



TECHNICAL ASSISTANCE TO BUILD FOOD SAFETY  
CAPACITY  
FOR THE FISHERIES SECTOR



CARIFORUM

# TIBU IMPEX

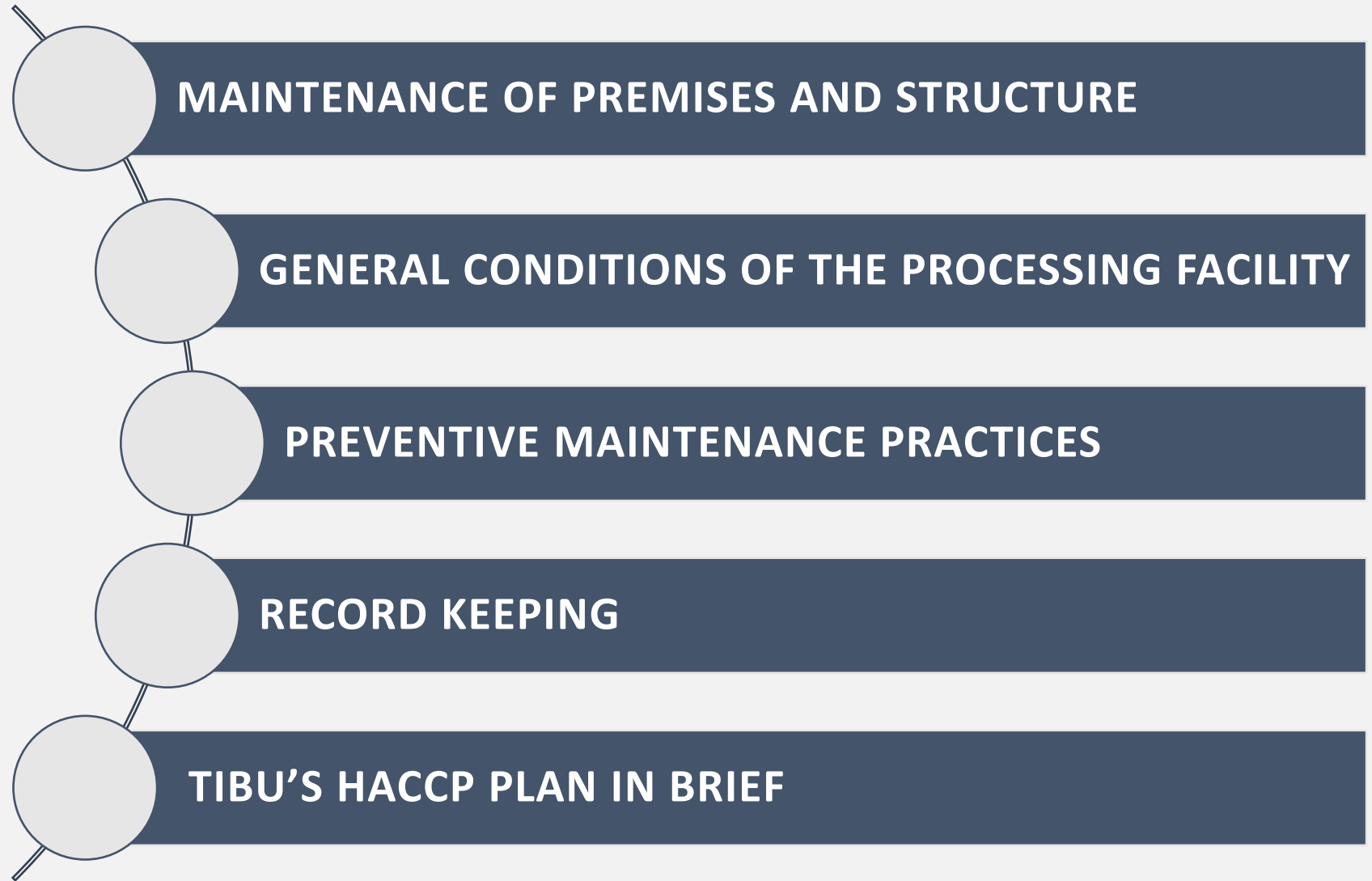
## Module 2

**Maintenance of premises and structure**

**TIBU's HACCP plan in brief**

**Prepared by Megapesca Lda**

# OUTLINE



# What are prerequisite programmes for HACCP?

**“The basic conditions and activities needed to ensure that food businesses maintain a hygienic environment, which can essentially provide the foundation of their food safety management system”**



# Premises and structure

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- A good design and layout of workspace is necessary, which allows for one-direction production flow
- There should be:
  - Sufficient lighting, especially in processing areas
  - Suitable employee facilities
  - Suitable hand-washing facilities
  - External and interior construction of walls, floors and doors

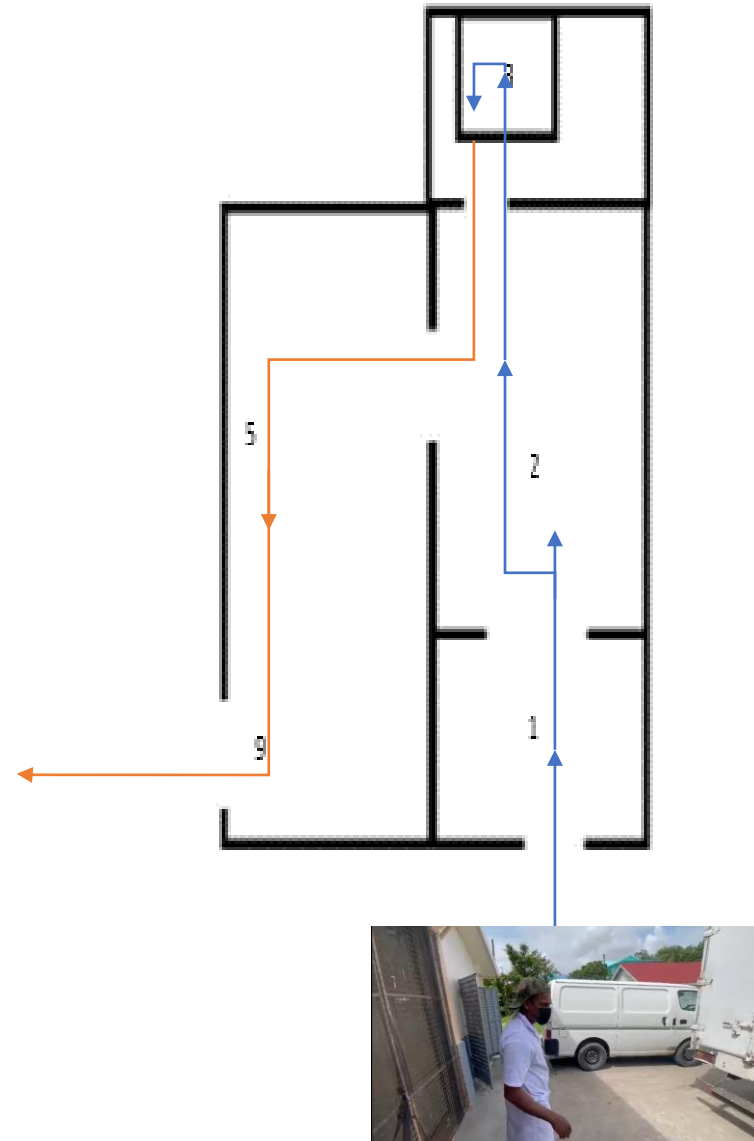


# Plant and Equipment

- Equipment should be fit for purpose, operated in accordance with the instructions and accessible for cleaning.



The design and layout are such that the products are protected from contamination and the processing steps take place in a logic sequence







- The **general condition of the facility** is checked on a **monthly basis**.
- Checks includes things like peeling paint, roof leaks, rust, cracks etc.
- The maintenance practices are overseen by the Manager and directly under the responsibility of the Maintenance Technician.
- This will be **ongoing and preventive**.
- Records are kept in **monthly maintenance report**



Monthly  
Maintenance  
Checks  
record

Location	Observations/Shortcomings	Corrections	Worker Initials
Entrance hall			
Handwashing station			
Boots washing station			
Social room			
Toilet hall			
Office			
Freezer storage			
Blast freezer			
Waste disposal			
Waste bin storage			
Processing area			
Packaging area			
Storage crates area			
Water tanks			
DATE:		VERIFIED BY:	

# Summary TIBU's HACCP Based controls

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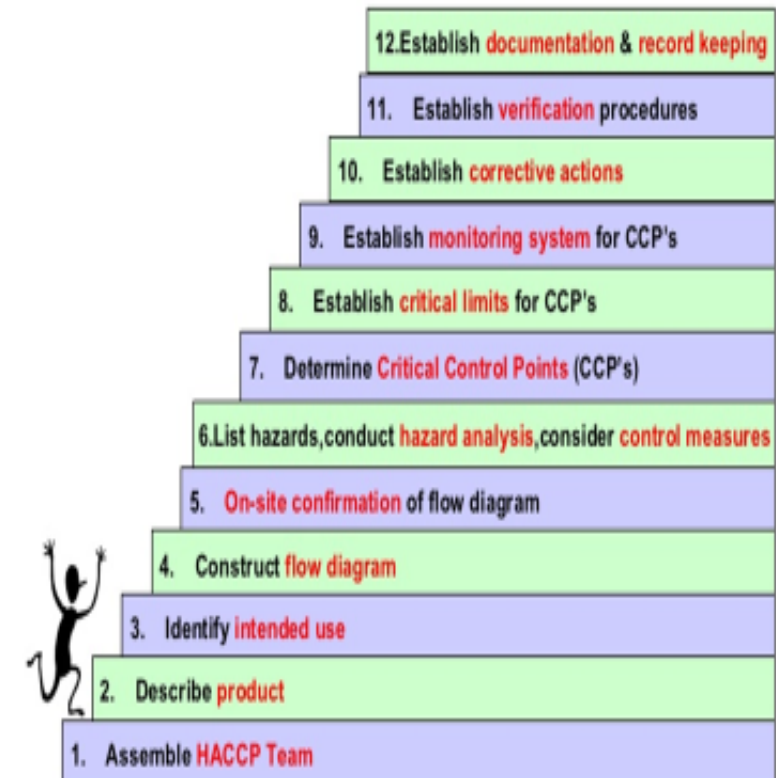
LOT 08 GEORGETOWN FISHERMEN CO-OP WHARF MEADOW BANK

GEORGETOWN GUYANA

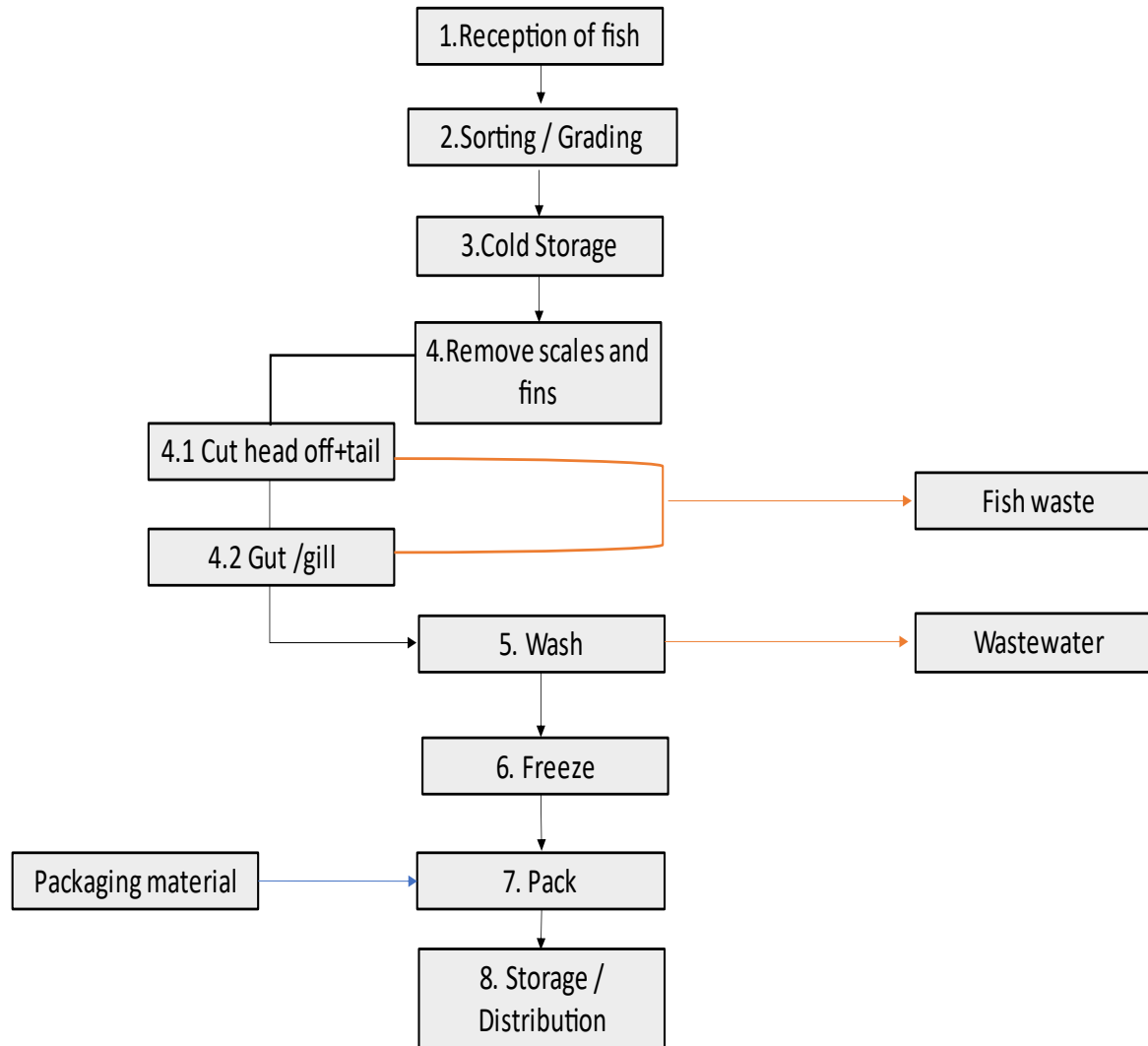
Food Safety Management Manual

August 2021

*How HACCP works*



# Process flows

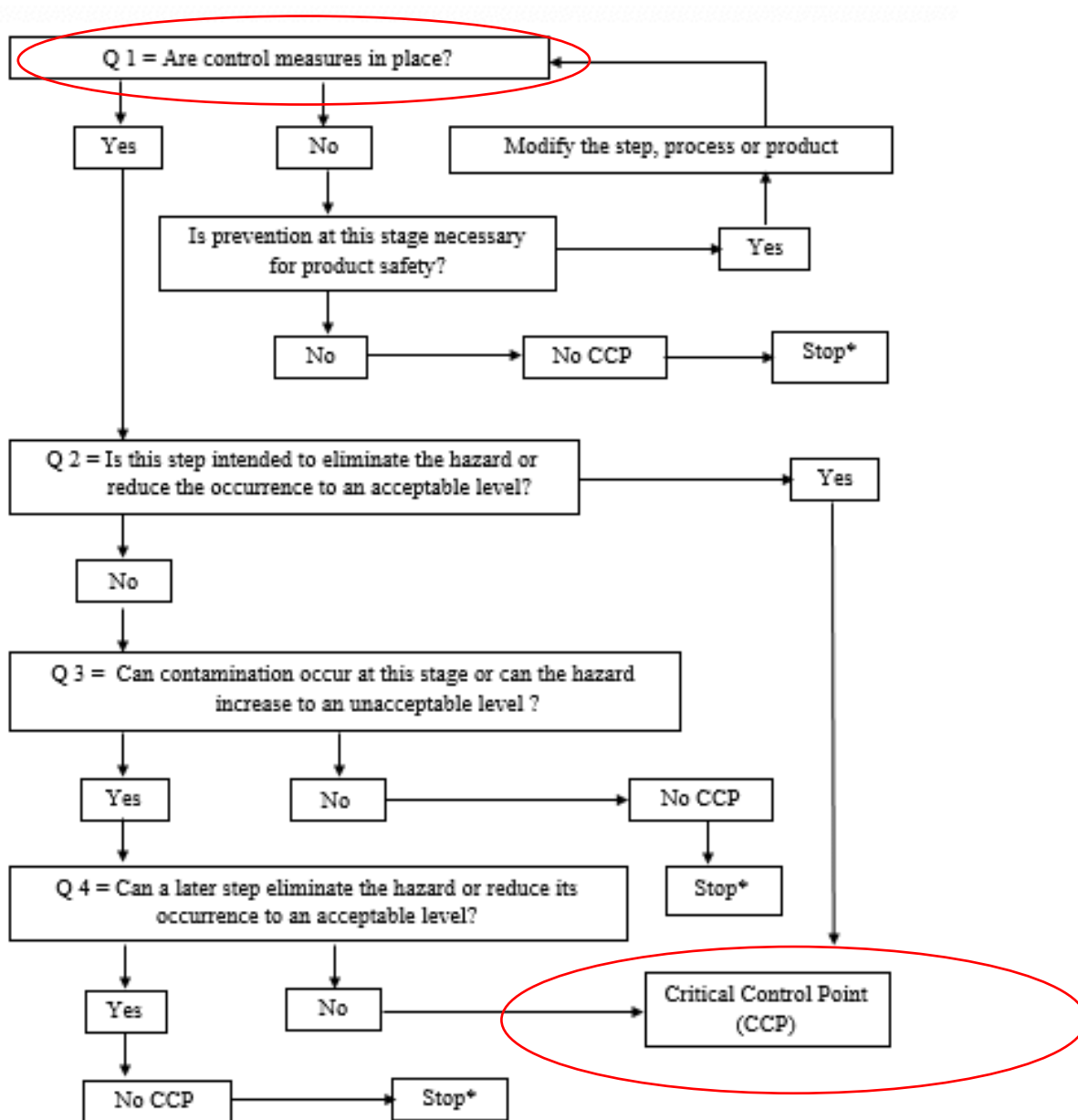


- Frozen whole gutted
- Frozen Fillet skin off
- Frozen Steak
- Frozen shrimp

# Hazard Analysis

Every product analysed step by step

Step	Potential hazards introduced, controlled, or enhanced at this step B = biological C = chemical P = physical		Does this potential hazard need to be addressed in the HACCP plan?		Justify your decision	What measure(s) can be applied to prevent or eliminate the hazard or reduce it to an acceptable level?
			Yes	No		
Receive fish	B	Parasites		X	The parasite containing product is to be cooked before consumption which is sufficient to kill the parasite.	<ul style="list-style-type: none"> <li>Good Raw Material Practices (visual check of the gills and muscle)</li> <li>The parasite containing product undergoes a freezing process which is sufficient to kill the parasite.</li> <li>Labelling stating intended use of product with instructions to be fully cooked prior to consumption</li> </ul>
		Microbiological Pathogens		X	Product is to be cooked before consumption	<ul style="list-style-type: none"> <li>Good Raw Material Practices</li> <li>Good Plant Water Control</li> <li>Good Cleaning and Disinfection Practices</li> <li>Good Personal Hygiene Practices</li> <li>Labelling stating intended use of product with instructions to be fully cooked prior to consumption</li> </ul>
	C	Histamine	X		<p>For the following histamine producing species:</p> <p>Scomber scombrus, Scomberomorus cavalla, Caranx hippos, Makaira nigricans</p> <p>The hazard must be addressed in the HACCP plan</p>	<ul style="list-style-type: none"> <li>All histamine producing fish are identified and are accompanied by a supplier agreement ensuring Good raw material practices post-harvest</li> <li>Temperature measurement and control at reception (&lt;4.4°C)</li> <li>Testing incoming fish for Histamine levels</li> <li>Perform sensory examination on incoming fish to ensure that they do not show signs of decomposition</li> </ul>



\* The step is not a critical point. Proceed to the next step

Decision trees are **tools** that help you decide whether a hazard control point is a critical control point or not.

# APPLICATION OF THE CODEX DECISION TREE FOR THE DETERMINATION OF A CRITICAL CONTROL POINT

**Product Description:** frozen whole fish, gutted and gilled of the following species *Scomber scombrus*, *Scomberomorus cavalla*, *Caranx hippos*, *Makaira nigricans*

**Intended Use and consumer group:** Products are to be cooked prior to consumption and for the general consumer

Step	Potential hazard	Control measure	Q1	Q2	Q3	Q4	CCP
Reception	Histamine	<ul style="list-style-type: none"> <li>All histamine producer fishes are identified and are accompanied by a supplier agreement ensuring Good raw material practices post-harvest</li> <li>Temperature measurement and control at reception (&lt;4°C)</li> <li>Periodic testing incoming fish for Histamine levels</li> </ul>	Yes	Yes	-	-	YES
Remove scales	Metal inclusion	<ul style="list-style-type: none"> <li>Visual check fish</li> <li>Visual check scraper</li> <li>Washing</li> </ul>	Yes	No	No	-	NO
Gutting & gill	Metal inclusion	<ul style="list-style-type: none"> <li>Visual check fish</li> <li>Visual check blade</li> <li>Washing</li> </ul>	Yes	No	No	-	NO
Pack /Labelling	Undeclared food allergens	<ul style="list-style-type: none"> <li>Only packaging material and labels complying with the specifications of the processors should be accepted into the processing facility</li> <li>Labelling: contains fish</li> </ul>	Yes	No	No	-	NO
	Metal inclusion	<ul style="list-style-type: none"> <li>Pass packed products through a metal detector before final product store</li> </ul>	Yes	Yes	-	-	YES

# HOW DO WE MANAGE CCP'S???

Product Description: frozen whole fish, gutted and gilled of the following species <i>Scomber scombrus</i> , <i>Scomberomorus cavalla</i> , <i>Caranx hippos</i> , <i>Makaira nigricans</i>									
Product Description: frozen steak of the following species <i>Makaira nigricans</i>									
Critical Control Point	Significant Hazard	Critical Limit	Monitoring				Corrective action	Records	Verification
			What	How	Frequency	Who			
Receiving fresh fish	Histamine	Internal temperature of fish is $T \leq 4.4^{\circ}\text{C}$	Internal temperature of fish at receiving point	Digital thermometer	Every batch, per species  3 measurements	Quality Control Technician	Reject the lot if temperature $>4.4$ for more than 2hours and no supplier agreement is in place or expedite histamine analysis can be performed  If temperature of the fish is close to the critical limit and for less than $<2\text{h}$ , then ice immediately, move to a cooler that is below $4.4^{\circ}\text{C}$ .	Reception form, Freezers and Coolers Temperature Log	Check calibration records of the thermometer daily  Review monitoring, corrective action, and verification record  Perform histamine analysis by external lab once a year and for each new supplier
Pack /Labelling	Metal inclusion	All products pass through an operating metal detection  No detectable metal fragments are in the product that passes through the metal detection	The product for the presence of metal fragments	Product monitoring is performed by the metal detection	Continuous monitoring by the metal detection	Monitoring is performed by the metal detection or separation device itself. Visual checks to ensure that the device is in place and operating is performed by Quality control technician	When product is rejected by a metal detector: <ul style="list-style-type: none"><li>◦ Hold and evaluate the rejected product;</li><li>◦ Rework the rejected product to eliminate metal fragments;</li><li>◦ Destroy the rejected product;</li></ul> And Attempt to locate and correct the source of the fragments found in the product		Check that the metal detection or separation device is in place and operating at the start of each production day  Challenge the metal detector using validated sensitivity standards daily, at the start of production  Review monitoring, corrective action, and verification records within 1 week of preparation to ensure they are complete and any critical limit deviations that occurred were appropriately addressed



## Record procedures

Records are kept for the monitoring of the Control Points and the Critical Control Points. If corrective actions have been taken, these are also recorded. All records are kept together with the HACCP plan and filed for 3 years at the office of the quality manager



List of records:

- Raw material reception record
- Temperature monitoring records
- Analysis report
- Monthly maintenance report
- Water Sanitation Record
- Calibration record
- Cleaning Record sheet
- Pest Control records
- Inventory records



**All procedures need to be considered in practice, implemented in TIBU's daily routines and revised accordingly**



# CHALLENGES ENCOUNTERED

- Securing a steady supply of quality raw unprocessed fish from suppliers
- Poor quality of fish supplied by suppliers
- Limited access to training for fishery staff (experience is relied on)
- Resources for food safety activities are scarce and scattered.
- No access to food safety laboratories.

TIBU IMPEX - Raw Material Reception Record Sheet

Date Code					
Time of reception					
Name of supplier					
Supplier code					

**Instructions:**

- One sheet for each supplier for each delivery
- Use continuation sheet if necessary

Variable	Species 1	Species 2	Species 3	Species 4	Species 5
Common name					
Species code					
Grade breakdown (kg)					
A					
B					
Rejected					
Total quantity received (kg)					
Temperature (3 readings)					
Ice contact with fish (%)					
Cleanliness of containers					
TIBU IMPEX Batch Code No.	2910tr21515				
Observations (supplier batch codes, cleanliness/ foreign matter, physical damage, parasites)					
Checked by:					






**LOOK OUT FOR US!!!!**



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**PRODUCT OF GUYANA**

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