INTERNAL POST-GRADUATE TRAINING OPPORTUNITIES FOR KMFRI STAFF

Kenya Marine and Fisheries Research Institute (KMFRI), a State Corporation under the Ministry of Mining, Blue Economy and Maritime Affairs, State Department for Blue Economy and Fisheries, was established by an Act of parliament (The Science and Technology Act Cap. 250 of the Laws of Kenya of 1979) which has since been repealed by The Science, Technology and Innovation Act No. 28 of 2013.

KMFRI's mandate is to undertake research in "marine and freshwater fisheries, aquaculture, environmental and ecological studies, and marine research including chemical and physical oceanography", in order to provide scientific data and information for sustainable development of the Blue Economy. The Institute is also mandated to cooperate with other organizations and institutions of higher learning in training programmes and on matters of relevant research. The Institute has Research Centers and Stations located at Mombasa, Kisumu, Naivasha, Baringo, Kegati, Sangoro, Sagana, Turkana, Mutonga, Shimoni, a research substation at Gazi and the Nairobi liaison office.

Kenya Marine and Fisheries Research Institute (KMFRI) in collaboration with the Institute of Marine Research, Norway (IMR) are seeking to internally offer postgraduate scholarships for KMFRI Staff under the Strengthening Sustainable Blue Food Systems in Coastal Kenya to enhance Security and Nutrition Project **(SBFS-KENYA PROJECT).**

PROJECT: Strengthening sustainable Blue Food Systems in Coastal Kenya to enhance livelihoods, food security and nutrition (SBFS, Kenya)

FUNDED BY: Norway, Ocean for Development Programme (OfD)

HOST INSTITUTIONS: Kenya Marine and Fisheries Research Institute **(**KMFRI) and Institute of Marine Research, Norway (IMR).

The student will be based in KMFRI with possible exchange visits to IMR in Norway. The students will be supervised jointly by researchers from KMFRI and IMR/Institute of Veterinary Research in addition to supervisors from the University where the student is registered.

Programme Background

The Ocean for Development Programme (OfD) in Kenya aims to strengthen sustainable Blue Food Systems in the Shimoni-Vanga seascape to enhance livelihoods, food security, and nutrition. The programme is implemented under a Memorandum of Understanding between Kenya and Norway on "Cooperation in the Blue Economy and fisheries sector" signed in August 2024, with a total investment of 40 million NOK (10 million NOK per year) over a four-year period from 2025-2028.

The Shimoni-Vanga Joint Co-Management Area (JCMA) covers approximately 781 km² and encompasses critical coastal ecosystems including mangrove forests, coral reefs, and seagrass meadows that support both marine biodiversity and community livelihoods, while enhancing food and nutritional security. The programme focuses on five key areas: fisheries stock assessment, marine spatial planning, coastal and marine aquaculture, post-harvest blue food safety and nutritional assessment, and Blue Carbon conservation.

Central to the project's sustainability is capacity building of local scientific and technical staff. The post-graduate training within the project represents a strategic investment in developing local expertise that will remain within Kenya beyond the project period, ensuring long-term institutional capacity for evidence-based Blue Economy development and sustainable resource management.

KMFRI's Institutional Mandate and Training Framework

KMFRI operates under the Science, Technology and Innovations Act No. 28 of 2013, which mandates the institute to generate scientific data and information in marine and freshwater fisheries, aquaculture, environmental studies, oceanography, and related fields for sustainable Blue Economy development. The Act also empowers KMFRI to collaborate with institutions for enhanced capacity development.

KMFRI's Staff Training Policy prioritizes post-graduate studies for research scientists and technical staff to develop a critical mass of highly skilled staff in alignment with the institutional mandate. The SBFS-Kenya project strategically provides the requisite financial and technical support from project partners to address high-priority training needs in specialized areas that are critical for Blue Economy development.

AVAILABLE TRAINING POSITIONS

POSITION 1: PhD SCHOLARSHIP (1 Position)

Research Focus: PhD in Marine Ecosystem Modelling to Inform Sustainable Ocean Planning for the Shimoni-Vanga Seascape
Programme Component: Marine Spatial Planning - **Output M1.3**
Duration: 3-4 years
Location: KMFRI facilities, Shimoni-Vanga seascape with exchange visits to Institute of Marine Research (IMR), Norway
Role term: Full-time study until completion
Responsible for: End-to-end ecosystem modelling to assess climate change and fisheries management impacts on sustainable blue food systems.

Overview of the PhD studentship

This PhD position is part of a collaborative research project focused on sustainable blue food systems. The candidate will develop and apply end-to-end ecosystem models to address critical questions about marine resource management, climate change impacts, and sustainable fisheries in the region. The research will involve close collaboration with the Institute of Marine Research (IMR) and integration of stakeholder perspectives through workshops.

Purpose of the Research

The primary purpose of this research is to develop a comprehensive understanding of marine ecosystems and their response to human activities and climate change. The research will:

i. Identify and address specific research questions related to sustainable blue food systems based on stakeholder input
ii. Develop appropriate ecosystem modelling frameworks that integrate biological information, spatial fisheries data, and climate change projections
iii. Provide scientific evidence to support sustainable management of marine resources and blue food production
iv. Build capacity in marine ecosystem modelling and contribute to evidence-based policy development

Required Qualifications:

i. Master's degree in oceanography, geophysics, fishery, ecology, marine biology, mathematics, or similar field
ii. Strong understanding of or demonstrated interest in marine biology and human impact on marine systems
iii. Experience with programming in R, MATLAB, Python, Fortran, C/C++, or any similar language
iv. Some experience with Git version control is highly desirable, as most ecosystem models are moving to Git-based workflows
v. Experience with different kinds of data for both risk analysis and modelling
vi. Ability to integrate diverse datasets and collaborate with experts from different disciplines
vii. Willingness to work with guesstimates and approximate data when high-precision information is unavailable (note: candidates seeking deep species-specific or high-detail level data may find this challenging)

POSITION 2: PhD SCHOLARSHIP (1 Position)

Research Focus: PhD in Marine Environmental Chemistry / Food Safety & Toxicology / Aquatic Sciences with research focus on Nutrient & Contaminant Profiling in blue foods
Programme Component: Post-harvest Blue food safety and nutritional assessment - **Output P1.2**
Duration: 3-4 years
Location: KMFRI facilities, Shimoni-Vanga seascape with exchange visits to Institute of Marine Research (IMR), Norway
Role term: Full-time study until completion
Responsible for: Comprehensive nutrient and contaminant profiling of priority blue food value chains to enhance food safety protocols and market access.

Project Overview

This PhD research focuses on establishing baseline data on contaminant levels and nutritional values in selected fish and seaweed value chains in the Shimoni-Vanga coastal area. The safety and nutritional quality of blue foods are critical for improved consumer health, nutritional security and market access in coastal Kenya, where seafood represents a vital source of protein and micronutrients for local communities.

Purpose of the Research

The successful candidate will work with KMFRI, IMR and local communities to lead comprehensive contaminant and nutrient profiling studies. The PhD scholar will conduct advanced analytical work using state-of-the-art equipment, participate in the planned research cruise with R/V Fridjof Nansen (April/May 2025), and collaborate with the EAF Nansen Programme Science Theme 4. The scholar will serve as a technical lead in establishing food safety protocols and contribute to policy development for enhanced market access.

Required Qualifications:

i. Master's degree in Analytical Chemistry, Food Science, Marine Science, or related field with Upper Second-Class Honors
ii. Experience in blue food sampling for nutrient profiling and contaminant assessment aboard a research vessel
iii. Experience in interdisciplinary marine research to enable integration of blue food nutrition and safety in a wider context of marine resource management
iv. Strong background in analytical chemistry and advanced analytical techniques (GC-MS, LC-MS, ICP-MS) is an added advantage
v. Proficiency in statistical analysis software (R, SPSS, or similar)
vi. Understanding of food safety protocols and HACCP principles
vii. Excellent communication skills in English and Kiswahili languages

POSITION 3: MSc SCHOLARSHIP (1 Position)

Research Focus: MSc in Food Science with research focus on nutrient flows in blue food value chains
Programme Component: Post-harvest Blue food safety and nutritional assessment - **Output P1.2**
Duration: 18-24 months
Location: KMFRI facilities, Shimoni-Vanga seascape with exchange visit to IMR, Norway
Role term: Full-time study until completion

Responsible for: Analysing nutrient flows and losses along blue food value chains from harvest to consumption

Project Overview

This MSc research will analyse nutrient flows and losses along blue food value chains, identifying critical control points where nutritional quality is compromised. The study will develop recommendations for improved handling and processing practices that maximize nutrient retention while maintaining food safety, contributing to enhanced nutritional security for coastal communities.

Purpose of the Research

The successful candidate will work with KMFRI, IMR, and local processors to conduct comprehensive nutrient flow analysis. The scholar will assess how different processing and handling methods affect nutrient retention, identify major sources of nutrient loss, and develop practical interventions that communities and processors can implement to improve nutritional outcomes.

Required Qualifications:

i. Bachelor's degree in Food Science, Nutrition, or its equivalent related field from a recognized Institution,
ii. Understanding of food chemistry and nutritional analysis
iii. Experience with laboratory analytical techniques
iv. Knowledge of food processing and preservation methods
v. Statistical analysis capabilities and good communication skills

POSITION 4: MSc SCHOLARSHIP (1 Position)

Research Focus: MSc in Aquatic Animal Health / Fisheries Science / Marine Biology with research focus on Fish Parasites in Blue Food Value Chains

Programme Component: Aquaculture (A) - Output A3.1
Duration: 18-24 months
Location: KMFRI facilities with possible exchange visit to Norwegian Veterinary Institute
Role term: Full-time study until completion
Responsible for: Literature review on parasites infecting rabbit fish (*Siganus* spp.), investigating prevalence and impact of fish parasites across marine aquaculture blue food value chain system, from wild broodstock through hatchery production to community farm grow-out

Project Overview

This MSc research will aim at creating a baseline of fish parasite species infecting rabbitfish (*Siganus* spp.) with a focus on ectoparasites with a direct life-cycle (no intermediate hosts) that has a potential to be problematic under aquaculture settings. The successful candidate will undertake a literature review in order to get an overview of the fish parasites known to infect rabbitfish worldwide and on the east coast of Africa. Further, the candidate will investigate the biodiversity and prevalence of fish parasites in wild populations of rabbitfish, to create a baseline on the parasite species present with a potential to be problematic in marine aquaculture production systems. In addition, the prevalence of potentially problematic species in hatcheries and community fish farms will be examined. The research will contribute to strengthened fish health management protocols and improved

biosecurity measures for Kenya's marine aquaculture sector, working closely with the Norwegian Veterinary Institute's (NVI) expertise in aquatic animal health.

Purpose of the Research

The successful candidate will work with KMFRI, NVI, and local mariculture stakeholders to assess parasite prevalence and transmission dynamics across the production continuum. The scholar will conduct comprehensive parasite surveys in hatcheries, community farms, and potential broodstock populations, evaluate parasite-associated production losses, and develop recommendations for improved health management and biosecurity practices that minimize parasite-related risks in marine aquaculture operations.

Required Qualifications:

i. Bachelor's degree in Fisheries Science, Marine Biology, Aquatic Animal Health or its equivalent from a recognized Institution,
ii. Experience with microscopy and parasite identification techniques
iii. Basic knowledge in molecular biology (PCR and DNA -sequencing) is preferred
iv. Knowledge of fish anatomy and physiology
v. Basic statistical analysis skills and laboratory safety protocols
vi. Strong communication skills in English and Kiswahili

ELIGIBILITY CRITERIA FOR INTERNAL STAFF

For PhD Applicants:

i. Must be a serving KMFRI Research Scientist
ii. Preference shall be given to candidates with demonstrable working experience within the designated project area, i.e., the Shimoni-Vanga JCMA
iii. Must not be registered for an ongoing PhD studentship in any university
iv. Must hold a Master's degree with at least Upper Second-Class Honors or equivalent
v. Current role and academic background must align with the technical expertise required for the position
vi. Demonstrate strong research potential, institutional commitment, and capacity for post-training leadership

For MSc Applicants:

i. Must be a serving KMFRI Officer
ii. Preference shall be given to candidates with demonstrable working experience within the designated project area, i.e., the Shimoni-Vanga JCMA
iii. Must be registered for a relevant Master's program at a Kenyan university not earlier than July 2025
iv. Must hold a Bachelor's degree or its equivalent from a recognized Institution,
v. Must have passed all required examinations
vi. Current role and academic background must align with the technical expertise required for the position
vii. Demonstrate research aptitude and potential for contributing to institutional capacity building.

APPLICATION PROCESS

Applications Open: 22nd April 2026

Closing Date: 12th May 2026 at 11:59 PM EAT

Required Application Materials

1. Comprehensive CV (maximum 4-5 pages)
2. Motivational statement (maximum 2 pages) explaining interest, career plans and alignment with the selected position
3. Research proposal for PhD (5-10 pages) aligned with specific research focus relating to the project area
4. Certified academic testimonials including degree certificates and transcripts
5. Two professional/academic references
6. National ID
7. Kenya Certificate of Secondary Education (KCSE) with a minimum grade of C+ or equivalent

Submission Instructions

APPLICATIONS SHOULD BE SUBMITTED IN BOTH HARD AND SOFT COPIES.

Submit applications electronically to:

Kenya Marine and Fisheries Research Institute

Email: postgraduateopportunities@kmfri.go.ke

Subject Line: "Application for Internal Staff Postgraduate Training - [Position Applied For] - [Your Full Name] "

Address Applications to:

The Director General

Kenya Marine and Fisheries Research Institute

P.O. Box 81651-80100, Mombasa, Kenya

Tel: +254 41 475151/2

HARD COPIES TO BE SENT VIA POST-OFFICE OR SUBMITTED AT KMFRI REGISTRY OFFICE, MOMBASA.

This programme is funded by NORWAY through the Ocean for Development Programme and implemented in collaboration with the Institute of Marine Research (IMR) Norway, Norwegian Veterinary Institute (VI), Norwegian Institute for Water Research (NIVA), and GRID-Arendal. The research contributes to Kenya's Blue Economy development and supports the Shimoni-Vanga Joint Co-Management Area's conservation and sustainable development goals.

KMFRI is an equal opportunity employer committed to diversity and inclusion in marine research and conservation.