



NATIONAL BOARD FOR TECHNICAL EDUCATION

PLOT B BIDA ROAD, P.M.B. 2239, KADUNA, NIGERIA

IN COLLABORATION WITH



NATIONAL OCCUPATIONAL STANDARDS (NOS)

FISH PROCESSING AND VALUE ADDITION LEVELS 1 - 3

JUNE, 2026



**RENEWED HOPE
IN AGRICULTURE**

PREFACE

The development of the National Occupational Standards (NOS) for the agricultural sector marks another important milestone in Nigeria's commitment to strengthening Technical and Vocational Education and Training (TVET), promoting skills development, and improving workforce productivity. These standards have been developed to provide nationally recognized benchmarks for the knowledge, skills, and competencies required for effective performance in various agricultural occupations. The National Occupational Standards were developed through a collaborative process involving industry experts, employers, professional bodies, regulatory agencies, training institutions, development partners, and other key stakeholders. Their contributions ensured that the standards reflect current industry practices, emerging technologies, and the competency requirements of the modern agricultural sector. I wish to express my sincere appreciation to the Honourable Minister of Education for providing the policy direction that made this initiative possible. I also acknowledge the support of the Honourable Minister of Agriculture and Food Security and the Honourable Minister of Livestock Development for their commitment to advancing agricultural skills development in Nigeria. I extend my profound gratitude to the Tertiary Education Trust Fund (TETFund) for its intervention and support, which facilitated the development of these National Occupational Standards. I also appreciate the invaluable contributions of the Sector Skills Council for Agriculture (SSC4A), members of the Implementation Committee, resource persons, industry practitioners, employers, professional associations, regulatory agencies, the French Embassy in Nigeria, development partners, and all stakeholders who contributed their expertise throughout the development process. These National Occupational Standards will serve as an important reference for competency-based training, assessment, certification, apprenticeship, Recognition of Prior Learning (RPL), and workforce development within the agricultural sector. It is my expectation that all implementing institutions and industry partners will effectively utilize these standards to enhance the quality, relevance, and competitiveness of agricultural skills development in Nigeria. I commend all stakeholders for their dedication and commitment to this important national assignment and look forward to the successful implementation of these National Occupational Standards for the benefit of the agricultural sector and the nation as a whole.

Professor Idris M. Bugaje, FNSE
Chairman, Implementation Committee

EXECUTIVE SECRETARY

National Board for Technical Education (NBTE), Kaduna

NATIONAL SKILLS QUALIFICATIONS (NSQ)

LEVEL 1-3

FISH PROCESSING AND VALUE ADDITION

JUNE, 2026



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NATIONAL SKILLS QUALIFICATION (NSQ)

FISH PROCESSING AND VALUE ADDITION

LEVEL 1

JUNE, 2026



GENERAL INFORMATION

OVERVIEW

This qualification is designed for individuals interested in pursuing a career in Fish Processing and VALUE ADDITION for the award of National Skills Qualifications (NSQ)/ National Occupational Standards. It is aimed at producing Fish Processing NSQ Level 1, with the competencies necessary to support fish processing and value addition.

QUALIFICATION PURPOSE

This qualification prepares the learner to work as Fish Processing Assistants under close supervision in fish processing and value addition enterprises.

QUALIFICATION REQUIREMENTS

All Candidates must:

- At least sixteen (16) years of age
- Medically fit
- Mentally fit (Mental alertness)
- A Nigerian citizen
- Other nationals should present International passport, residence permit or Parent work permit.
- Vetted
- Interest in agricultural production and related support operations;
- Ability to carry out simple practical tasks under supervision.

QUALIFICATION OBJECTIVES

At the end of this qualification, the learner should be able to:

1. Communicate effectively using simple workplace communication methods in Fish processing and value addition operations.
2. Work effectively as a member of a team while maintaining positive workplace relationships in fish processing activities.
3. Apply workplace health, safety, hygiene, and sanitation practices during fish processing and value addition operations.
4. Select, use, clean, and maintain basic fish processing tools and equipment safely and effectively.
5. Identify common fish species and assess their quality using basic sensory evaluation techniques.
6. Handle fresh fish hygienically to maintain quality and minimize spoilage throughout processing operations.
7. Carry out basic fish processing and preservation techniques in accordance with workplace requirements and food safety standards.
8. Package, label, and store processed fish products appropriately to maintain product quality, safety, and shelf life.

NATIONAL SKILLS QUALIFICATION TABLE

MANDATORY UNITS

Unit	Unit Reference Number	Unit Title	Credit Value	Guided Learning Hours	Practice (workplace) Hours	Remark
1	AGR/FPV/001/L1	Communication in Fish Processing Workplace	2	20	40	Mandatory
2	AGR/FPV/002/L1	Teamwork in the Fish Processing Workplace	2	20	40	Mandatory
3	AGR/FPV/003/L1	Workplace Health, Safety and Hygiene	2	20	40	Mandatory
4	AGR/FPV/004/L1	Basic fish processing tools and equipment	3	30	80	Mandatory
5	AGR/FPV/005/L1	Fish Species and Quality Attributes	3	30	80	Mandatory
6	AGR/FPV/006/L1	Basic Fish Handling	3	30	80	Mandatory
7	AGR/FPV/007/L1	Basic Fish Processing Techniques I	3	30	80	Mandatory
8	AGR/FPV/008/L1	Basic Packaging and Storage	2	20	60	Mandatory
TOTAL			20	200	500	

QUALIFICATION STRUCTURE

This qualification comprises a total of eight (8) mandatory units with 20 Credit Value and 200 Guided Learning Hours across the full qualification. One (1) Credit is equivalent to ten (10) Guided Learning Hours (GLH). Guided Learning Hours are the time a learner spends in the classroom, workshop and laboratory of the Skills Training Centre (STC), being taught, instructed, supervised or assessed by a qualified trainer, facilitator or assessor.

In addition to the GLH, the qualification requires at least twice or thrice the GLH as practice time. Practice time is the time a learner is expected to spend applying the skills of each unit in a real workplace environment, carrying out the same tasks repeatedly until performance becomes consistent, accurate and habitual to the standard the qualification demands. It is undertaken under the guidance of a workplace supervisor, recorded in the learner's logbook and duly endorsed. Practice time is the principal setting where core assessment is conducted. It is through repeated performance in the workplace that a learner's achievement of the

Learning Outcomes and Performance Criteria is judged and evidenced. Practice time is an additional requirement to GLH and does not replace them.

To achieve this qualification, the learner must complete all mandatory units, undertake the prescribed practice time, and accumulate the minimum credit value approved by NBTE. Credit is awarded only when a learner has been assessed as competent against all Learning Outcomes and Performance Criteria of a unit.



GENERAL GUIDE

Unit title	Provides a clear explanation of the unit's content.
Unit number	The unique number assigned to the unit.
Unit reference	The unique reference number given to each unit at qualification approval by NBTE
Unit level	Denotes the level of the unit within the National Vocational Qualification framework, NSQF.
Unit credit value	The value assigned to the unit is based on the expected learning time for an average learner. 1 credit = 10 learning hours
Unit aim	Provides a brief outline of the unit content.
Learning outcome	A statement of what a learner will know, understand or be able to do, because of a process of learning.
Assessment criteria	A description of the requirements a learner must achieve to demonstrate that a learning outcome has been met.
Unit assessment guidance	Any additional guidance provided to support the assessment of the unit.
Unit guided learning hours	The average number of hours of supervised or directed study time or assessment required to achieve a qualification or unit of a qualification.

**UNIT 001:
WORKPLACE****COMMUNICATION IN FISH PROCESSING****Unit Reference Number:** AGR/FPV/001/L1**NSQ Level:** 1**Credit Value:** 2**Guided Learning hours:** 20**Practice Time:** 40

UNIT PURPOSE: This unit is designed to equip learners with knowledge and skills in simple communication techniques and interpret signs and symbols in fish processing workplace.

Unit assessment requirements/ evidence requirement:

Assessment must be conducted in a real workplace where learning and human development occur.

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Witness Testimony (WT);
3. Personal statement (PS) or Reflective Practice (RP);
4. Work Product (WP);
5. Recognition of Prior Learning (RPL);
6. Assignment (ASS).

(This depends on the Trade Areas to be assessed)

Unit 001: Communication in Fish Processing Workplace

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
<i>LO 1: Use of a non-complex communication system in a workplace.</i>	1.1	Use a verbal means to pass on necessary information								
	1.2	Use non-verbal means to convey necessary information.								
	1.3	Interpret symbols and signs appropriately.								
<i>LO 2: Source for information in a workplace.</i>	2.1	Identify the sources of information in the workplace.								
	2.2	Relate effectively with the source of information.								
	2.3	Use the different information flow systems in a workplace.								
<i>LO 3: Apply various means of communication in a workplace.</i>	3.1	Locate the various communication equipment in the workplace.								
	3.2	Use the various communication equipment effectively in a workplace.								
	3.3	Pass information effectively to the right personnel								
	3.4	Obey instructions in line with the ethics of the workplace.								
Learner's Signature:			Date:							
Assessor's Signature:			Date:							
IQA Signature (if sampled)			Date:							
EQA Signature (if sampled)			Date:							

**UNIT 002: TEAMWORK IN THE FISH PROCESSING
WORKPLACE**

Unit Reference Number:	AGR/FPV/002/L1
NSQ Level:	1
Credit Value:	2
Guided Learning Hours:	20
Practice Time:	40

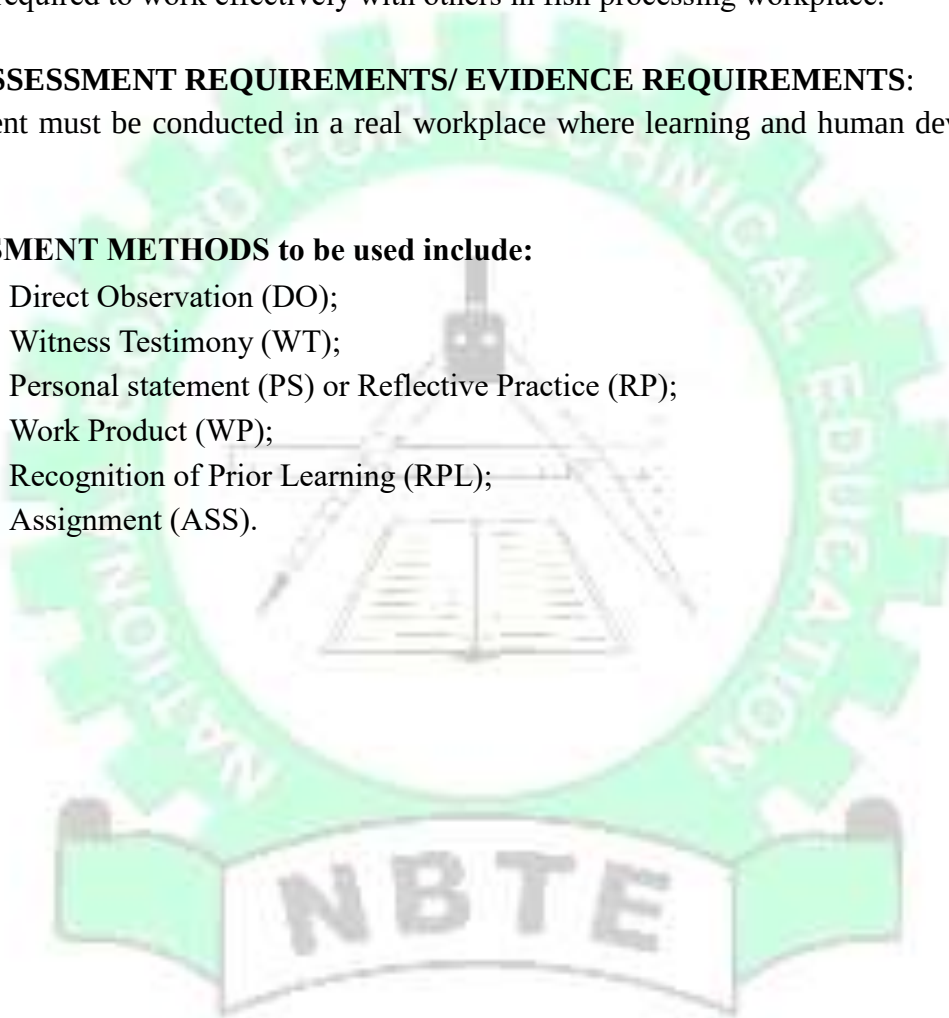
UNIT PURPOSE: This unit is designed to equip learners with the knowledge, skills, and attitudes required to work effectively with others in fish processing workplace.

UNIT ASSESSMENT REQUIREMENTS/ EVIDENCE REQUIREMENTS:

Assessment must be conducted in a real workplace where learning and human development occur.

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Witness Testimony (WT);
3. Personal statement (PS) or Reflective Practice (RP);
4. Work Product (WP);
5. Recognition of Prior Learning (RPL);
6. Assignment (ASS).



Unit 002: Teamwork in the Fish Processing Workplace

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
LO 1: Identify team roles and responsibilities in fish processing.	1.1	Identify members of the fish processing team.		
	1.2	Identify the roles of the fish processing team.		
	1.3	Describe own duties and responsibilities within the team.		
	1.4	Recognize reporting lines and supervisory structures.		
LO 2: Communicate effectively with team members	2.1	Listen attentively to instructions and information from team members.		
	2.2	Use appropriate workplace communication methods.		
	2.3	Report work progress and challenges to supervisors.		
LO 3: Maintain positive workplace relationships	3.1	Assist team members in completing assigned tasks when required.		
	3.2	Share tools, equipment, and resources responsibly.		
	3.3	Demonstrate respect for others opinion and contribution.		
	3.4	Support team efforts to achieve production targets.		
LO 4: Demonstrate professional behaviour and reliability as a team member	4.1	Treat colleagues with courtesy and respect.		
	4.2	Demonstrate punctuality and reliability in team activities.		
	4.3	Demonstrate diligence in team performance.		
Learner's Signature:			Date:	
Assessor's Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

UNIT 003: WORKPLACE HEALTH, SAFETY AND HYGIENE

Unit Reference Number:	AGR/FPV/003/L1
NSQ Level:	1
Credit Value:	2
Guided Learning Hours:	20
Practice Time:	40

UNIT PURPOSE:

This unit is designed to equip learners with the knowledge and skills to maintain a safe, healthy, and hygienic fish processing workplace.

UNIT ASSESSMENT REQUIREMENTS/EVIDENCE REQUIREMENTS:

Assessment must be conducted in a real workplace where learning and human development occur.

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Witness Testimony (WT);
3. Personal statement (PS) or Reflective Practice (RP);
4. Work Product (WP);
5. Recognition of Prior Learning (RPL);
6. Assignment (ASS).



Unit 003: Workplace Health, Safety and Hygiene

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type					Evidence Ref. Page No.			
LO 1: <i>Identify basic workplace hazards.</i>	1.1	Explain common hazards in fish processing workplace.									
	1.2	Recognize hazards in the workplace									
	1.3	Report hazards to the appropriate personnel.									
LO 2: Use Personal Protective Equipment (PPE)	2.1	Identify PPE required for fish processing activities.									
	2.2	Select appropriate PPE for assigned tasks									
	2.3	Wear PPE correctly before commencing work.									
	2.4	Maintain PPE in a serviceable condition.									
LO 3: Follow safe work practices.	3.1	Carry out workplace safety procedures.									
	3.2	Use tools and equipment safely under supervision.									
	3.3	Avoid unsafe behaviour that may cause accidents.									
LO 4: Maintain personal hygiene.	4.1	Carry out personal cleanliness before entering processing areas.									
	4.2	Sanitize hands and footwear according to workplace procedures.									
	4.3	Follow workplace hygiene requirements consistently.									
Learner's Signature:			Date:								
Assessor's Signature:			Date:								
IQA Signature (if sampled)			Date:								
EQA Signature (if sampled)			Date:								

UNIT 004: BASIC FISH PROCESSING TOOLS AND EQUIPMENT

Unit Reference Number:	AGR/FPV/004/L1
NSQ Level:	1
Credit Value:	3
Guided Learning Hours:	30
Practice Time:	80

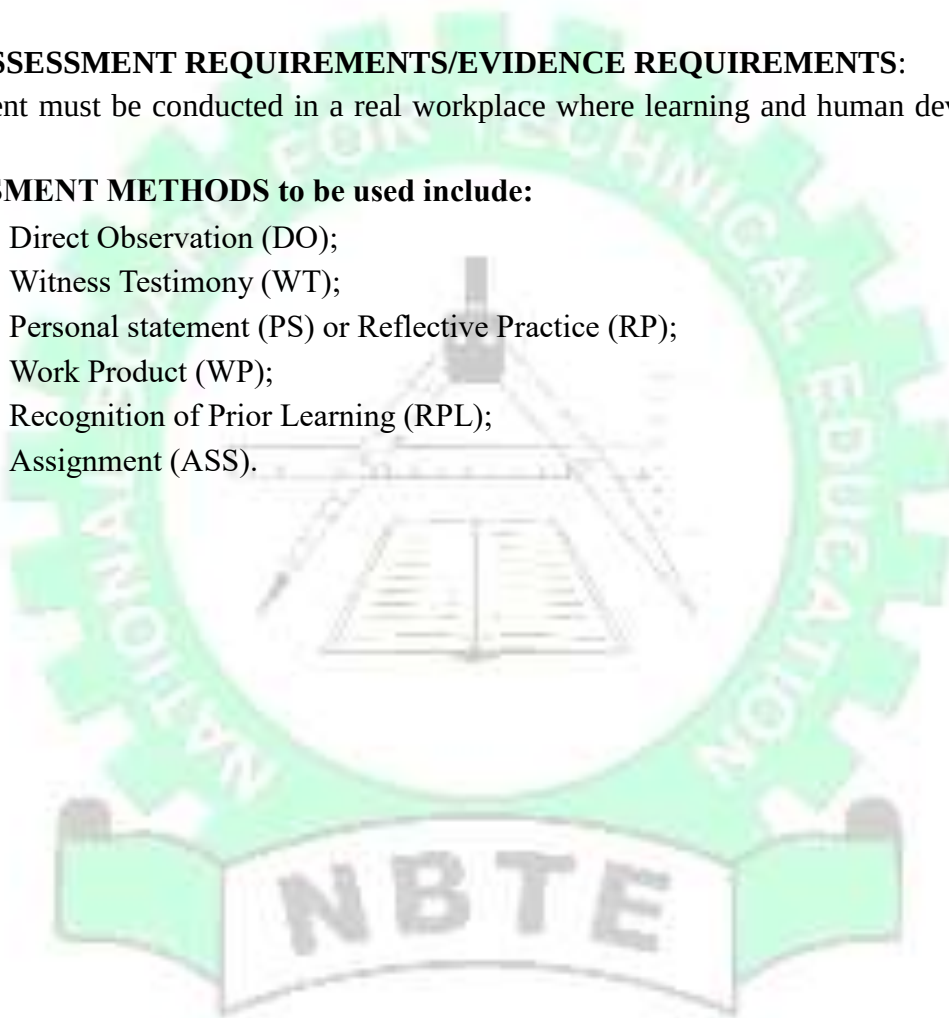
UNIT PURPOSE: This unit is designed to equip learners with basic knowledge and skills to select, safely use, clean and maintain basic fish processing tools and equipment.

UNIT ASSESSMENT REQUIREMENTS/EVIDENCE REQUIREMENTS:

Assessment must be conducted in a real workplace where learning and human development occur.

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Witness Testimony (WT);
3. Personal statement (PS) or Reflective Practice (RP);
4. Work Product (WP);
5. Recognition of Prior Learning (RPL);
6. Assignment (ASS).



Unit 004: Basic fish processing tools and equipment

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type					Evidence Ref. Page No.				
LO 1: Identify basic fish processing tools.	1.1	List common fish processing tools.										
	1.2	Identify tools based on functions.										
	1.3	Select tools and equipment based on their specific use										
LO 2: Select appropriate tools for specific fish processing tasks.	2.1	Choose the correct tools for fish handling (scaling, gutting, cleaning, cutting, filleting etc.)										
	2.2	Select appropriate tools according to fish size .										
	2.3	Operate minor equipment for fish processing .										
LO 3: Demonstrate safe handling and use of tools.	3.1	Apply basic safety measures, including the use of protective gear (gloves, apron, etc.)										
	3.2	Handle tools correctly .										
	3.3	Handle sharp tools carefully to prevent injury.										
LO 4: Maintain tools and equipment.	4.1	Clean tools before use.										
	4.2	Identify damaged tools, rust or wear.										
	4.3	Store tools properly to maintain hygiene and longevity.										
	4.4	Keep tools neatly during and after processing.										
	4.5	Sanitize tools after use.										
Learner's Signature:			Date:									
Assessor's Signature:			Date:									
IQA Signature (if sampled)			Date:									
EQA Signature (if sampled)			Date:									

UNIT 005: FISH SPECIES AND QUALITY ATTRIBUTES

Unit Reference Number: AGR/FPV/005/L1

NSQ Level:	1
Credit Value:	3
Guided Learning Hours:	30
Practice Time:	80

Unit Purpose: This unit is designed to equip learners with basic knowledge and skills to identify fish species and assess quality attributes

UNIT ASSESSMENT REQUIREMENTS/EVIDENCE REQUIREMENTS:

Assessment must be carried out in real workplace environment in which learning and human development is carried

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Witness Testimony (WT);
3. Personal statement (PS) or Reflective Practice (RP);
4. Work Product (WP);
5. Recognition of Prior Learning (RPL);
6. Assignment (ASS).



Unit 005: Fish Species and Quality Attributes

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type					Evidence Ref. Page No.				
LO 1: <i>Identify various types of fish species</i>	1.1	Use common local names and informal language used in fish processing communities.										
	1.2	State key identifying features of fish.										
	1.3	List local and common names of various fish species.										
	1.4	Classify fish species as lean, fatty, fresh water and marine.										
	1.5	Use pictures, charts to name fish species.										
LO 2: <i>Explain quality attributes of fresh fish.</i>	2.1	List sensory attributes of fresh and spoilt fish.										
	2.2	Describe freshness vs spoilage indicators using appearance, smell and texture.										
	2.3	List some quality attributes of lean and fatty fish species										
LO 3: <i>Assess fish quality using basic sensory method.</i>	3.1	Use raw fish assessment scheme to check eyes, gills, skin and flesh.										
	3.2	Use cooked fish scheme to assess cooked appearance odour, taste and flavour.										
	3.3	Record findings using a simple score system consistent with the enterprise.										
LO 4: <i>Relate fish species and quality to processing suitability.</i>	4.1	Match species characteristics to processing method.										
	4.2	Explain how quality affect yield and product specifications.										
	4.3	Explain how low value fish with good nutritional quality can be used for value added products.										
Learner's Signature:			Date:									
Assessor's Signature:			Date:									
IQA Signature (if sampled)			Date:									
EQA Signature (if sampled)			Date:									

UNIT 006: BASIC FISH HANDLING

Unit Reference Number:	AGR/FPV/006/L1
NSQ Level:	1
Credit Value:	3
Guided Learning hours:	30
Practice Time:	80

Unit Purpose: This unit is designed to equip learners with knowledge and skills in basic fish handling to prevent physical damage and contamination.

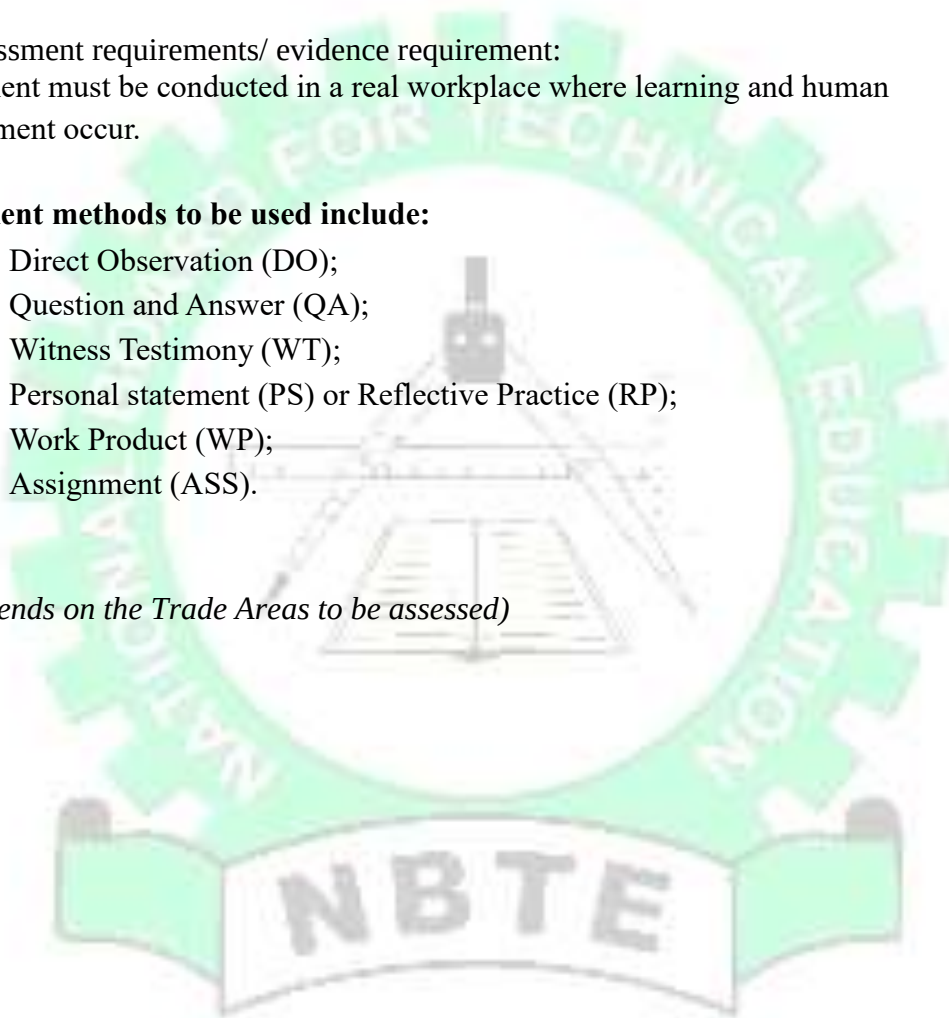
Unit assessment requirements/ evidence requirement:

Assessment must be conducted in a real workplace where learning and human development occur.

Assessment methods to be used include:

1. Direct Observation (DO);
2. Question and Answer (QA);
3. Witness Testimony (WT);
4. Personal statement (PS) or Reflective Practice (RP);
5. Work Product (WP);
6. Assignment (ASS).

(This depends on the Trade Areas to be assessed)



Unit 006: Basic Fish Handling

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
LO 1: Explain quality characteristics of fresh fish.	1.1	State the importance of proper fish handling.								
	1.2	Identify physical characteristics of fresh fish.								
	1.3	Distinguish between fresh and spoiled fish.								
	1.4	Explain common causes of fish spoilage.								
	1.5	Explain the importance of maintaining fish quality.								
LO 2: Practice personal hygiene and workplace sanitation during fish handling .	2.1	Wear appropriate personal protective equipment (PPE).								
	2.2	Wash hands and footwear before entering handling fish.								
	2.3	Sanitize hands and footwear sole before fish handling room.								
	2.4	Clean work surfaces and equipment.								
	2.5	Sanitize work surfaces and equipment.								
	2.6	Dispose of fish waste according to hygiene requirements .								
	2.7	Maintain a clean processing workplace throughout operations.								
LO 3: Handle fish correctly to prevent physical damage and contamination.	3.1	Receive fish using hygienic procedures.								
	3.2	Sort fish according to species, size and quality.								
	3.3	Handle fish carefully to avoid bruising and flesh damage.								
	3.4	Prevent cross-contamination during handling.								
	3.5	Transfer fish safely between units in the work stations.								
LO 4: Use basic fish handling equipment safely.	4.1	Identify common fish handling tools and equipment.								
	4.2	Check equipment before use.								
	4.3	Operate equipment according to safety procedures.								

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
	4.4	Clean equipment after use.		
	4.5	Store equipment properly after cleaning		
LO 5: Apply basic preservation practices immediately after harvest.	5.1	Explain the importance of rapid cooling.		
	5.2	Use ice for fish preservation.		
	5.3	Apply the correct fish-to-ice ratio.		
	5.4	Arrange fish properly in iced containers.		
	5.5	Check fish quality during temporary storage		
Learner's Signature:			Date:	
Assessor's Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	



UNIT 007:**BASIC FISH PROCESSING TECHNIQUES I**

Unit Reference Number:	AGR/FPV/007/L1
NSQ Level:	1
Credit Value:	3
Guided Learning Hours:	30
Practice Time:	80

UNIT PURPOSE:

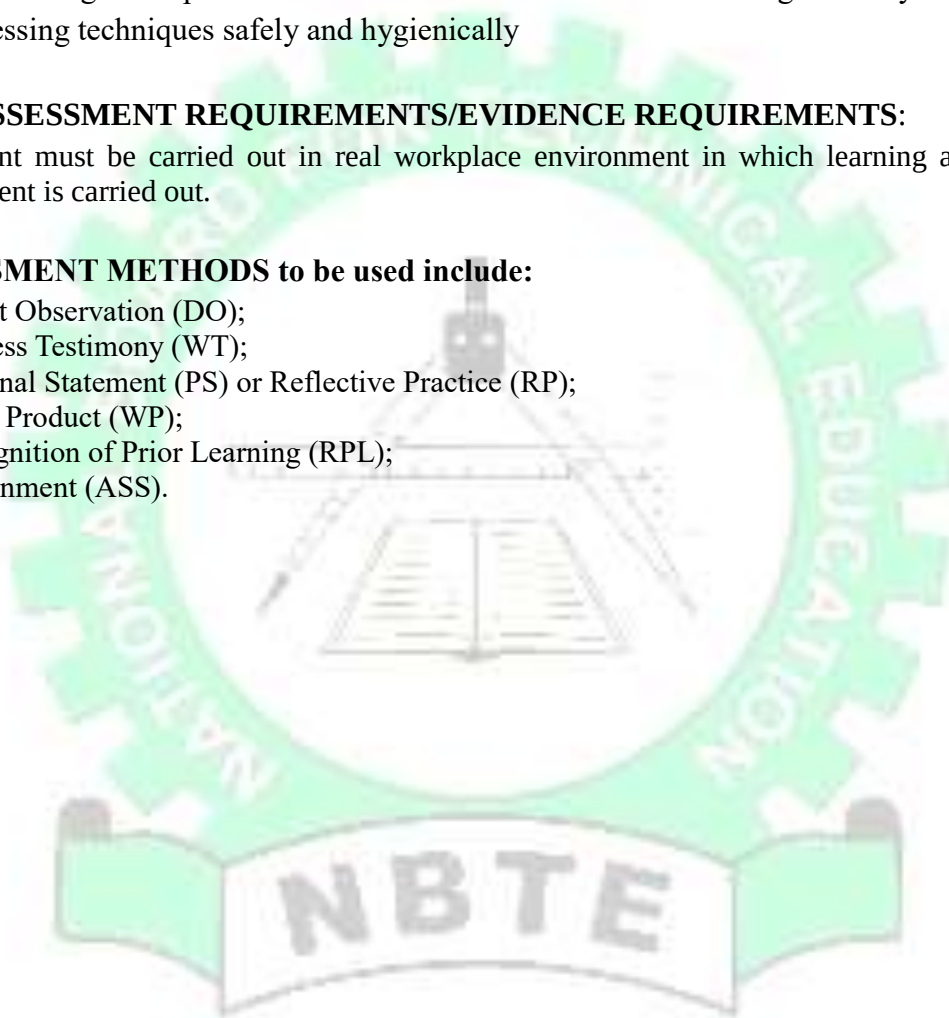
This unit is designed to provide learners with basic skills and knowledge to carry out basic fish processing techniques safely and hygienically

UNIT ASSESSMENT REQUIREMENTS/EVIDENCE REQUIREMENTS:

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Witness Testimony (WT);
3. Personal Statement (PS) or Reflective Practice (RP);
4. Work Product (WP);
5. Recognition of Prior Learning (RPL);
6. Assignment (ASS).



Unit 007: Basic Fish Processing Techniques I

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
LO 1: Explain the principles of fish processing and preservations.	1.1	Explain why fish spoil quickly after harvest								
	1.2	Identify the difference between fish processing and preservation								
	1.3	Explain the principle of removing water from fish to increase the shelf-life								
	1.4	Distinguish between the various fish processing methods								
LO 2: <i>Prepare fish for processing using safe handling practices.</i>	2.1	De-scale, gut and wash fish								
	2.2	Sort fish according to size and species to meet specifications.								
	2.3	Maintain hygiene, cleanliness, sanitation and use of PPE during handling.								
LO 3: <i>Carryout basic fish processing methods.</i>	3.1	Select fish for sun drying.								
	3.2	Select fish for salting.								
	3.3	Apply dry/wet salt on the fish correctly.								
	3.4	Smoke fish using appropriate equipment.								
	3.5	Describe the role of wood in fish smoking.								
Learners Signature:			Date:							
Assessors Signature:			Date:							
IQA Signature (if sampled)			Date:							
EQA Signature (if sampled)			Date:							

UNIT 008: BASIC PACKAGING AND STORAGE

Unit Reference Number:	AGR/FPV/008/L1
NSQ Level:	1
Credit Value:	2
Guided Learning Hours:	20
Practice Time:	60

UNIT PURPOSE: This unit is designed to provide learners with the competencies required to package processed fish properly and store fish products under appropriate conditions.

UNIT ASSESSMENT REQUIREMENTS/EVIDENCE REQUIREMENTS:

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Witness Testimony (WT);
3. Personal Statement (PS) or Reflective Practice (RP);
4. Work Product (WP);
5. Recognition of Prior Learning (RPL);
6. Assignment (ASS).



Unit 008: Basic Packaging and Storage

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
LO 1: Identify basic packaging materials used for fish products	1.1	Identify common packaging materials for fish products.		
	1.2	Describe the characteristics of different packaging materials.		
	1.3	Select suitable packaging materials for different fish products		
	1.4	Explain the importance of food-grade packaging		
	1.5	Identify damaged or unsuitable packaging materials.		
LO 2: Package fish products using appropriate methods.	2.1	Prepare packaging materials before use.		
	2.2	Package fish products hygienically.		
	2.3	Remove excess air where applicable.		
	2.4	Seal packages securely.		
	2.5	Check packaged products for defects.		
LO 3: Label packaged fish products correctly.	3.1	Identify information required on product labels.		
	3.2	Label products clearly and accurately.		
	3.3	Include production and expiry dates		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
		where applicable.		
	3.4	Apply batch identification where required.		
	3.5	Verify label accuracy before storage.		
LO 4: Store packaged fish products under appropriate conditions.	4.1	Identify appropriate storage conditions for different fish products.		
	4.2	Arrange products to allow proper air circulation.		
	4.3	Apply First-In-First-Out (FIFO) stock rotation.		
	4.4	Monitor storage temperature where applicable.		
	4.5	Protect products from moisture, pests and contamination.		
LO 5: Maintain quality and safety during storage.	5.1	Inspect stored products regularly.		
	5.2	Identify signs of product deterioration.		
	5.3	Remove damaged or contaminated products.		
	5.4	Maintain storage cleanliness and sanitation.		
	5.5	Keep basic storage records where required.		
Learners Signature:			Date:	

LEARNING OUTCOME (LO) The learner will:	PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
Assessors Signature:		Date:	
IQA Signature (if sampled		Date:	
EQA Signature (if sampled)		Date:	





NATIONAL SKILLS QUALIFICATIONS/(NSQ)

FISH PROCESSING AND VALUE ADDITION

LEVEL 2

JUNE, 2026



GENERAL INFORMATION

OVERVIEW

This qualification is designed for individuals who are interested in pursuing a career in Fish Processing and Value Addition for the award of National Skills Qualifications (NSQ)/ National Occupational Standards (NOS). It is aimed at producing competencies necessary to support in Fish Processing and Value Addition at NSQ Level 2.

This qualification is subject to review as and when the need arises.

QUALIFICATION PURPOSE

The qualification is designed to produce competent entry level Fish Processing and Value Addition assistant with knowledge, skills, and attitude required to perform routine Fish Processing and Value Addition activities under minimal supervision using basic precision agriculture principles and tools.

QUALIFICATION REQUIREMENTS

All Candidates must:

- At least seventeen (17) years of age
- Medically fit
- Mentally fit (Mental alertness)
- A Nigerian citizen
- Other nationals should present International passport, residence permit or Parent work permit.
- Vetted
- Interest in agricultural production and related support operations;
- Ability to carry out routine practical tasks with minimal supervision.
- Completed Level 1 Fish Processing and Value Addition

QUALIFICATION OBJECTIVES

At the end of this qualification, the learner should be able to:

1. Communicate effectively in fish processing workplaces using appropriate communication methods and workplace documentation.
2. Work collaboratively with others to achieve production targets and maintain productive workplace relationships.
3. Apply workplace health, safety, hygiene and food safety requirements during fish processing operations.
4. Perform basic fish processing operations using approved processing techniques and workplace procedures.
5. Produce simple value-added fish products that meet specified quality requirements.
6. Operate and carry out routine maintenance of basic fish processing equipment safely and efficiently.

7. Package, label, store and prepare processed fish products for safe handling and distribution.
8. Maintain product quality and minimise contamination through the application of good processing and handling practices.



NATIONAL SKILLS QUALIFICATION TABLE

LEVEL 2

Unit	Unit Reference Number	Unit Title	Credit Value	Guided Learning Hours	Practice (workplace) Hours	Remark
1	AGR/FPV/001/L2	Communication in Fish Processing Workplace	3	30	60	Mandatory
2	AGR/FPV/002/L2	Teamwork in Fish Processing and Value Addition	3	30	60	Mandatory
3	AGR/FPV/003/L2	Workplace Health, Safety and Hygiene	3	30	60	Mandatory
4	AGR/FPV/004/L2	Basic Fish Processing Techniques II	4	40	120	Mandatory
5	AGR/FPV/005/L2	Development of Value-Added Fish Products	4	40	160	Mandatory
6	AGR/FPV/006/L2	Basic Operation of fish processing equipment	3	30	120	Mandatory
7	AGR/FPV/007/L2	Basic Packaging and Labelling of Fish Products	4	40	160	Mandatory
TOTAL			24	240	740	

QUALIFICATION STRUCTURE

This qualification comprises a total of seven (7) mandatory units with 24 Credit Value and 240 Guided Learning Hours across the qualification. One (1) Credit is equivalent to approximately Ten (10) Guided Learning Hours (GLH). Guided Learning Hours are the time a learner spends in the classroom, workshop and laboratory of the Skills Training Centre (STC), being taught, instructed, supervised or assessed by a qualified trainer, facilitator or assessor.

In addition to the GLH, the qualification requires at least twice or thrice the GLH as practice time. Practice time is the time a learner is expected to spend applying the skills of each unit in a real workplace environment, carrying out the same tasks repeatedly until performance becomes consistent, accurate and habitual to the standard the qualification demands. It is undertaken under the guidance of a workplace supervisor, recorded in the learner's logbook and duly endorsed. Practice time is the principal setting where core assessment is conducted. It is through repeated performance in the workplace that a learner's achievement of the

Learning Outcomes and Performance Criteria is judged and evidenced. Practice time is an additional requirement to GLH and does not replace them.

To achieve this qualification, the learner must complete all mandatory units, undertake the prescribed practice time, and accumulate the minimum credit value approved by NBTE. Credit is awarded only when a learner has been assessed as competent against all Learning Outcomes and Performance Criteria of a unit.



GENERAL GUIDE

Unit title	Provides a clear explanation of the unit's content.
Unit number	The unique number assigned to the unit.
Unit reference	The unique reference number given to each unit at qualification approval by NBTE
Unit level	Denotes the level of the unit within the National Vocational Qualification framework NSQF.
Unit credit value	The value that has been given to the unit based on the expected learning time for an average learner. 1 credit = 10 learning hours
Unit aim	Provides a brief outline of the unit content.
Learning outcome	A statement of what a learner will know, understand or be able to do, as a result of a process of learning.
Assessment criteria	A description of the requirements a learner must achieve to demonstrate that a learning outcome has been met.
Unit assessment guidance	Any additional guidance provided to support the assessment of the unit.
Unit guided learning hours	The average number of hours of supervised or directed study time or assessment required to achieve a qualification or unit of a qualification.

UNIT 001: COMMUNICATION IN FISH PROCESSING WORKPLACE

Unit Reference Number:	AGR/FPV/001/L2
NSQ Level:	2
Credit Value:	3
Guided Learning Hours:	30
Practice Time:	60

Unit Purpose: This unit is designed to equip learners with the competencies required to communicate effectively in fish processing operations using workplace communication systems, maintain accurate information flow, complete routine documentation and interact professionally with supervisors, colleagues and customers.

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

Simulation is not allowed in this unit and level.

Assessment methods to be used include:

1. Direct Observation (DO);
2. Witness Testimony (WT);
3. Personal Statement (PS) or Reflective Practice (RP);
4. Work Product (WP);
5. Recognition of Prior Learning (RPL);
6. Assignment (ASS).

Unit 001: Communication in Fish Processing Workplace

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
LO 1: <i>Communicate effectively in the fish processing workplace</i>	1.1	Exchange work-related information clearly with supervisors and team members.		
	1.2	Apply verbal communication appropriately during processing operations.		
	1.3	Explain workplace signs, symbols, notices and instructions correctly.		
	1.4	Communicate changes in production activities promptly.		
LO 2: <i>Use workplace information systems</i>	2.1	Obtain information from approved workplace sources.		
	2.2	Record routine production information accurately.		
	2.3	Complete simple workplace forms		
	2.4	Report incorrect or incomplete information to appropriate personnel.		
LO 3: <i>Use workplace communication equipment.</i>	3.1	Operate communication devices according to workplace procedures.		
	3.2	Describe production information accurately		
	3.3	Report equipment communication faults promptly		
	3.4	Follow workplace communication protocols.		
	3.5	Store communication equipment properly after use		
LO 4: Maintain professional workplace communication	4.1	Respond respectfully to supervisors and colleagues.		
	4.2	Provide constructive feedback appropriately		
	4.3	Report unresolved communication problems through appropriate channels.		
Learners Signature:			Date:	
Assessors Signature:			Date:	

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	



UNIT 002: TEAMWORK IN FISH PROCESSING AND VALUE ADDITION

Unit Reference Number:	AGR/FPV/002/L2
NSQ Level:	2
Credit Value:	3
Guided Learning Hours:	30
Practice Time:	60

Unit Purpose: This unit is designed to equip learners with the competencies required to work effectively within fish processing teams, contribute to production targets, support workplace problem-solving and maintain productive working relationships.

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

Simulation is not allowed in this unit and level.

Assessment methods to be used include:

1. Direct Observation (DO);
2. Recognition of Prior Learning and experience (RPL);
3. Witness testimony (WT);
4. Personal statement (PS)/ Reflective Practice (RP);
5. Work Product (WP) ;
6. Assignment (ASS)

Unit 002: Teamwork in Fish Processing and Value Addition

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
LO 1: Perform Assigned Responsibilities Within a Team	1.1	Explain team objectives and production targets.		
	1.2	Perform assigned duties according to workplace procedures.		
	1.3	Meet agreed work schedules.		
	1.4	Report task completion to supervisors.		
	1.5	Support team achievement of production targets.		
LO 2: Collaborate with Team Members	2.1	Share work information accurately.		
	2.2	Coordinate activities with other team members.		
	2.3	Assist colleagues during routine operations.		
	2.4	Maintain effective working relationships		
LO 3: Contribute to Team Performance Improvement	3.1	Identify routine workplace problems affecting production		
	3.2	Participate in team meetings and discussions.		
	3.3	Accept team decisions professionally.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:

UNIT 003: WORKPLACE HEALTH, SAFETY AND HYGIENE

Unit Reference Number: AGR/FPV/003/L2

NSQ Level: 2

Credit Value: 3

Guided Learning Hours: 30

Practice Time: 60

Unit Purpose: This unit is designed to equip learners with the competencies required to implement workplace health, safety and hygiene procedures, identify workplace hazards, control risks and maintain food safety standards during fish processing operations.

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

Simulation is not allowed in this unit and level.

Assessment methods to be used include:

1. Direct Observation (DO);
2. Recognition of Prior Learning and experience (RPL);
3. Witness testimony (WT);
4. Personal statement (PS)/ Reflective Practice (RP);
5. Work Product (WP) ;
6. Assignment (ASS).

Unit 003: Workplace Health, Safety and Hygiene

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
LO 1: Identify workplace hazards and control risks	1.1	Explain routine workplace risks and hazards								
	1.2	Apply approved risk control measures.								
	1.3	Report unsafe conditions promptly.								
	1.4	Participate in workplace hazard inspections.								
	1.5	Assist in routine workplace risk assessments								
LO 2: Apply workplace health and safety procedures	2.1	Select and use appropriate PPE correctly.								
	2.2	Follow safe operating procedures during fish processing.								
	2.3	Handle processing tools and equipment safely.								
	2.4	Respond appropriately to workplace emergencies.								
	2.5	Report accidents and incidents according to workplace procedures								
LO 3: Maintain hygiene and food safety standards	3.1	Apply personal hygiene requirements consistently.								
	3.2	Prevent product contamination during processing								
	3.3	Maintain sanitation of processing areas.								
	3.4	Dispose of waste according to workplace procedures.								
	3.5	Monitor hygiene compliance throughout operations.								
LO 4: Maintain a safe processing environment	4.1	Carry out routine housekeeping activities.								
	4.2	Assist in inspecting work areas before and after operations.								
	4.3	Locate emergency exits and safety equipment.								
	4.4	Identify faulty equipment requiring maintenance.								
	4.5	Record basic safety data according to workplace procedures								
Learners Signature:			Date:							

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
Assessors Signature:			Date:	
IQA Signature (if sampled			Date:	
EQA Signature (if sampled)			Date:	



UNIT 004: BASIC FISH PROCESSING TECHNIQUES II

Unit Reference Number:	AGR/FPV/004/L2
NSQ Level:	2
Credit Value:	4
Guided Learning Hours:	40
Practice Time:	120

UNIT PURPOSE:

This unit is designed to equip learners with knowledge and skills to apply intermediate fish processing and packaging techniques.

UNIT ASSESSMENT REQUIREMENTS/EVIDENCE REQUIREMENTS:

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

Assessment Methods to be Used Include:

1. Direct Observation (DO);
2. Recognition of Prior Learning and experience (RPL);
3. Witness testimony (WT);
4. Personal statement (PS)/ Reflective Practice (RP);
5. Work Product (WP) ;
6. Assignment (ASS).



Unit 004: Basic Fish Processing Techniques II

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
LO 1: <i>Demonstrate safe hygienic handling of fresh fish.</i>	1.1	Wash hands thoroughly before handling fish.								
	1.2	Wear clean apron, hairnet and hand gloves before handling fish.								
	1.3	Transport fresh fish in clean containers without contamination.								
	1.4	Keep optimum hygiene during handling practices.								
LO 2: Carry out preparation techniques in processing.	2.1	Identify various processing techniques.								
	2.2	Demonstrate different pickling (salting) methods.								
	2.3	Differentiate between hot and cold smoking.								
LO 3: <i>Explain how to operate simple fish processing equipment.</i>	3.1	Explain the use of fish smoking kilns.								
	3.2	Demonstrate drying rack as a processing tool.								
	3.3	Match the quantity of charcoal with the weight of fish to be processed.								
	3.4	Identify the effect of different temperature on fish products.								
LO 4: <i>Carry out basic activities after fish processing.</i>	4.1	Explain the importance of moisture loss and shelf-life.								
	4.2	Carryout cooling before fish packaging.								
	4.3	Carryout different packaging methods of processed fish and fish products.								
Learners Signature:			Date:							
Assessors Signature:			Date:							
IQA Signature (if sampled)			Date:							
EQA Signature (if sampled)			Date:							

UNIT 005: DEVELOPMENT OF VALUE-ADDED FISH PRODUCTS

Unit Reference Number:	AGR/FPV/005/L2
NSQ Level:	2
Credit Value:	4
Guided Learning Hours:	40
Practice Time:	160

UNIT PURPOSE:

This unit is designed to equip learners with knowledge and skills to develop simple value-added fish products using appropriate processing techniques.

UNIT ASSESSMENT REQUIREMENTS/EVIDENCE REQUIREMENTS:

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

Assessment Methods to be Used Include:

1. Direct Observation (DO);
2. Recognition of Prior Learning and experience (RPL);
3. Witness testimony (WT);
4. Personal statement (PS)/ Reflective Practice (RP);
5. Work Product (WP) ;
6. Assignment (ASS).



UNIT 005: DEVELOPMENT OF VALUE-ADDED FISH PRODUCTS

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
LO 1: <i>Carry out value-added fish products and their market potential.</i>	1.1	Explain the principles of value addition in fish processing.		
	1.2	Identify common value-added fish products.		
	1.3	Select suitable fish species for different value-added products.		
LO 2: Identify raw materials for value addition.	2.1	Identify common raw materials used in different fish products.		
	2.2	Identify common spices used in different fish products.		
	2.3	Identify different storage techniques for raw materials used for fish value addition.		
LO 3: Produce selected value-added fish products using standard procedures.	3.1	Follow approved product formulations or recipes.		
	3.2	Measure ingredients accurately.		
	3.3	Apply appropriate mixing, seasoning and shaping techniques.		
	3.4	Use suitable cooking, drying or smoking methods where applicable.		
	3.5	Produce products that meet specified quality standards.		
LO 4: Monitor product quality during processing.	4.1	Identify products at different processing stages.		
	4.2	Identify defects affecting product quality.		
	4.3	Apply corrective measures to maintain product standards.		
	4.4	Maintain hygienic handling throughout production.		
	4.5	Record basic production information where required.		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type					Evidence Ref. Page No.				
LO 5: Assess quality of value-added fish products before packaging.	5.1	Observe appearance, texture, colour and odour of the product.										
	5.2	Assess the aroma of the product against established quality specifications										
	5.3	Compare products with established quality specifications.										
	5.4	Identify products suitable for packaging.										
	5.5	Recommend improvements for product quality.										
	5.6	Store finished products under appropriate conditions before packaging.										
Learners Signature:			Date:									
Assessors Signature:			Date:									
IQA Signature (if sampled)			Date:									
EQA Signature (if sampled)			Date:									

UNIT 006: BASIC OPERATION OF FISH PROCESSING EQUIPMENT

Unit Reference Number: AGR/FPV/006/L2

NSQ Level:	2
Credit Value:	3
Guided Learning hours:	30
Practice Time:	120

Unit Purpose: This unit is designed to equip learners with the competencies to identify, select and operate basic fish processing equipment including smoking kilns, drying racks and other manual processing tools safely.

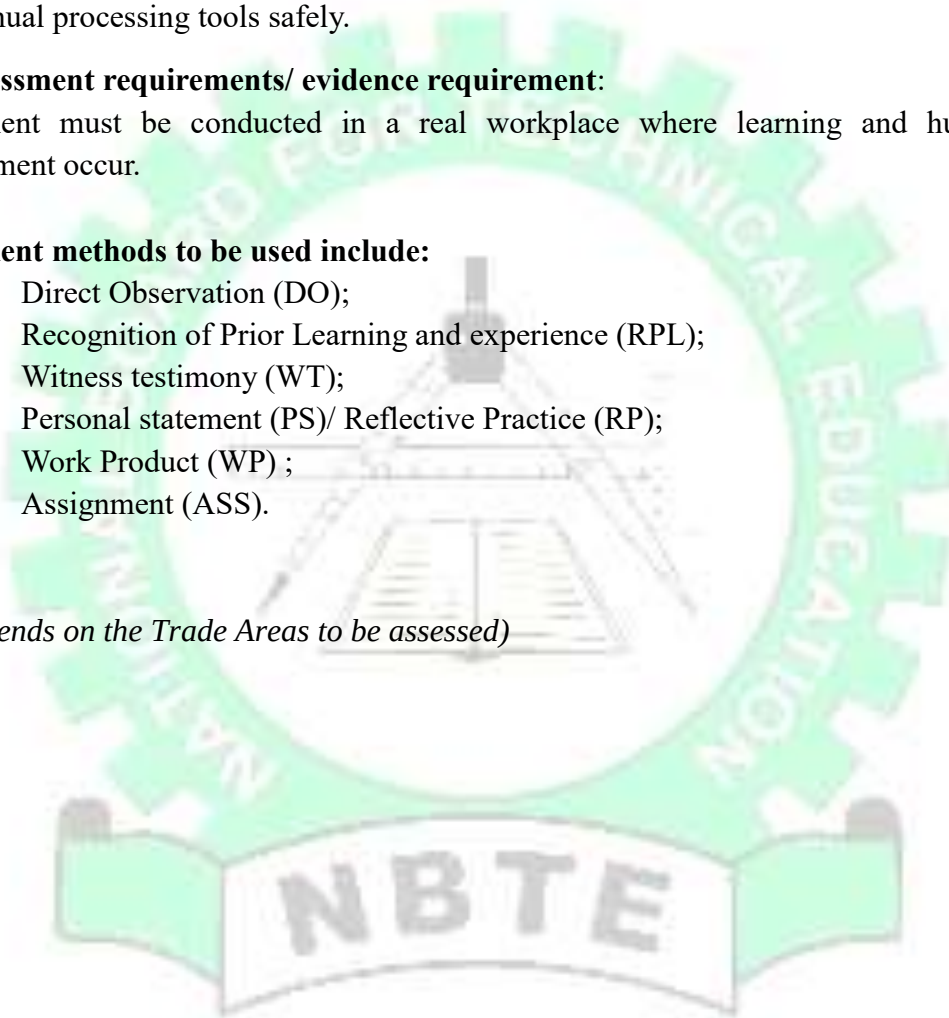
Unit assessment requirements/ evidence requirement:

Assessment must be conducted in a real workplace where learning and human development occur.

Assessment methods to be used include:

1. Direct Observation (DO);
2. Recognition of Prior Learning and experience (RPL);
3. Witness testimony (WT);
4. Personal statement (PS)/ Reflective Practice (RP);
5. Work Product (WP) ;
6. Assignment (ASS).

(This depends on the Trade Areas to be assessed)



Unit 006: Basic Operation of fish processing equipment

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
LO 1: Identify various fish processing equipment.	1.1	Describe the basic equipment used in fish processing.								
	1.2	Describe the function of at least five (5) common fish processing tools								
	1.3	Differentiate between manual and automated equipment								
LO 2: Select suitable processing tools for the operation.	2.1	Identify various processing tools used for different fish products								
	2.2	Apply appropriate tools for the operation during fish processing								
	2.3	Check various operation tools								
LO 3: Operate basic fish processing equipment.	3.1	Assist to set up and operate smoking kilns and dryers and other manual equipment								
	3.2	Maintain hygiene and safety standards while operating equipment.								
	3.3	Identify possible defects/faults during operation.								
LO 4: Demonstrate maintenance of equipment.	4.1	Carry out routine maintenance and cleaning of fish processing equipment.								
	4.2	Clean equipment after use.								
	4.3	Store equipment after use.								
	4.4	Report equipment faults requiring repairs to the appropriate personnel.								
	4.5	Keep maintenance records for equipment usage.								

UNIT 007: BASIC PACKAGING AND LABELLING OF FISH PRODUCTS

Unit Reference Number:	AGR/FPV/007/L2
NSQ Level:	2
Credit Value:	4
Guided Learning hours:	40
Practice Time:	160

Unit Purpose: This unit is designed to equip learners with the competencies required to package, label and prepare processed fish products for storage and transportation.

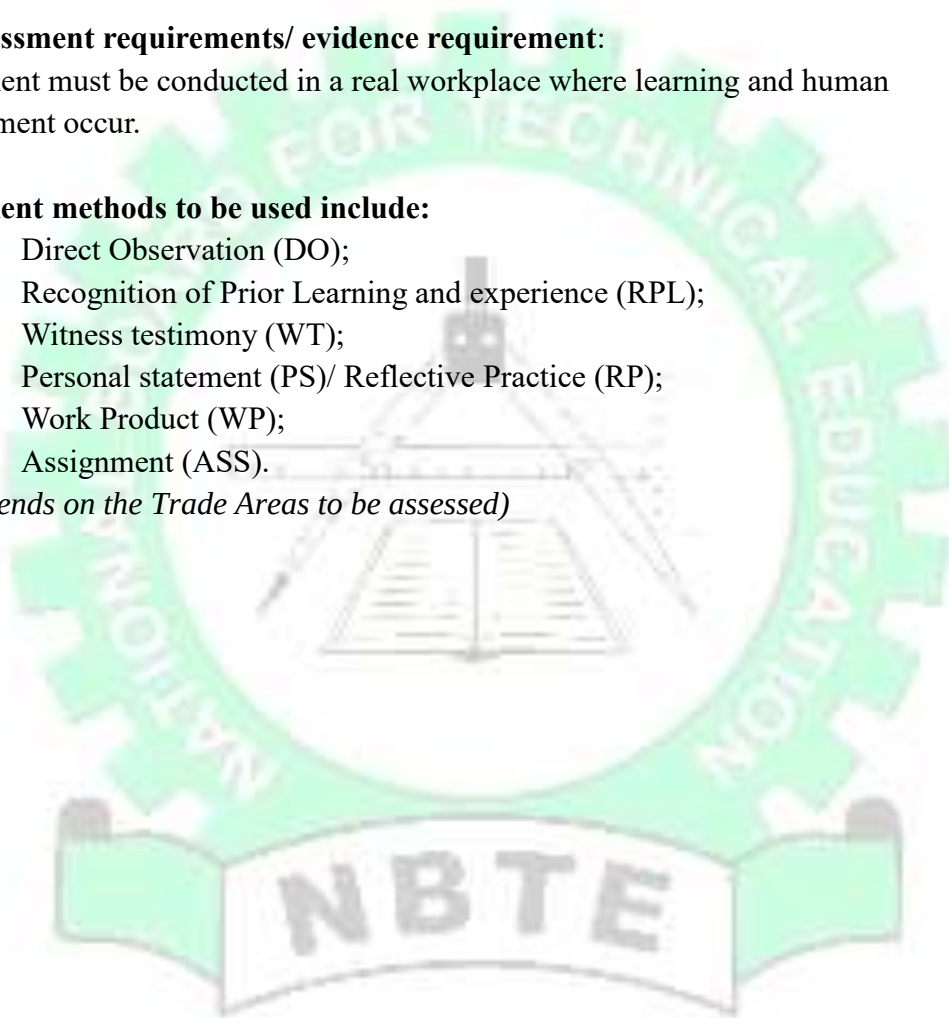
Unit assessment requirements/ evidence requirement:

Assessment must be conducted in a real workplace where learning and human development occur.

Assessment methods to be used include:

1. Direct Observation (DO);
2. Recognition of Prior Learning and experience (RPL);
3. Witness testimony (WT);
4. Personal statement (PS)/ Reflective Practice (RP);
5. Work Product (WP);
6. Assignment (ASS).

(This depends on the Trade Areas to be assessed)



Unit 007: Basic Packaging and Labelling of Fish Products

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
LO 1: Select suitable packaging materials for fish products.	1.1	Identify various packaging materials used for different fish products								
	1.2	Select food-grade packaging appropriate for the product								
	1.3	Check packaging materials for cleanliness and integrity								
	1.4	Match packaging materials with storage requirements								
	1.5	Store packaging materials hygienically before use.								
LO 2: Package processed fish products using appropriate techniques.	2.1	Prepare products for packaging								
	2.2	Package products using appropriate methods								
	2.3	Remove excess air where applicable.								
	2.4	Seal packages securely to prevent contamination.								
	2.5	Check packaged products for completeness and quality								
LO 3: Apply product labels.	3.1	Identify mandatory information required on product labels.								
	3.2	Fix labels accurately and legibly								
	3.3	Include product name, ingredients, production date, expiry date and batch number.								
	3.4	Apply labels neatly and securely								
	3.5	Check label accuracy before product release.								
LO 4: Maintain packaged product quality during storage and handling.	4.1	Arrange packaged products according to storage requirements.								
	4.2	Apply First-In-First-Out (FIFO) stock rotation.								
	4.3	Monitor storage conditions.								
	4.4	Check packaged products periodically for defects or damage.								
	4.5	Remove damaged or deteriorated								

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
		products from storage.		
LO 5: <i>Prepare packaged fish products for marketing and distribution.</i>	5.1	Sort products according to product type and batch.		
	5.2	Assemble products for dispatch		
	5.3	Protect packaged products during transportation.		
	5.4	Maintain simple inventory and dispatch records.		
	5.5	Observe workplace hygiene and safety throughout packaging and distribution activities.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	



NATIONAL SKILLS QUALIFICATIONS(NSQ)

FISH PROCESSING AND VALUE ADDITION

LEVEL 3

JUNE, 2026



GENERAL INFORMATION

OVERVIEW

This qualification is designed for individuals who are interested in pursuing a career in Fish Processing and Value Addition for the award of National Skills Qualifications (NSQ)/National Occupational Standards (NOS). It is aimed at producing competencies necessary to support in Fish Processing and Value Addition **at NSQ Level 3**.

This qualification is subject to review as and when the need arises.

QUALIFICATION PURPOSE

The qualification is designed to produce competent Fish Processing technician with knowledge, skills, and attitude required to perform routine Fish Processing activities using precision agriculture principles and tools.

QUALIFICATION REQUIREMENTS

All Candidates must be:

- At least eighteen (18) years of age
- Medically fit
- Mentally fit (Mental alertness)
- A Nigerian citizen
- Other nationals should present International passport, residence permit or Parent work permit.
- Vetted
- Interest in agricultural production and related support operations;
- Ability to carry out practical tasks independently and to guide the work of others.
- Complete Level 2

QUALIFICATION OBJECTIVES

At the end of this qualification, the learner should be able to:

- i. Communicate technical and operational information effectively with production teams and other stakeholders.
- ii. Coordinate team activities and promote effective teamwork to achieve production objectives.
- iii. Implement and monitor workplace health, safety, hygiene and environmental protection requirements.
- iv. Plan and apply advanced fish processing techniques to optimise production efficiency and product quality.
- v. Implement quality assurance and food safety systems in compliance with regulatory standards.

- vi. Select and manage appropriate packaging technologies, storage systems and shelf-life management practices.
- vii. Assist in supervising fish processing operations, coordinate resources and maintain production documentation.
- viii. Apply basic enterprise management, costing, marketing and customer relationship skills in fish processing businesses.



National Skills Qualification/National Occupation Standard (NSQ/NOS) Unit Table

LEVEL 3

MANDATORY UNITS

Unit	Unit Reference Number	Unit Title	Credit Value	Guided Learning Hours	Practice (workplace) Hours	Remark
1	AGR/FPV/001/L3	Communication in the Fish Processing Workplace	3	30	80	Mandatory
2	AGR/FPV/002/L3	Teamwork in Fish Processing Workplace	3	30	80	Mandatory
3	AGR/FPV/003/L3	Workplace Health, Safety and Hygiene	3	30	80	Mandatory
4	AGR/FPV/004/L3	Fish Processing Techniques III	5	50	220	Mandatory
5	AGR/FPV/005/L3	Fish Product Quality Assurance and Food Safety	5	50	200	Mandatory
6	AGR/FPV/006/L3	Packaging Technology and Product Shelf-Life Management	5	50	180	Mandatory
7	AGR/FPV/007/L3	Processing Supervision and Enterprise Management	5	50	180	Mandatory
8	AGR/FPV/008/L3	Fundamentals of Fish Processing Entrepreneurship and Marketing	5	50	160	Mandatory
TOTAL			34	340	1180	

QUALIFICATION STRUCTURE

This qualification comprises a total of eight (8) mandatory units with 34 Credit Value and 340 Guided Learning Hours across the full qualification. One (1) Credit is equivalent to approximately Ten (10) Guided Learning Hours (GLH). Guided Learning Hours are the time a learner spends in the classroom, workshop and laboratory of the Skills Training Centre (STC), being taught, instructed, supervised or assessed by a qualified trainer, facilitator or assessor.

In addition to the GLH, the qualification requires at least twice or thrice the GLH as practice time. Practice time is the time a learner is expected to spend applying the skills of each unit in a real workplace environment, carrying out the same tasks repeatedly until performance becomes consistent, accurate and habitual to the standard the qualification demands. It is undertaken under the guidance of a workplace supervisor, recorded in the learner's logbook and duly endorsed. Practice time is the principal setting where core assessment is conducted. It is through repeated performance in the workplace that a learner's achievement of the Learning Outcomes and Performance Criteria is judged and evidenced. Practice time is an additional requirement to GLH and does not replace them.

To achieve this qualification, the learner must complete all mandatory units, undertake the prescribed practice time, and accumulate the minimum credit value approved by NBTE. Credit is awarded only when a learner has been assessed as competent against all Learning Outcomes and Performance Criteria of a unit.



GENERAL GUIDE

Unit title	Provides a clear explanation of the unit's content.
Unit number	The unique number assigned to the unit.
Unit reference	The unique reference number given to each unit at qualification approval by NBTE
Unit level	Denotes the level of the unit within the National Vocational Qualification framework NSQF.
Unit credit value	The value that has been given to the unit based on the expected learning time for an average learner. 1 credit = 10 learning hours
Unit aim	Provides a brief outline of the unit content.
Learning outcome	A statement of what a learner will know, understand or be able to do, as a result of a process of learning.
Assessment criteria	A description of the requirements a learner must achieve to demonstrate that a learning outcome has been met.
Unit assessment guidance	Any additional guidance provided to support the assessment of the unit.
Unit guided learning hours	The average number of hours of supervised or directed study time or assessment required to achieve a qualification or unit of a qualification.

UNIT 001: COMMUNICATION IN THE FISH PROCESSING WORKPLACE

Unit Reference Number:	AGR/FPV/001/L3
NSQ Level:	3
Credit Value:	3
Guided Learning Hours:	30
Practice Time:	80

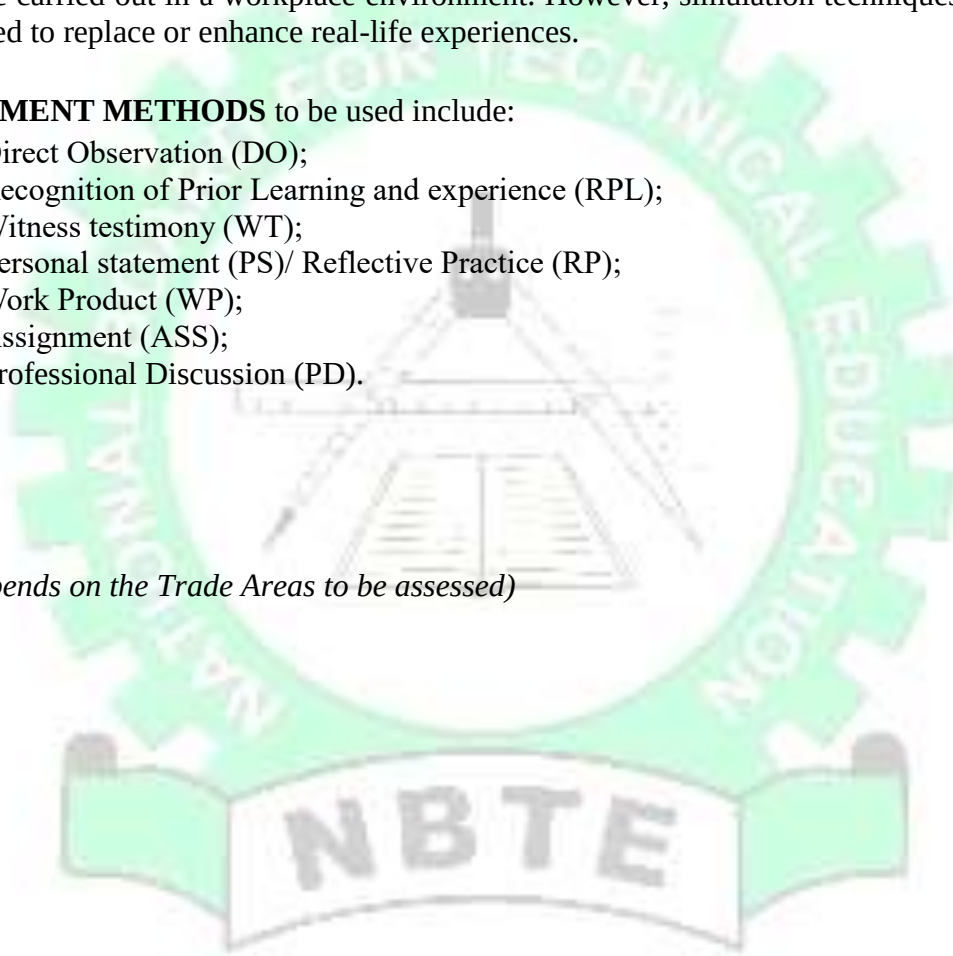
UNIT PURPOSE: This unit is designed to equip the learner with the knowledge and skills in communication techniques in Fish Processing and Value Addition.

UNIT ASSESSMENT REQUIREMENTS/EVIDENCE REQUIREMENTS: Assessment should be carried out in a workplace environment. However, simulation techniques may also be adopted to replace or enhance real-life experiences.

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Recognition of Prior Learning and experience (RPL);
3. Witness testimony (WT);
4. Personal statement (PS)/ Reflective Practice (RP);
5. Work Product (WP);
6. Assignment (ASS);
7. Professional Discussion (PD).

(This depends on the Trade Areas to be assessed)



Unit 001: Communication in the Fish Processing Workplace

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type					Evidence Ref. Page No.			
LO 1: <i>Apply effective workplace communication techniques.</i>	1.1	Communicate professionally with supervisors, colleagues, and subordinates.									
	1.2	Interpret written instructions related to fish processing activities.									
	1.3	Convey processing information accurately and in a timely manner.									
	1.4	Demonstrate active listening during workplace interactions.									
LO 2: Communicate technical information.	2.1	Interpret fish processing schedules and standard operating procedures.									
	2.2	Explain technical instructions to team members accurately.									
	2.3	Communicate technical information using appropriate terminology.									
	2.4	Verify the understanding of communicated technical information.									
LO 3: Coordinate communication within production teams.	3.1	Facilitate information flow among team members.									
	3.2	Communicate processing targets and schedules to workers.									
	3.3	Conduct shift handover communication effectively.									
LO 4: Communicate quality, safety, and environmental requirements.	4.1	Communicate workplace safety requirements to team members.									
	4.2	Report hazards, incidents, and unsafe practices promptly.									
	4.3	Document corrective actions when required.									
Learners Signature:			Date:								
Assessors Signature:			Date:								
IQA Signature (if sampled)			Date:								

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
EQA Signature (if sampled)			Date:	



UNIT 002: TEAMWORK IN THE FISH PROCESSING WORKPLACE

Unit Reference Number:	AGR/FPV/002/L3
NSQ Level:	3
Credit Value:	3
Guided Learning Hours:	30
Practice Time:	80

UNIT PURPOSE: This unit equips the learner with the knowledge and skills required to coordinate team activities, promote professional conduct, resolve workplace disagreements and monitor task performance in fish processing.

UNIT ASSESSMENT REQUIREMENTS/ EVIDENCE REQUIREMENTS:

Assessment should be carried out in a workplace environment. However, simulation techniques may also be adopted to enhance real-life experiences..

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Recognition of Prior Learning and experience (RPL);
3. Witness testimony (WT);
4. Personal statement (PS)/ Reflective Practice (RP);
5. Work Product (WP ;
6. Assignment (ASS);
7. Professional Discussion (PD).

Unit 002: Teamwork in the Fish Processing Workplace

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
LO 1: Coordinate team activities in fish processing.	1.1	Assign tasks to team members according to processing requirements and competence levels.		
	1.2	Communicate processing targets and work schedules to team members.		
	1.3	Monitor team performance against established processing plans.		
	1.4	Provide guidance and support to team members during processing activities.		
	1.5	Modify work assignments to address changes in processing requirements.		
LO 2: Promote effective teamwork in fish processing.	2.1	Foster cooperation and mutual respect among team members.		
	2.2	Facilitate open communication within the team.		
	2.3	Facilitate information sharing to support processing objectives.		
	2.4	Promote active participation in team decision-making processes.		
LO 3: Resolve team-related issues in the workplace.	3.1	Identify factors affecting team performance.		
	3.2	Investigate team conflicts and workplace issues objectively.		
	3.3	Apply appropriate conflict resolution techniques to address disagreements.		
	3.4	Facilitate discussions to achieve mutually acceptable solutions.		
	3.5	Report unresolved issues according to organizational procedures.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

UNIT 003: WORKPLACE HEALTH, SAFETY AND HYGIENE

Unit Reference Number:	AGR/FPV/003/L3
NSQ Level:	3
Credit Value:	3
Guided Learning Hours:	30
Practice Time:	80

Unit Purpose: This unit equips the learner with the knowledge and skills required to assess workplace risks, implement and monitor safety controls, coordinate safe operating procedures and manage incidents in Fish Processing and Value Addition operations.

UNIT ASSESSMENT REQUIREMENTS/ EVIDENCE REQUIREMENTS:

Assessment must be conducted in a real workplace environment where learning and human development occur.

ASSESSMENT METHODS to be used include:

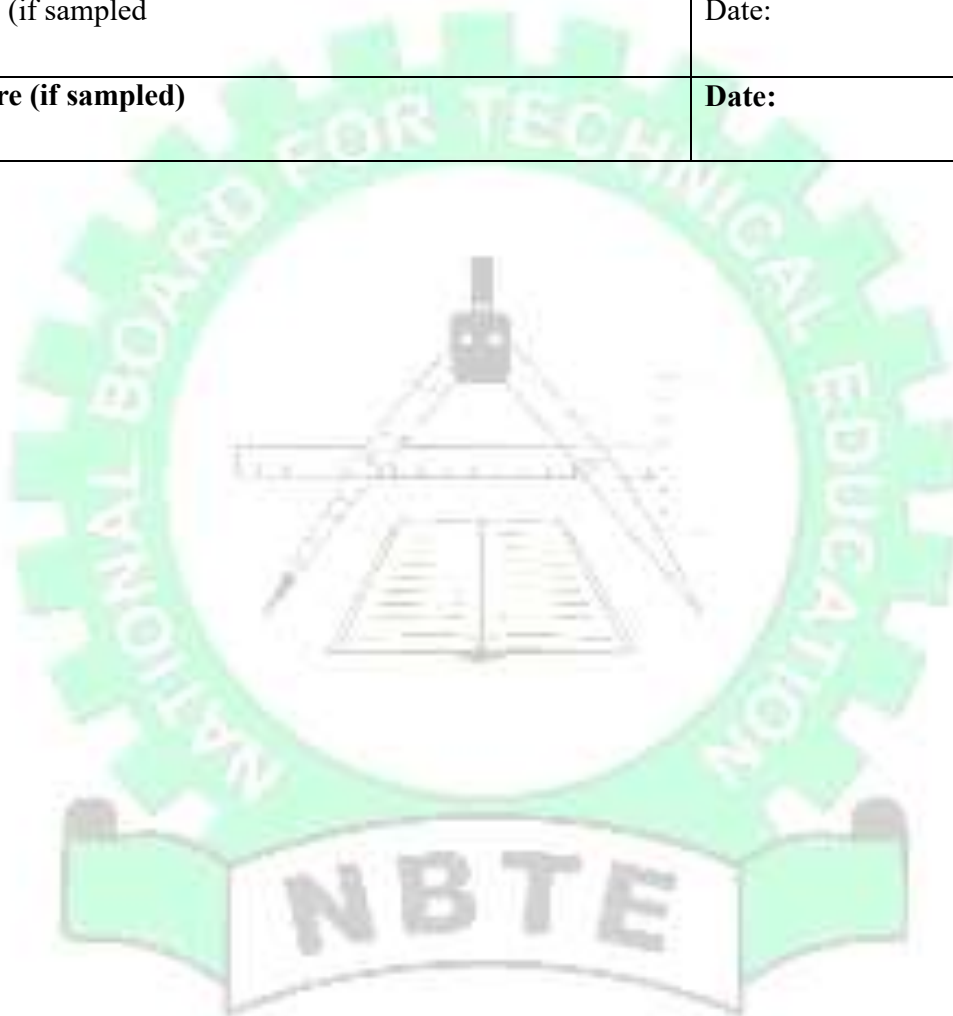
1. Direct Observation (DO);
2. Recognition of Prior Learning and experience (RPL);
3. Witness testimony (WT);
4. Personal statement (PS)/ Reflective Practice (RP);
5. Work Product (WP);
6. Assignment (ASS);
7. Professional Discussion (PD).

(This depends on the Trade Areas to be assessed)

Unit 003: Workplace Health, Safety and Hygiene

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type					Evidence Ref. Page No.			
LO 1: Conduct workplace hazard identification and risk assessment.	1.1	Identify common hazards associated with fish processing facilities.									
	1.2	Conduct workplace inspections to detect potential hazards.									
	1.3	Identify risks associated with production activities and equipment.									
LO 2: Implement occupational health and safety procedures.	2.1	Adhere to workplace health, safety policies and procedures.									
	2.2	Comply with safe operating procedures during fish processing activities.									
	2.3	Monitor workers' adherence to safety requirements.									
	2.4	Enforce the use of personal protective equipment (PPE).									
LO 3: Ensure safe operation of fish processing equipment.	3.1	Verify that equipment is operated in accordance with safety requirements.									
	3.2	Ensure machine guards and safety devices are functional.									
	3.3	Coordinate lockout/tagout procedures during maintenance activities.									
LO 4: Manage emergency preparedness and response.	4.1	Communicate emergency response procedures.									
	4.2	Coordinate emergency drills and evacuation exercises.									
	4.3	Ensure emergency equipment is available and functional.									
	4.4	Respond appropriately to fires, chemical spills, injuries, and equipment failures.									
LO 5: Implement Environmental Protection Measures.	5.1	Explain the environmental impacts of fish processing activities.									
	5.2	Properly handle and dispose of waste materials.									

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
	5.3	Implement measures to control dust, noise, and pollution.								
Learners Signature:			Date:							
Assessors Signature:			Date:							
IQA Signature (if sampled)			Date:							
EQA Signature (if sampled)			Date:							



UNIT 004: FISH PROCESSING TECHNIQUES III

Unit Reference Number:	AGR/FPV/004/L3
NSQ Level:	3
Credit Value:	5
Guided Learning Hours:	50
Practice Time:	220

UNIT PURPOSE:

This unit is designed to equip the learners with knowledge and skills required to apply intermediate fish processing techniques, optimise production processes, minimise product losses, and ensure consistent product quality and safety.

UNIT ASSESSMENT REQUIREMENTS/ EVIDENCE REQUIREMENTS:

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Recognition of Prior Learning and experience (RPL);
3. Witness testimony (WT);
4. Personal statement (PS)/ Reflective Practice (RP);
5. Work Product (WP);
6. Assignment (ASS);
7. Professional Discussion (PD).

(This depends on the Trade Areas to be assessed)

UNIT 004: FISH PROCESSING TECHNIQUES III

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref.	Page No.
LO 1: Carry out planning of fish processing operations.	1.1	Identify production requirements.			
	1.2	Select appropriate processing methods.			
	1.3	Identify raw material requirements.			
	1.4	Prepare production schedules.			
LO 2: Apply fish processing techniques.	2.1	Prepare raw materials for processing according to specifications.			
	2.2	Operate basic processing equipment correctly.			
	2.3	Apply appropriate smoking, drying, salting or cooking methods.			
	2.4	Monitor critical processing parameters.			
LO 3: Control product quality during processing.	3.1	Monitor product quality at critical control points.			
	3.2	Identify processing defects.			
	3.3	Implement corrective actions.			
	3.4	Maintain product consistency.			
	3.5	Record basic quality control results.			
LO 4: Maintain processing equipment.	4.1	Inspect equipment before production.			
	4.2	Perform routine maintenance.			
	4.3	Identify equipment faults.			
	4.4	Report faults requiring specialist repairs.			
	4.5	Keep maintenance records.			
Learner's Signature:			Date:		
Assessor's Signature:			Date:		
IQA Signature (if sampled)			Date:		
EQA Signature (if sampled)			Date:		

UNIT 005: FISH PRODUCT QUALITY ASSURANCE AND FOOD SAFETY

Unit reference number:	AGR/FPV/005/L3
NSQ Level:	3
Credit value:	5
Guided learning hours:	50
Practice Time:	200

UNIT PURPOSE:

This unit is designed to equip the learners with knowledge and skills required to implement Good Hygienic Practices (GHP), food safety systems, maintain quality assurance programmes, and comply with regulatory standards in fish processing operations.

UNIT ASSESSMENT REQUIREMENTS/ EVIDENCE REQUIREMENT:

Assessment must be conducted in a real workplace environment where learning and human development occur.

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Recognition of Prior Learning and experience (RPL);
3. Witness testimony (WT);
4. Personal statement (PS)/ Reflective Practice (RP);
5. Work Product (WP);
6. Assignment (ASS);
7. Professional Discussion (PD).

(This depends on the Trade Areas to be assessed)

Unit 005: Fish Product Quality Assurance and Food Safety

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
LO 1: <i>Implement Good Hygiene Practices (GHP).</i>	1.1	Apply GHP requirements.		
	1.2	Monitor staff hygiene.		
	1.3	Maintain sanitation programmes.		
	1.4	Verify cleaning procedures.		
	1.5	Document GHP activities.		
LO 2: <i>Apply food safety procedures.</i>	2.1	Identify food safety hazards.		
	2.2	Prevent contamination.		
	2.3	Implement corrective actions.		
	2.4	Maintain food safety records.		
LO 3: Conduct product quality inspections.	3.1	Sample products.		
	3.2	Assess product quality.		
	3.3	Identify non-conforming products.		
	3.4	Recommend corrective measures.		
	3.5	Prepare inspection reports.		
LO 4: <i>Ensure regulatory compliance.</i>	4.1	Apply relevant food regulations.		
	4.2	Monitor raw materials traceability.		
	4.3	Maintain compliance documentation.		
	4.4	Prepare products for inspection.		
	4.5	Report compliance deficiencies.		
Learner's Signature:			Date:	
Assessor's Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

UNIT 006: PACKAGING TECHNOLOGY AND PRODUCT SHELF-LIFE MANAGEMENT

Unit reference number: AGR/FPV/006/L3

NSQ Level: 3

Credit value: 5

Guided learning hours: 50

Practice Time: 180

Unit Purpose: This unit is designed to equip the learners with knowledge and skills required to select appropriate packaging systems, extend shelf life, and preserve the quality of processed fish products during storage and distribution.

UNIT ASSESSMENT REQUIREMENTS/ EVIDENCE REQUIREMENTS:

Assessment must be conducted in a real workplace environment where learning and human development occur.

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Personal statement/Learning Journal (PS/LJ);
3. Witness Testimony (WT);
4. Assignment (ASS);
5. Work Products (WP);
6. Recognition of prior learning (RPL);
7. Professional Discussions (PD).

(This depends on the Trade Areas to be assessed)

**UNIT 006 – PACKAGING TECHNOLOGY AND PRODUCT SHELF-LIFE
MANAGEMENT**

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
LO 1: Select packaging systems.	1.1	Assess product characteristics requirements.		
	1.2	Select suitable packaging materials.		
	1.3	Match packaging materials to product storage and distribution requirements		
	1.4	Evaluate packaging costs.		
	1.5	Report packaging quality.		
LO 2: Apply packaging methods.	2.1	Prepare products for packaging.		
	2.2	Operate packaging equipment.		
	2.3	Seal packages correctly.		
	2.4	Verify package integrity.		
	2.5	Minimize packaging waste.		
LO 3: Manage storage and shelf life.	3.1	Monitor storage conditions.		
	3.2	Evaluate product shelf life.		
	3.3	Rotate stock appropriately.		
	3.4	Identify deteriorating products.		
	3.5	Maintain storage records.		
LO 4: Coordinate product distribution.	4.1	Prepare products for dispatch.		
	4.2	Maintain product traceability.		
	4.3	Protect products during transportation.		
	4.4	Verify delivery documentation.		
	4.5	Monitor customer feedback.		
Learner's Signature:			Date:	
Assessor's Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

UNIT 007: PROCESSING SUPERVISION AND ENTERPRISE MANAGEMENT

Unit Reference Number:	AGR/FPV/007/L3
NSQ Level:	3
Credit Value:	5
Guided Learning Hours:	50
Practice Time:	180

UNIT PURPOSE:

This unit equips the learner with the knowledge and skills required to coordinate fish processing production activities, manage resources and support enterprise profitability.

UNIT ASSESSMENT REQUIREMENTS/ EVIDENCE REQUIREMENTS:

Assessment should be carried out in a workplace environment. However, simulation techniques may also be adopted to enhance real-life experiences.

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Recognition of Prior Learning and experience (RPL);
3. Witness testimony (WT);
4. Personal statement (PS)/ Reflective Practice (RP);
5. Work Product (WP) ;
6. Assignment (ASS);
7. Professional Discussions (PD).

(This depends on the Trade Areas to be assessed)

Unit 007: Processing Supervision and Enterprise Management

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref.	Evidence Page No.
LO 1: Coordinate production activities.	1.1	Prepare work schedules.			
	1.2	Allocate tasks.			
	1.3	Monitor work progress.			
	1.4	Resolve routine operational problems.			
	1.5	Evaluate production performance.			
LO 2: Manage production resources.	2.1	Monitor raw material usage.			
	2.2	Control processing costs.			
	2.3	Minimize production waste.			
	2.4	Maintain inventory records.			
	2.5	Recommend resource improvements.			
LO 3: Supervise workplace health and safety.	3.1	Enforce safety procedures.			
	3.2	Monitor PPE usage.			
	3.3	Identify workplace hazards.			
	3.4	Report incidents.			
	3.5	Recommend safety improvements.			
LO 4: Maintain production documentation.	4.1	Prepare production records.			
	4.2	Maintain inventory records.			
	4.3	Record quality control activities.			
	4.4	Prepare production reports.			
	4.5	Store documentation securely.			
Learner's Signature:			Date:		
Assessor's Signature:			Date:		
IQA Signature (if sampled)			Date:		
EQA Signature (if sampled)			Date:		

UNIT 008: INTRODUCTION TO FISH PROCESSING ENTREPRENEURSHIP AND MARKETING**Unit Reference Number:** AGR/FPV/008/L3

NSQ Level: 3
Credit Value: 5
Guided Learning Hours: 50
Practice Time: 160

UNIT PURPOSE:

This unit is designed to equip learner with the knowledge and skills to manage a fish processing enterprise through effective planning, costing, branding, marketing, and customer relationship management.

UNIT ASSESSMENT REQUIREMENTS/ EVIDENCE REQUIREMENTS:

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

ASSESSMENT METHODS to be used include:

1. Direct Observation (DO);
2. Recognition of Prior Learning and experience (RPL);
3. Witness testimony (WT);
4. Personal statement (PS)/ Reflective Practice (RP);
5. Work Product (WP);
6. Assignment (ASS);
7. Professional Discussions (PD).

(This depends on the Trade Areas to be assessed)

Unit 008: Introduction to Fish Processing Entrepreneurship and Marketing

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref.	Page No.
LO 1: Develop a simple business plan.	1.1	Identify business opportunities.			
	1.2	Estimate capital requirements.			
	1.3	Prepare operational plans.			
	1.4	Identify potential marketing risks.			
	1.5	Prepare a simple business plan.			
LO 2: Carry out costing of fish products.	2.1	Estimate production costs.			
	2.2	Determine selling prices.			
	2.3	Estimate profit margins.			
	2.4	Monitor operating expenses			
	2.5	Review product profitability.			
LO 3: Market fish products.	3.1	Identify target customers for fish products			
	3.2	Locate target customers for fish products			
	3.3	Promote products using appropriate marketing channels			
	3.4	Develop product branding.			
	3.5	Maintain customer relationships.			
	3.6	Evaluate marketing performance.			
LO 4: Manage enterprise records.	4.1	Maintain sales records.			
	4.2	Prepare inventory records.			
	4.3	Record business transactions.			
	4.4	Monitor cash flow.			
	4.5	Prepare basic business reports.			
Learner's Signature:			Date:		
Assessor's Signature:			Date:		
IQA Signature (if sampled)			Date:		
EQA Signature (if sampled)			Date:		

LIST OF TOOLS AND EQUIPMENT FOR NSQ/NOS FISH PROCESSING AND VALUE ADDITION

S/N	Tool/Equipment	Minimum Quantity
1.	Stainless steel processing tables	8
2.	Food-grade work benches	6
3.	Stainless steel sinks	10
4.	Hand washing stations	2
5.	Drying shelves	4
6.	Storage cabinets	4
7.	Lockable chemical cabinet	5
8.	Fish racks	10
9.	Fish trays (assorted)	10

FISH HANDLING TOOLS

S/N	Equipment/ Item	Quantity
1.	Assorted Fish Processing knives (stainless)	50
2.	Knife sharpening stone	10
3.	Fish de-scaling tools (assorted)	30
4.	Fish gutting spoons	30
5.	Stainless steel scissors	20
6.	Measuring scale (200kg)	2
7.	Assorted sensitive weighing balance	5
8.	Plastic bowls	20
9.	Plastic buckets (20 liters)	20
10.	Fish trays (assorted sizes)	30
11.	Fish racks	10
12.	Stainless steel fish hooks	20

BASIC PROCESSING EQUIPMENT

S/N	Tool/Equipment	Quantity
1.	Fish washing tanks	4
2.	Plastic fish crates	40
3.	Food-grade plastic trays	40
4.	Stainless bowls	30
5.	Ice boxes	10
6.	Chest freezers	3

7.	Refrigerators	3
8.	Water storage tank	2
9.	Water pump	2

PROCESSING MACHINES

S/N	Tool/Equipment	Minimum Quantity
1.	Improved smoking kiln	2
2.	Mechanical smoking kiln	2
3.	Solar fish dryer	2
4.	Mechanical dryer	2
5.	Fish mincer	2
6.	Fish grinder	2
7.	Fish slicer	2
8.	Fish deboning machine	1
9.	Fish filleting machine	1
10.	Mechanical mixer	2
11.	Blender	2
12.	Cooker/Steam cooker	2
13.	Gas cookers	3

VALUE ADDITION EQUIPMENT

S/N	Tool/Equipment	Minimum Quantity
1.	Mixing bowls	30
2.	Measuring cups	20 sets
3.	Measuring spoons	20 sets
4.	Stainless trays	30
5.	Cooling racks	20
6.	Food moulds	20
7.	Frying pans	10
8.	Cooking pots	10

PACKAGING EQUIPMENT

S/N	Tool/Equipment	Minimum Quantity
1.	Heat sealer	3
2.	Vacuum packaging machine	2
3.	Impulse sealer	2
4.	Shrink wrapping machine	1
5.	Vacuum chamber sealer	1
6.	Manual labelling machine	2

7.	Label printer	1
8.	Barcode printer	1
9.	Batch coding machine	1

QUALITY CONTROL

S/N	Tool/Equipment	Minimum Quantity
1.	Digital weighing scale	5
2.	Analytical balance	1
3.	Moisture meter	2
4.	pH meter	2
5.	Salinity meter	1
6.	Water activity meter	1
7.	Digital thermometer	10
8.	Infrared thermometer	3
9.	Hygrometer	3
10.	Stopwatch	10

FOOD SAFETY

S/N	Tool/Equipment	Minimum Quantity
1.	Incubator	1
2.	Autoclave	1
3.	Laminar flow cabinet	1
4.	Compound microscope	2
5.	Laboratory glassware set	2 sets
6.	Sample refrigerator	1

CLEANING AND SANITATION

- Buckets (10)
- Mops (10)
- Floor brushes (20)
- Hand brushes (20)
- Detergents
- Food-grade sanitizers
- Disinfectants
- Waste bags
- Drain cleaning tools
- Cleaning cloths
- Squeegees



PACKAGING MATERIALS

- Vacuum bags
- Polyethylene bags
- Laminated pouches
- Aluminium foil
- Plastic containers
- Glass jars
- Plastic jars
- Cartons
- Labels
- Adhesive tapes
- Stretch film
- Shrink film
- Batch coding labels

ENTREPRENEURSHIP & MANAGEMENT RESOURCES

- Cash book
- Inventory register
- Production logbooks
- HACCP templates
- SOP manuals
- Quality manuals
- Marketing record books
- Business plan templates
- Costing sheets
- Production scheduling board

TRAINING CONSUMABLES

- Fresh fish (various species)
- Salt
- Charcoal
- Firewood
- LPG
- Cooking oil
- Approved food additives
- Spices and seasonings
- Ice
- Potable water
- Packaging materials
- Cleaning chemicals
- Laboratory reagents
- Labels and stationery

**NATIONAL OCCUPATIONAL STANDARD ZERO DRAFT
WORKSHOP**

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