



**NATIONAL COMPETENCY STANDARDS
FOR
AGRICULTURIST
(POULTRY FARMING)**

**Department of Occupational Standards
Ministry of Labour and Human Resources
Thimphu, Bhutan.**



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FOREWORD

The Department of Occupational Standards of the Ministry of Labour and Human Resources proudly presents the National Competency Standards (NCS) for Agriculturist (poultry farming) as a major initiative for improving the quality of Vocational Education and Training System in Bhutan. These standards represent the fruits of hard work and invaluable experiences gained by the department since its establishment in the latter half of 2003. The main aim of developing National Competency Standards is to set up a well defined nationally recognized Vocational Qualification and Certification system that will help set a benchmark for the Vocational Education and Training (VET) System in our country aligned to international best practices.

National Competency Standards is one of the base pillars in the Bhutan Vocational Qualification Framework (BVQF) and is the first step in its implementation. The standards are developed to ensure that employees or vocational graduates possess and acquire the desired skills, knowledge and attitude required by industries and employers. In order to ensure this close match in supply and demand of skills, knowledge and attitude, standards have been developed in close consultation and partnership with industry experts and validated by the Technical Advisory Committees for the concerned economic sectors.

A vocational education and training system based on National Competency Standards shall ensure that delivered training is of a high quality and relevant to the needs of the labour market. As a result, future TVET graduates will be better equipped to meet the need and expectations of industries and employers. This positive impact on the employability of TVET graduates will enhance the reputation of technical vocational education and training and make it attractive to school leavers.

While acknowledging the existing level of cooperation and collaboration, the ministry earnestly requests employers and training providers to extend the fullest support and cooperation in implementing the National Competency Standards. The ultimate objective is to build a competent and productive national workforce that will contribute to the continued socio-economic progress of our country.

I gratefully acknowledge the valuable contributions made by experts from industries during the consultation, verification and validation processes of the standards. I look forward to improved engagement and active

participation of the industry and employers in the development of a quality assured demand driven VET system in the near future.

I firmly believe we can sacrifice a bit today for a better tomorrow.

Dorji Wangdi

Minister

Ministry of Labour and Human Resources

INTRODUCTION

A. National Competency Standards (NCS)

National Competency Standards specify the skill, knowledge and attitudes applied to a particular occupation. Standards also specify the standards or criteria of performance of a competent worker and the various contexts in which work may take place. Standards provide explicit advice to assessors regarding the skill and knowledge to be demonstrated by candidates seeking formal recognition either following training or through work experience.

Purpose of National Competency Standards

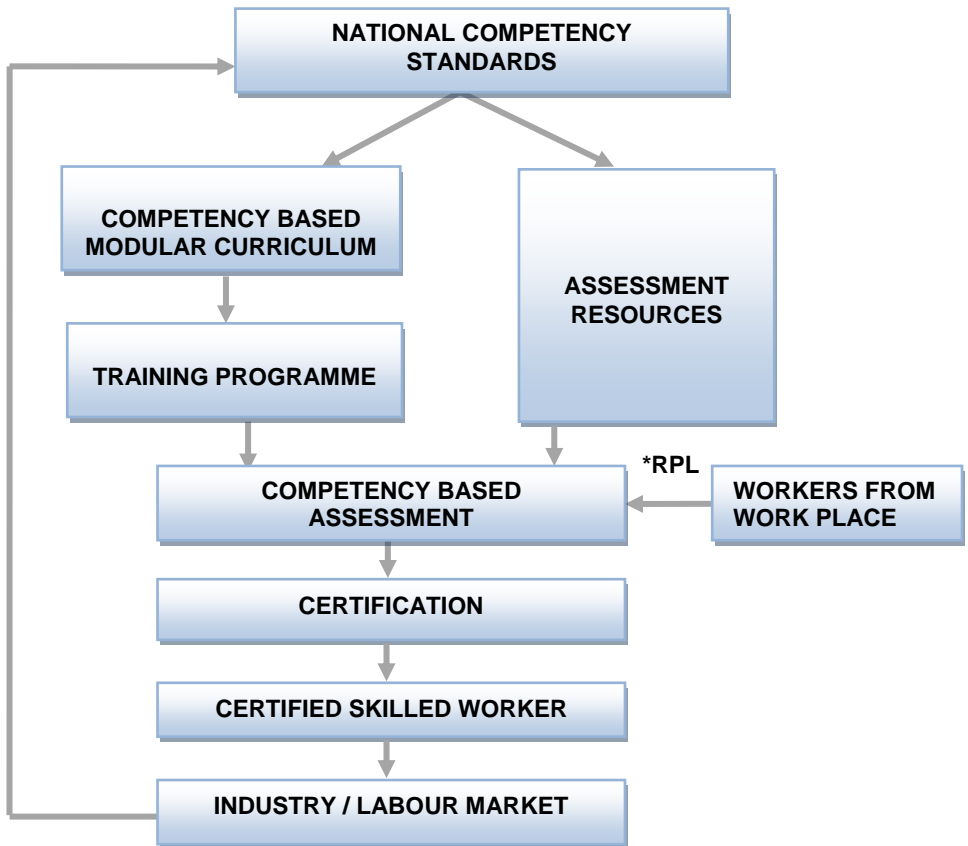
National Competency Standards serve a number of purposes including:

- Provides advice to curriculum developers about the skill and knowledge to be included in curriculum.
- Provides specifications to assessment resource developers about the skill, knowledge and attitudes within an occupation to be demonstrated by candidates.
- Provides advice to industry/employers about job functions, which in turn can be used for the development of job descriptions, performance appraisal systems and work flow analysis.

B. Bhutan Vocational Qualification Framework (BVQF)

Bhutan Vocational Qualifications Framework is an agreed system of Assessing, Certifying and Monitoring nationally recognized qualifications for all learning in the TVET sector against national standards, in training institutions, in the workplace, in schools or anywhere where learning takes place.

Components of the Bhutan Vocational Qualification Framework (BVQF)



* RPL = Recognition of Prior Learning

BVQF Levels

The Bhutan Vocational Qualification Framework has three levels classified based on the competency of the skilled workers. The three levels are:

- National Certificate Level 3 (NC III)
- National Certificate Level 2 (NC II)
- National Certificate Level 1 (NC I)

BVQF Level Descriptors

The qualification levels are decided based on level descriptors. The detail of the qualification level descriptor is as follows:

National Certificate Level 1

Carry out processes that:	Learning demand:	Responsibilities which are applied:
<ul style="list-style-type: none">• Are narrow in range.• Are established and familiar.• Offer a clear choice of routine responses.• Involve some prioritizing of tasks from known solutions.	<ul style="list-style-type: none">• Basic operational knowledge and skill.• Utilization of basic available information.• Known solutions to familiar problems.• Little generation of new ideas.	<ul style="list-style-type: none">• In directed activity.• Under general supervision and quality control.• With some responsibility for quantity and quality.• With no responsibility for guiding others.

National Certificate Level 2

Carry out processes that:	Learning demand:	Responsibilities which are applied:
<ul style="list-style-type: none"> • Require a range of well developed skills. • Offer a significant choice of procedures requiring prioritisation. • Are employed within a range of familiar context. 	<ul style="list-style-type: none"> • Some relevant theoretical knowledge. • Interpretation of available information. • Discretion and judgement. • A range of known responses to familiar problems 	<ul style="list-style-type: none"> • In directed activity with some autonomy. • Under general supervision and quality checking. • With significant responsibility for the quantity and quality of output. • With some possible responsibility for the output of others.

National Certificate Level 3

Carry out processes that:	Learning demand:	Responsibilities which are applied:
<ul style="list-style-type: none"> • Requires a wide range of technical or scholastic skills. • Offer a considerable choice of procedures requiring prioritization to achieve optimum outcomes. • Are employed in a variety of familiar and unfamiliar contexts. 	<ul style="list-style-type: none"> • A broad knowledge base which incorporates some theoretical concepts. • Analytical interpretation of information. • Informed judgement. • A range of sometimes innovative responses to concrete but often unfamiliar problems. 	<ul style="list-style-type: none"> • In self-directed activity. • Under broad guidance and evaluation. • With complete responsibility for quantity and quality of output. • With possible responsibility for the output of others.

PURPOSE

This suite of one qualification is designed for people interested in a career as agriculturist (poultry farming). The National Certificate in the mentioned trade comprises of three units that cover all the essential knowledge and skills required for people working as skilled agriculturist (poultry farming).

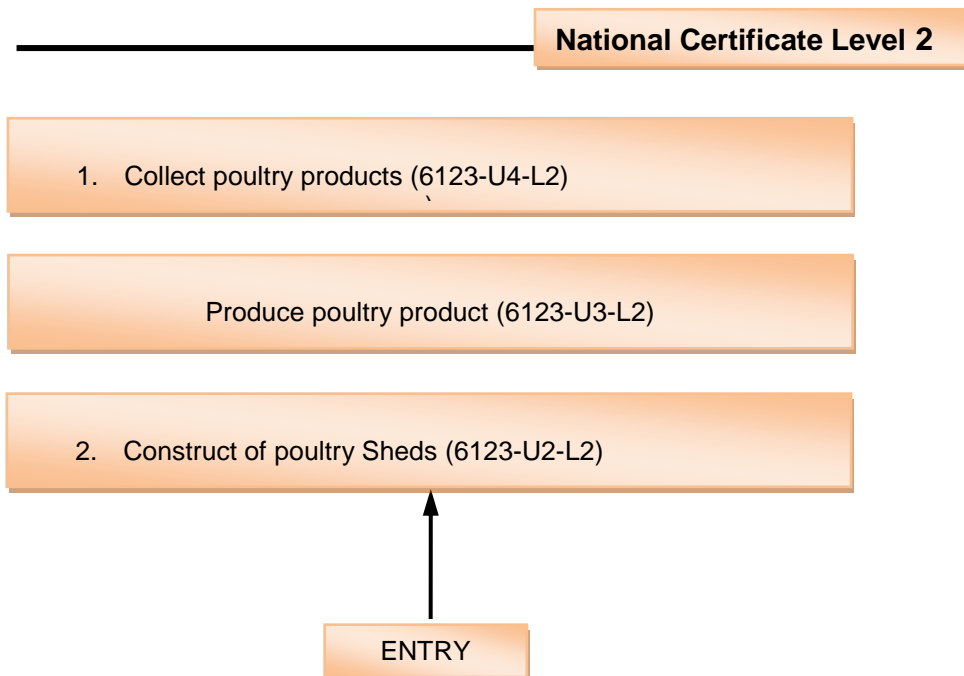
The units covered are;

1. Construct of poultry Sheds
2. Produce poultry product
3. Collect poultry products

Successful completion of this qualification is a pre requisite for entry into Level 3 qualification if there is any.

PACKAGING OF QUALIFICATIONS FOR AGRICULTURIST (POULTRY FARMING)

The National Competency Standards for the agriculturist (poultry farming) comprises of three units. They form one qualification levels as shown below:



CODING USED FOR NATIONAL COMPETENCY STANDARDS

The coding and classification system developed in Bhutan is logical, easy to use, and also aligned with international best practises. The Bhutanese coding and classification system is based on the International Standard Classification of Occupations, 2008 (ISCO-08) developed by the International Labour Organisation (ILO).

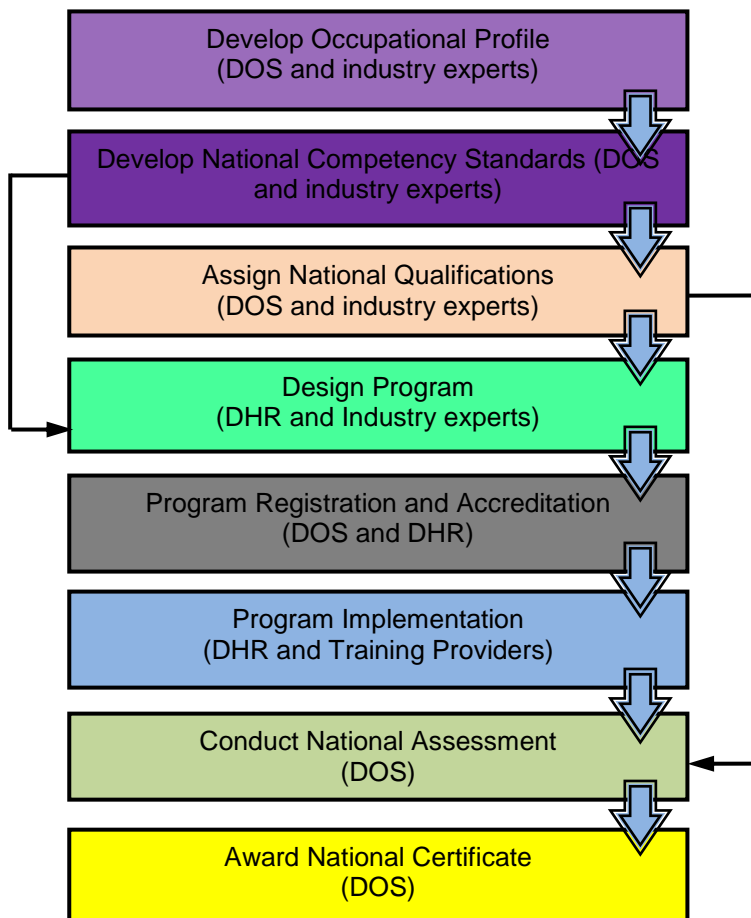
The coding of the national competency standards forms the basis of the identification code for the Vocational Education and Training Management Information System (VET – MIS) both in terms of economic sector identification and that of the individual standard.

Coding the individual unit of competency standard is to identify the level where qualification package belongs.

While packaging, in order to follow a logical order, only national competency standards related to each other and following a logical sequence in terms of training delivery, from the simple to the complex are clustered into a qualification packages.

The ILO assigns the code 6123 to the occupation, mushroom growers and related trades. Therefore in Bhutan, the occupation agriculturist (mushroom farming) has been assigned the code 6123 in the national coding system. The units are assigned the code U while the Levels are assigned the code L. Therefore the code for the National Certificate Level 2 will be 6123 - U1 - L2.

Implementation and operational procedures for National Competency Standard (NCS)



Key:

MoLHR – Ministry of Labour and Human Resources

DHR – Department of Human Resources

DOS – Department of Occupational Standards

NATIONAL COMPETENCY STANDARDS FOR AGRICULTURIST (POULTRY FARMING)

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Perform poultry production	<ol style="list-style-type: none">1. Prepare work2. Raise day old chick DOC3. Raise Grower4. Raise layer5. Raise broiler	
Collect poultry products	<ol style="list-style-type: none">1. Prepare for work2. Collect the poultry products	

UNIT TITLE : **Construct poultry shed**

DESCRIPTOR : This unit covers the competencies required to prepare for work and to construct the poultry shed.

CODE : **6123-U1-L2**

ELEMENTS OF COMPETENCE	PERFORMANCE CRITERIA
1. Prepare for work.	1.1 Select site as per the job requirement. 1.2 Select and use required materials as per job requirement. 1.3 Select and use tools and equipment as per the job requirement.
2. Construct poultry shed.	2.1 Cut the materials to the required sizes as per the job requirement. 2.2 Lay flooring materials as per the job requirement. 2.3 Erect poles as per the job requirement. 2.4 Fix the materials as per the job requirement. 2.5 Ensure ventilation and lighting as per the standard practices. 2.6 Lay bedding materials as per the job requirement. 2.7 Install brooder box as per the job requirement. 2.8 Install feeder and drinkers as per the standard practices. 2.9 Fix laying box and perch as per the standard practices.

RANGE STATEMENT

Materials may include but not limited to:

- Cement
- Bricks
- CGI sheet
- Wire mesh
- Planks

Tools and equipments may include but not limited to:

- Masonry tools
- Carpentry tools

Bedding materials may include but not limited to:

- Saw dust
- Rice hull
- Wood shavings

ASSESSMENT GUIDE

Form of assessment

- Continuous assessment together with collected evidence of performance will be used.
- Evidence of the performance shall be based on practical demonstration.
- Knowledge can be assessed through written form of assessment.

Assessment context

- Competency may be assessed in the actual work place or in a simulated workplace setting.

Assessment condition

- The candidate shall have access to all required tools, equipment, materials and documents.

- The candidate must complete the assessment in an accepted time frame.

Critical aspects

- Demonstrate compliance with Occupational Health and Safety Regulations applicable to work site operation.
- Ensure ventilation and lighting as per the standard practices.

UNDERPINNING KNOWLEDGE	UNDERPINNING SKILLS
<ul style="list-style-type: none"> • Occupational Health & safety regulations. • First Aids • Estimation and costing • Tools and equipment • BAFRA rules and regulation 	<ul style="list-style-type: none"> • Communication skill • Team work • Planning • Problem solving skills • Decision making skills • Handling of tools and equipment

UNIT TITLE : **Perform poultry production work**

DESCRIPTOR : This unit covers the competencies required to prepare for work, prepare bed/land and plant seedlings.

CODE : **6123-U2-L2**

ELEMENTS OF COMPETENCE	PERFORMANCE CRITERIA
1. Prepare for work.	1.1 Select the breeds as per the job requirement. 1.2 Identify and use appropriate transportation methods as per the standard practices.
2. Raise day old chick DOC.	2.1 Select and feed feeding materials as per the standard practices. 2.2 Top up the drinker as and when required as per the job requirement. 2.3 Monitor the feeding and illness of the chick as per the enterprise practices. 2.4 Carry out vaccination as per the schedule. 2.5 Regulate and adjust heat/light to the required temperature as per the standard practices. 2.6 Carry out debeaking if necessary as per the job requirement.

<p>3. Raise Grower</p>	<p>3.1 Select and feed feeding materials as per the standard practices.</p> <p>3.2 Top up the drinker as and when required as per the job requirement.</p> <p>3.3 Monitor the feeding and illness as per the enterprise practices.</p> <p>3.4 Carry out vaccination and de-worming as per the schedule.</p> <p>3.5 Regulate and adjust light as per the standard practices.</p>
<p>4. Raise layer</p>	<p>4.1 Select and feed feeding materials as per the standard practices.</p> <p>4.2 Top up the drinker as and when required as per the job requirement.</p> <p>4.3 Monitor the feeding and illness as per the enterprise practices.</p> <p>4.4 Carry out vaccination and de-worming as per the schedule</p> <p>4.5 Regulate and adjust light as per the standard practices</p> <p>4.6 Assess and carryout laying percentage as per the enterprise practices.</p>
<p>5. Raise broiler</p>	<p>5.1 Select and feed feeding materials as per the standard practices.</p> <p>5.2 Top up the drinker as and when required as per the job requirement.</p> <p>5.3 Monitor the feeding and illness as per the enterprise practices.</p> <p>5.4 Carry out health care activities as per the schedule</p> <p>5.5 Maintain cleanliness and sanitation as per the standard practices.</p>

RANGE STATEMENT

Feeding materials may include but not limited to for day old chick:

- Chick mesh
- Starter
- Grower feed
- Layer mesh

Health care may include but not limited to:

- Vaccination
- Treatment
- De-worming

ASSESSMENT GUIDE

Form of assessment

- Continuous assessment together with collected evidence of performance will be used.
- Evidence of the performance shall be based on practical demonstration.
- Knowledge can be assessed through written form of assessment.

Assessment context

- Competency may be assessed in the actual work place or in a simulated workplace setting.

Assessment condition

- The candidate shall have access to all required tools, equipment, materials and documents.
- The candidate must complete the assessment in an accepted time frame.

Critical aspects

- Demonstrate compliance with Occupational Health and Safety Regulations applicable to work site operation.
- Carry out health care activities as per the schedule.
- Maintain cleanliness and sanitation as per the standard practices.

UNDERPINNING KNOWLEDGE	UNDERPINNING SKILLS
<ul style="list-style-type: none"> • Occupational Health and Safety (OHS) Regulations • First Aid • Feeding efficiency • Poultry diseases • Different breeds of chicken • Characteristics of healthy chicken • Bio- security • Basic masonry and carpentry • Types and ingredients of feeds • BAFRA rules and regulation 	<ul style="list-style-type: none"> • Communication skill • Team work • Planning • Problem solving skills • Decision making skills • Negotiation skills • Interpersonal skills

UNIT TITLE : **Collect poultry products**

DESCRIPTOR : This unit covers the competencies required to prepare for work and collect poultry products.

CODE : **6123-U3-L2**

ELEMENTS OF COMPETENCE	PERFORMANCE CRITERIA
1. Prepare for work.	1.1 Select and use required materials as per the job requirement. 1.2 Select and use PPE as per the job requirement.
2. Collect poultry products	2.1 Check the maturity stage as per the standard practices. 2.2 Collect the products as per the standard practices. 2.3 Clean products as per the standard practices. 2.4 Sort and grade the products as per standard practices. 2.5 Pack and label the products as per the standard practices. 2.6 Store the products following standard practices. 2.7 Clean and collect litter materials as per the

	<p>enterprise practices.</p> <p>2.8 Maintain records as per the enterprise practices.</p>
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RANGE STATEMENT
<p>Materials may include but not limited to:</p> <ul style="list-style-type: none"> • Tray • Bucket • Cloth
<p>Personal Protective Equipment (PPE) may include but not limited to:</p> <ul style="list-style-type: none"> • Gloves • Mask • Safety boots • Working dress
<p>Litter materials may include but not limited to:</p> <ul style="list-style-type: none"> • Waste • Droppings

ASSESSMENT GUIDE
<p>Form of assessment</p> <ul style="list-style-type: none"> • Continuous assessment together with collected evidence of performance will be used. • Evidence of the performance shall be based on practical demonstration. • Knowledge can be assessed through written form of assessment. <p>Assessment context</p>

- Competency may be assessed in the actual work place or in a simulated workplace setting.

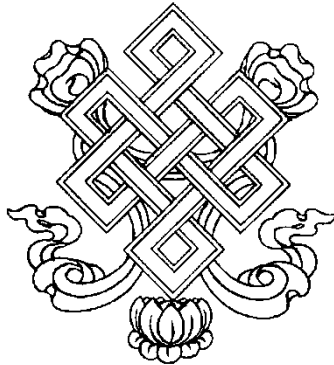
Assessment condition

- The candidate shall have access to all required tools, equipment, materials and documents.
- The candidate must complete the assessment in an accepted time frame.

Critical aspects

- Demonstrate compliance with Occupational Health and Safety Regulations applicable to work site operation.
- Check and ensure the unnecessary growth of fungus and pest infestation and take necessary action as per the job requirements.

UNDERPINNING KNOWLEDGE	UNDERPINNING SKILLS
<ul style="list-style-type: none"> • Occupational Health and Safety (OHS) Regulations • First Aid • Costing and estimation • BAFRA rules and regulation • Record keeping • Packing methods • Types of packings • Basic store management • Storage of products 	<ul style="list-style-type: none"> • Communication skill • Team work • Planning • People handling skills • Problem solving skills • Decision making skills • Handling tools and equipments • Interpersonal skills



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