

## FISH POST-HARVEST OPERATIONS

**ISCED UNIT CODE:** 0831 451 08A

**TVETCDACC UNIT CODE:** AQ/CU/AM/CR/04/5/MA

**UNIT DURATION: 180 Hours**

### Relationship to Occupational Standards

This unit addresses the Unit of Competency: Perform fish post-harvest operations

### Unit Description

This unit covers the competencies required in performing fish postharvest operations. It involves preparing harvested fish for value addition, preserving harvested fish and marketing whole fish and associated products.

### Summary of Learning Outcomes.

By the end of the unit, the trainee will be able to:

1. Prepare harvested fish for value addition
2. Process harvested fish
3. Manage wastes from fish processing
4. Perform fish marketing

### Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcomes	Content	Suggested Assessment Methods
1. Prepare harvested fish for value addition	<p><b>Theory</b></p> <p>1.1 PPEs</p> <p>1.1.1 Gloves</p> <p>1.1.2 Face mask</p> <p>1.1.3 Head cap/hair net</p> <p>1.1.4 Apron</p> <p>1.1.5 Gumboots</p> <p>1.1.6 Face shield</p> <p>1.1.7 Safety glasses</p> <p>1.2 Assembling of tools and equipment for fish value addition</p> <p>1.2.1 Basins</p> <p>1.2.2 Buckets</p> <p>1.2.3 Hard Brus</p> <p>1.2.4 Filleting Tables</p> <p>1.2.5 Knives</p> <p>1.2.6 Waste Disposal Containers</p>	<ul style="list-style-type: none"><li>• Practical</li><li>• Project</li><li>• Third party report</li><li>• Portfolio of evidence</li><li>• Written tests</li><li>• Oral questioning</li></ul>

	<p>1.2.7 Ice Box</p> <p>1.2.8 Smoking Kiln</p> <p>1.2.9 Solar Dryer\Drying Racks</p> <p>1.2.10 Drying Mats or Canvas</p> <p>1.2.11 Domestic Freezers</p> <p>1.2.12 Ice</p> <p>1.2.13 Salt</p> <p>1.2.14 Frying Oil</p> <p>1.2.15 Meat Mincer</p> <p>1.2.16 Blender</p> <p>1.3 Carrying out harvesting fish cleaning</p> <p>1.3.1 Gutting</p> <p>1.3.2 Washing the exposed cavity</p> <p>1.3.3 Scale removal</p> <p>1.3.4 Rinsing</p> <p>1.3.5 Cleaning the work bench</p> <p>1.4 Sorting harvested fish</p> <p>1.5 Carrying out fish waste management</p> <p>1.5.1 Landfill disposal</p> <p>1.5.2 Land application</p> <p>1.5.3 Composting</p> <p><b>Practice</b></p> <p>1.6 Carry out fish grading and sorting</p>	
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<p>2 Process harvested fish</p>	<p><b>Theory</b></p> <ul style="list-style-type: none"> <li>2.1. Use of PPEs</li> <li>2.2 Selection of Fish processing tools and equipment</li> <li>2.3 Harvested fish grading</li> <li>2.4 Cleaning of harvested fish</li> <li>2.5 Scaling of harvested fish</li> <li>2.6 Gutted of harvested fish</li> <li>2.7 Cleaning of gutted fish</li> <li>2.8 Smoking of harvested fish</li> <li>2.9 Sun drying of harvested fish</li> <li>2.10 Salting of harvested fish</li> <li>2.11 Freezing of harvested fish</li> <li>2.12 Fileting and freezing of harvested fish</li> <li>2.13 Long term preservation of harvested fish</li> <li>2.14 Fish byproducts processing           <ul style="list-style-type: none"> <li>• Oils</li> <li>• Frames</li> <li>• Skins</li> </ul> </li> <li>2.15 Packaging and labelling           <ul style="list-style-type: none"> <li>• Packaging tools and equipment</li> <li>• Packaging materials</li> <li>• Labelling information</li> </ul> </li> <li>2.16 Product storage</li> <li>2.17 Quality control during processing and storage</li> </ul> <p><b>Practice</b></p> <ul style="list-style-type: none"> <li>• Carry out harvested fish processing</li> </ul>	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Project</li> <li>• Third party report</li> <li>• Portfolio of evidence</li> <li>• Written tests</li> <li>• Oral questioning</li> </ul>
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3 Manage wastes from fish processing	<ul style="list-style-type: none"> <li>• Use of tools materials and equipment in disposal of fish processing wastes</li> <li>• Environmental regulations for disposal of fish processing wastes</li> <li>• Types of fish processing wastes</li> <li>• Disposal methods of fish processing wastes</li> </ul>	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Project</li> <li>• Third party report</li> <li>• Portfolio of evidence</li> <li>• Written tests</li> </ul> <p style="text-align: right;">Oral questioning</p>
4 Perform fish marketing	<p><b>Theory</b></p> <p>4.1 Use of PPEs in fish marketing          3.2. Carrying out of fish market survey          4.2 Assessment of fish          4.3 Identifying and disposal of unsuitable fish          4.4 Examination of fish display          4.5 Identification of current prices for fish products and services</p> <p><b>Practical</b></p> <ul style="list-style-type: none"> <li>• Carry out fish processing wastes disposal</li> </ul>	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Project</li> <li>• Third party report</li> <li>• Portfolio of evidence</li> <li>• Written tests</li> <li>• Oral questioning</li> </ul>

### Suggested Methods of Instruction

Project

Demonstration

Practicals

Discussions

Direct instruction

### Recommended Resources for 25 Trainees

<b>S/NO</b>	<b>Category/Item</b>	<b>Description/specification</b>	<b>Qty</b>	<b>Recommended ratio (item: trainee)</b>
	Projector	EPSOM	1	1:25
	Whiteboard/smartboard	2.5 By 1.5.M	1	1:25
	Desktop/computer		1	1:25
	Classroom	Well-lit with 25 seats	1	1:25
	Business plan templates		25	1:25
	HACCP manual	Latest	5	1:5
	Sets of Writing materials		25	1:25
	Cold room	Operational	1	1:25
	Video clips		5	1:25
	Human resource	Trainer and Technician	2	1:25
	Library	Equipped with animal product processing books and E- section	1	1:25