be used.
Fishery product	A substance that can be used or prepared for use as food.
Fish and fishery product	Aquatic or aquatic plants derived from nature or aquaculture, both fresh and unprocessed or can be considered as a fishery commodity when traded
Flow diagram	A systematic representation of the sequence of steps or operations used in the production or manufacture of a particular fishery product.
Food additives	A substance added to the food to preserve flavor or enhance taste, appearance or other sensory qualities.
Foreign matters	Any kind of outside contaminant introduced to a food product at any point in its production process that is not an organism. For example, glass, wood, dust, sand, etc..
Fumes	A gas or vapor that smells strongly and is dangerous to inhale or can contaminate food.

Concepts	Description
Hazard	An agent of any type with the potential to cause harm (usually biological, chemical or physical).
Infestation	The presence of an unusually large number of insects or animals in a place. This can typically cause harm or endanger the safety of the fishery product.
Inspection	Targeted verification (often a visual check against a checklist) to ensure operation to safe expected levels.
Integrity Database	The accuracy and consistency of data stored in a database
Operator	A person whom operates a piece of equipment
Organization chart	A graphic representation of the structure of an organization showing the relationship of the positions or jobs within
Pest	A destructive insect or other animal that attacks the fishery product or contaminates it.
Physical contamination	Contamination of the fishery product by foreign matters.
Plant	A place where an industrial or manufacturing process takes place.
Premises	A building or plant together with its land and outbuildings occupied by an enterprise.
Procedures	An agreed method of carrying out an activity or process which is implemented and documented in the form of detailed instructions or process description.
Product category	A type of product or service. For example, dried products, frozen products, etc..
Product characteristics	Properties that define the fishery product and that have implications for its handling and processing.
Product recall	Any measures aimed at achieving the return of an unfit product from customer and final customers.
Quality	meeting the consumers specifications and expectations.
Raw materials	Any base material or semi-finished material used by the organization for the manufacture of a product. Raw materials include food ingredients, packaging materials, additives, processing aids etc.
Risk	The likelihood of occurrence of harm from a hazard.
Risk assessment	The identification, evaluation and estimation of the levels of risk involved in a process to determine an appropriate control process.
Root causes	The underlying cause(s) of a problem, which, if adequately addressed, will prevent a recurrence of that problem.
Senior Management	Personnel with high-level operational responsibility for the company and the capability to authorize the financial or human resources necessary for the implementation of the scheme requirement.

Concepts	Description
Specifications	An explicit or detailed description of a material, product or service.
Traceability	The duration specifies the quality and safety of fishery products that can be used or traded.
Water Activity	aw is a measure how much water is free and unbound and thus available to microorganisms for growth.
Self-life	
Workwear	Company issued or authorized clothing designed to protect the product from potential contamination.

SECTION 1

CAMBODIA QUALITY SEAL SCHEME RULES

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1. Introduction

This document is part of the food safety and quality assurance scheme of the Cambodian Quality Seal (CQS). The scheme consists of two documents: the scheme rules and the scheme requirements. The scheme consists of two documents: outlines the scheme rules which includes the management of the scheme.

The goal of this scheme is to support micro, small, medium and large enterprises in Cambodia to enhance their practices and to strengthen food safety and quality of their fishery products.

The CQS is an initiative led by the FiA and further developed with the support of UNIDO as part of the CAPFish Capture – Post-harvest Fisheries Development Project, funded by the European Union, which is part of a larger effort to stimulate sustainable and inclusive growth in the fisheries sector in Cambodia. The overall objective is to contribute to the development of the post-harvest fishery sector through upgrading the regulatory and institutional system by adopting better practices by the private sector.

This document outlines the second version of the scheme rules.

2. Roles and Responsibilities

CQS scheme is designed currently as the second-party certification scheme since the scheme owner and certifier are combined in one organization, which is the Department of Fisheries Post-harvest Technology and Quality Control (DFPTQ) of the Fisheries Administration (FiA). Therefore, there is no involvement of accreditation body as well as certification bodies. Once the scheme is popularized and gains consumer confidence, it could be transformed into third party certification scheme

The involved actors and their responsibilities are outlined below:

- The **DFPTQ** will act as scheme owner and certifier with the following responsibilities:
  - Maintain/update the scheme in cooperation with the CQS task force.
  - Maintain/update the integrity database (publishing audit reports)
  - Perform the audit and monitor the progress
  - Continuous training of auditors on essential skills and knowledge
  - Prepare audit report once an audit is conducted (within the set time frame).

2. Roles and Responsibilities

  - Handle and reply to appeals/grievances when they are made and sharing those with the CQS task force.
  - Both certifiers and auditors will also be provided by the DFPTQ. It is to note auditors maybe sourced externally with auditors from multiple disciplines or specialities.

- The enterprises (farms, vessels, collection centers, processors and retailors) will be auditees and have the responsibility to truthfully cooperate with the auditors when they are asked for evidence during the inspection of the premises, as well as interviews of workers and managers.

Due to many responsibilities, the role of DFPTQ is critical. The internal organization of the DFPTQ is outlined below. There are 3 key roles within the DFPTQ, the certifier, the auditor and the head of the DFPTQ. It is crucial to note that DFPTQ need to perform without any bias and prejudice as it is the certifier as well as the auditor; therefore, proper segregation is needed within DFPTQ to ensure the integrity of the scheme certification.

- The **certifier** checks the reports of the auditors and makes sure the standard is correctly interpreted and implemented across the team of auditors. At this moment the certifier will be provided by the DFPTQ. The certifier also checks whether the certification process is followed up properly. The certifier ultimately decides whether an enterprise gets certified or not and has to sign the certificate.
- The **auditors** plan and conduct the audit. They will check if the enterprises are compliant with the requirements set out in the CQS scheme. At this moment, the auditor will be provided by the DFPTQ as the scheme owner. Auditors will perform their work independently and in a neutral manner to ensure a fair result for the enterprise that they audit. The DFPTQ may also enlist external auditors to support with the implementation of the audits. The auditor requirements apply the same for both external and DFPTQ auditors. **Senior auditors** are those that can train new auditors (see chapter 5.3 Auditor qualifications). A senior auditor must at least have 3 years of auditing experience and can be appointed by the head of the DFPTQ.
- To avoid a conflict of interest, an auditor cannot perform consultancy services to any enterprises. If consultancy is provided to an enterprise, the auditor must disclose this to the certifier and cannot conduct audits at that enterprise. If consultancy has been provided, the auditor has to wait 3 years before that

person can audit the enterprise again. An auditor may only audit the same enterprise for 3 consecutive years, afterwhich a different auditor shall conduct the audit. This is to prevent possible biasness of the auditor to the enterprise.

- The **head of the DFPTQ** will receive any grievances of the enterprises and ensure appropriate follow-up. Any suspension requests of enterprises will also need to be approved by the head of the DFPTQ. Finally, this person also ensures that all required documents are shared with the CQS taskforce to enable them to provide oversight.

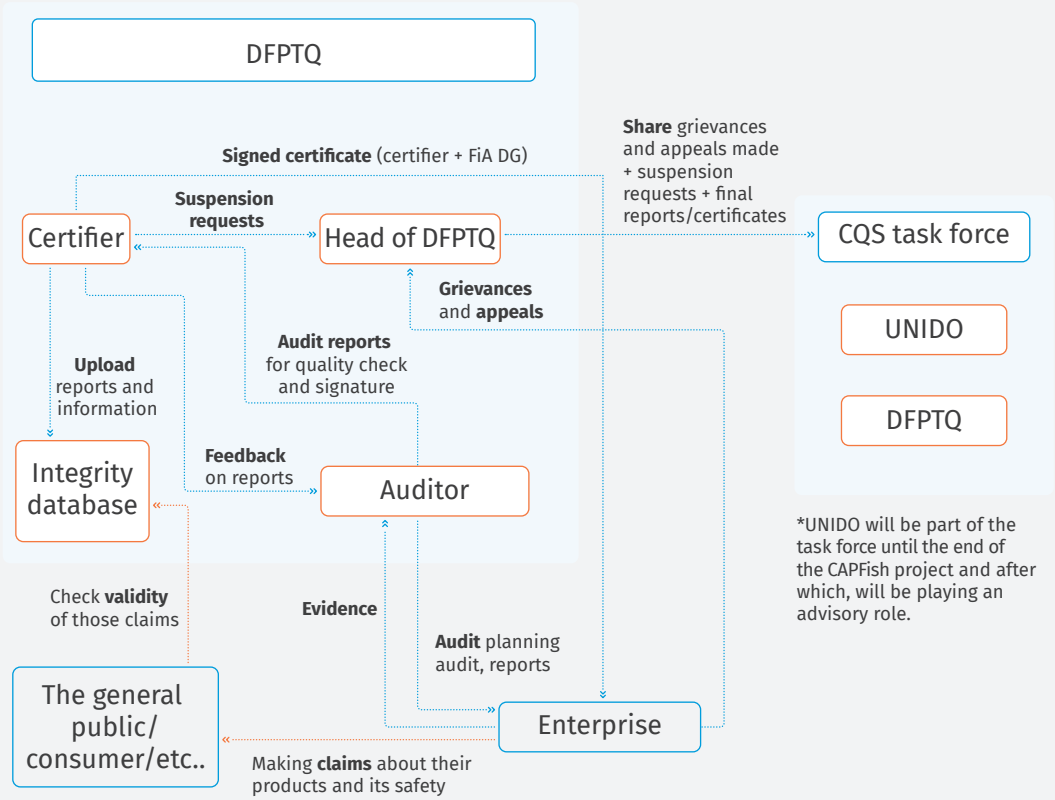


Figure 1. Structure of the CQS Organization and the Interaction Between the Different Stakeholders

3. Scope of the Cambodia Quality Seal (CQS)

The focus of the CQS is to improve the safety and quality of fish and fishery products in post-harvest fisheries in Cambodia. To achieve this, the CQS must cover various types of enterprises to ensure production of safe fish and fishery products.

Stakeholders involved in the CQS scheme are:

Fishing vessels:

The vessels that catch fish either from freshwater lakes or the sea.

Landing/collection sites:

The fish establishments that collect fish from the vessels or aquaculture farms and then distribute it to the processing enterprises.

Processing enterprises:

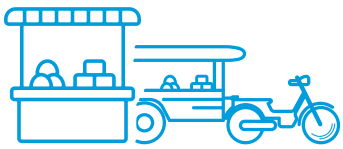
The establishment where the fish is processed into the final processed fish and fishery products.

Retailors A:

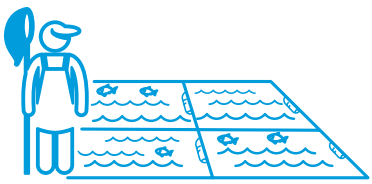
These are larger retailers who perform as distributors, supermarkets or smaller marts that sell high quality products specifically. These retailers normally store the finished product and sometimes perform minor processing by themselves, e.g. re-packaging of the products.

Transport is often either handled by the enterprises or the collection points, hence this is included in their requirements to make sure this happens hygienically.

Other relevant stakeholders but not included in the CQS are:



Retailors B: Refer to the micro or small retailors or street/market vendors who have no storage facilities or does not sell the product on daily basis due to the limited quantity of products. In the future, the CQS may include them in the scheme by developing specific requirements for this group of enterprises.



Aquacultural farms that produce fish in ponds or cages and supply raw fishes to the processing enterprises. In the future the CQS may decide to require Good Aquaculture Practices (GAqP) for these farms in order to allow sourcing from them.

3. Scope of the Cambodia Quality Seal (CQS)

The CQS scheme consists of 3 sets of scheme requirements for relevant for different actors (processing enterprises, fishing vessels, landing/collection points) in the supply chain. The different standards and their applicability are listed below:

- Req. CQS 1 – These are the central scheme requirements of the CQS and focus on the processing enterprises/retailers A.
- Req. CQS 2 – These requirements focus on the landing sites and collection points.
- Req. CQS 3 – This set of requirements is specified designed for fishing vessels.

The diagram below provides an overview of the scope of the CQS scheme and its requirements for different actors:

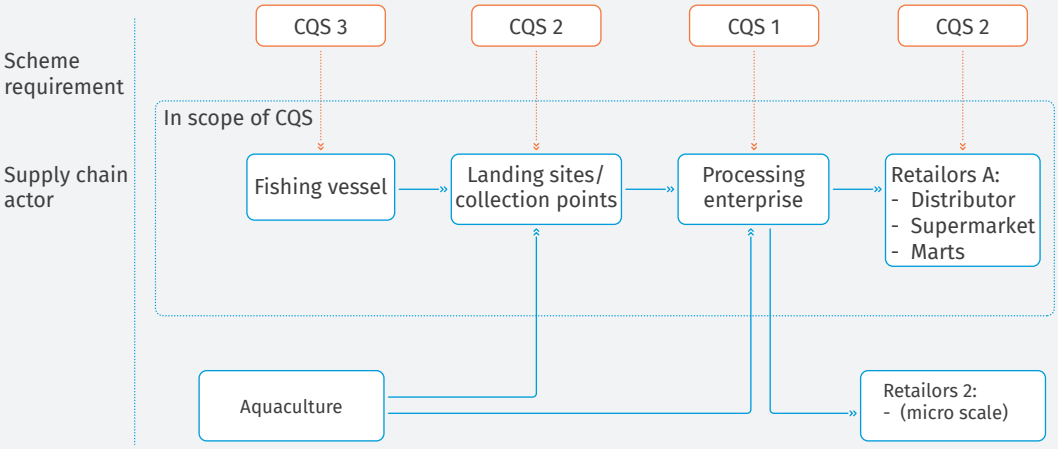


Figure 2. Overview of The Scope of The CQS Scheme

4. CQS Requirements and Certification Process

Any establishment which wants to be certified against the CQS, needs to be audited. The table below provides an overview of the steps that need to be taken to plan and complete an audit. Each step is further elaborated upon in the remainder of this chapter.

4. CQS Requirements and Certification Process

Table 1. Overview of CQS implementation phases

Steps	Documents	Timeline	Responsibility
1. Preparation for audit	-	-	Enterprise
2. Audit planning and request	a. Application form	6 weeks before the intended audit date	Enterprise
	b. Contract (standard CQS contract to be followed)	Should be finalized 2 weeks before the audit	DFPTQ and Enterprise
	c. Audit plan	2 weeks before the audit	DFPTQ
3. Audit	- CQS documents (documents required as outlined in the relevant CQS requirements).	- CQS audit timing (site visit of the auditor to the enterprise to check compliance).	DFPTQ and Enterprise
4. Post audit and reporting	d. Confirmation of non-conformances (NC)	Shared within 4 days after the audit	DFPTQ
	e. Audit report	Shared within 14 days after the audit	DFPTQ
	f. All corrective action evidence shared with DFPTQ	Shared within 60 days after the NC confirmation	Enterprises
	g. Review of corrective actions and certification decision.	Shared within 90 days after the audit	DFPTQ

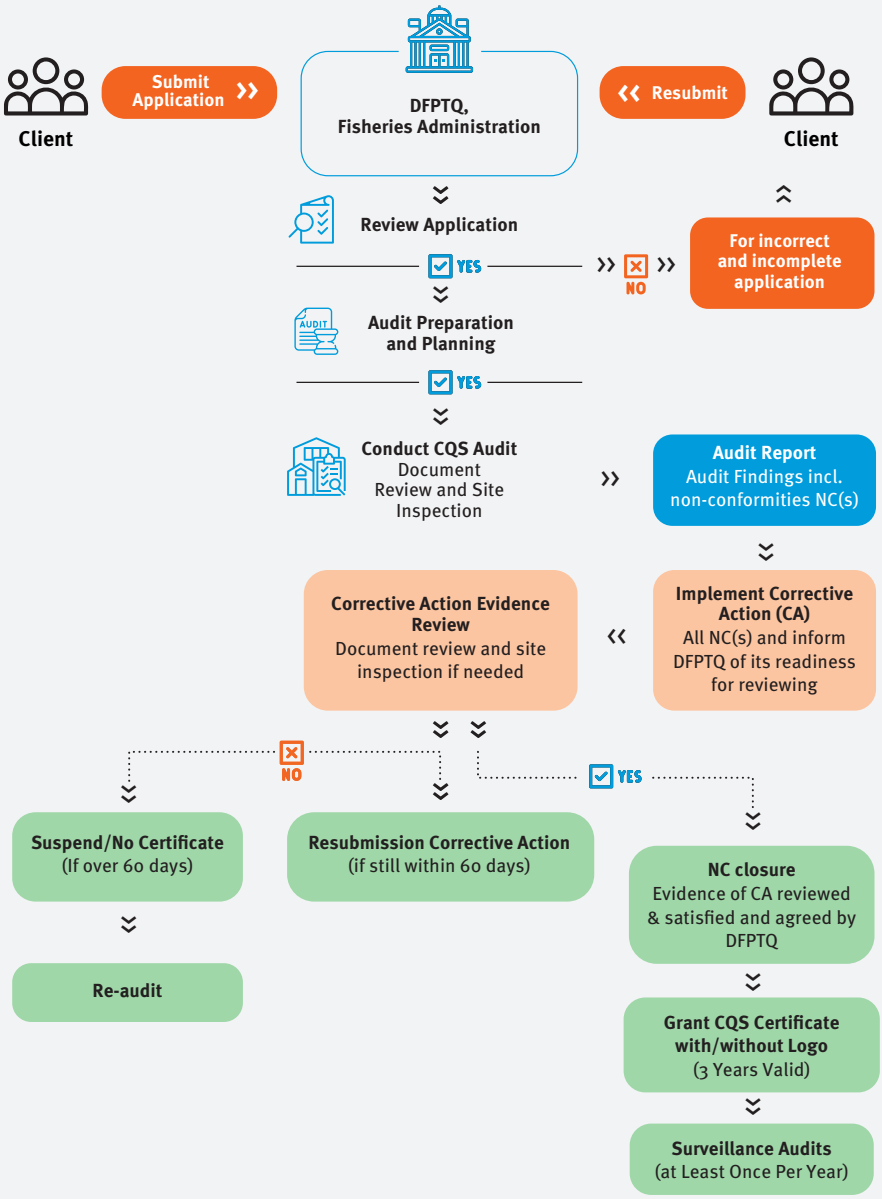


Figure 3. The CQS Certification Process

4. CQS Requirements and Certification Process

4.1. Certification Process

The above schematic description is further outlined and explained in the steps below.

Preparation:

- Fish and fishery business operators such as processing enterprises, collection points, fishing vessels and retailers and distributors can visit the DFPTQ website to download all relevant CQS supporting documents. These documents include:
  - The -application form,
  - CQS interpretation guidelines,
  - CQS requirements and scheme rules,
  - Record, procedure and other relevant templates required by CQS
- Study the documents carefully and ensure all requirements are implemented and documented.
- The enterprise itself should conduct a mock or internal audit to test whether all practices are adequately implemented and documented. This is also part of the CQS requirements.
- Where applicable, relevant establishments should also ensure that they are appropriately registered with the relevant authorities so that they are recognized as legal business entity.

Audit planning:

- Auditee Completes the application form and submits to the DFPTQ (email address: fia.dfptq@gmail.com). This form can be downloaded from the DFPTQ website. This document will contain some basic enterprise information, the scope of the audit, location of the facilities to be audited, the claim type to be made and the contact details of the enterprise. Form should be handed in 6 weeks in advance.
- A contract will be put in place between the DFPTQ and the enterprise outlining the scope of the audit and clauses to allow effective management of the scheme by the DFPTQ. Other conditions can be
  - The publication of certain reports to ensure transparency and credibility.
  - Inclusion of the certified site in the integrity database.

- Lead auditor may bring along a second auditor for training purposes. The lead auditor maybe accompanied by another auditor in training. The secondary auditor will thus act as an observer and shall not interfere with the entire audit process.

- The application form will be reviewed by DFPTQ. Clarifications can be asked, if required, by the DFPTQ. Once an application form is received by the DFPTQ, the assigned auditor will confirm receipt and inform the enterprise of the next steps.
- Audit plan will be made by the auditor and will be shared 2 weeks in advance with the enterprise.

Audit:

During the audit, the auditor will check whether the enterprise has successfully implemented the requirements outlined in the in CQS. This will be done in line with the proposed audit plan shared by the auditor in advance of the audit. The list below contains an overview of the different steps to be followed during the audit.

- Opening meeting
- Enterprise introduction
- Premises inspection
- Employee interviews
- Document review
- Traceability and labels check
- Closing meeting

Post-audit activities and reporting:

When the audit is finalized, the non-compliances (NC) need to be confirmed and the audit report needs to be made. Any observed NCs during the audit can still be closed either during the audit or after, as long as appropriate evidence is shown.

- NC confirmation is shared with the enterprise and signed by both auditor and enterprise representative to confirm the NCs (within 4 days after the audit).
- Audit report is shared with the enterprise (within 14 days after the audit).
- Auditor will review the corrective actions (within 30 days from receiving the corrective actions.

4. CQS Requirements and Certification Process

- If NCs are closed, the auditor updates the report and shares it with the certifier. The certifier checks the report and signs it to confirm the certification decision.
- A shortened version of the report is uploaded and published on the website of the DFPTQ by the certifier.
- A certificate will be signed by Director General of FiA and shared with the enterprises as proof of their certification.

- Maintaining certification:
  - The compliance with the scheme rules and requirements should be maintained. The Certificate is valid for 3-year and the surveillance audit will be done once a year.
  - For the renewal of the certificate, make sure to register for the re-audit. Renewal should be done 2 months before the certificate expiry.

4.2. Audit Protocol

The enterprise should make sure that the production of processing plant is running, as it normally would, during the audit. This will make sure that the auditor gains a realistic picture of the activities at the enterprise. The remainder of this chapter will outline in more detail what the different audit steps entail which were introduced in Chapter 4.1.

Opening Meeting

During the opening meeting, the auditor will outline the planning of the day and provide an overview of what evidence or documents needs to be inspected (in line with the CQS standard). The opening meeting is also for discussing the confidentiality of what information to be shared and set the expectations. Furthermore, the scope of the audit can be confirmed (facilities, products, etc..), grievances procedure can be explained and what happens if anyone misbehaves during the audit.

Introduction of Enterprise

During this step, the auditor will aim to get more familiar with the enterprise and their internal processes, products, and management system. This can be viewed as an introduction of the enterprise to the auditor.

Inspection of Premises

This is where the auditor is provided with a tour of the premises to gain an overview of what the enterprise entails. Locations to be visited include:

- The premises
- The waste collection site
- The processing area
- Storage facilities
- The facilities for the staff (changing rooms, restrooms for male and female staff, hand washing facilities ...etc.)
- If relevant, means of transportation of the product

Employee Interview

A number of requirements demand that employees should be interviewed to check compliance. This can be done during or after the inspection of the premises. When an employee is interviewed, it is important that this is a confidential conversation between the auditor and the employee. This means that the manager of the facility should not be able to hear what is being discussed to ensure that the employee can speak freely.

Document Review

After the inspection of the premises, the documents can be reviewed. This will focus on any procedures and records that have been maintained by the enterprise in written form or digital records.

Traceability Check

For this step, the administration of the enterprise will be inspected. Traceability means that a product or batch of processed fishery products can be traced back to the source of the raw materials or vice versa, as appropriate. In the final storage facility of the product, the labels should be checked to ensure all relevant information is included. Labels that carry lot numbers are also useful for traceability check.

Closing Meeting

During the closing meeting, the findings are presented by the auditor which includes a summary of requirements that were met and a conformation of the observed NCs. The enterprise should then understand what the NCs are and can work to close them.

4. CQS Requirements and Certification Process

As a result of the closing meeting, the auditor will share a list of NCs within 4 days which needs to be signed by both the auditor and the enterprise to confirm agreement on the NCs observed.

Final Audit Report

The auditor will summarize its findings in an audit report which will be shared with the enterprise within 14 days after the visits. This report will again provide an overview of the NCs and the observations made during the audit. When corrective actions have been implemented, this report will be further updated.

4.3. Non-Conformity (NC) Closure

If any NCs have been observed, the enterprise needs to close those NCs in order to still secure certification. In order to close the NCs, the enterprise needs to deliver evidence of successful NC closure to the auditor. Depending on the NC, the evidence can take different forms like the sharing of updated documents, sharing of clear pictures, additional interviews or even a follow up site visit.

Sufficient and clear evidences need to be provided by the enterprise, so the NC can be closed timely and confidently. It is the responsibility of the enterprise to close the NC and provide the required evidence.

Proof of corrective actions need to be shared and approved by the auditor within 60 days after receiving the NC confirmation.

Under CQS scheme, 3 types of NCs are identified: Critical, Major and Minor. This distinction can help to set priorities when solving NCs.

- **Critical** NCs are those that pose a direct and immediate threat to the safety of the fishery product making them inedible. Therefore, they have to be solved as soon as possible.
- **Major** NCs also pose a threat to the safety of the fishery product. Usually, these issues can be developed into a critical NC if no intermediate corrective action is taken.
- **Minor** NCs are those that pose a risk indirect to the safety of the fishery product. For example, uncompleted records or procedures.

Apart from NCs, observations can also be made. An observation is when the operation is satisfactory and thus compliant. However, there is still scope for improvements to prevent any risk from developing.

4.4. Surveillance and Renewal Audits

Once the enterprise successfully passed the CQS audit, the certificate will be valid for 3 years. However, a yearly surveillance audit is required to maintain compliance. The surveillance audit will be conducted within 1 month of the anniversary of the certification date. Certification date is the date at which the certificate is awarded to the enterprise.

Renewal of certificate will be carried out 2 months prior to the expiry of the certificate, and a fresh certificate shall be issued thereafter.

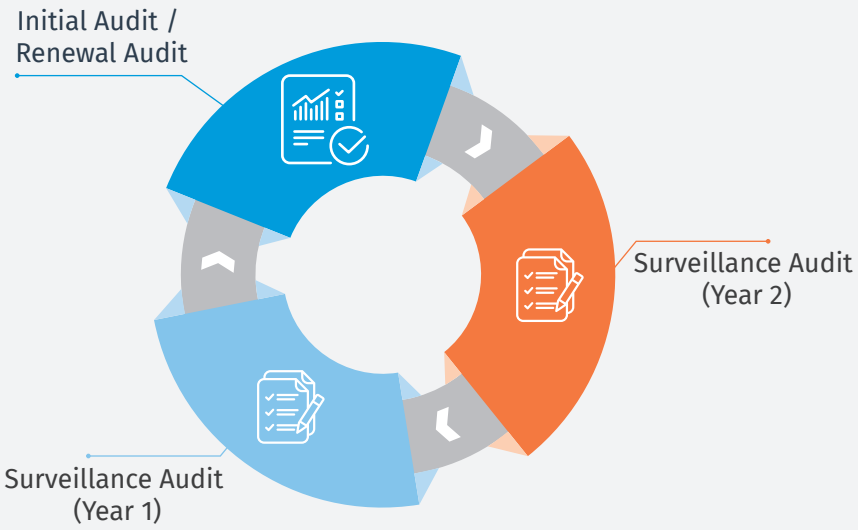


Figure 4. Overview of Certification Cycle

4. CQS Requirements and Certification Process

4.5. Claims and Use of CQS Logo

The claims that will be enabled through the CQS scheme depend on the type of actor that applies for certificate. Although the current system is geared towards processing enterprises, the fishing vessels and collection points/landing sites can also get certified independently. However, based on the level of compliance, different types of claims will be made. The type of claim that an enterprise can make will also be included in the integrity database which is publicly accessible on the DFPTQ website.

Processing Enterprises

Depending on the scope of the certificate, various claims can be enabled. Two types of claims can be made:

- Claim 1: CQS Basic: A statement claims to outline that the facility is certified is 'CQS Basic Compliant': This means that the enterprise, collection point or vessel can claim that their practices are in line with the requirements of the CQS. However, the logo cannot be used on the product packaging.
- Claim 2: CQS full: The second claim that can be made is that the entire fishery supply chain is developed using CQS compliant practices, and this shall be implemented in tandem with the Internal Control System (ICS), see 4.7 Internal Control System. This means that each actor (the processing enterprise, collection point, vessels) are aligned with CQS requirements. If this can be ensured, the enterprise may use the CQS logo or 'CQS Full Compliant' statement on their products indicating basic hygiene practices are implemented.

Table 2. Types of CQS Claims for Processing Enterprises

Claims	Level of compliance	Advantage for the processing Enterprise	Awarding of CQS Logo/Mark
Claim 1	CQS Basic	Meeting only basic requirements. Only focuses onenterprise structure, limited written records/procedures needed.	The statement claim 'CQS Basic Compliant can be made. No use of logo is allowed on the product packaging and/or labels. Statement claim can be used in marketing materials.
Claim 2	CQS Full	Meeting national/regional requirements. Includes entire supply chain. The implementation shall be performed in tandem with 4.7 Internal Control System (ICS).	CQS logo can be used on product packaging and/or labels. Also, the 'CQS Full Compliant' statement claim can be made should the enterprise choose not to use the logo.

The figure below outlines the differences between a basic claim and a full claim. For claim 2, the vessel and collection point should be covered in the CQS scheme. When sourcing from aquaculture farms, additional raw material tests should be conducted to ensure those raw materials are safe.

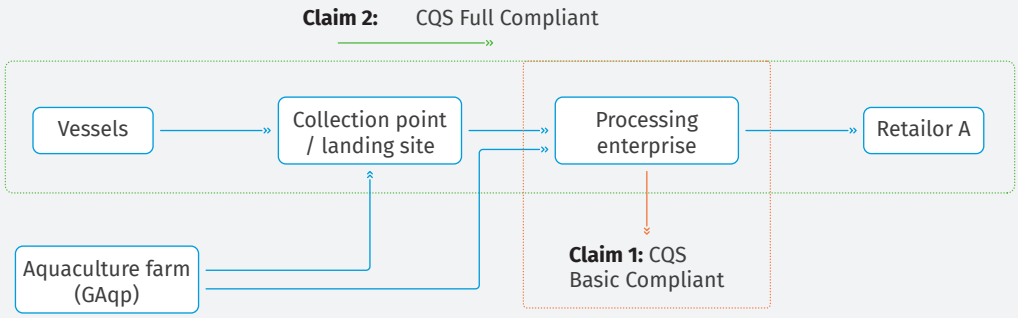


Figure 5. Difference Between Claim 1 and Claim 2

4. CQS Requirements and Certification Process

For claim 1	For claim 2
Which is CQS basic compliance of the processing facility or retailers, the use of the CQS logo is not allowed. The statement 'CQS Basic Compliant' can be used on promotional materials.	The CQS logo can be used on the product packaging and/labels and the statement 'CQS Full Compliant' can be used as well. This claim can also be used for marketing materials similar to claim 1.

Vessels and Collection Points/Landing Sites

For vessels and collection points, only Claim 1 can be made and there is no distinction between the different compliance levels. This distinction is not made since the practices are already at the minimum level.

Claim in this case means that they can only claim that their practices are CQS aligned through the following statement 'CQS Basic Compliant'.

Incorrect Use of Claims

Incorrect use or abuse of any claims can result in suspension from the CQS certificate. Enterprises making any claims while not having successfully passed the audit will be banned from participating in the CQS scheme. The suspension may only be lifted upon a successful re-audit and verification of the use of claim.

To check whether the enterprises make legitimate claims, the integrity database (accessible through this link) can be consulted. This database only contains enterprises that have been certified. The following information is registered:

- Name of the enterprise
- Date of certification
- Actor type (processing, retailor, fishing vessel, landing site/collection point)
- CQS scope (CQS basic, CQS full)
- Type of claim
- Product and list of products processed
- Downloadable summary report

Use of CQS Logo

The CQS logo shall be released together with the copy of the certificate when the certification decision is final. The CQS logo shall not be used without the permission of the DPFPTQ. DPFTQ shall audit the use of the CQS logo by a certified organization during every surveillance and renewal audit. Any non-conformance associated with the use of the logo will require remedial action to correct the use of the logo as well as corrective action for future use.

When the logo is received, it may then be used into the enterprise's existing artwork, promotional materials and/or product labeling. The logo maybe used on labels, packaging and other materials. The use of the logo is subjected to the design specifications below.

4. CQS Requirements and Certification Process

Design Specifications

The following legend is denoted:

ខប: Fisheries Administration
XXX: Operator number authorized to use the seal
YY: number of fishery products of operators
ZZ: Year the seal allowed to be used

Figure 6. Design of CQS Logo

Minimum Clear Space

The logo type must be reproduced with a clear area around it that is free from other graphic elements, with a minimum 2 mm space.

Figure 7. Clear Space (Min 2mm) Around Logo

Minimum Size

The logo, including the serial number, should always be clearly legible when shown in both print and online.

The CQS logo must always remain intact. The logo cannot be modified in any way (except for size). The original colour of the logo must be produced and the logo must not be compressed, stretched or distorted.

Figure 8. Only The Original Color of The Logo Shall Be Produced

Figure 9. The CQS Logo Shall Not Be Compressed, Stretched Or Distorted

4. CQS Requirements and Certification Process

4.6. Certification

After successful completion of the audit, a certificate will be awarded. Successful completion means that the enterprise complies with all relevant requirements of the CQS.

The certificate will include the following information:

- The scope of the certificate and claim
- The name and address of the enterprise
- Signature of FiA director
- Date of issuance
- Expiration date of the certificate
- Name and address of the issuing organization, the FiA in this case.

4.7. Internal Control System (ICS)

The goal of the ICS is to allow processing enterprises to support the collection points and fishing vessels to attain CQS compliance. One of the advantages of this system is to make CQS more accessible for those stakeholders through stimulating cooperation between different actors in the supply chain. The ICS system is not applicable for retailors and can be earmarked as such in the checklist.

In an ICS system, the DFPTQ can partially delegate the inspections of the group members of the ICS system to a participating enterprise in the supply chain, in this case only the processing enterprises. This means that the processing enterprise that manages the ICS needs to have proper procedures in place to make sure the ICS group members

(fishing vessels and collection points or aquaculture farms) are aligned with CQS requirements. What such a procedure should look like is outlined in the CQS scheme and includes yearly inspections and follow-up actions in case of any non-compliance to the CQS requirements are observed.

The processing enterprise carries the responsibility to ensure compliance of the participating associated enterprises. In return, they become certificate holder. This means that the processing enterprise is the only enterprise in the ICS that can sell CQS compliant products. Collection points or fishing vessels cannot make a CQS claim when selling products to other companies outside the ICS system.

During auditing of the ICS system, the following steps will be taken:
First the processing enterprise and their own plant will be visited (according to steps as outlined in the chapter 'Audit Protocol').

The second step is to verify the ICS system they have in place.
Finally, the processing enterprise shall ensure the fishing vessels and collection points are aligned with CQS.

Below is a schematic representation of both ICS systems for inland/sea captured fish.

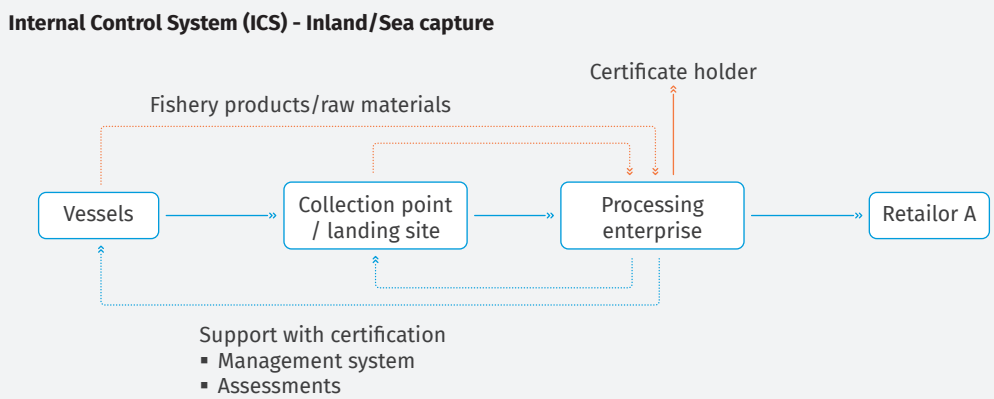


Figure 10. Schematic Representation of ICS

5. Scheme Quality Control

This chapter outlines the various rules applicable to maintain the quality of the standard and ensure proper and fair implementation.

5.1. Quality Control

The different actors shall cooperate to ensure the proper implementation of the scheme requirements and scheme rules. The certifier and auditor cannot be the same person. Where the auditors conduct the audits at the enterprises, the certifier is present to conduct the quality control and make the certification decision based on the reports made by the auditors. Both certifier and auditors cannot conduct consultancy for any enterprise to prevent a conflict of interest. The certifier also completes the integrity database as soon as the certification decision is made.

In case enterprises are not in agreement with the certification outcome or have any complaints, they can start a grievance procedure or appeal the decision or make a complaint. The complaint will be shared with the head of the DFPTQ whom can investigate the complaint or appoint a staff member not involved with the client to investigate the complaint. The CQS task force will also be informed of the complaint and the result of the investigation.

The DFPTQ head will also be responsible for making any updates to the standard every 3-5 years. First a public commenting period will be organized. The feedback from the public comment period and the grievances/appeals will be included in the discussion/ workshop in which any comment can be clarified by stakeholders.

5.2. CQS task force

The CQS task force is an important body to maintain the credibility of the CQS system. The members consist of the private sector association, and DFPTQ of the FiA. The members are participating on voluntary basis. UNIDO experts under capfish play an advisory role during the initial phase. This taskforce advises the DFPTQ on matter as requirement changes, grievance resolution and the quality of the audit reports are of high quality. The DFPTQ heads the committee and prepares the meetings and acts as secretariate.

The task force can give advice on:

- Updates and changes to scheme rules and the scheme requirements
- Updates and changes to the fee structure
- Needs to be informed of any grievance or appeal shared and its resolution

The taskforce can only give advice to the DFPTQ, eventually the head of the DFPTQ will make the final approval.

The DFPTQ will convene the CQS task force at least 2 times a year to provide updates on the implementation of the scheme. This can be in person meetings or calls. The CQS task force will also convene every 2 years when updates to the scheme can be made (See continues improvement Chapter 5.4).

5. Scheme Quality Control

5.3. Auditor Qualifications

Knowledgeable and qualified auditors are essential to implement a credible scheme since they ultimately check whether a scheme requirement is complied with or not. Training of potential future auditors should include:

- The person to be trained as auditor must be able to demonstrate that they have experience or knowledge on either food safety or the fishery sector. This can be demonstrated as follows:
  - At least 3 years' experience working for a food processing enterprise or in the fishery sector. In addition, an BSc degree in food safety, food technology, agriculture or fisheries is also required.
  - If the applicant does not have an educational background in the above specialization, they need to have at least 5 years of work experience in the relevant sectors.

This information should be clear from the CV of the candidate.

- At least 5-days of standard training with an examination will be conducted. When examination is passed, the certificate will be granted by FiA. The training will include:
  - Introduction to food safety
  - CQS scheme rules
  - CQS scheme requirements
  - Auditing principles
  - Practical assignments
- At least join 1 observation audit and conduct 1 shadow audit by the candidate. During these audits, the qualified or senior auditor will bring the trainee along with them to observe how the audit is being done. During the third audit, the trainee will lead the audit.

Additional joint audits can be conducted if more training is needed. The senior auditor can make this decision.

Requirements for trainers are:

1. Trainers originating from approved training platforms with proven experience with auditing for food safety and quality programs or
2. Qualified CQS auditors with at least 2 years of CQS audit experience, or at least 1 year of CQS audit experience if they already have experience with auditing for food safety and quality programs.

5.4. Continual Improvement

The CQS scheme rules and requirements will need to be updated continuously to ensure that the safety and quality of fish and fishery products are retained or further promoted. Once every 2 years, the DFPTQ will review and update the scheme if needed to maintain the relevance of the CQS program. Any meeting to update the CQS will be preceded by a public consultation where feedback can be shared with the DFPTQ to be included in any discussions on updating the standard. If any updates to the standard have been made, it should be clearly stated on the website and trainings will be offered to the enterprises to update them on the improvements made.

5. Scheme Quality Control

The DFPTQ will ensure that the CQS is promoted and awareness created among processors and consumers; such promotion and awareness campaigns could be held in coordination with Development Partners or alone with publication of appropriate communication materials and tools.

The figure below shows the steps required to update the CQS scheme and/or requirements.

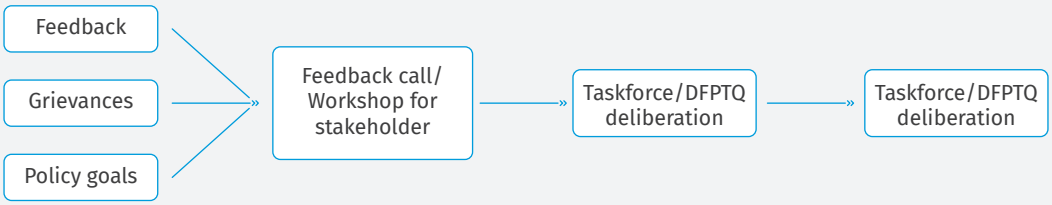


Figure 11. Steps for Updating the CQS and/or Requirements

5.5. Appeals

The enterprise has the right to appeal the certification decision made by the DFPTQ. The appeal should be raised within 7 days from the moment the NC confirmation and/or certification decision has been communicated to the enterprise. The appeal will be directed to the DFPTQ head and shared with the CQS taskforce.

The DFPTQ will have 60 days to respond to the appeal. The investigation of the appeal will be conducted independent of the original auditor. A written response will be provided to the appeal based on a thorough investigation. The response of the DFPTQ head will also be shared with the taskforce.

5.6. Service fee

Certification at this moment is still supported through the efforts of the CAPFish Capture – Post Harvest Fisheries Development project. In the longer term, enterprises are expected to be charged a service fee for the auditing.

The service fee will be paid irrespective of the outcome of the audit and any certificate or audit report will not be valid until the fee has been paid.

The table below contains guidelines for how many days audits might be needed for different scopes of an audit. This includes only auditing days, travel days are not included. It also assumes the audit of 1 facility only.

Table 3. Estimated audit period for various CQS schemes

Scope audit	Days needed for site visit
CQS Basic	1 day
CQS Full	2 – 3 days

Confidentiality

DFPTQ shall be responsible, through commitments, for the management of all information obtained or created while carrying out audit activities. Except for information that the enterprise makes publicly available, or when agreed between the certifier and the participant (e.g. for the purpose of responding to complaints), all other information is considered proprietary information and shall be regarded as confidential.

SECTION 2

CAMBODIA QUALITY SEAL (CQS) SCHEME REQUIREMENTS

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Processing Enterprises

Introduction

This document is part of the assurance scheme of the Cambodian Quality Seal (CQS). The quality and safety assurance scheme consists of 2 documents: 1. the scheme rules and 2. the scheme requirements. This document outlines the scheme requirements and is targeted at the enterprises that would like to be certified under this scheme.

The goal of this CQS scheme is to support Micro, Small and Medium Enterprises (MSMEs) in Cambodia to enhance their practices and to strengthen food safety and quality of their fish and fishery products.

This quality and safety scheme is designed based on the GHP standards from the Codex Alimentarius commission and Cambodian legislation. In addition, the requirements were also compared to legislation from several countries in the region including China, Thailand, Vietnam, Korea and Japan.

This document outlines the second version of the scheme requirement.

Scheme Overview for Processing Enterprises

Scope

The scope of this section includes requirements for fish and fishery processing enterprises including:

- Processing facilities
- Retailers (A)

The standard offers specific requirements for several products that highlight additional risks that might be associated with the production of those product types. The product types include:

- Dried fishery products
- Frozen/fresh fishery products
- Smoked fishery products
- Fish sauce
- Steamed fish
- Fermented fishery products (including Prahok)

Principles

The core principles of this scheme include:

A senior management commitment: to underline the importance and support from the owner or managers of the enterprise for the implementation of the CQS requirements.

A food safety plan and quality management system: to identify contamination risks and the development of accurate procedures to control those risks.

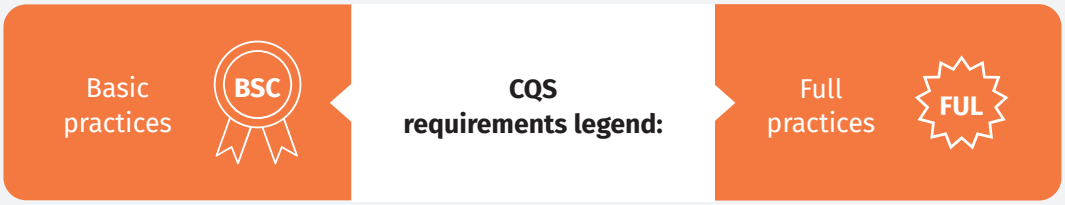
Implementation of basic good hygiene practices: these basic practices are important to ensure the safety and quality of fish and fishery products.

Based on these 3 principles, the scheme requirements are therefore developed and defined. Two main types of requirements are defined in this scheme; they are identified as 'Basic (BSC)' and 'Full (FUL)' practices. To gain full CQS compliance, all clause requirements will need to be complied with. By complying to only the basic practices, the enterprise shall achieve a CQS entry compliance which is known as CQS Basic (under Claim 1). Each enterprise can try for entry level compliance with the goal to implement the full CQS practices.

Scheme Overview

Scheme Rules

The CQS scheme rules will provide more information about the management of the program including the certification process, potential claims to be made, logo use, auditor requirements, fee structure, etc. This is also part of the assurance scheme and is outlined in a separate document.



Color codes used in on-site audit:

On-site Observation / Interview	Documents / Record	Both on-site observations / interview and documents and record

CQS Scheme Requirements for Processing Enterprises

1. Management

Commitment and support from the senior management of the enterprise is important to ensure that the requirements are implemented. Their assurance can inspire employees who are essential for the implementation of the requirements in this scheme. A clear organizational structure with well-defined responsibilities will also clarify the role of each person in the enterprise for CQS implementation.

1.1. Commitment

#	Requirements	Practice type
1.1.1	The enterprise's senior management shall demonstrate that they are fully committed to the implementation of the CQS to improve processing facilities and the continual improvement of fish and fishery product safety and quality management.	BSC
1.1.2	The management shall know about the basic principles of food safety, operational specifications and fish & fishery product processing safety to be able to judge potential risks in their processing plant.	BSC
1.1.3	The enterprise shall have a documented food safety policy which includes the commitment of food safety handled and produced, signed by the top management.	FUL

1.2. Organizational Chart

#	Requirements	Practice type
1.2.1	The enterprise management shall be able to clearly explain verbally how the enterprise is organized and what are the roles and responsibilities are of each employee.	BSC
1.2.2	The enterprise shall have an organization chart demonstrating the management and operational structure of the enterprise. It should also include clearly outlined and allocated responsibilities for each employee in relation to food safety, quality and fish and fishery product processing. Deputy of the key management team shall be clearly documented as well.	FUL
1.2.3	A food safety team leader should also be appointed.	FUL

CQS Scheme Requirements for Processing Enterprises

2. Fish and Fishery Product Safety Plan

These requirements focus on the creation of a clear overview of the activities of the enterprise that needs to be certified. Based on such an overview, clear risks and control measures can be identified from fish and fishery product safety plan.

2.1. Fish and Fishery Product Description

#	Requirements	Practice type
2.1.1	The enterprise management shall be able to verbally explain what type of product they are producing including the product characteristics.	BSC
2.1.2	A description of each product or group of products shall be developed and documented. This includes all relevant information on the food safety and quality product characteristics including microbial, chemical and physical characteristics, product composition, shelf-life, packaging used, labeling instructions, processes involved, storage condition etc.	FUL

2.2. Process Flow Diagram

#	Requirements	Practice type
2.2.1	The enterprise management shall be able to verbally explain the processing steps of each product which is being processed by the enterprise.	BSC
2.2.2	The enterprise management shall be able to explain verbally the main food safety risks associated with each processing step.	BSC
2.2.3	A **flow diagram** shall be developed and documented to cover each product, product category or process.	FUL
2.2.4	A **risk assessment** is conducted for each step of the flow diagram for identifying relevant potential risks (biological, chemical and physical). Control measures shall also be in place for the risks identified.	FUL
2.2.5	If an enterprise is aiming to make a full claim (claim 2), then CQS certified fish raw materials and products shall not be mixed with non-CQS certified raw materials.	FUL

3. Fish and Fishery Product Safety and Quality Management System (QMS)

A quality management system focusses on the organization of management plans, records and procedures to ensure the safety and quality of fish and fishery products are maintained.

3.1. Manual

#	Requirements	Practice type
3.1.1	The enterprise shall develop all procedures and collate them in the form of a printed or electronic quality manual or folder.	FUL

3.2. Document Control

#	Requirements	Practice type
3.2.1	The enterprise shall have a procedure to manage documents which are part of the fish and fishery product safety and quality system.	FUL

3.3. Records

#	Requirements	Practice type
3.3.1	The contents of records shall be **completed and kept** for the product shelf-life + 1 year.	FUL
3.3.2	Records shall be **legible and retrievable. It shall be maintained in good condition**. Where records are stored electronically, they shall be (a) stored securely and (b) suitably backed up to prevent loss.	FUL

CQS Scheme Requirements for Processing Enterprises

3.4. Internal Inspections

#	Requirements	Practice type
3.4.1	At least once a year, a **self-assessment** shall be carried out based on the present risks and the CQS requirements. Effective corrective actions shall be taken to address the non-conformity.	FUL
3.4.2	The **results of the internal inspection shall be recorded** as well as the corrective actions taken to close the observed NCs. A qualified external party can support with the self-assessment.	FUL
3.4.3	When designing a self-assessment, the finished product should be **tested** in an accredited (ISO 17025) or **approved laboratory** (with Good Laboratory Practices) by the CA. *Appendix 2* includes the different parameters to test for at minimum for the different product types.	FUL

3.5. Raw Materials

#	Requirements	Practice type
3.5.1	The management of the enterprise shall be able to verbally explain what their safety and quality specifications are for raw materials to ensure the safety of fish and fishery products. These specifications should be adequate and accurate.	BSC
3.5.2	The raw materials shall be inspected visually or in a CQS approved laboratory based on the specifications identified in practice 3.5.1 on a regular basis, upon arrival at the processing facility using the safety and quality specifications as mentioned in 3.5.1.	BSC
3.5.3	Specifications for raw materials, including food additives and ingredients shall be adequately documented and available to the relevant employees.	FUL
3.5.4	At least once a year the raw materials should be **tested by an accredited laboratory** (ISO 17025) or **approved laboratory** (with Good Laboratory Practices) based on the specifications identified in practice 3.5.1 upon arrival at the establishment. Appendix 2 specifies which parameters to test for in raw materials. If raw materials originate from aquaculture farms, they should be tested annually.	FUL
3.5.5	If raw materials are sourced from aquaculture farms, additional parameters need to checked. The additional parameters are listed in Appendix 2	FUL

#	Requirements	Practice type
3.5.6	Food safety team leader or QC shall check and sign on the delivery inspection records of the raw materials, food additives, ingredients and packaging materials delivered.	FUL

3.6. Traceability

#	Requirements	Practice type
3.6.1	A **basic traceability system** shall be established in which information is recorded of the suppliers of raw materials and the buyers of the final product. This information includes at least the name, date, quantity (of the raw materials and final product). In case the final product is sold to end-consumers directly, the names of the individual buyers does not need to be recorded.	BSC
3.6.2	**Detailed information related to the suppliers** of raw materials shall be recorded in addition to practice 3.6.1. The record items includes product name, quantity, supplier's name and contact information, purchase date of materials. Regarding the raw materials, the origin of the fish should also be known and recorded, including all intermediary actors involved (traders/collection points/transport/etc...). In an event where information for tracing back raw material is not available product testing is used instead to verify product quality and safety.	FUL
3.6.3	**Detailed information related to the processed fish and fishery product** shall be recorded. This record includes storage condition of food and inspection batch No., inspection date, inspection personnel, inspection method and inspection result of the product.	FUL
3.6.4	**Relevant information related to the sales** of the product shall be recorded. Items to be recorded are product specification, quantity, production date, production batch/lot number, quality certificate (if relevant) and marketing (sales) date of the sold product.	FUL

CQS Scheme Requirements for Processing Enterprises

3.7. Customer Complaints

#	Requirements	Practice type
3.7.1	A customer **complaint handling mechanism** shall be established. Complaints made by customers will be recorded and handled to avoid any potential problems during production.	FUL

3.8. Recall Procedure

#	Requirements	Practice type
3.8.1	Where the processed fish and fishery product is not in compliance with the food safety regulations or **inedible**, the **production shall be stopped** immediately.	BSC
3.8.2	The recalled fish and fishery products that are not in compliance with food safety regulations or **inedible** shall be **safely disposed or destroyed** to avoid them flowing back into the market again.	BSC
3.8.3	A **product traceability system** shall be included (for example through the use of lot numbers) to be able to trace back where products originated from in the supply chain and to determine the root causes of any non-conformity or contamination issues and vice versa.	FUL
3.8.4	For fish and fishery products that are **withdrawn due to mislabeling,** identification, or directions for use which has little or no impact to food safety, corrective measures shall be taken to guarantee the safety of the product, and the situation shall be explained to consumers once the product is **re-launched** for sale.	FUL
3.8.5	When **products are recalled,** the name, batch, specification, quantity, recall reason and subsequent rectification program of recalled fish and fishery products shall be **recorded**.	FUL
3.8.6	If the fish and fishery products are already sold in the market, the enterprise shall inform DFPTQ and recall the products accordingly. Both customers and consumers shall be notified.	FUL
3.8.7	The product recall system shall be developed according to the relevant national regulations.	FUL

4. Premises and Plant Design

The plant and premises need to be designed properly to make sure it is suitable for processing fish and fishery products in terms of size, construction, and maintenance. The following requirements provide a basic outline of what the processing layout should look like.

4.1. Plant Environment and Premises

#	Requirements	Practice type
4.1.1	Potential contamination risks posed by the fish and fishery product production site's environment shall be considered and appropriate measures shall be taken to reduce risks to a minimum level.	BSC
4.1.2	The premises shall be tidy and well maintained to protect the fish and fishery products from any source of contamination.	BSC

4.2. Plant Design

#	Requirements	Practice type
4.2.1	Operating areas in the plant and processing areas shall be divided (effectively separated or partitioned) reasonably according to product characteristics, production process and the requirements of cleanliness.	BSC
4.2.2	Internal design and layout of the plant and workshop shall meet the operation requirements of for food hygiene to avoid cross contamination. Employees should also have enough space to adequately do their work.	BSC

CQS Scheme Requirements for Processing Enterprises

4.3. Building

#	Requirements	Practice Type
4.3.1	**Floors** are made of impermeable materials, easy to clean and shall allow adequate drainage and cleaning.	BSC
4.3.2	**Walls** shall be in good repair made of strong materials and without cracks. They should be adequate to protect the building's interior and processing areas from any outside contamination.	BSC
4.3.3	**Walls** and partitions shall be in good repair, made of impermeable materials, have light colored surfaces and are easy to clean.	BSC
4.3.4	**Windows** should be easy to clean, constructed to minimize the build-up of dirt and if necessary fitted with removable and cleanable insect-proof screens.	BSC
4.3.5	**Doors** should have smooth, non-absorbent surfaces, be easy to clean and, where necessary, disinfect.	BSC
4.3.6	**Ceilings** and overhead fixtures (e.g. lighting) should be constructed to be shatterproof where appropriate, and finished to minimize the build-up of dirt and condensation and the shedding of particles (e.g. dust).	BSC
4.3.7	Sufficient natural or artificial **lighting** shall be provided in the plant. Lighting shall meet production and operation requirements and the light source shall the fishery products to take on its actual color. Lightings used shall be protected.	BSC
4.3.8	Adequate **ventilation** shall be provided to the storage and processing areas of the plant to prevent condensation or excessive dust.	BSC

4.4. Utilities (Ice / Water / Steam)

#	Requirements	Practice type
4.4.1	Municipal tap water can be used in the processing of fishery products. If necessary additional purification steps might be included to ensure the water used does not pose any risk of contamination for the fishery product.	BSC
4.4.2	Any water/steam that direct contacts fish and fishery products or surfaces should not constitute a threat to the safety or suitability of the food	BSC
4.4.3	Water supply/steam facilities shall ensure that the water pressure and water quantity meet the production requirements.	BSC

#	Requirements	Practice type
4.4.4	Ice should be produced using potable water or clean water. Ice should be protected from contamination.	BSC
4.4.5	The manufacturing, crushing, transportation and storage of ice used in processing shall be carried out under hygienic conditions. Containers used for transportation and storage of water shall be easy to clean and avoid contamination.	BSC
4.4.6	Water sources and water / steam supply facilities shall meet the requirements set out in appendices (annex 2).	FUL

4.5. Equipment

#	Requirements	Practice type
4.5.1	The design and manufacture of equipment and containers being in contact with fishery products shall be easy to drain, clean, disinfect and maintain.	BSC

4.6. Maintenance

#	Requirements	Practice type
4.6.1	The management and responsible employees will be able to verbally explain what activities they conduct to maintain the equipment and plant in good condition, to ensure a safe fishery product.	BSC
4.6.2	Plant equipment and containers shall be kept clean and repaired or renewed timely in case of any problem. Any damage to the plant's, roof, ceiling, wall, windows, lighting and ventilation system, shall also be repaired timely.	BSC
4.6.3	There shall be a documented and planned maintenance schedule and monitoring system which includes all plant processing equipment. Maintenance requirements shall be defined when commissioning new equipment.	FUL
4.6.4	All maintenance work shall be recorded, including the date, type of repairs made and the person responsible.	FUL
4.6.5	When repairs to the plant and processing equipment are made the safety of the fishery products shall be not jeopardized.	FUL

CQS Scheme Requirements for Processing Enterprises

4.7. Staff Facilities

#	Requirements	Practice type
4.7.1	Any **facilities** like changing rooms, restrooms, canteens, dormitories or recreation areas will be **properly distanced or partitioned clearly from the fish and fishery product processing** area to prevent contamination of the fishery product.	BSC
4.7.2	Facilities for **washing, drying and disinfecting hands shall be arranged at the entrance** of the operating areas. If necessary, these facilities can be located in the operating area as well. The taps/switches of faucets shall be non-hand-operated.	BSC
4.7.3	**Restrooms shall be easy to keep clean**. Facilities for handwashing shall be arranged at a proper place in the restroom. The restroom shall not be directly open to areas for the fish and fishery processing production, packaging or storage.	BSC
4.7.4	**Changing room shall be arranged at the entrance of the plant**. If necessary, changing rooms can be arranged at the entrance of the specific operating areas. The changing rooms shall be designed to ensure that workwear, personal clothes and other articles are kept apart to avoid cross-contamination.	BSC
4.7.5	**Facilities for changing shoes** (putting on shoe covers) or disinfection facilities for work shoes or boots shall be arranged as needed **at the entrance and necessary locations in the plant**. The facility in place shall meet the specifications and size of the materials that will be disinfected.	BSC

4.8. Chemical Product Contamination

#	Requirements	Practice type
4.8.1	The management should be able to verbally explain how chemical contamination of the fish and fishery products is prevented based on the different risks that might be presented.	BSC
4.8.2	Any non-edible chemical substances which may harm human health shall not be added during food processing.	BSC

#	Requirements	Practice type
4.8.3	A management system to avoid chemical contamination shall be established. Possible contamination sources and contamination methods shall be analyzed and a proper control procedure shall be developed and implemented.	FUL
4.8.4	Any food contact equipment used in production which requires cleaning, sanitation and lubrication shall be food grade. In addition, where lubricant is used for the maintenance activities that potentially pose a risk by direct or indirect contact with raw materials (including primary packaging), intermediate products, finished products shall be food grade as well.	FUL
4.8.5	The procedure or guideline for chemical use such as detergents and disinfectants shall be established. Chemicals which may contaminate foods shall not be used and stored in the production site. Chemicals which may contaminate foods shall not be used or otherwise appropriate control shall be put in place.	FUL

4.9. Physical Product Contamination

#	Requirements	Practice type
4.9.1	The management can verbally explain how physical contamination of the fish and fishery products is prevented based on the different risks that might be presented.	BSC
4.9.2	A management system to avoid physical contamination of foreign matters shall be established. Possible contamination sources and the corresponding control plan shall be developed and implemented.	FUL
4.9.3	Measures for equipment maintenance, hygiene control, site control, visitor control and processing supervision shall be taken to reduce the contamination risk of foreign matters such as wood, glass, metal and plastic cement to the maximum extent.	FUL
4.9.4	Effective measures shall be implemented to prevent physical contamination. Depending on the contamination risk this can include measures such as covers of lights, washing of raw materials on arrival for example.	FUL

CQS Scheme Requirements for Processing Enterprises

4.10. Housekeeping and Hygiene

#	Requirements	Practice type
4.10.1	The management can verbally explain what kind of cleaning procedures are in place to ensure the safety of the fish and fishery products.	BSC
4.10.2	The premises and plant shall be kept in wholesome condition and tidy.	BSC
4.10.3	Cleaning equipment shall be (a) hygienically designed and fit for purpose, (b) suitable for its intended use and (c) cleaned and stored in a hygienic manner to prevent contamination.	BSC
4.10.4	Equipment, the plant and contact surfaces exposed to fishery products shall be cleaned and disinfected periodically to ensure the safety of fish and fishery products.	BSC
4.10.5	Hygienic cleaning procedures shall be established for the plant and equipment (especially machinery used).	FUL
4.10.6	The monitoring results shall be recorded, and hygiene conditions and maintenance shall be inspected periodically so that any problem can be rectified if it's observed.	FUL

4.11. Waste Disposal

#	Requirements	Practice type
4.11.1	The drainage system is constructed to avoid the risk of contamination. This means that backflow or cross contamination between piping systems that discharge waste water or sewage and piping systems that carry water for fishery product manufacturing shall be prevented. In addition, the flow of wastewater should move from high-risk (high level of sanitation) areas to lower risk areas (lower level of sanitation areas).	BSC
4.11.2	Waste must not be allowed to accumulate in fishery products handling, storage and other working areas to prevent contamination of the fishery products.	BSC
4.11.3	Appropriate bins and containers shall be adequately provided and located at appropriate locations. The bins shall suit each fishery product processing step so that it shall not cause contamination.	BSC

#	Requirements	Practice type
4.11.4	The waste storage outside the plant shall be isolated from the food processing site to prevent contamination. Objectionable odor shall be prevented from escaping and insect pests shall be prevented from breeding.	BSC
4.11.5	Waste containers shall be waterproof, corrosion resistant and leak proof and cleaned periodically, based on risk.	BSC
4.11.6	A separate protected area is used to store fish waste in a container if fish waste is not disposed of at least once every day.	BSC

4.12. Pest Management

#	Requirements	Practice type
4.12.1	The management shall be able to explain verbally explain how they eliminate or manage pests to ensure that any infestation does not pose a contamination risk.	BSC
4.12.2	Pest control procedures are systematically and efficiently carried out to prevent pests from entering the production, processing and storage area. Preferably physical pest control methods are used instead of chemical methods.	BSC
4.12.3	Pest control chemicals and other harmful chemicals are stored in closed lockers and separate from the fish and fishery products, raw materials or packaging.	BSC
4.12.4	Establishments should be kept in good repair and condition to prevent pest access and to eliminate potential breeding sites.	BSC
4.12.5	Any pest infestation shall be documented in pest management records.	FUL
4.12.6	A pest management plan shall be documented, monitored and implemented. The plan shall include method, control, use of pesticide and monitoring schedule etc.	FUL
4.12.7	The effectiveness of the pest control program shall be reviewed on a scheduled basis and to take necessary action if any certain pest infestation is found to be out of control.	FUL
4.12.8	A map of insect pest control measures shall be exactly drawn to mark the positions of those measures.	FUL

CQS Scheme Requirements for Processing Enterprises

4.13. Storage Facilities

#	Requirements	Practice type
4.13.1	The management shall be able to explain verbally explain what procedures are in place to ensure safe storage of the fish and fishery products.	BSC
4.13.2	Whether stored inside or outside, the products shall be protected from contamination and deterioration.	BSC
4.13.3	When temperature control is required, the storage area will be capable of maintaining the appropriate temperature.	BSC
4.13.4	Procedures to maintain the safety and quality of fish and fishery products during storage shall be documented.	FUL
4.13.5	The site shall ensure correct stock rotation of raw materials, intermediate products and finished products to ensure products are used in the correct order in relation to their manufacturing date and shelf life and to prevent cross-contamination.	FUL

4.14. Transport

#	Requirements	Practice type
4.14.1	The equipment (e.g. tools, instruments, etc..) and containers used to store, transport, load and unload fishery products shall be safe, harmless and clean to reduce the risk of fishery product contamination.	BSC
4.14.2	During transportation, insulation or cooling measures shall be provided for refrigerated aquatic products and frozen aquatic products, and the transportation time and temperature fluctuations shall be minimized.	BSC
4.14.3	During storage and transportation, direct sunlight, rain, notable temperature and humidity change and violent impact shall be avoided to prevent the adverse effect on the fishery product.	BSC
4.14.4	The equipment (e.g. tools, instruments, etc..) and containers used to store, transport, load and unload fishery products shall be designed to permit effective separation of different fishery products from non-food items that could cause contamination where necessary during transport.	BSC

5. Product Control

This section focuses labelling and packaging to inform the customer about the safe use of the fish and fishery products.

5.1. Labelling

#	Requirements	Practice type
5.1.1	The labelling of the product shall at least include the name of the product and the name of the enterprise and expiry date. All labels shall be durably marked on the material of the package or on material firmly attached to the package.	BSC
5.1.2	The products shall be labelled with accordance to the national regulations.	FUL
5.1.3	Expiration date shall be calculated from the completion of packaging (if more processing after packaging, then from the final processing moment).	FUL
5.1.4	For frozen products that are thawed to release the expiration date shall be calculated from the thawed date.	FUL
5.1.5	For a packaged product with multiple fishery products, the earliest expiration date shall be used.	FUL
5.1.6	Products sold in smaller portions shall use the expiration date of the original product.	FUL

5.2. Packaging

#	Requirements	Practice type
5.2.1	Packaging materials shall be chosen based on product characteristics for maintaining the safety and quality of the fish and fishery products.	BSC
5.2.2	Packaging materials shall be suitable for food use and preferably comes with a food safe / grade declaration from vendor	FUL

CQS Scheme Requirements for Processing Enterprises

6. Process control

Process control is meant to establish monitoring practices for the equipment and measurement devices used in the plant. This to ensure that the measured values are accurate and reliable.

6.1. Calibration of Equipment

#	Requirements	Practice type
6.1.1	A list of critical measuring devices shall be identified.	FUL
6.1.2	The calibration program shall be established to ensure that the equipment and devices used to measure key processing or product parameters are accurate. The calibration or internal verification program shall be established to ensure that the equipment and devices used to measure key processing or product parameters are accurate. Master devices for internal verification purposes could be newly purchased within a year (within invoice kept) if external calibration is not viable.	FUL
6.1.3	Production monitoring, such as temperature, pressure, time and chemical properties shall be implemented and adequately controlled so that the product is produced within the required product specification. Process monitoring such as time, temperature, pressure and other quality parameters shall be adequately monitored and controlled to ensure the product is produced within the required product specification.	FUL

7. Employee Hygiene and Health

Employees and visitors' policy shall be in place to ensure the appropriate habits and performance are being implemented correctly to ensure the hygiene of the plant and safety of the fish and fishery products. In addition, proper training is an effective method to achieve this and ensure that employees have all necessary knowledge to perform good hygiene practices.

7.1. Training

#	Requirements	Practice type
7.1.1	All personnel should be trained and aware of their role and responsibilities for protecting fish and fishery products from contamination or deterioration prior to commencing work. Personnel should have the knowledge and skills necessary to enable them to handle fish and fishery products hygienically and cleaning/hazardous chemicals safely.	BSC
7.1.2	Employees shall be aware of their responsibility to comply with relevant laws, regulations and standards of food/fish and fishery product safety.	BSC
7.1.3	Training procedures, training records and plans shall be documented.	FUL
7.1.4	The annual training plan of food safety shall be developed and implemented. Conducted trainings will be recorded.	FUL
7.1.5	Where the relevant laws, regulations and standards of fish and fishery product safety are updated, trainings shall be developed to inform employees.	FUL
7.1.6	The training plan shall be kept up to date. Routine inspections shall be carried out to ensure the effective implementation of the training plan.	FUL

7.2. Protective Wear and Hygiene

#	Requirements	Practice type
7.2.1	The management shall be able to verbally explain how workwear is kept clean and when it is replaced.	BSC
7.2.2	Employees and visitors shall wear appropriate workwear when working with fish and fishery products or entering the fish and fishery product processing area.	BSC
7.2.3	Specialized workwear such as coats, pants, shoes, caps and hairnet shall be provided according to the food characteristics and the requirements of the production process. Where necessary, mask, apron, sleeve or gloves may be used as workwear as well.	BSC

CQS Scheme Requirements for Processing Enterprises

#	Requirements	Practice type
7.2.4	All unsecured jewelry and other objects that might fall into food shall be removed before entering the plant.	BSC
7.2.5	A procedure for cleaning workwear shall be documented. This will include cleaning and replacement of the workwear.	FUL

7.3. Personal Hygiene & Behavior

#	Requirements	Practice type
7.3.1	Personnel with cuts and wounds should, where necessary, be assigned to work in areas where they will have no direct contact with food OR at least covered by an appropriately colored plaster/cover.	BSC
7.3.2	Employees shall be healthy and not have any visible signs of illness that can contaminate the fish and fishery products.	BSC
7.3.3	Hand washing should be carried out by all personnel working in a processing area: • at the start of fish or shellfish handling activities and upon re-entering a processing area; • immediately after using the toilet; • After handling product waste or litter; • After using cleaning agents for cleaning activities; and • After any activity where the hand get dirty and may cause product contamination	BSC
7.3.4	The following should not be permitted in handling and processing areas: • smoking; • spitting; • chewing or eating; • sneezing or coughing over unprotected food; and • the adornment of personal effects, such as, cosmetics, jewellery, watches or pins, or other items that, if dislodged, might pose a threat to the safety and suitability of the products.	BSC

#	Requirements	Practice type
7.3.5	Medical examination of food handler should be carried out before being admitted to work. If clinically or epidemiologically indicated that the person is healthy, the employee can start the work. At least annually thereafter. Employees working with fish and fishery products should not appear to have any contagious diseases.	FUL
7.3.6	Employee's personal hygiene and behavior could be monitored and documented by their respective supervisor daily; corrective action shall be taken immediately for any wrong doing detected.	FUL

7.4. Covid Prevention Measures

#	Requirements	Practice type
7.4.1	Employees should disinfect their hands and measure their temperatures while entering the premises	BSC
7.4.2	Employees working inside the premises shall maintain social distancing of 1.5 meters from each other and observe strict precautions	BSC

8. Internal Control System (ICS) for Vessels and Collection Points

To stimulate the uptake of the CQS along the different supply chain actors, an ICS has been added.

This enables processing enterprises to support their upstream suppliers of raw materials to become CQS compliant as well. This is especially relevant for those processing enterprises that would like to make a product claim (claim 2, see scheme rules).

CQS Scheme Requirements for Processing Enterprises

8.1. Procedures for Management

#	Requirements	Practice type
8.1.1	The organization in charge of the Internal Control System (ICS) shall have a clear overview in place for the structure of the ICS and an overview of the rights and responsibilities of the participating enterprises.	FUL
8.1.2	The enterprise shall ensure the actors (collection points and fishing vessels) are aligned with their respective CQS requirements by auditing at least one vessel and one collection point per year. The enterprise shall also demonstrate the respective actors are communicated to be compliant to the CQS requirements.	FUL
8.1.3	The procedures should also include a clear outline of actions to be taken when non-compliance with the CQS is observed. This should include sanctions and eventual exclusion if no improvements are made.	FUL

8.2. ICS Training

#	Requirements	Practice type
8.2.1	Adequate training/guidance is provided to the fishing vessels and collection points to support the implementation of the CQS.	FUL
8.2.2	The rights and responsibilities of the vessels and collection points will be communicated to them clearly in language they understand.	FUL

9. Social Requirements

An enterprise's commitment to the socially acceptable practices to prevent child labor, sexual abuse, and to promote the rights and roles of the women workers.

#	Requirements	Practice type
9. 1	Use of child labor and sexual abuse are not permitted in any production facility and hence the management shall have a policy with this respect and the management shall stick a notice to this effect in language they understand	FUL
9.2	The rights and responsibilities of the women workers in the production facilities are protected and clearly stated in language they understand.	FUL

Collection Point and Landing Site

Introduction

A separate set of 'good practices' is outlined for collection points and landing sites to also support their improvement towards fishery product safety and quality.

Scheme Overview for Collection Points and Landing Sites

The goal of the collection point and landing site requirements is to enable the Internal Control System (ICS) allowing full claim to be made by processing enterprises. These requirements can also be implemented individually by collection points and landing sites allowing those enterprises to make a basic claim.

Scope

The scope of this scheme includes requirements for enterprises dealing with fishery products that include:

- Collection points/landing sites.

It also covers transport that is used between the collection points and processing enterprises, this depends on which actor is responsible for the transport.

Principles

The core principles of this scheme include:

A management commitment. To underline the importance and support from the managers of the enterprise for the implementation of the CQS requirements.

A food safety plan and quality management system. To identify contamination risks and the development of accurate procedures to control those risks.

Basic good hygiene practices. These are basic practices which are important to implement to attain safe and high-quality fishery products.

Based on these 3 principles, the remainder of the standard is developed and defined.

CQS requirements legend:

On-site Observation / Interview	Documents / Record

CQS Scheme Requirements for Collection Point and Landing Site

1. Management

Commitment and support from the management of the enterprise is important to ensure that the requirements get implemented. Their assurance can inspire employees who are essential for the implementation of the requirements in this scheme. A clear organizational structure with well-defined responsibilities will also clarify the role of each person in the enterprise for CQS implementation.

1.1. Commitment

#	Requirements
1.1.1	The collection point's or landing site's senior management shall demonstrate that they are fully **committed** to the implementation of the Cambodia Quality Seal (CQS).
1.1.2	The management shall know about the **basic principles of food safety**, post-harvest safe food handling and, safety and quality specification and characteristics of fish products to be able to judge potential risks in their collection point or landing site.

1.2. Organizational Chart

#	Requirements
1.2.1	The enterprise management shall be able to clearly explain verbally how the enterprise is organized and what the responsibilities are of each employee.

2. Fishery Product Safety Plan

These requirements focus on the creation of a clear overview of the activities of the enterprise that needs to be certified. Based on such an overview, clear risks and control measures can be identified -form the fish and fishery product safety plan.

2.1. Fishery Product Description

#	Requirements
2.1.1	The enterprise management shall be able to verbally explain what type of product they are handling including the **product characteristics**.

2.2. Process Flow

#	Requirements
2.2.1	The enterprise management (of the collection point or landing site) shall be able to verbally explain each step of their activities.

3. Fish and Fishery Product safety and Quality Management System (QMS)

A quality management system focusses on the organization of management plans, records and procedures to ensure the safety and quality of fish and fishery products are well handled.

3.1. Internal Inspections

#	Requirements
3.1.1	At least once a year, a **self-assessment** shall be carried out based on the CQS requirements. Effective corrective actions shall be taken to address the non-conformity.

3.2. Raw Materials

#	Requirements
3.2.1	The management of the enterprise shall be able to verbally explain what their safety and quality **specifications** are for raw materials to ensure the safety of the fish and fishery products. These specifications should be adequate and accurate.
3.2.2	The raw materials shall be **inspected or checked visually** according to the safety and quality specification set.

3.3. Records

#	Requirements
3.3.1	A basic record system shall be established to record the fish type, fishing vessel, location of fish caught, date of purchase, and the volume of fish caught. This should also include information about the buyer of the fish (name, volume, date, type of fish/product).

CQS Scheme Requirements for Collection Point and Landing Site

3.4. Safety Compromise

#	Requirements
3.4.1	Where fish product is not in compliance with the food safety regulations or **inedible**, the **production shall be stopped** immediately.

4. Premises and Plant Design

The plant and premises need to be designed properly to ensure it is suitable for handling and primary processing of fish and fishery products in terms of size, construction and maintenance. The following requirements provide a basic outline of what collecting point and landing site infrastructures should look like.

4.1. Plant Environment and Premises

#	Requirements
4.1.1	Potential contamination risks posed by the Landing site's and collection point's environment shall be considered and appropriate measures shall be taken to reduce risks to a minimum level.
4.1.2	The premises shall be tidy and well maintained to protect the fish and fishery products from any source of contamination.

4.2. Plant Design

#	Requirements
4.2.1	Operating areas in the plant and processing areas shall be divided (effectively separated or partitioned) reasonably according to product characteristics, production process and the requirements of cleanliness.
4.2.2	Internal design and layout of the plant and workshop shall meet the operation requirements of for food hygiene to avoid cross-contamination. Employees should also have enough space to adequately do their work.

4.3. Building

#	Requirements
4.3.1	The landing site and collection point have **covered facilities** to protect the building from the sun, dirt and other contaminants.
4.3.2	The landing site and collection point protect the fish working facilities from the entrance of animals, cars and people not working with fish.

4.4. Utilities (Ice and water)

#	Requirements
4.4.1	Any water that contacts fish and fishery products or - surfaces shall pose no contamination risks.
4.4.2	Water supply facilities shall ensure that the water pressure and water quantity meet the production requirements.
4.4.3	Water sources and water/steam supply facilities shall meet the requirements set out in appendices (annex 2).
4.4.4	The production, crushing, transportation and storage of ice used in processing shall be carried out under hygienic conditions. Containers used for transportation and storage of water shall be easy to clean and avoid contamination.

4.5. Equipment

#	Requirements
4.5.1	The design and manufacture of equipment and containers being in contact with fish and fishery products shall be easy to drain, clean, disinfect and maintain.

4.6. Staff Facilities

#	Requirements
4.6.1	Any **facilities** like changing rooms, restrooms, canteens, dormitories or recreation areas will be **properly distanced or partitioned clearly from the fishery product processing** area. To prevent contamination of the fishery product.

CQS Scheme Requirements for Collection Point and Landing Site

4.7. Chemical Product Contamination

#	Requirements
4.7.1	The management shall be able to explain verbally explain how chemical contamination of the fish and fishery products is prevented based on the different risks that might be presented.
4.7.2	Any non-edible chemical substances which may harm human health shall not be added during fish handling or storage.

4.8. Physical Product Contamination

#	Requirements
4.8.1	The management shall be able to explain verbally explain how physical contamination of the fish and fishery products is prevented based on the different risks that might be presented.

4.9. Housekeeping and Hygiene

#	Requirements
4.9.1	The management shall be able to explain verbally explain what kind of cleaning procedures are in place to ensure the safety of the fish and fishery products.
4.9.2	Equipment, the plant and contact surfaces exposed to fishery products shall be cleaned and disinfected periodically to ensure the safety of the fish and fishery products.

4.10. Waste Disposal

#	Requirements
4.10.1	The drainage system is constructed to avoid the risk of contamination. This means that backflow or cross contamination between piping systems that discharge waste water or sewage and piping systems that carry water for fishery product manufacturing shall be prevented. In addition, the flow of wastewater should move from high-risk (high level of sanitation) areas to lower risk areas (lower level of sanitation areas).
4.10.2	Waste must not be allowed to accumulate in fishery products handling, storage and other working areas to prevent contamination of the fish and fishery products.
4.10.3	Appropriate bins and containers shall be adequately provided and located at appropriate locations. The bins shall suit each raw material step so that it shall not cause contamination.

4.11. Pest Management

#	Requirements
4.11.1	The management shall be able to explain verbally explain how they eliminate or manage pests to ensure that any infestation does not pose a contamination risk.
4.11.2	Pest control chemicals and other harmful chemicals are stored in closed lockers and separate from fish and fishery products, raw materials or packaging.

4.12. Storage Facilities

#	Requirements
4.12.1	The management shall be able to explain verbally explain what procedures are in place to ensure safe storage of the fishery products.
4.12.2	Whether stored inside or outside, the items shall be protected from contamination and deterioration.
4.12.3	When temperature control is required the storage area will be capable of maintaining the appropriate temperature.

4.13. Transport

#	Requirements
4.13.1	The equipment (e.g. tools, instruments, etc..) and containers used to store, transport, load and unload fishery products shall be safe, harmless and clean to reduce the risk of fishery product contamination.
4.13.2	During transportation, insulation or cooling measures shall be provided for refrigerated aquatic products and frozen aquatic products, and the transportation time and temperature fluctuations shall be minimized.
4.13.3	The equipment (e.g. tools, instruments, etc..) and containers used to store, transport, load and unload the fishery products shall be designed to permit effective protection from contamination, including dust and fumes.

CQS Scheme Requirements for Collection Point and Landing Site

4.14. Packaging

#	Requirements
4.14.1	Packaging materials shall be chosen based on product characteristics and maintaining fishery product safety and quality.

5. Employee Hygiene and Health

Employees and visitors' policy shall be in place to ensure the appropriate habits and performance are being implemented correctly to ensure the hygiene of the plant and safety of the fishery products. In addition, proper training is an effective method to achieve this and ensure that employees have all necessary knowledge to perform good hygiene practices.

5.1. Training

#	Requirements
5.1.1	All personnel should be trained and aware of their role and responsibilities for protecting fish and fishery products from contamination or deterioration prior to commencing work. Personnel should have the knowledge and skills necessary to enable them to handle fish and fishery products hygienically and cleaning/hazardous chemicals safely.
5.1.2	Employees shall be aware of their responsibility to comply with relevant laws, regulations and standards of food/fish and fishery product safety.

5.2. Protective Wear and Hygiene

#	Requirements
5.2.1	The management shall be able to verbally explain how workwear is kept clean and when it is replaced.
5.2.2	Employees and visitors shall wear appropriate workwear when working with fish and fishery products or entering the fishery product processing area.
5.2.3	Specialized workwear such as coats, pants, shoes, caps and hairnet shall be provided according to the food characteristics and the requirements of the production process. Where necessary, mask, apron, sleeve or gloves may be used as workwear as well.
5.2.4	All unsecured jewelry and other objects that might fall into food shall be removed before entering the plant.

5.3. Personal Hygiene

#	Requirements
5.3.1	Personnel with cuts and wounds should, where necessary, be assigned to work in areas where they will have no direct contact with food OR at least covered by an appropriately colored plaster/cover.
5.3.2	Employees shall be healthy and not have any visible signs of illness that can contaminate the fishery products.

5.4. Behavior

#	Requirements
5.4.1	Employees should maintain a high degree of personal cleanliness. Hand washing shall be performed on entry to the production areas and at a frequency that is appropriate to minimize the risk of contamination. Smoking shall be prohibited.

Fishing Vessels

Introduction

This document outlines the different requirements relevant for the vessels which catch fish which will be processed by the processing enterprises.

Scheme Overview for Fishing Vessels

The goal of the fishing vessels requirements is to enable processing enterprises make use of these requirements as part of their Internal Control System (ICS). These requirements can also be implemented individually by fishing vessels allowing those establishments to make a basic claim.

Scope

The scope of this scheme includes requirements for establishment dealing with fishery products that include:

- Fishing vessels

Principles

The core principles of this scheme include:

A food safety plan and quality management system. To identify contamination risks and the development of accurate procedures to control those risks.

Basic good hygiene practices. These are basic practices which are important to implement to attain safe and high-quality fishery products.

Based on these principles, the remainder of the standard is developed and defined.

CQS requirements legend:

On-site Observation / Interview	Documents / Record	Both on-site observations / interview and documents and record

CQS Requirements for Fishing Vessels

1. Layout

#	Requirements
1.1	The layout avoids contamination with bilge-water, sewage, smoke, fuel, oil, grease or other objectionable substance.
1.2	The surface that come in contact with fish are made of suitable corrosion-resistant materials.
1.3	The surface coatings, if any, are durable and non-toxic.
1.4	Fish holds are separated from the engine compartments and from the crew quarters as to prevent fish contamination. This is relevant for vessels that stores fish for more than 24 hours.
1.5	There is no risk of contamination by fuel or bilge water or dust.

2. Equipment

#	Requirements
2.1	The design and manufacture of equipment and containers being in contact with fishery products shall be easy to drain, clean, disinfect and maintain.

3. Waste Disposal

#	Requirements
3.1	Waste must not be allowed to accumulate in the fish products handling, storage and other working areas to prevent contamination of the fishery products.
3.2	Appropriate bins and containers shall be adequately provided and located at appropriate locations. The bins shall suit each raw material step so that it shall not cause contamination.

4. Storage Facilities

#	Requirements
4.1	The management shall be able to explain verbally explain what procedures are in place to ensure safe storage of the fishery products.

#	Requirements
4.2	Whether stored inside or outside, the items shall be protected from contamination and deterioration.
4.3	When temperature control is required, the storage area will be capable of maintaining the appropriate temperature.
4.4	The premises have enough space and conditions to keep live fish with reasonable low mortality.
4.5	There is access to sufficient clean water to support live fish storage.
4.6	There is access to sufficient air and ice if necessary.

5. Protective Wear and Hygiene

#	Requirements
5.1	The management shall be able to explain verbally how workwear is kept clean and when it is replaced.

6. Hygiene

#	Requirements
6.1	Personnel with cuts and wounds should, where necessary, be assigned to work in areas where they will have no direct contact with food OR at least covered by an appropriately colored plaster/cover.
6.2	Employees shall be healthy and not have any visible signs of illness that can contaminate the fishery products.

7. Behavior

#	Requirements
7.1	Employees should maintain a high degree of personal cleanliness. Hand washing shall be performed on entry to the production areas and at a frequency that is appropriate to minimize the risk of contamination. Smoking shall be prohibited.

SECTION 3

APPENDICES

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Appendix

Appendix 1. Additional Requirements for Specific Fishery Products

The following chapters outline specific requirements for different product types presented in the Cambodian fisheries sector. The goal of this chapter is to highlight these challenges to ensure they are addressed by the relevant enterprises.

1.1. Dried Fish

#	Practice	Practice type
1.1.1	The drying process shall be done in a pest-proof and dust-proof manner.	BSC
1.1.2	The drying time, drying temperature and ambient humidity of dry products shall be strictly controlled to ensure that the water activity of dry products is within safe limits.	BSC
1.1.3	The fish drying area is separated from the area where raw fish is cleaned and prepared.	BSC
1.1.4	Fish is prepared hygienically for drying, in an area separated from the drying area.	BSC
1.1.5	Salt used to produce salted fish shall be clean, free from foreign matter and foreign crystals, show no visible signs of contamination with dirt, oil, bilge or other extraneous materials.	BSC
1.1.6	The fish drying and storage facilities and areas are protected from rodents, birds, insects and should not be accessible to other animals or other people not working in the premises.	BSC
1.1.7	Air drying temperature and drying time and eventually air humidity are recorded.	FUL

1.2. Frozen Fish Products

#	Practice	Practice type
1.2.1	Thawed frozen products shall not be re-frozen. Except when fish is thawed to remove organs or bones.	BSC
1.2.2	Frozen fish is boxed and stored in cold storage.	BSC
1.2.3	Thawing of frozen fish products in water, shall be done in a sanitary way at 21 °C or below.	FUL

#	Practice	Practice type
1.2.4	Fish is frozen using an adequate temperature equal or below -18°C.	FUL
1.2.5	Frozen products are palletized and stored to enable first in first out (FIFO) process.	FUL
1.2.6	Temperature of cold storage is recorded regularly (multiple times a day).	FUL
1.2.7	Cold storage temperature is maintained at a constant -18°C or below and chill room are maintained temperature < 7°C. The indicating thermometer is provided to show the temperature of the cold storage or chill room and installed in easily readable and suitable position. Room temperature of cold storage shall be read and record daily.	FUL

1.3. Smoked Fish

#	Practice	Practice type
1.3.1	The fish smoking facilities and areas are protected from humidity, dust, rodents, birds, insects and should not be accessible to other animals or other people not working in the premises.	BSC
1.3.2	Only authorized wood is used, the wood or plant material should be dry enough for smoking and free from natural toxins, chemicals, paint etc.	BSC
1.3.3	The fish smoking premise is separated from the fish preparation area.	BSC
1.3.4	All ingredients used shall be of food grade quality.	FUL
1.3.5	Smoked fish is cooled down quickly, packed and stored in a clean and dry area.	FUL
1.3.6	The product of susceptible species shall be free from persistent and objectionable odors and flavors characteristic of decomposition.	FUL
1.3.7	Temperature of smoked fish shall be monitored to ensure the desired / required temperature is reached.	FUL

Appendix

1.4. Fish Sauce

#	Practice	Practice type
1.4.1	Vats, barrels, tanks and jars used for fish brining and fermentation are made of easy to clean and disinfect.	BSC
1.4.2	The fish sauce preparation area, recipients, vats and jars are kept clean and in good repair.	BSC
1.4.3	Salt used to produce salted fish shall be clean, free from foreign matter and foreign crystals, show no visible signs of contamination with dirt, oil, bilge or other extraneous materials.	BSC
1.4.4	All ingredients for the production of fish sauce shall be food grade.	BSC
1.4.5	The fish sauce preparation area is protected from rodents, birds, insects and is not accessible to other animals.	BSC
1.4.6	Pipelines used for final fish sauce packing are used for transferring of food ingredient only and are protected from any source of contamination.	BSC
1.4.7	Packed fish sauce is stored at ambient temperature in an area protected from sun, heat, rain, wind, rodents, animals and dust.	BSC
1.4.8	Fish sauce must be translucent, not turbid and free from sediments except salt crystals.	BSC
1.4.9	Fish sauce shall have an odor and taste characteristic of the product.	BSC
1.4.10	The product shall be free from foreign matter.	BSC

1.5. Fermented Fish

#	Practice	Practice type
1.5.1	The fish fermentation area is separated from the area where raw fish is cleaned and prepared.	BSC
1.5.2	Fish is prepared hygienically for fermenting in an area separated from the fermented area.	BSC
1.5.3	During fermenting, fish is protected from contamination by insects, animals, birds and dust.	BSC
1.5.4	Temperature and and fermentation duration are recorded.	FUL

1.6. Steamed Fish

#	Practice	Practice type
1.6.1	The fish cooking premises are easy to clean and disinfect.	BSC
1.6.2	The area for handling and preparing cooked fish is separated from the cooking area and from the packing area.	BSC
1.6.3	The fish steaming premises are protected from rodents, birds, insects and should not be accessible to other animals or other people not working in the premises.	BSC
1.6.4	Measuring device shall be available to record cooking time and temperature.	FUL

Appendix 2. Testing Parameters

Different parameters have been identified for different product types. Laboratory tests should be conducted in ISO 17025 certified laboratories or at least approved laboratories identified by the CA of the FiA meeting Good Laboratory Practices within the ISO 17025 requirements.

Where needed, quality of water should be tested on an annual basis.

Parameter	Maximum Value / Limit
pH	6.5 – 8.5
Turbidity	5 NTU
Arsenic	0.05mg / L
Iron	0.3 mg / L
Total Dissolved Solids	800 mg / L
Thermotolerant Coliforms	0 per 100 ml
E.Coli	0 per 100 ml

*Reference is taken from MIME, Drinking Water Quality Standards, January 2004)

Appendix

The establishment shall test its products based on the required testing parameters below:

Product Types	Parameters to be tested	
	Microbiological & Chemical	Criteria
Dry fish/shrimp	APC	*
	E.coli	*
	Salmonella	Not Detected
Fish fillets	APC	*
	E.coli	*
	S.aureus Coagulase+	*
	Salmonella	Not Detected
Frozen fish/green mussel meat	APC	*
	E.coli	*
	S.aureus Coagulase+	*
	Salmonella	Not Detected
Smoked fish/ Fish Powder/Fish Snack	APC	*
	E.coli	*
	S.aureus Coagulase+	*
	Salmonella	Not Detected
	L. monocytogenes	Not Detected
	Histamine	Not more than 20mg / 100g
Fermented Fish	APC	*
	E.coli	*
	S.aureus Coagulase+	*
	Salmonella	Not Detected

Product Types	Parameters to be tested	
	Microbiological & Chemical	Criteria
Steamed fish	APC	*
	C.perfringens	*
	E.coli	*
	S.aureus Coagulase+	*
	Salmonella	Not Detected
Fish sauce	Histamine	Not more than 40 mg per 100g
	pH	5-6.5
	Salt content	≥ 200g/l

Reference based on:

- *Microbial guidelines for ready to eat food in general and specific food items, Center for Food Safety, Food and Environmental Hygiene Department, Hong Kong, August 2014*
- *Codex Standard for Fish Sauce CXS 302-2011*
- *Codex Standard for Smoked Fish, Smoke-Flavoured Fish and Smoke-Dried Fish CXS 311-2013*
- *Singapore Sales of Food Act, Chapter 283*
- *COMMISSION REGULATION (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs*

Remarks:

- * for the maximum limits to be determined by the scheme owner based on Codex, ICMSF, and EU requirements.
- Histamine is required to be tested only for susceptible species (e.g. Scombridae, Clupeidae, Engraulidae, Coryphaenidae, Pomatomidae, Scomberesocidae)

Appendix

For **raw material (fish) tests**, the following parameters are of importance to test in order to monitor the quality of the raw materials. However, it is **optional**:

Parameter	Maximum Value / Limit
Pathogenic bacteria (Salmonella, E. Coli)	Salmonella: Not Detected per 25g E.Coli: Not more than 10 cfu/g
Parasites (e.g. trematodes, nematodes, cestodes)	Absence of parasites

Reference based on

- *CXC 52-2003, Code of Practice for Fish and Fishery Products*
- *FDA Fish & Fishery Products Hazards and Controls Guidance, June 2021*
- *Singapore Sales of Food Act, Chapter 283*

Appendix 3. List of Approved Laboratories in Cambodia

#	Name	Phone	Email address
1	Science, Technology and Innovation National Laboratory (STINL) (accredited lab)	012 826 035, 092 549 281, 012 820 475	yuk.sokunsreiroat@misli.gov.kh
2	Institute Pasteur du Cambodge (IPC)	012 812003, 023 428561, 023 426009	Lma@pasteur-kh.org
3	Consumer protection Competition and Fraud Repression Directorate-General (CCF)	023 231856, 092 830856	contact.info@ccfdg.gov.kh

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