



NATIONAL BOARD FOR TECHNICAL EDUCATION

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

IN COLLABORATION WITH



NATIONAL OCCUPATIONAL STANDARDS (NOS)

RICE PROCESSING LEVELS 1 AND 5

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

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NATIONAL SKILLS QUALIFICATION (NSQ)



GENERAL INFORMATION

OVERVIEW

This qualification is designed for individuals who are interested in pursuing a career in **rice processing** for the award of National Skills Qualification (NSQ)/ National Occupational Standards (NOS). It is aimed at producing competencies necessary to support **rice processing** at NSQ Level 1. This qualification is subject to review as and when the need arises.

QUALIFICATION PURPOSE

This qualification is designed to produce competent entry level in **rice processing** production assistant with knowledge, skills and attitude required to perform routine rice processing production activities under supervision using basic precision agriculture principles and tools.

QUALIFICATION REQUIREMENTS

All Candidates must be:

- 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

To achieve this qualification, the learner should have the following competencies:

1. Comply with occupational health, safety and environmental requirements in rice processing production.
2. Communicate effectively with supervisors; colleagues, customers and other stakeholders in rice processing production.
3. Work effectively as a member of a team to achieve rice processing production objectives.
4. Understand the fundamentals of rice processing.
5. Use appropriate rice processing tools, machinery and equipment for quality improvement.
6. Parboil Paddy rice to improve quality, targeting employability at rice mills.
7. Apply operational procedures in paddy rice processing.
8. Carry out packaging and storage of paddy and milled rice.
9. Identify rice milling output and the use of rice milling by-product.

NATIONAL SKILLS QUALIFICATION TABLE

Mandatory Units

S/N	Reference Number	NOS Title	Credit Value	Guided Learning Hours	Practice Time	Remark
1	AGR/RCP/001/L1	Safety in Rice Processing Environment	2	20	60	Mandatory
2	AGR/RCP/002/L1	Effective Communication in Rice Processing Environment	2	20	60	Mandatory
3	AGR/RCP/003/L1	Teamwork	2	20	60	Mandatory
4	AGR/RCP/004/L1	Fundamentals of Rice	3	30	90	Mandatory
5	AGR/RCP/005/L1	Basic Rice Processing Tools, Equipment and Machinery	3	30	90	Mandatory
6	AGR/RCP/006/L1	Rice Parboiling and Milling	4	40	120	Mandatory
7	AGR/RCP/007/L1	Packaging and Stacking of Processed Rice	3	30	90	Mandatory
TOTAL			19	190	570	

QUALIFICATION STRUCTURE

This qualification comprises a total of seven (7) Mandatory Units, with a credit value of 19 and 190 Guided Learning Hours (GLH) across the full qualification. One (1) credit is equivalent to ten (10) 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 content of the unit.
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 Nigerian Skills 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: SAFETY IN RICE PROCESSING ENVIRONMENT

Unit Reference Number: AGR/RCP/001/L1

NSQ Level: 1

Credit Value: 2

Guided Learning Hours: 20

Practice Time: 60 hours

Unit Purpose: This unit is designed to equip learners with basic knowledge and skills on the adherence to health and safety precaution and avoidance of environmental hazards associated with rice processing.

Unit assessment requirements/ evidence requirements:

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

Assessment methods to be used may 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: Safety in Rice Processing Environment

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type					Evidence Ref. Page No.			
LO 1: Comply with work safely in rice processing facilities.	1.1	Explain safe work practices along the rice value chain									
	1.2	Identify safety signs and symbols in rice processing facilities									
	1.3	Interpret signs and symbols correctly									
	1.4	Demonstrate safe work practices and instructions in rice processing facilities									
	1.5	Operate in accordance with health and safety practices									
LO 2: Comply with safety standards in rice processing facilities	2.1	Identify work environment hazards									
	2.2	State types of hazards and risks in rice processing facilities									
	2.3	Describe safety standards in rice processing facilities									
	2.4	Store safety tools and materials in rice processing facilities									
LO 3: Apply personal protective equipment (PPE) in rice processing facilities	3.1	Identify the types of PPEs									
	3.2	Select appropriate PPE									
	3.3	Demonstrate the use of PPE									
	3.4	Maintain PPE before and after use									
LO 4: Respond to accidents/injury in rice processing	4.1	Locate first aid facility									
	4.2	Use basic dressing materials									
	4.3	Respond to supervisor given instructions									
	4.4	Report accident/injury to the appropriate supervisor									
LO 5: Maintain safe work habits and clean work environment in rice processing	5.1	Use safe access and exit routes in the work environment									
	5.2	Identify appropriate working tools, materials and equipment									
	5.3	Use tools and equipment safely in accordance with the supervisor's instructions									
	5.4	Store all tools, equipment and unused materials for appropriate storage									
	5.5	Carry out general cleaning of work environment									
	5.6	Dispose of all waste appropriately to designated waste facilities									
LO 6: Comply with standards of lifting, loading/offloading and stacking materials in	6.1	Identify basic equipment for lifting, stacking, loading/offloading									
	6.2	Apply lifting and stacking techniques under supervision									

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type					Evidence Ref. Page No.				
rice processing facilities	6.3	Demonstrate lifting techniques in loading and offloading of materials without mechanical assistance										
	6.4	Demonstrate correct lifting and loading techniques with mechanical assistance										
	6.5	Stack materials correctly										
Learner's Signature:			Date:									
Assessor's Signature:			Date:									
IQAM Signature (if sampled):			Date:									
EQAM Signature (if sampled):			Date:									



UNIT 002: EFFECTIVE COMMUNICATION IN RICE PROCESSING ENVIRONMENT

Unit Reference Number: AGR/RCP/002/L1

NSQ Level: 1

Credit Value: 2

Guided Learning Hours: 20

Practice Time: 60hours

Unit Purpose: This unit is designed to equip learners with basic knowledge and skills in communication techniques in rice milling and trade.

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 may 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: Effective Communication in Rice Processing Environment

LEARNING OUTCOME (LO) The learner will:	PERFORMANCE CRITERIA The learner can:		Evidence Type				Evidence Ref Page Number			
LO 1: Apply a non-complex communication system in the work environment	1.1	Use a verbal communication to convey necessary information.								
	1.2	Use non-verbal means to convey necessary information e.g. body language, signs								
	1.3	Interpret symbols and signs appropriately								
LO 2: Source for information in the work environment	2.1	Identify the sources of information in the work environment								
	2.2	Relate effectively with the source of information								
	2.3	Use the different information flow systems in a work environment								
	2.4	Use information gathered to avoid challenges in a work situation								
	2.5	Report findings appropriately in accordance with laid down procedures in the work environment i.e. Cards, Flip Chart								
	2.6	Use simple communication gadgets like mobile phones and intercom/walkie talkie								
LO 3: Apply various means of communication equipment in the environment	3.1	Locate various communication equipment in the work environment								
	3.2	Use effectively the various communication equipment in a work environment								
	3.3	Pass information effectively to the right Personnel								
	3.4	Obey instructions in line with ethics of the work environment								
Learners Signature:			Date:							
Assessors Signature:			Date:							
IQA Signature (if sampled)			Date:							

EQA Signature (If sampled)

Date:



UNIT 003: TEAMWORK

UNIT REFERENCE NUMBER: AGR/RCP/003/L1

NSQ Level:	1
Credit Value:	2
Guided Learning Hours:	20
Practice Time:	60 hours

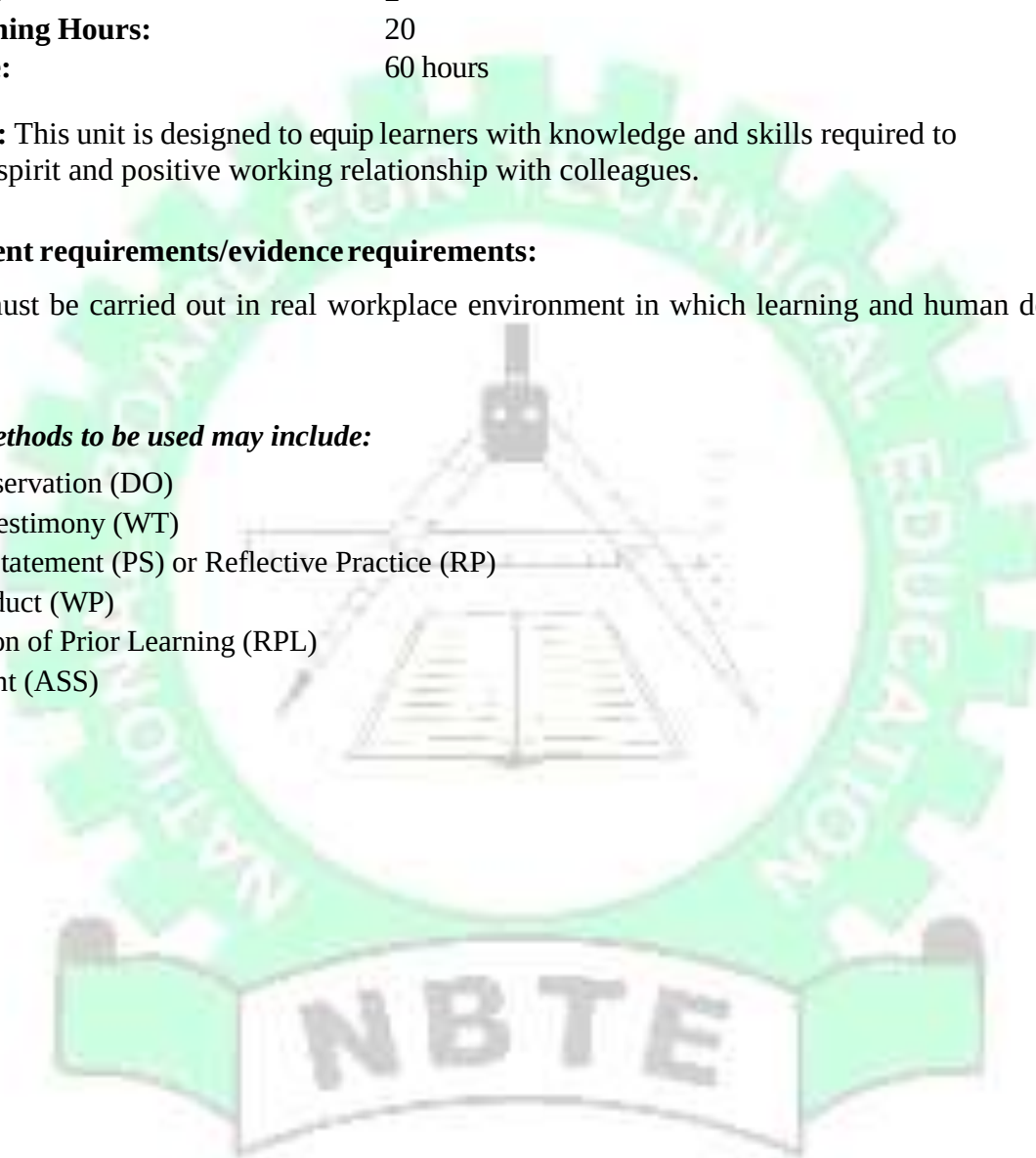
Unit Purpose: This unit is designed to equip learners with knowledge and skills required to develop team spirit and positive working relationship with colleagues.

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 may 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: Teamwork

LEARNING OUTCOME (LO) The learner will:	PERFORMANCE CRITERIA The learner can:		Evidence Type					Evidence Ref Page Number			
LO 1: Maintain good working relationship with colleagues	1.1	Identify the needs for developing a positive working relationship with colleagues									
	1.2	Identify the importance of relating with other people in a way that makes them feel valued and respected									
	1.3	Assist team members when required									
	1.4	Communicate information to colleagues about individual work that may affect team work									
LO 2: Take responsibility within the team	2.1	State own roles and responsibilities within a team.									
	2.2	Perform tasks in line with the team rules and regulations.									
	2.3	Participate actively in a team.									
LO 3: Comply with the rules of organization	3.1	Explain code of conduct in work environment									
	3.2	Use organizational code of practice									
	3.3	Work in line with organizational standards.									
Learners Signature:			Date:								
Assessors Signature:			Date:								
IQA Signature (if sampled)			Date:								
EQA Signature (if sampled)			Date:								

UNIT 004: FUNDAMENTALS OF RICE PROCESSING

Unit Reference Number: AGR/RCP/004/L1

NSQ Level: 1

Credit Value: 3

Guided Learning Hours: 30

Practice Time: 90 Hours

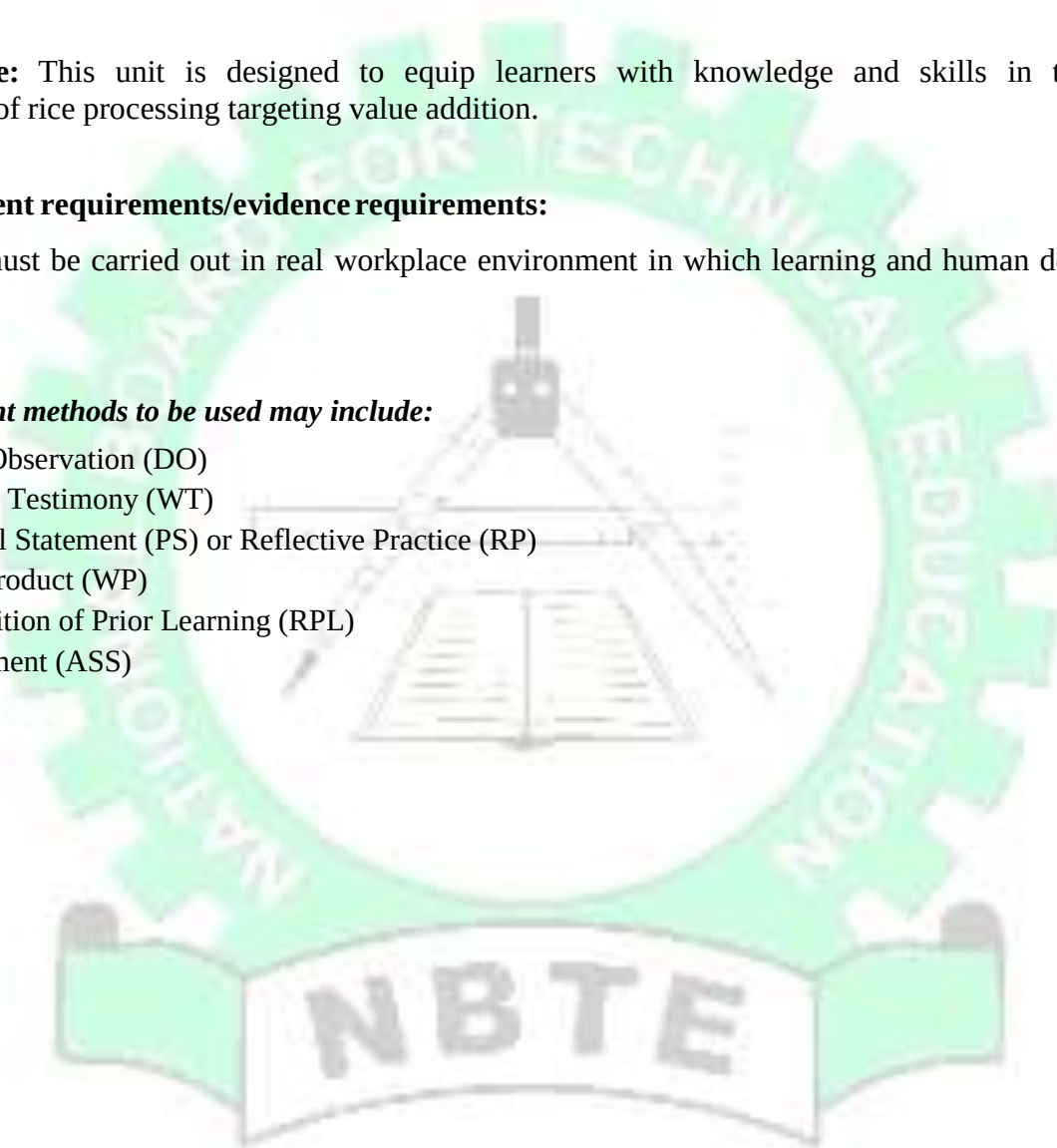
Unit Purpose: This unit is designed to equip learners with knowledge and skills in the fundamentals of rice processing targeting value addition.

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 may 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: Fundamentals of Rice Processing

LEARNING		PERFORMANCE CRITERIA	Evidence				Evidence			
LO 1: Explain value chain principles in rice processing	1.1	Explain value chain								
	1.2	Identify the stages in rice processing value chain								
	1.3	Identify the key players in rice processing value chain								
	1.4	Identify the steps involved in rice milling (processing paddy into edible)								
	1.5	Identify the roles of the key players in								
	1.6	List the relationship between key								
LO 2: <i>Identify major rice varieties</i>	2.1	List common varieties of Paddy rice								
	2.2	Identify rice according to grain size, colour and shape								
	2.3	State the characteristics of long and								
	2.4	Identify suitable rice variety for a specific process								
LO 3: Carry out rice winnowing operation	3.1	Explain Winnowing operation								
	3.2	List the methods of winnowing paddy								
	3.3	Demonstrate the procedure for manual method of winnowing.								
	3.4	Demonstrate the procedure for semi-								
	3.5	Carry out winnowing of paddy rice								
	3.6	Carry out winnowing of paddy rice								
	3.7	List the advantages and disadvantages								
LO 4: <i>Describe drying of paddy Rice</i>	4.1	Describe paddy rice drying								
	4.2	Identify the importance of paddy rice drying								
	4.3	Identify drying facilities								
	4.4	List the methods of drying paddy Rice								
	4.5	Carry out drying process of paddy rice								
	4.6	Test paddy dryness using different								
LO 5: <i>Identify post-harvest losses and control</i>	5.1	Explain post-harvest loss and control								
	5.2	Identify the possible areas of post-								
	5.3	State methods of controlling post-								
	5.4	Demonstrate the methods of controlling								
	5.5	Identify proper means for minimizing								
Leaners Signature:			Date:							
Assessors Signature:			Date:							
IQA Signature (if sampled)			Date:							
EQA Signature (if sample)			Date:							

UNIT 005: BASIC RICE PROCESSING TOOLS, EQUIPMENT AND MACHINERY

Unit Reference Number: AGR/RCP/005/L1

NSQ Level: 1
Credit Value: 4
Guided Learning Hours: 40
Practice Time: 120 Hours

Unit Purpose: This unit is designed to equip learners with knowledge and skills to identify rice processing tools, equipment, machinery and their usage in rice processing.

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 may 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: Basic Rice Processing Tools, Equipment and Machinery

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type						Evidence Ref. Page No.
LO 1: Identify rice processing machines	1.1	Explain rice processing machines							
	1.2	Identify rice processing machines and Equipment							
	1.3	Describe the operation of rice winnowing machines and equipment							
	1.4	Describe the operation of Rice milling machines							
	1.5	Describe the operation of Rice de-stoning machines							
LO 2: Demonstrate handling of rice processing tools	2.1	List rice processing handling tools							
	2.2	Identify handling tools used in rice processing							
	2.3	Demonstrate the use of handling tools in rice processing							
	2.4	Identify handling tools used in rice pre-cleaning.							
	2.5	Identify handling tools used in rice winnowing							
LO 3: Rice milling machines	3.1	Explain rice milling processes							
	3.2	Identify basic rice milling machine							
	3.3	Describe the operation of basic rice milling machine							
	3.4	Demonstrate rice milling							
LO 4: Operate rice de-husking machines	4.1	Describe rice de-husking processes							
	4.2	Identify basic rice de-husking machines							
	4.3	Explain the operation of basic rice de-husking machines							
	4.4	Demonstrate rice de- husking							
LO 5: Operate rice de-stoning machines	5.1	Explain rice de-stoning processes							
	5.2	Identify basic rice de-stoning machines							
	5.3	Explain the operation of basic rice de-stoning machines							

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type						Evidence Ref. Page No.				
	5.4	Demonstrate rice de-stoning											
LO 6: Operate rice polishing machines	6.1	Explain rice polishing processes											
	6.2	Identify basic Rice polishing machinery											
	6.3	Describe the operation of basic rice polishing machine											
	6.4	Demonstrate Rice polishing											
	6.5	Describe the general maintenance operations of rice processing machines											
Learner's Signature:			Date:										
Assessor's Signature:			Date:										
IQA Signature (if sampled):			Date:										
EQA Signature (if sampled):			Date:										



UNIT 006: RICE PARBOILING AND MILLING

Unit Reference Number: AGR/RCP/006/L1

NSQ Level: 1

Credit Value: 4

Guided Learning Hours:
40

Practice Time: 120 Hour

Unit Purpose: This unit is designed to equip learners with knowledge and skills related to Rice parboiling and milling processes to enhance rice quality.

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 may 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 006: Rice Parboiling and Milling

LEARNING OUTCOME (LO) The learner will:	PERFORMANCE CRITERIA The learner can:		Evidence Type					Evidence Ref. Page No.			
LO 1: Carry out paddy Rice Pre-cleaning operations	1.1	Explain pre-cleaning operation									
	1.2	Remove impurities from paddy rice									
	1.3	Wash paddy Rice									
	1.4	Drain water from paddy Rice									
LO 2: Identify white (non-parboiled) rice operation	2.1	Describe the process of white (non-parboiled) rice									
	2.2	Describe processes chart for white (non-parboiled) rice									
	2.3	Identify the stages of white (non-parboiled) rice processing									
LO 3: Methods of soaking paddy Rice	3.1	Describe methods of soaking paddy rice									
	3.2	Identify temperature range for soaking									
	3.3	Identify time range for soaking									
	3.4	Explain time/temperature relationship in soaking									
LO 4: Carry out Rice parboiling operation	4.1	Describe rice parboiling operation									
	4.2	Identify parboiling equipment									
	4.3	Demonstrate the manual methods of parboiling paddy rice									
	4.4	Describe the use of parboiling equipment									
	4.5	Carry out parboiling of paddy Rice using manual methods									
LO 5: Carry out rice milling	5.1	Explain rice milling processes									

Processes												
	5.2	Identify rice milling equipment										
	5.3	Describe the manual methods of paddy rice milling										
	5.4	Explain the modern methods of paddy Rice milling										
	5.5	Describe the use of Rice milling equipment										
Learners Signature:		Date:										
Assessors Signature:		Date:										
IQA Signature (if sampled)		Date:										
EQA Signature (if sampled)		Date:										



UNIT 007: PACKAGING AND STACKING OF PROCESSED RICE

Unit reference number: AGR/RCP/007/L1

NSQ level: 1

Credit value: 4

Guided learning hours: 40

Practice Time: 120 hours

Unit Purpose:

This unit is designed to equip learners with knowledge and skills of filling, labelling and stacking processed Rice bags properly for storage or transport.

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 may 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: Packaging and Stacking of Processed Rice

LEARNING OUTCOME (LO) The learner will:	PERFORMANCE CRITERIA The learner can:		Evidence Type				Evidence Ref Page number			
LO 1: Carry out packaging operations	1.1	Explain packaging operation								
	1.2	Identify types of packaging materials								
	1.3	Describe the procedure of cleaning/fumigating packaging area, tools, and surfaces								
	1.4	Demonstrate how to place sacks/bags for filling								
LO 2: Carry out measuring and filling operations	2.1	Explain measurement and filling of processed rice								
	2.2	Describe the manual filling methods								
	2.3	Identify measuring tools used in filling operations								
	2.4	Identify package size								
	2.5	Demonstrate the filling of bags or containers to the required weight or level								
	2.6	Explain overfilling or underfilling								
	2.7	Identify the effects of overfilling								
	2.8	Identify the effects of underfilling								
LO 3: Identify Seal and Label packages	3.1	Describe the process of sealing and labelling of packages								
	3.2	List the tools used for sealing processed rice packaging materials								
	3.3	State the advantages of bag sealing in processed rice								
	3.4	Identify the importance of labelling in processed rice								
	3.5	Explain the following in packaging of processed rice: • Production date • Best-before date • Batch number								
LO 4: Carry out stacking of processed rice	4.1	Explain stacking								
	4.2	Explain the importance of spacing in storage								
	4.3	Identify types of pallets								

	4.4	Explain the importance of palleting in storage								
	4.5	Demonstrate the stacking of bags in rows with balanced weight and stable alignment								
Learners Signature:			Date:							
Assessors Signature:			Date:							
IQA Signature (if sampled)			Date:							
EQA Signature (if sampled)			Date:							



NATIONAL SKILLS QUALIFICATION (NSQ)



RICE PROCESSING

LEVEL 5

JUNE, 2026

GENERAL INFORMATION

OVERVIEW

This qualification is designed for individuals who are interested in pursuing a career in **Rice processing** for the award of National Skills Qualifications (NSQ)/ National Occupational Standard (NOS). It is aimed at producing competencies necessary to supervise, coordinate and plan **Rice processing** at NSQ level 5.

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

1. QUALIFICATION PURPOSE

This qualification is designed to produce competence in **Rice processing** practice senior foreman with knowledge, skills and attitude required to supervise, coordinate and evaluate rice processing activities using modern rice processing techniques, precision agriculture principles, appropriate tools and equipment.

2. QUALIFICATION REQUIREMENTS

All candidates must:

Have completed the NSQ Level 4 qualification in Rice Processing, or its equivalent

Be at least twenty (20) years of age

- Be medically fit
- Be physically fit
- Be mentally fit (mental alertness)
- Be a Nigerian citizen
- Other nationals should present international passport, residence permit or parent work permit.
- Be vetted

3. QUALIFICATION OBJECTIVES

To achieve this qualification, the learner should be able to:

1. Implement advanced health, safety, and environmental management practices to ensure safe and compliant operations in rice processing facilities.
2. Apply effective communication
3. Apply leadership skills to coordinate activities, manage information flow, and supervise teams in rice processing environments.
4. Utilize innovative rice processing technologies, modern equipment, automation systems, machinery maintenance to improve productivity and operational performance.
5. Maintain quality assurance and quality control systems to ensure rice products meet industry, regulatory, and customer requirements.
6. Develop value-added rice products to enhance market competitiveness and meet consumer demands.
7. Optimize rice processing operations through efficient resource utilization, waste reduction, process improvement, and continuous performance monitoring.
8. Manage storage, packaging, transportation, and logistics activities to preserve product quality and ensure efficient distribution.
9. Plan, coordinate, and manage rice processing production and projects by effectively allocating resources, monitoring performance, and achieving organizational objectives.

**National Skills Qualification/National Occupational Standard
(NSQ/NOS) Unit Table Mandatory Units**

S/N	Unit Reference Number	Unit Title	Credit Value	Guided Learning Hours	Practice Time	Remark
1	AGR/RCP/001/L5	Safety Management in Rice Processing Environment	3	30	90	Mandatory
2	AGR/RCP/002/L5	Effective Communication in Rice Processing	3	30	90	Mandatory
3	AGR/RCP/003/L5	Team Supervision in Rice Processing Facilities	3	30	90	Mandatory
4	AGR/RCP/004/L5	Innovative Rice Processing Technologies	8	80	240	Mandatory
5	AGR/RCP/005/L5	Quality Assurance and Control in Rice Processing	8	80	240	Mandatory
6	AGR/RCP/006/L5	Value Addition and Product Development	8	80	240	Mandatory
7	AGR/RCP/007/L5	Process Optimization and Efficiency	8	80	240	Mandatory
8	AGR/RCP/008/L5	Storage, Packaging and Logistics Management	8	80	240	Mandatory
9	AGR/RCP/009/L5	Operational Planning and Project Management	8	80	240	Mandatory
TOTAL			57	570	1710	

4. QUALIFICATION STRUCTURE

This qualification comprises a total of nine (9) Mandatory Units, with a credit value of 57 and 570 Guided Learning Hours (GLH) across the full qualification. One (1) credit is equivalent to ten (10) 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 content of the unit.
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: SAFETY MANAGEMENT IN RICE PROCESSING ENVIRONMENT

Unit Reference Number: AGR/RCP/001/L5

NSQ Level: 5

Credit Value: 3

Practice Time: 90 hours

Unit Purpose: This unit is designed to equip the learners with knowledge and skills required to strategically manage rice processing practice, ensure profitability, compliance and innovation.

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 may 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 001: Safety Management in Rice Processing Environment

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref.	Page No.
LO 1: Manage workplace safety systems	1.1	Assess workplace hazard			
	1.2	Implement safety procedures			
	1.3	Monitor safety compliance			
	1.4	Evaluate safety performance			
	1.5	Review safety records			
LO 2: Coordinate emergency system	2.1	Identify emergency threats in routine operation			
	2.2	Assess emergency preparedness			
	2.3	Implement emergency procedures			
	2.4	Coordinate emergency response			
	2.5	Evaluate emergency effectiveness			
	2.6	Improve emergency systems			
LO 3: Evaluate environmental compliance	3.1	Assess environmental risks			
	3.2	Implement environmental controls			
	3.3	Monitor waste systems			
	3.4	Evaluate compliance			
	3.5	Improve environmental performance			
Learner's Signature:			Date:		
Assessor's Signature:			Date:		
IQA Signature (if sampled):			Date:		
EQA Signature (if sampled):			Date:		

UNIT 002: EFFECTIVE COMMUNICATION IN RICE PROCESSING

Unit Reference Number: AGR/RCP/002/L5

NSQ Level: 5

Credit Value: 3

Guided Learning Hours: 30

Practice Time: 90hours

Unit Purpose: This unit is designed to equip the learners with knowledge and skills required for advanced communication management skills and its dynamics within the context of rice processing practice.

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 may 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: EFFECTIVE COMMUNICATION IN RICE PROCESSING

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
LO 1: Develop advanced communication skills	1.1	Communicate ideas, instructions and information clearly and consistently		
	1.2	Use appropriate language and terminology suitable in rice processing.		
	1.3	Demonstrate effective listening skills		
	1.4	Provide relevant feedback.		
	1.5	Structure information logically		
	1.6	Deliver presentations confidently.		
	1.7	Use visual aids and technology effectively to enhance understanding.		
	1.8	Organize accurate records of communication		
	1.9	Maintain accurate records of communication		
LO 2: Manage reporting system	2.1	Design reporting structures		
	2.2	Use reporting tools		
	2.3	Carryout accurate reports		
	2.4	Evaluate reporting effectiveness		
LO 3: Develop workplace documentation	3.1	Supervise documentation system		
	3.2	Scrutinize record accuracy		
	3.3	Monitor document control system		
	3.4	Evaluate documentation efficiency		
	3.5	Improve information management system		
Learner's Signature:			Date:	
Assessor's Signature:			Date:	
IQA Signature (if sampled):			Date:	
EQA Signature (if sampled):			Date:	

UNIT 003: TEAM SUPERVISION IN RICE PROCESSING FACILITIES

Unit Reference Number: AGR/RCP/003/L5

NSQ Level: 5

Credit Value: 3

Guided Learning Hours: 30

Practice Time: 90 hours

Unit Purpose: This unit is designed to equip learners with knowledge and skills required to identify workplace hazards, assess risk and implement control measures during rice processing activities.

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 may 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 003: Team Supervision in Rice Processing Facilities

LEARNING		PERFORMANCE	Evidence					Evidence				
LO 1: Evaluate team performance	1.1	Allocate task										
	1.2	Evaluate performance										
	1.3	Monitor productivity										
	1.4	Provide feedback										
	1.5	Implement improvements										
LO 2: Manage workplace discipline	2.1	Enforce rules										
	2.2	Resolve conflicts										
	2.3	Maintain discipline										
	2.4	Evaluate behaviour										
	2.5	Improve workplace culture										
LO 3: Implement workforce development	3.1	Identify training needs										
	3.2	Implement coaching										
	3.3	Monitor improvement										
	3.4	Evaluate learning outcomes										
	3.5	Develop workforce capability										
LO 4: Demonstrate capability in addressing rice processing challenges	4.1	Assess the nature and scope of										
	4.2	Gather relevant information and										
	4.3	Carry out timely and well-										
	4.4	Demonstrate flexibility in										
	4.5	Monitor the outcomes of decisions and actions taken										
	4.6	Apply feedback to improve future problem-solving approaches										
LO 5: Facilitate team work across different department or units	5.1	Clearly share information, updates, and expectations with team members from different										
	5.2	Promote open and respective dialogue among diverse team										
	5.3	Encourage sharing of ideas, resources and expertise across										
	5.4	Establish a sense of collective responsibility towards common										
	5.5	Monitor interdepartmental activities to prevent delays or										
	5.6	Facilitate joint problem-solving sessions to address processing										
	5.7	Promote continuous improvement in team work practices.										
Learner's Signature:			Date:									
Assessor's Signature:			Date:									
IQAM Signature (if sampled):			Date:									
EQAM Signature (if sampled):			Date:									

UNIT 004: INNOVATIVE RICE PROCESSING TECHNOLOGIES

Unit Reference Number:	AGR/RCP/004/L5
NSQ Level:	5
Credit Value:	8
Guided Learning Hours:	80
Practice Time:	240 hours

Unit Purpose: This unit is designed to equip learners with knowledge and skills required to evaluate, operate, and manage innovative rice processing technologies and advanced processing equipment.

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 may 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 004: Innovative Rice Processing Technologies

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
LO 1: Explain the principles of emerging rice processing technologies	1.1	Explain the principles of emerging rice processing technologies.								
	1.2	Describe innovative technologies used in modern rice processing operations								
	1.3	Analyse the functions of emerging rice processing technologies.								
	1.4	Compare conventional and innovative rice processing technologies.								
	1.5	Evaluate the relevance of emerging technologies to rice processing operations.								
LO 2: Describe modern innovation that improve rice processing operation	2.1	Assess the application of automation technologies in rice processing.								
	2.2	Evaluate the role of digital monitoring systems in rice processing operations.								
	2.3	Recognize the contribution of innovative technologies to enhance processing efficiency and product quality.								
LO 3: Evaluate the benefits of implementing innovative rice processing technologies	3.1	Assess the impact of innovative technologies on productivity.								
	3.2	Evaluate improvements in rice quality resulting from innovative technologies.								
	3.3	Analyse the effects of innovative technologies on operational efficiency.								
	3.4	Justify the adoption of innovative technologies in rice processing facilities.								
LO 4: Outline implementing innovative rice processing technologies	4.1	Identify challenges associated with technology adoption in rice processing.								
	4.2	Outline resource requirements for implementing innovative technologies.								

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type						Evidence Ref. Page No.				
	4.3	Evaluate workforce competency requirements for technology adoption.											
	4.4	Recognize operational constraints affecting technology implementation.											
	4.5	Propose strategies for addressing implementation challenges.											
	4.6	Review measures used to improve technology adoption and sustainability.											
LO 5: Operate advanced rice processing equipment	5.1	Inspect advanced rice processing equipment before operation.											
	5.2	Interpret the process equipment manual											
	5.3	Carry out the installation of small-scale rice processing facility and replacement of parts											
	5.4	Carry out operation of advanced rice processing equipment according to manufacturer specifications.											
	5.5	Monitor equipment performance during operation.											
	5.6	Carry out routine maintenance of machinery/ rice plant											
	5.7	Troubleshoot common operational faults in advanced rice processing equipment.											
	5.8	Implement corrective actions to maintain optimal equipment performance.											
LO 6: Explain the environmental and economic implications of adopting innovative rice processing methods	6.1	Explain the environmental impact of innovative rice processing methods.											
	6.2	Evaluate energy utilisation associated with innovative technologies.											
	6.3	Recognise waste reduction opportunities arising from technology adoption.											
	6.4	Explain the economic benefits of innovative rice processing methods.											

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type						Evidence Ref. Page No.
	6.5	Evaluate cost-effectiveness of technology implementation in rice processing facilities.							
	6.6	Recommend sustainable innovative technologies for rice processing operations.							
Learner's Signature			Date:						
Assessor's Signature			Date:						
IQAM Signature (if sampled):			Date:						
EQAM Signature (if sampled):			Date:						



UNIT 005: QUALITY ASSURANCE AND CONTROL IN RICE PROCESSING

Unit Reference Number: AGR/RCP/005/L5

NSQ Level: 5

Credit Value: 8

Guided Learning Hours: 80

Practice Time: 240

Unit Purpose: This unit is designed to equip learners with knowledge, skills required to establish, implement, monitor and improve quality assurance and quality control systems throughout the rice processing value chain.

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 may 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 005: Quality Assurance and Control in Rice Processing

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
LO 1: Explain the principle of quality assurance and Quality control in rice processing	1.1	Interpret Quality Assurance (QA)								
	1.2	Interpret Quality Control (QC)								
	1.3	Differentiate between QA and QC activities								
	1.4	List the importance of quality management in rice processing								
	1.5	Describe National and International rice quality standard								
	1.6	Determine factors affecting rice quality during processing								
LO 2: Evaluate paddy rice quality before processing	2.1	Inspect incoming paddy for quality compliance								
	2.2	Determine moisture content of paddy rice								
	2.3	Determine foreign materials and contaminants								
	2.4	Classify paddy according to quality specifications								
LO 3: Maintain Quality during rice processing	3.1	Monitor pre-cleaning operations								
	3.2	Monitor parboiling operations								
	3.3	Monitor drying processes								
	3.4	Monitor de-husking efficiency								
	3.5	Monitor milling and polishing operations								
	3.6	Keep process quality parameters records								
LO 4: Conduct quality test on milled rice	4.1	Collect rice samples								
	4.2	Conduct physical quality test								
	4.3	Determine moisture content								
	4.4	Evaluate grain quality characteristics								
	4.5	Conduct laboratory test on milled rice								
	4.6	Interpret laboratory test result								
LO 5: Grade rice according to standard	5.1	Identify rice grades								
	5.2	Classify rice according to quality attributes								
	5.3	Determine milling quality indicators								
	5.4	Apply grading standard								
LO 6: Implement	6.1	Select appropriate packaging								

Evaluate quality management systems	7.3	Monitor effectiveness of interventions								
	8.1	Review quality performance indicators								
	8.2	Analyze quality records								
	8.3	Conduct internal quality audits								
	8.4	Recommend process improvements								
8.5	Prepare quality improvement reports									
Instructor's Signature										Date:
Supervisor's Signature										Date:
Learner's Signature (if sampled)										Date:
Assessor's Signature (if sampled)										Date:

UNIT 006: VALUE ADDITION AND PRODUCT DEVELOPMENT

Unit Reference Number: AGR/RCP/006/L5

NSQ Level: 5

Credit Value: 8

Guided Learning Hours: 80

Practice Time: 240

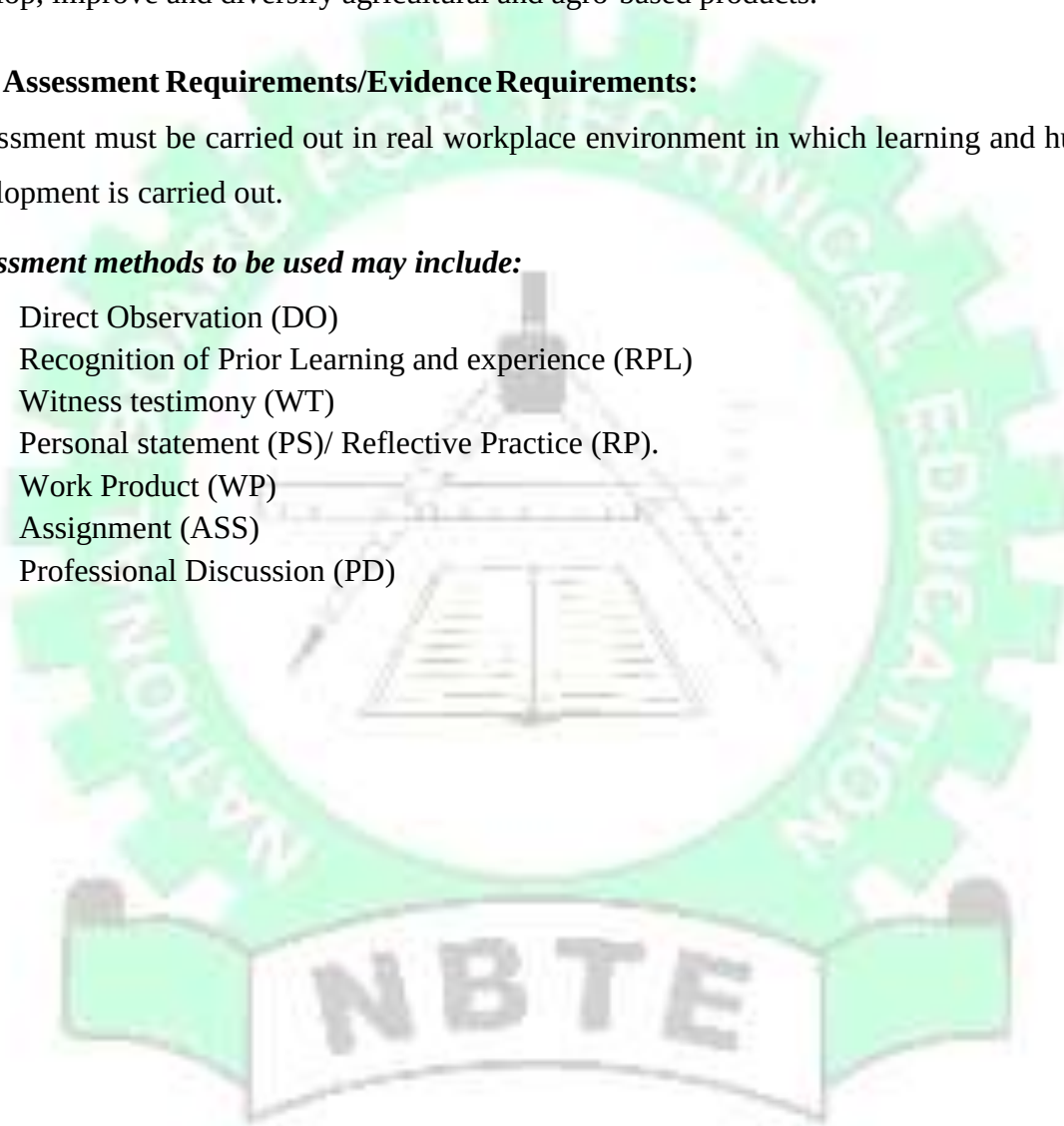
Unit Purpose: This unit is designed to equip learners with knowledge, skills required to develop, improve and diversify agricultural and agro-based products.

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 may 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 006: Value Addition and Product Development

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
LO 1: Apply product development and diversification in rice value chain	1.1	Explain the concept, principles, and objectives of product development within rice value chain								
	1.2	Identify the importance of product development								
	1.3	Distinguish between primary rice products, value-added rice products, and rice by-products.								
	1.4	Describe potential opportunities for product development and diversification from rice and its by-products.								
	1.5	Evaluate the economic, social and environmental benefits of product development and diversification.								
LO 2: Identify various rice-based products and by-products	2.1	Classify rice processing outputs.								
	2.2	Describe the various products and by products that can be developed.								
	2.3	Match specific rice raw materials (paddy rice, milled rice, bran, husk, and broken rice) with their appropriate value-added products.								
	2.4	Distinguish between food, feed, and energy products derived from rice and its by-products								
LO 3: Develop appropriate rice processing techniques	3.1	Prepare suitable paddy rice for processing.								
	3.2	Operate rice processing equipment correctly and safely.								
	3.3	Apply recommended processing parameters and techniques.								
	3.4	Evaluate the quality of processed rice products.								
	3.5	Maintain the quality of processed rice products.								
	4.1	Select suitable paddy rice								

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
LO 4: Carry out value - added rice products		varieties for the production of different value-added rice products.								
	4.2	Carry out processing procedures; cleaning, soaking, drying, milling, blending operations, required for product development.								
	4.3	Apply standard processing techniques in the production of; rice flour, rice snacks, breakfast cereals, etc., in accordance with established procedures.								
	4.4	Utilize appropriate equipment, tools, and ingredients during product formulation and processing.								
	4.5	Assess the quality of developed rice products using relevant criteria e.g. texture, taste, appearance, nutritional value, shelf-life, and consumer acceptability.								
	4.6	Carryout packaging, labeling and storage of value-added rice products.								
LO 5: Implement quality control, food safety, and hygiene standards.	5.1	Inspect the quality of raw materials and ingredients.								
	5.2	Implement Good Manufacturing Practices (GMP) and Good Hygiene Practices (GHP).								
	5.3	Carry out maintenance of critical processing facilities, equipment, tools, and storage areas in accordance with food standard requirements.								
	5.4	Monitor critical processing parameters such as moisture content, temperature, processing time, and packaging condition.								
	5.5	Guide to prevent source of contamination of rice products								

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type						Evidence Ref. Page No.				
	5.6	Conduct quality assessment and maintain accurate records of processing operations, inspections, corrective actions, and product traceability.											
LO 6: Develop suitable packaging, labeling, and branding strategies.	6.1	Select innovative packaging materials.											
	6.2	Promote packaging that protects product quality and safety.											
	6.3	Develop product labels that comply with regulatory requirements.											
	6.4	Create distinctive branding elements e.g. name, logo, color, and address.											
	6.5	Incorporate consumer preferences and market trend into branding.											
	6.6	Evaluate the effectiveness of packaging, labeling, and branding strategies.											
LO 7: Compile market assessments and feasibility studies	7.1	Collect market information on consumer preferences, demand trends, competitors, and distribution channels.											
	7.2	Evaluate potential market opportunities for rice-based products.											
	7.3	Carry out technical and financial feasibility analysis.											
Learner's Signature			Date:										
Assessor's Signature			Date:										
IQAM Signature (if sampled)			Date:										
EQAM Signature (if sampled)			Date:										

UNIT 007: PROCESS OPTIMIZATION AND EFFICIENCY

Unit Reference Number: AGR/RCP/007/L5

NSQ Level: 5

Credit Value: 8

Guided Learning Hours: 80

Practice Time: 240 hours

Unit Purpose: This unit is designed to equip learners with knowledge and skills required in rice processing cycles through operational precisions and quality control in order to achieve a favorable cost inputs and competitive outputs.

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 may 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 007: Process Optimization and Efficiency

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
LO 1: Explain the importance of optimization on productivity	1.1	Explain optimization efficiency on rice processing								
	1.2	Highlight the principles of optimization								
	1.3	Carry out performance record for gap analysis								
	1.4	Develop various operational variables affecting optimization								
	1.5	Link all operational processes for optimal least cost analysis								
	1.6	Set a realistic target								
LO 2: Apply quality control procedures	2.1	Carry out an established operational procedure in processing								
	2.2	Conduct process identification tag for traceability in every stage								
	2.3	Identify challenges affecting processing standard								
	2.4	Apply strict identification of staff for operational catalogue and efficient work flow								
	2.5	Interpret operational guideline and production data sheet								
	2.6	Identify genuine inputs								
	2.7	Establish protocol for control of expired inputs								
LO 3: Apply innovative processes and technology	3.1	Describe operational efficiency and limitation of existing tools and machines								
	3.2	Identify the tools and machines required to improve operational efficiency								
	3.3	Identify trouble shooting challenges								
	3.4	Recommend preemptive interventions								
	3.5	Create an innovative value addition for marketing efficiency								
	3.6	List major causes of labour fatigue								
	3.7	List the Importance of smart technology to monitor								

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		operation to determine fatigue and recommend measures									
	6.9	Recommend specific training to address gaps in rice processing									
Learner's Signature			Date:								
Assessor's Signature			Date:								
IQAM Signature (if sampled)			Date:								
EQAM Signature (if sampled)			Date:								



UNIT 008: STORAGE, PACKAGING AND LOGISTICS MANAGEMENT

Unit Reference Number: AGR/RCP/008/L5

NSQ Level: 5

Credit Value: 8

Guided Learning Hours: 80

Practice Time: 240

Unit Purpose: This unit is designed to equip learners with knowledge and skills required to store, package and move milled rice safely from the mill to the market while maintaining quality.

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 may 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 008: Storage, Packaging and Logistics Management

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
LO 1: Select appropriate storage systems	1.1	Assess rice characteristics		
	1.2	Identify storage requirements		
	1.3	Check facility condition		
	1.4	Apply food safety standards		
LO 2: Implement inventory control models	2.1	Classify Inventory		
	2.2	Record Stock Movement		
	2.3	Conduct Physical Stock Count		
	2.4	Keep Inventory Reports		
LO 3: Assess environmental control factors	3.1	Measure temperature		
	3.2	Monitor relative humidity		
	3.3	Check rice moisture content		
	3.4	Assess ventilation		
	3.5	Monitor pest activity		
LO 4: Explain the functions of primary, secondary and tertiary packaging	4.1	Describe package levels		
	4.2	Describe the functions of primary packages		
	4.3	Identify the functions of secondary packages		
	4.4	Identify the functions of tertiary packages		
LO 5: Select appropriate packaging materials	5.1	Analyze product requirements		
	5.2	Identify market requirements		
	5.3	Check regulatory compliance		
	5.4	Consider sealing method		
LO 6: Evaluate packaging design	6.1	Assess protective function		
	6.2	Check sealing integrity		
	6.3	Assess print quality and branding		
	6.4	Evaluate stacking		
LO 7: Optimize transport and distribution routes	7.1	Analyze demand points		
	7.2	Collect route data		
	7.3	Calculate transport costs		
	7.4	Apply route optimization		
	7.5	Assess risk factors		
LO 8: Evaluate different modes of transportation	8.1	Select mode based on rice moisture content		
	8.2	Compare costs		
	8.3	Assess transit time and shelf-life impact		
	8.4	Analyze flexibility		
LO 9: Apply risk management	9.1	Identify risks		
	9.2	Develop control measures		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref.	Page No.
strategies	9.3	Implement controls			
	9.4	Monitor controls			
	9.5	Respond to incidents			
Learner's Signature			Date:		
Assessor's Signature			Date:		
IQAM Signature (if sampled)			Date:		
EQAM Signature (if sampled)			Date:		



UNIT 009: OPERATIONAL PLANNING AND PROJECT MANAGEMENT

Unit Reference Number: AGR/RCP/009/L5

NSQ Level: 5

Credit Value: 8

Guided Learning Hours: 80

Practice Time: 240

Unit Purpose: This unit is designed to equip learners with the knowledge and skills required to strategically plan asset protection system and effectively manage projects.

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 may 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 009: Operational Planning and Project Management

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref.	Page No.
LO 1: Explain the principles and techniques of planning and operations	1.1	Explain principles and techniques of operational planning.			
	1.2	Review factors affecting rice production and processing schedules.			
	1.3	Select suitable site for installing rice processing facility			
	1.4	Describe the manufacturers specification for installation of rice processing machinery/plant			
	1.5	Supervise the installation of the rice processing machinery/plant			
	1.6	Estimate production needs and timelines.			
	1.7	Analyze the impact of environmental and economic factors on planning.			
	1.8	Utilize planning tools and charts to organize and visualize rice processing activities			
LO 2: Apply skills to design production plans	2.1	Describe production requirements based on demand forecasts and resource availability.			
	2.2	Indicate key processing factors e.g. capacity, lead times, and material needs.			
	2.3	Modify detailed processing schedules aligning with organizational goals and deadlines			
	2.4	Allocate resources efficiently to optimize production flow and minimize waste.			
	2.5	Integrate quality standards and safety regulations into the processing plan.			
	2.6	Find potential risks and develop contingency strategies within the plan			
	2.7	Utilize appropriate planning			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
		tools and software to develop and visualize processing schedules		
LO 3: Develop project proposals for rice processing ventures	3.1	Discuss project objectives and scope		
	3.2	Conduct thorough market analysis and demand assessment.		
	3.3	Perform feasibility study including technical, financial, and operational aspects.		
	3.4	Compile required resources, including equipment, labour, and materials.		
	3.5	Develop detailed budget estimates and financial projections.		
	3.6	Certify project timelines, milestones, and implementation steps.		
	3.7	Diagnose environmental and social impacts and mitigation strategies.		
LO 4: Apply project management methodologies	4.1	Develop a clear work breakdown structure (WBS) for the project.		
	4.2	Examine a detailed project schedule with milestones and deadlines.		
	4.3	Mobilise resources effectively to various project activities.		
	4.4	Manage project budgets, including cost estimation and control.		
	4.5	Perform project risks and develop mitigation strategies.		
	4.6	Monitor project progress and adjust plans as necessary.		
	4.7	Keep accurate records of projects.		
	4.8	Initiate project deliverables to meet quality standards and specifications.		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
LO 5: Evaluate rice processing technologies and equipment.	5.1	Describe equipment's efficiency measured by: capacity, maintenance, and energy usage.		
	5.2	Determine grain quality, purity, and food safety standards.		
	5.3	Minimize environmental impact by using energy-efficient sources.		
	5.4	Select equipment that are highly scalable and flexible in rice processing.		
	5.5	Perform operation safety based on design and training compliance.		
	5.6	Evaluate supplier reliability and support on reputation, services, and agreements.		
LO 6: Comply standardization Procedure in Rice Processing	6.1	Describe the importance of standardization in rice processing for quality consistency.		
	6.2	Describe standard procedures for rice processing operations.		
	6.3	Carry out accurate measurement and calibration in rice processing.		
	6.4	Carry out quality control measures in rice processing.		
	6.5	Carry out record-keeping and documentation procedures in rice processing.		
	6.6	Apply standardization procedures		
LO 7: Evaluate the economic viability and sustainability of rice processing projects	7.1	Evaluate initial and ongoing costs, production, labour, energy, and raw materials.		
	7.2	Examine market demand, competition, revenue, and pricing for sales volume.		
	7.3	Calculate minimum sales to cover costs and break-even time.		
	7.4	Evaluate market landscape, target customers, trends, and growth potential.		
	7.5	Identify risks and develop strategies to mitigate or manage		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
		them.		
LO 8: Develop systems to achieve project objectives.	8.1	Design a system that is easily accessible and user-friendly for project team members.		
	8.2	Collate up-to-date data that reflects the current project status.		
	8.3	Provide clear and concise reports of project progress.		
	8.4	Submit regular reports on updates to stakeholders.		
	8.5	Establish a system that allows collaboration and communication among team members.		
	8.6	Modify system to accommodate changes in project objectives or scope.		
Learner's Signature:			Date:	
Assessor's Signature:			Date:	
IQAM Signature (if sampled):			Date:	
EQAM Signature (if sampled):			Date:	

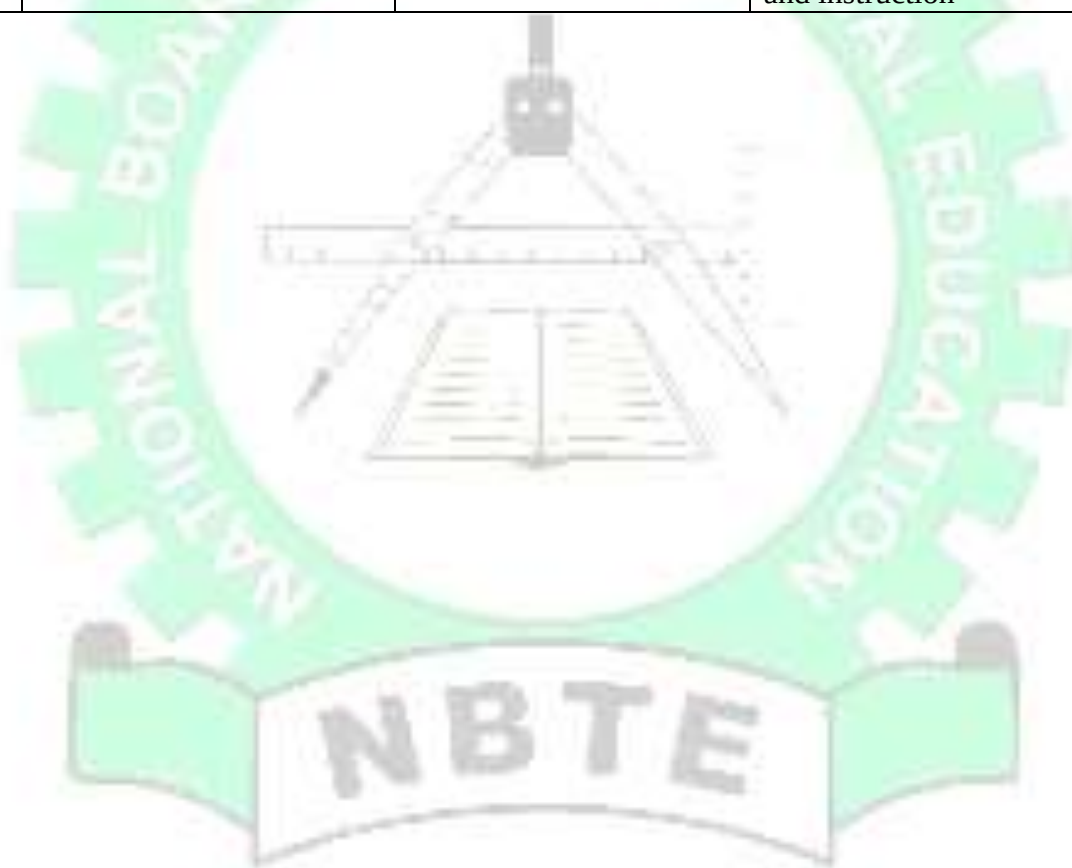
LIST OF MINIMUM EQUIPMENT AND FACILITIES

S/N	Equipment / Item	Minimum Quantity (15 Learners)	Purpose / Use
	A. Personal Protective Equipment		
1	Factory overall / coverall	15	Personal safety during processing operations
2	Safety boots	15	Personal safety during processing operations
3	Dust mask / nose mask	15	Personal safety during processing operations
4	Hand gloves (general purpose)	15	Personal safety during processing operations
5	Heat-resistant gloves (parboiling)	15	Personal safety during processing operations
6	Safety goggles	15	Personal safety during processing operations
7	Ear defenders / ear plugs	15	Personal safety during processing operations
8	Hair net / head cap	15	Personal safety during processing operations
9	Waterproof apron	15	Personal safety during processing operations
	B. Paddy Handling and Cleaning		
10	Platform weighing scale (100–500 kg)	2	Receiving, weighing, cleaning and moving paddy
11	Bench-top digital scale (1–30 kg)	3	Receiving, weighing, cleaning and moving paddy
12	Winnowing trays / baskets	15	Receiving, weighing, cleaning and moving paddy
13	Hand sieves, assorted mesh	5	Receiving, weighing, cleaning and moving paddy
14	Manual de-stoning tray	5	Receiving, weighing, cleaning and moving paddy
15	Scoops and shovels	5	Receiving, weighing, cleaning and moving paddy
16	Wheelbarrow	3	Receiving, weighing, cleaning and moving paddy
17	Sack trolley / hand truck	2	Receiving, weighing, cleaning and moving paddy
18	Jute or polypropylene sacks	150	Receiving, weighing, cleaning and moving paddy
19	Wooden pallets	20	Receiving, weighing, cleaning and moving paddy
20	Paddy storage bins	6	Receiving, weighing, cleaning and moving paddy
	C. Parboiling		

21	Soaking tanks / drums	5	Soaking, steaming and heat control
22	Parboiling pot / steaming vessel	5	Soaking, steaming and heat control
23	Gas burner or firewood stove	5	Soaking, steaming and heat control
24	Gas cylinder	2	Soaking, steaming and heat control
25	Digital probe thermometer	5	Soaking, steaming and heat control
26	Water storage tank	2	Soaking, steaming and heat control
27	Graduated buckets	15	Soaking, steaming and heat control
28	Stirring paddles	5	Soaking, steaming and heat control
	D. Drying		
29	Drying floor or concrete slab	1	Reducing paddy to safe milling moisture
30	Drying tarpaulins / mats	10	Reducing paddy to safe milling moisture
31	Drying rakes and turners	5	Reducing paddy to safe milling moisture
32	Grain moisture meter	3	Reducing paddy to safe milling moisture
33	Grain sampling spear	3	Reducing paddy to safe milling moisture
	E. Milling Machinery		
34	Rice de-husking machine (huller)	1	De-husking, de-stoning, polishing and grading
35	Rice de-stoning machine	1	De-husking, de-stoning, polishing and grading
36	Rice polishing machine	1	De-husking, de-stoning, polishing and grading
37	Rice grader / separator	1	De-husking, de-stoning, polishing and grading
38	Blower / aspirator	1	De-husking, de-stoning, polishing and grading
39	Generator / standby power supply	1	De-husking, de-stoning, polishing and grading
40	Machine tool kit (spanners, screwdrivers)	3	De-husking, de-stoning, polishing and grading
41	Grease gun and lubricants	3	De-husking, de-stoning, polishing and grading
	F. Quality Checks		
42	Test sieve set	2	Assessing paddy and milled rice quality
43	Precision balance (0.1 g)	2	Assessing paddy and milled rice quality

44	Magnifying glass	5	Assessing paddy and milled rice quality
45	Sample containers / bottles	15	Assessing paddy and milled rice quality
46	Grain quality assessment chart	5	Assessing paddy and milled rice quality
47	Sample trays	5	Assessing paddy and milled rice quality
	G. Packaging and Stacking		
48	Bag stitching / sealing machine	2	Weighing, bagging, sealing and storing
49	Empty rice bags, assorted sizes	150	Weighing, bagging, sealing and storing
50	Labelling set or label printer	1	Weighing, bagging, sealing and storing
51	Weighing scale for finished bags	2	Weighing, bagging, sealing and storing
52	Storage racks / shelving units	4	Weighing, bagging, sealing and storing
53	Hand pallet truck	1	Weighing, bagging, sealing and storing
54	Rodent traps and pest control set	6	Weighing, bagging, sealing and storing
	H. Cleaning, Hygiene and Waste		
55	Brooms and industrial brushes	5	Plant hygiene and housekeeping
56	Mops and buckets	5	Plant hygiene and housekeeping
57	Segregated waste bins	6	Plant hygiene and housekeeping
58	Disinfectant and cleaning agents (litres)	20	Plant hygiene and housekeeping
59	Hand washing station	2	Plant hygiene and housekeeping
	I. Safety and First Aid		
60	First aid box	2	Emergency preparedness and workplace safety
61	Fire extinguishers (dry powder / CO ₂)	4	Emergency preparedness and workplace safety
62	Fire blanket	2	Emergency preparedness and workplace safety
63	Eye wash station	1	Emergency preparedness and workplace safety
64	Safety signage set	1	Emergency preparedness and workplace safety
	J. Records, Communication and		

	Training		
65	Production record books	15	Record keeping, reporting and instruction
66	Calculators	15	Record keeping, reporting and instruction
67	Communication signs and symbols chart	5	Record keeping, reporting and instruction
68	Whiteboard with markers	1	Record keeping, reporting and instruction
69	Notice board	1	Record keeping, reporting and instruction
70	Computer system (desktop or laptop)	2	Record keeping, reporting and instruction
71	Printer	1	Record keeping, reporting and instruction
72	Multimedia projector	1	Record keeping, reporting and instruction



LIST OF RESOURCES FOR NOS RICE PROCESSING LEVEL 5

S/N	Name of Item	Quantity
1.	Personal Protective Equipment (helmets, gloves, boots, goggles, respirators)	Per participant /Resource persons
2.	Fire extinguishers and alarms	10 units
3.	First aid kits and stretchers	5 kits
4.	Safety signage and hazard markers	30 signs
5.	Safety audit checklists/compliance software	2 systems
6.	Computers/tablets with communication/reporting software	2 participants per 1 computer
7.	Projectors and presentation kits	2 units
8.	Filing systems (digital/physical)	5 sets
9.	Recording devices for meetings	3 units
10.	HR management software	1 system
11.	Performance appraisal tools	1 per student
12.	Training modules/e-learning platforms	1 system
13.	Whiteboards/planning boards	4 boards
14.	Automated rice milling machines	1 unit
15.	Modular (Small scale) rice milling machines	2 units
16.	Digital monitoring systems (IoT sensors, SCADA)	10 sensors
17.	Drones for facility inspection	2 drones
18.	Modern huskers, polishers, sorters	3 machines
19.	Dryers	2 units
20.	Solar drying facility	1
21.	Moisture meters	5 units
22.	Grain analyzers	5 units
23.	Laboratory testing kits	3 sets
24.	Quality control documentation systems	2 systems
25.	Sampling tools	10 sets
26.	Sieves	10 sets
27.	Calibration equipment	2 units
28.	Rice flour milling machines	2 units

29.	Extruders for rice-based snacks	2 units
30.	Packaging innovation tools	3 sets
31.	Product testing kits (texture, taste, shelf-life)	3 sets
32.	Branding and labeling equipment	2 units
33.	Lean management software	1 system
34.	Efficiency monitoring sensors	10 sensors
35.	Data analytics platforms	1 system
36.	Workflow mapping boards	3 boards
37.	Cold storage units	2 units
38.	Ventilated warehouses	1 facility
39.	Hygienic storage bins	20 bins
40.	Pallets	20
41.	Weighing scales	5 units
42.	Packaging lines (sacks, cartons, sealing machines)	2 lines
43.	Transport vehicles with GPS tracking	1 vehicle
44.	Project management software (ERP/MS Project)	1 system
45.	Scheduling boards and Gantt charts	3 boards
46.	Resource allocation tools	2 sets
47.	Performance monitoring dashboards	1 system
48.	Documentation & reporting systems	2 systems

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