NACA Newsletter

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FAO programme supports national innovation and investment plans for aquaculture transformation

FAO has signed a technical cooperation project (TCP) to support development of national innovation and investment plans (NIIP) for aquaculture transformation. The project will be carried out in cooperation with the governments of India, the Philippines, Thailand and Vietnam, with NACA as a coordinating agency. The inception workshop will be held via Zoom on 27 January, 2025.

Aquaculture can be an environmentally responsible, low carbon footprint form of food production, but, as with all forms of agricultural food production, it may have environmental and social impacts that require remediation or mitigation. However, persistent and emerging challenges have the potential to impede aquaculture from meeting the projected demand for aquatic food and contributing to the broad range of Sustainable Development Goals (SDGs) in the future.

Recognising these challenges, the Food and Agriculture Organization of the United Nations (FAO) has developed a Blue Transformation Roadmap which outlines a vision for FAO's work on aquatic food systems till 2030, covering the three core components of aquaculture, capture fisheries and value chain transformation.

In 2022, FAO Regional Office for Asia and the Pacific (FAORAP) and the Network of Aquaculture Centres in Asia-Pacific (NACA) prepared a regional guidance and roadmap for aquaculture transformation for Asia and the Pacific region so called "White Paper" and later published by FAO. The White Paper is aligned with the strategic goals of the Blue Transformation Roadmap and provides guidance on translating goals into actions that support sustainable intensification and expansion of aquaculture, relevant to the context of Asia and the Pacific region. The White Paper emphasised the importance of accelerating innovation and investment in aquaculture transformation in the region, through enhanced regional cooperation and national-level actions, including the need for greater attention to gender equality and social inclusion in innovation and investment in aquaculture.

In 2023, FAORAP and NACA also prepared an action guide to further support countries with aquaculture transformation actions, following the priority recommendations in the White Paper, including: 1) at national level, guidance on preparation of National Innovation and Investment Plans, aligned to regional targets for aquaculture transformation, but tailored to national priorities and contexts; and 2) at regional level, recommendations for an Aquaculture Transformation Monitoring, Evaluation and Learning System (ATMS) to track overall progress towards the aquaculture transformation targets proposed in the White Paper and accelerate cross-border learning and collaboration.

The aquaculture transformation process to date has been recognised and well supported by the governments in the region through the first and second High-Level Meeting on Aquaculture Transformation in Asia and the Pacific Region (HLM-1 and HLM-2).

During the 33rd NACA Governing Council Meeting (5-8 March 2024, New Delhi), the progress in aquaculture transformation was discussed in one main agenda item among the NACA government Members. The meeting identified the need to accelerate innovation and mobilise more investment funds for aquaculture transformation across the region, followed by the request for FAO technical assistance through NACA to support this initiative.

This TCP thus aims to assist the pilot with the participating countries on preparing NIIPs and developing the regional monitoring system or ATMS to be based on the learning from the participating countries. This TCP also aims to support wider dissemination of the results and use across the region.

NIIPs will highlight countries' selected priority areas to be further developed till 2030. The NIIPs are expected to be instruments, guiding needs for new investment areas on innovations and enhancement of partnerships among the governments and private sector in transforming aquaculture.

The ATMS will be implemented strategically as a tool for successful transformation of aquaculture at country and regional levels. It will guide actions, measure impacts, and foster improvement within the sector. The ATMS will keep track the efforts and progress made in Asia and the Pacific region in transforming aquaculture into more efficient, inclusive, resilient and sustainable aquatic food systems.

2026 is expected to serve as the baseline year for monitoring progress, with the first regional ATMS report in 2028.

14th Asian Fisheries Forum, 12-15 February 2025 register now!

The Asian Fisheries and Aquaculture Forum (AFAF) is a scientific forum organised by the Asian Fisheries Society (AFS) once every three years to understand the global trends and address issues and challenges faced by the fisheries and aquaculture sector. The main purpose of this Forum is to provide an international platform for eminent scientists, young researchers, and other stakeholders across the globe to share their research experiences and innovative ideas.

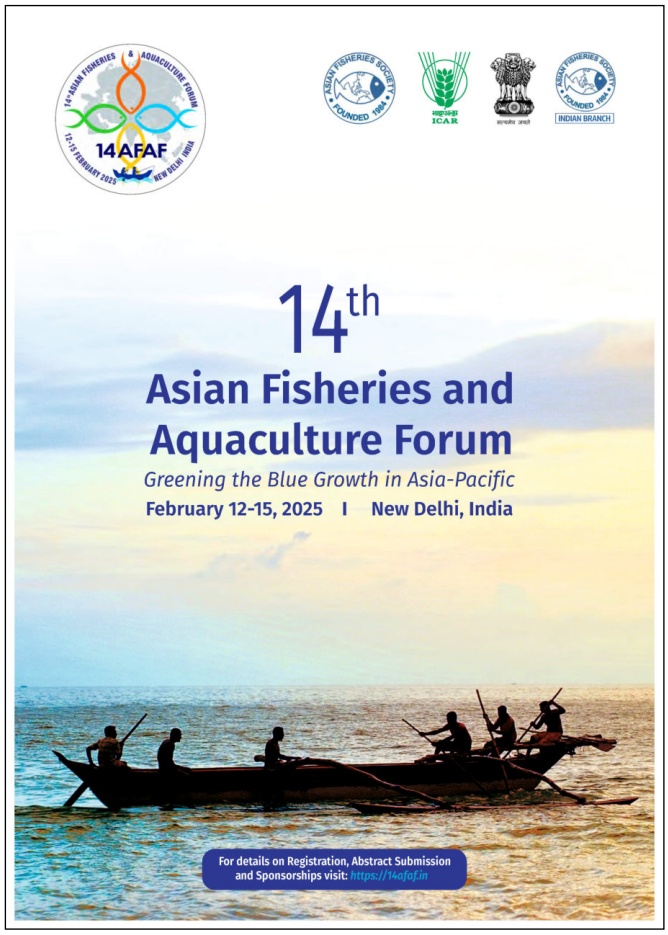
By facilitating the exchange of diverse range of knowledge and expertise, the 14th Asian Fisheries and Aquaculture Forum (14AFAF) with the Theme "Greening the Blue Growth in Asia-Pacific" aims to address key issues towards developing sustainable fisheries and aquaculture. We cordially invite you to join us for the 14AFAF scheduled during 12-15 February 2025, at the ICAR Convension Center, New Delhi, India.

Keynote speakers are Prof. S. Ayyapan, former Deputy Director General, Indian Council of Agricultural Research, and Dr. Eduardo Leano, Director General, NACA. Plenary speakers include:

- Prof. Neil Loneragan, Murdoch University
- Prof. Jun Zou, Shanghai Ocean University
- Dr Essam Yassin Mohammed, Director General, WorldFish
- Prof. Nicholas Robinson, Deakin University
- Prof. Soottawat Benjakul, Prince of Songkla University
- Prof. Alice Ferrer, University of the Philippines Visayas
- Dr. Krishna Salin, Asian Institute of Technology
- Dr. Iddya Karunasagaar, FAO Reference Center for Antimicrobial Resistance and Aquaculture Biosecurity
- and many more!

The technical sessions are:

- Resource Assessment and Management for Sustainable Fisheries
- Sustainable Aquaculture Intensification and Diversification
- SMART Aquaculture for Resource-use Efficiency
- Fish Genetics, Genomics & Biotechnology
- Aquatic Animal Nutrition, Feed Technology and Alternate Feed Resources
- Aquatic Animal Health Management and Antimicrobial Resistance
- Aquatic Biodiversity, Environment and Ecosystem Services



- Impact of Climate Change on Fisheries & Aquaculture and Resilient Strategies
- Post-harvest Processing, Value-addition, and Food Safety
- Socio-economic Dynamics & Extension in fisheries and aquaculture
- Gender in Fisheries & Aquaculture
- Fisheries Education, Skill Development and Technology Incubation
- Fish Marketing, Value Chains and Trade
- Fisheries Policy, Law, and Governance
- Aquaculture in China

For more information and registration, please visit the 14th AFAF website:

http://www.14afaf.in

Saudi International Marine Exhibition (SIMEC)
3-5 February 2025, Riyadh

In implementation of directives of His Excellency Minister of Environment, Water & Agriculture of holding a fisheries exhibition, the National Fisheries Development Program will organise an event to highlight the importance and sustainability of the fisheries sector, and how to leverage and fully exploit these untapped resources to advance the associated economic sectors. The event will further underline numerous advantages of the Saudi Arabia's strategic location by organising a major exhibition that will bring to together various sectors and activities in one place, will be held with aim attracting international best experience and global expertise to discuss new developments and emerging issues in the international arena. It will mainly focus on aquaculture, marine fisheries and other significant topics.

No other national event or gathering has ever brought together all sectors and activities associated to marine fisheries and aquaculture sector in one place. SIMEC offers:

- The first ever specialised exhibition in Saudi Arabia focusing on fisheries, aquaculture and related maritime activities and industries.
- Networking with key stakeholders and decision makers in in the fields of fisheries, aquaculture and related activities and industries.
- Ideal platform for trade talks and commercial agreements between importers and exporters of live, chilled and frozen seafood products.
- Unmatched connection point between the National Fisheries Development Program (NFDP) and private sector partners.
- Unique opportunity for establishing effective partnerships with the sector's leading local and international companies, key players and networking with industry experts and professionals.
- Innovation showcase featuring state-of-the-art products and cutting-edge aquaculture technologies.
- Prestigious event as a peerless showcase and promotion for new products and related services.

For more information visit the SIMEC website:

https://en.simec-expo.com/

Workshop on Sustainable Brine Shrimp *Artemia* Cultivation, 17 February, Tashkent

Although the drying up of the Aral Sea and the salinisation of a lot of agricultural lands in different regions in Uzbekistan and Kazakhstan have major negative consequences, there is a high potential to develop a new profitable industry and create new job opportunities in this region: the environmental-friendly and sustainable pond farming of brine shrimp *Artemia*, a well known source of food in the farming of fish and crustacean species around the world.

The regional project ECO ARAL (Ecologically oriented development of the Aral Sea Region) financed by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by GIZ has initiated a pilot project in Karakalpakstan to showcase the feasibility of a sustainable *Artemia* cultivation in environmentally friendly earth ponds. The *Artemia* project is implemented in cooperation with the International Innovation Center for the Aral Sea Region in Nukus under the Ministry of the Ecology, Environmental Protection and Climate Change of the Republic of Uzbekistan, the Academy of Science in Nukus, Ghent University (Belgium) and Can Tho University (Vietnam).

This workshop aims to show the outcomes of the implemented *Artemia* pilot project, present guidelines and recommendations important for such a new business sector, lessons learned and discuss prospects of Artemia production to further develop aquaculture sector in Uzbekistan and Kazakhstan.

Speakers include:

- Alisher Shukurov, Deputy Minister of Agriculture.
- Patrick Sorgeloos, Ghent University, Belgium
- Meezanur Rahman, WorldFish
- Simon Wilkinson, NACA
- Nguyen Van Hoa, Can Tho University

For more information, please download the flyer from: https://artemia.info/news/?id=125

Status, technological innovations, and industry development needs of mud crab (*Scylla* spp.) aquaculture

Lovatelli, A., Shelley, C., Tobias-Quinitio, E., Waiho, K. & Chan, D. (eds).

This document contains the proceedings of the technical workshop entitled Status, technological innovations, and industry development needs of mud crab (*Scylla* spp.) aquacultureâ€ held from 27 to 30 November 2023, in Singapore, and organised by the Fisheries and Aquaculture Division of the Food and Agriculture Organization of the United Nations (FAO) in collaboration with the Aquaculture Innovation Centre (AIC), Temasek Polytechnic.

The workshop was a direct result of the growing interest by FAO Members engaged at different levels in mud crab aquaculture and the desire to exchange innovative hatchery production and farming solutions that would improve the overall production outputs. The sustainable expansion and technically advanced production of this valuable crustacean would support existing farming activities, contribute to the production of aquatic food, secure revenues for rural coastal communities, as well as generate new employment opportunities.

This document provides a summary of the workshop, highlighting key opportunities and challenges in the development of mud crab aquaculture, along with a series of follow-up actions and recommendations to support growth in the sector. It also includes a brief global overview of the status of mud crab aquaculture development as well as reviews detailing

the development status in major producing countries. Additionally, the document features technical reports on advancements in hatchery-produced seedstock, farming systems for both soft-shell and hard-shell crabs, value chains, marketing, and topics related to management, conservation, transportation, and the future quality and handling standards of the industry. These reviews offer valuable insights into recent experiences and ongoing activities within the field of mud crab aquaculture.

The exchange of information and innovative farming and handling practices during the workshop will be captured in the second edition of the FAO Mud Crab Aquaculture Manual, due out in early 2026, reflecting the spirit of collaboration and information sharing.

The proceeding of the workshop is intended for national authorities, including government bodies and research institutions, as well as academia and private sector stakeholders, aiming to foster engagement and collaboration in promoting and supporting the further expansion of this aquaculture subsector through a comprehensive review of its key challenges and opportunities.

The proceedings are available for free download from:

https://doi.org/10.4060/cd3976en

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NACA is a network composed of 20 member governments in the Asia-Pacific Region.

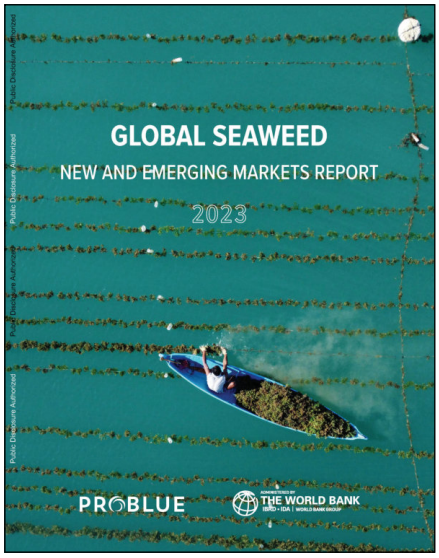
Global Seaweed: New and Emerging Markets Report 2023

With its ability to sink carbon, sustain marine biodiversity, employ women, and unlock value chains, seaweed farming demonstrates how development, climate, and nature work together to generate value and uplift communities.

Seaweed farming can help build a world free of poverty on a livable planet and has enormous growth potential.This report has identified ten global seaweed markets with the potential to grow by an additional USD 11.8 billion by 2030. Yet, much of the seaweed sector's value remains untapped - it has clear growth potential beyond its current markets.

Today, most farmed seaweed is used for direct human consumption, as fresh feed in aquaculture, or as hydrocolloids. However, seaweed-farmed products may be able to displace fossil fuels in sectors such as fabrics and plastics; can provide ecosystem services, such as carbon sequestration and nitrogen cycling; and can generate socioeconomic benefits in fragile coastal communities.

Further, the market is currently dominated by a handful of Asian countries, which produce 98 percent of farmed seaweed by volume globally. Opportunities for growth in new regions and applications are high.



The seaweed sector has clear growth potential beyond its current markets and can help shape a world free of poverty on a livable planet. Enhanced seaweed production and improved value chains can contribute to meeting at least nine of the 17 U.N. Sustainable Development Goals (SDGs). For example, seaweed farming can sink carbon, sustain marine biodiversity, and employ women.

At a time when global resources are increasingly overstretched, it is particularly important that the world makes the most of those resources – such as seaweed – that can both be swiftly regenerated and potentially help to regenerate the ecosystems that support them.

Seaweed farming in new markets and with new applications can support development, climate, and nature work to generate value and uplift communities.

The report is available for free download from:

https://www.worldbank.org/en/topic/environment/publication/global-seaweed-new-and-emerging-markets-report-2023