



Maldives National Skills Development Authority



National Competency Standard for Mariculture

Standard Code: FNA-13L3-V1-25

Qualification Name: National Certificate III in Mariculture

FOREWORD

The pivotal role of the Maldives National Skills Development Authority (MNSDA) in meticulously implementing and expanding Technical and Vocational Education & Training (TVET) exemplifies the steadfast commitment of the Maldives to build a skilled and resilient workforce. This commitment is evident from the strategic formulation of National Standards and the establishment of a comprehensive framework for training and certification.

Under the Higher Education and Training Act 7/2021, the MNSDA assumes an instrumental role, reflecting the government's unwavering dedication to streamlining TVET policies and procedures. This includes the establishment of a robust system for accrediting and registering both Institution Based Training (IBT) and Employer Based Training (EBT) providers. The MNSDA's active involvement in conducting the National Apprenticeship Program (NAP), National Trade Testing and Certification (NTTC), and the issuance of National Certificates reflects a comprehensive approach to ensure elevated quality standards and competency within the workforce.

The National Competency Standards (NCS) revised through the Maldives Enhancing Employability and Resilience of Youth (MEERY) project accentuates the commitment to updating and sustaining contemporary skill sets aligned precisely with industry demands. Deliberate efforts to revise existing NCS, coupled with the development of curriculum, teaching materials, resource books, and logbooks, attest to our dedication to ensuring the ongoing relevance and currency of the TVET system in the Maldives.

The active engagement of Technical Panels and Employment Sector Councils in the NCS development and approval process, coupled with alignment to the Maldives National Qualification Framework (MNQF) and accreditation by the Maldives Qualifications Authority (MQA), certifies that the TVET system not only remains highly responsive but also ensures the quality standards demanded by industries. This approach enables the system to effectively meet the diverse needs of industries and adapt to the evolving economic landscape.


The collaborative development of the National Certificate III in Mariculture by the MNSDA, MEERY, and the Maldives Institute of Technology exemplifies the practical implementation of TVET initiatives. This training package represents a critical stride towards addressing the requisite skills while fostering opportunities to integrate sustainable economic development within the TVET framework.



Dr. Zahra Mohamed

Chief Executive Officer

Maldives National Skills Development Authority

EMPLOYMENT SECTOR COUNCILS			
#	Name	Designation	Organisation
01	Dr.Hussain Sinan	Director	Ministry of Fisheries and Ocean Resources
02	Ali Amir	Director	Ministry of Agriculture and Animal Welfare
03	Musthafa Abdul Gafoor	Senior Policy Officer	Ministry of Economic Development & Trade
04	Mifrah Naseem	General Manager- Sales and Marketing	MIFCO
05	Dr. Ahmed Riyaz Jauharee	Dean	College of Fisheries and Ocean Sciences, Maldives National University
06	Adnan Ali	Industry Expert	-
07	Maizan Ahmed Manik	Industry Expert	-
08	Aishath Shazleena	HR Manager	Agro National Corporation Ltd (AgroNat)
09	Shakeeba Ali	Director General	Maldives National Skills Development Authority
National Occupational Standard has been endorsed by:			
 Dr. Ahmed Riyaz Jauharee Chairperson Fisheries and Agriculture Sector Council			
Maldives National Skills Development Authority Umar Zahir Office Building, 5th Floor, Orchidmaa Hingun, HulhuMale', Republic of Maldives			
Date of Endorsement: 14.01.2025			

TECHNICAL SUPPORT			
#	Name	Designation	Organisation
01			
02			

TECHNICAL PANEL MEMBERS			
#	Name	Designation	Organisation
01	Aminath Lubna	Industry Expert	
02	Aleef Abdhulla Naseem	Marine biologist	Water Solutions Private Limited
03	Shafiya Naeem	Director General	Maldives Marine Reseach Institute
04	Mohamed Ahusan	Senior Research Officer	Maldives Marine Reseach Institute

VERSION	DEVELOPER	DATE	STANDARD CODE
V1	Maldives Institute of Technology	31/12/2024	FNA-13L3-V1-25

Standard Development Process

The development of the “National certificate III in Mariculture” Standard involved a comprehensive study of mariculture occupations in the Maldives, with a focus on fisheries enterprises. Job descriptions and international occupational trends were analysed to draft an initial Occupational Standard. This draft will undergo further refinement through a Technical Panel (TP) from Maldivian workplaces, ensuring incorporation of competencies and edits. The TP will provide technical input, suggesting changes to the standard, until a final draft is agreed upon. The approved Final Draft will then be submitted to the Fisheries and Agriculture Sector Council for endorsement and validation. A brief report detailing the compilation process will accompany the Standard for the Council's review, and any recommended changes will be addressed before final endorsement.

With the endorsement from the Fisheries and Agriculture Sector Council, the finalised National Occupational Standard for Mariculture will be submitted to the Maldives Qualification Authority (MQA) for final approval. Upon receiving MQA approval, the standard will be officially published on the Maldives National Skills Development Authority (MNSDA) website. This publication will enable training providers in the Maldives to utilise the standard for delivering the Mariculture program, ensuring its widespread implementation across the country

Description of “Mariculture”

The "Mariculture" standard serves as a foundational guideline designed to enhance essential skills across diverse industries. This program is dedicated to equipping individuals with fundamental competencies crucial for proficient Mariculture processes. Participants will gain practical insights into core techniques and practices, emphasising the significance of the role of Mariculture in ensuring compliance with safety standards, regulations, and approved plans in the maritime industry.

The certification acts as an entry point for professionals venturing into the application of Mariculture principles, providing a robust foundation in the fundamental skills required for this qualification.

Proposed Qualification Titles

Following are the recommended titles by the selected internal expert team of MIT for the National Certificate III in Mariculture.

1. *Nil.*

Job opportunities upon completion of “National Certificate III in Mariculture”

Upon successful completion of the National certificate III in Mariculture, students can work in the following jobs.

1. *Mariculture Technician*
2. *Farm Attendant*
3. *Hatchery Operator*
4. *Aquatic Feed Developer*

KEY FOR CODING

Coding Competency Standards and Related Materials

DESCRIPTION	REPRESENTED BY
Industry Sector as per ESC (Three letters)	Construction Sector (CON) Fisheries and Agriculture (FNA) Information, Communication and Technology (ICT) Transport Sector (TRN) Tourism Sector(TOU) Social Sector (SOC) Foundation (FOU)
Standard Number - Occupation with in an industry sector	Two digits 01-99
Common Competency	CM
Core Competency	CC
Unit Number - Occupation within a Standard	Three digits 01-99
MNQF level of qualification	L1, L2, L3, L4 etc.
Version Number	V1, V2 etc.
Separator	-
Year of Last Review of standard, qualification	Two digits responding to the year of last review, example 23 for the year 2023
Qualification Code	Refers to Standard code in cover page

1. Endorsement Application for Qualification 01		
2. NATIONAL CERTIFICATE III IN MARICULTURE		
3. Qualification code: FNA-13L3-V1-25		Total Number of Credits: 79
4. Purpose of the qualification This qualification aims to provide individuals with the foundational skills and knowledge necessary to enter and excel in the mariculture industry of the Maldives. The program equips learners with essential techniques, safety protocols, and technical expertise relevant to cultivating marine organisms in controlled environments.		
5. Regulations for the qualification		National Certificate III in the occupation of Mariculture will be awarded to those who are competent in units 1+2+3+4+5+6+7+8+9+10+11+12+13+14+15+16+17+18+19+20
6. Schedule of Units		
Unit No.	Unit Title	Code
Common Competencies		
01	Apply occupational health and safety requirements	FNA-01-CM01-V2-24
02	Apply work ethics and optimise professionalism	FNA-01-CM02-V2-24
03	Practice effective workplace communication	FNA-01-CM03-V2-24
04	Provide effective customer care	FNA-05-CM01-V1-24
05	Perform computer operations	FNA-01-CM04-V2-24
06	Respond to emergency situations	FNA-02-CM05-V1-24
Core Competencies		
07	Understand principles of mariculture and aquaculture	FNA-13-CC01-V1-25
08	Assist in selecting mariculture sites	FNA-13-CC02-V1-25
09	Manage broodstock and handle seedstock	FNA-13-CC03-V1-25
10	Choose species and implement stocking strategies	FNA-13-CC04-V1-25
11	Perform and monitor mariculture stock handling activities	FNA-13-CC05-V1-25
12	Install and construct stock holding structures	FNA-13-CC06-V1-25
13	Support hatchery operations	FNA-13-CC07-V1-25
14	Manage grow-out farms	FNA-13-CC08-V1-25
15	Monitor production and maintain live feed cultures	FNA-13-CC09-V1-25
16	Monitor and maintain water quality in mariculture systems	FNA-13-CC10-V1-25
17	Implement feed management practices in mariculture	FNA-13-CC11-V1-25

18	Prevent and manage diseases in mariculture	FNA-13-CC12-V1-25
19	Conduct harvesting and post-harvest handling in mariculture	FNA-13-CC13-V1-25
20	Ensure environmental sustainability and compliance in mariculture	FNA-13-CC14-V1-25
7. Accreditation requirements		The training provider should have made arrangements to ensure students are provided with adequate theory and practicals for them to develop all the required knowledge and skills stipulated in the National Competency Standard.
8. Recommended sequencing of units		As appearing under the section 06

Unit Details

Unit No.	Unit Title	Code	Level	No. of credits	Credit hours	Contact hours
01	Apply occupational health and safety requirements	FNA-01-CM01-V2-24	III	04	40	20
02	Apply work ethics and optimise professionalism	FNA-01-CM02-V2-24	III	03	30	15
03	Practice effective workplace communication	FNA-01-CM03-V2-24	III	03	30	15
04	Provide effective customer care	FNA-05-CM01-V1-24	III	05	50	25
05	Perform computer operations	FNA-01-CM04-V2-24	III	03	30	15
06	Respond to emergency situations	FNA-02-CM05-V1-24	III	05	50	25
07	Understand principles of mariculture and aquaculture	FNA-13-CC01-V1-25	III	04	40	20
08	Assist in selecting mariculture sites	FNA-13-CC02-V1-25	III	04	40	20
09	Manage broodstock and handle seedstock	FNA-13-CC03-V1-25	III	04	40	20
10	Choose species and implement stocking strategies	FNA-13-CC04-V1-25	III	03	30	15
11	Perform and monitor mariculture stock handling activities	FNA-13-CC05-V1-25	III	03	30	15
12	Install and construct stock holding structures	FNA-13-CC06-V1-25	III	03	30	15
13	Support hatchery operations	FNA-13-CC07-V1-25	III	05	50	25
14	Manage grow-out farms	FNA-13-CC08-V1-25	III	05	50	25
15	Monitor production and maintain live feed cultures	FNA-13-CC09-V1-25	III	04	40	20
16	Monitor and maintain water quality in mariculture systems	FNA-13-CC10-V1-25	III	04	40	20
17	Implement feed management practices in mariculture	FNA-13-CC11-V1-25	III	05	50	25
18	Prevent and manage diseases in mariculture	FNA-13-CC12-V1-25	III	04	40	20
19	Conduct harvesting and post-harvest handling in mariculture	FNA-13-CC13-V1-25	III	05	50	25
20	Ensure environmental sustainability and compliance in mariculture	FNA-13-CC14-V1-25	III	03	30	15
Total				79	790	395

Packaging of National Qualifications:

National Certificate III in Mariculture will be awarded to those who are competent in units
1+2+3+4+5+6+7+8+9+10+11+12+13+14+15+16+17+18+19+20

Qualification Code: FNA-13L3-V1-25

COMPETENCY BASED ASSESSMENT

The final assessment of the National Competency-Based Programmes conducted by the Maldives National Skills Development Authority (MNSDA) is a competency-based assessment.

The Competency-Based Assessment ensures that the students' performance meets the requirements specified in the National Competency Standards (NCS). This assessment approach is designed to verify that graduates are job-ready and meet established occupational competency requirements within their respective fields.

Eligibility for Final Assessment

To be eligible for the final Competency-Based Assessment, students must fulfil the following conditions:

- achieve a **minimum of 80%** attendance
- deemed competent in each of the units of the programme in the pre-assessment

Competency-Based Assessment Process

Upon submission of the Pre-assessment report by the training provider, MNSDA will check for all the necessary supporting documents and conduct Competency-Based Assessment through a National Assessor registered with MNSDA. It is important to note that any trainer involved in the training process is **not permitted** to conduct the assessment to maintain impartiality and integrity of the process.

The final Competency-Based Assessment conducted by MNSDA includes both:

- **Theory:** Evaluating students' knowledge and understanding of key theoretical aspects of the competency.
- **Practical:** Assessing hands-on skills and application of knowledge in real-world or simulated environments.

Once the assessment is completed, the National Assessor will send the Competency-Based Assessment Report to MNSDA.

Competency Status Requirement

For certification to be granted, the student must be officially declared "**Competent**" in each of the units of the programme by the National Assessor.

Conclusion

Competency-Based Assessment is a critical component in ensuring the quality and credibility of technical and vocational skills-based training. By adhering to the outlined procedure, MNSDA upholds the standards required to certify students who are fully prepared to meet industry demands.