



Report of the 23rd Asia Regional Advisory Group on Aquatic Animal Health

This report summarises the proceedings of the 23rd meeting of the Regional Advisory Group on Aquatic Animal Health, held 14-15 November 2024 by video conference. The role of the group is to review trends in disease and emerging threats in the region, identify developments in global disease issues and standards, to evaluate the Quarterly Aquatic Animal Disease Reporting Program and to provide guidance on regional strategies to improve aquatic animal health management. The meeting discussed:

- Progress on NACA's Asia Regional Aquatic Animal Health Programme.
- Updates from the WOAHA Aquatic Animal Health Standards Commission.
- Aquaculture Biosecurity:
- Progressive Management Pathway for Improving Aquaculture Biosecurity and FAO's Aquatic Animal Health Initiatives in the Asia-Pacific Region.
- FAO/ASEAN Training on Risk Assessment for Developing an On-Farm Biosecurity Plan in the Aquaculture Value Chain.
- Methodology for Assessing Biosecurity Risk in Small-scale Farms: Experience from Colombia.
- Farming Without Fear: The Power of Proactive Biosecurity.
- AMR in Aquaculture: Importance of Epidemiological Cutoff Values for Aquatic Animal Health Antimicrobial Sensitivity Testing.
- Updates on WOAHA Asia-Pacific Network on Aquatic Animal Health (AP-AquaNet).
- Updates on Regional Disease Reporting and Disease List.
- Other matters.

Members of the Advisory Group include invited aquatic animal disease experts in the region, representatives of the World Animal Health Organisation and the Food and Agricultural Organization of the United Nations, collaborating regional organisations such as SEAFDEC Aquaculture Department and WOAHA-Regional Representation in Asia and the Pacific, Thailand Department of Fisheries Aquatic Animal Health Research and Development Division, and the private sector.



NETWORK OF AQUACULTURE CENTRES IN ASIA-PACIFIC

Twenty Third Meeting of the Asia Regional Advisory Group on Aquatic Animal Health



REPORT OF THE MEETING

Network of Aquaculture Centres in Asia-Pacific, Bangkok, Thailand
14-15 November 2024
Prepared by the NACA Secretariat

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<https://enaca.org>

AQUAINNOVATE: An AquaHub Event



12-19 May, Bangkok

A networking and coaching event for aquaculture entrepreneurs and startups will be held in Bangkok from 12-19 May. AQUAINNOVATE will bring together promising startups to pitch their ideas, network, and participate in expert coaching circles.

Convened by NACA and FutureFish with funding support from Canada's International Development Research Centre, the programme will include sessions on business fundamentals, investing for impact, nature and community based business innovations, and interactions with experts from the National Innovation Agency, Center of Excellence for Shrimp Molecular Biology and Biotechnology, the National Center for Genetic Engineering and Biotechnology, and Mahidol University.

The packed programme includes visits to local farms that are driving innovation and leading the industry, panel discussions on the aquaculture startup ecosystem and nature-based seafood markets and creative partnerships.

The indicative programme and participant profiles are available from: <https://enaca.org/aquainnovate/>

Workshop on sustainable brine shrimp Artemia cultivation 17 February, Tashkent

Although the drying up of the Aral Sea and the salinization 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 wellknown 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).

A workshop was held in Tashkent on 17 February to showcase 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. The presentations included experiences from other countries including Bangladesh, Thailand, and Vietnam.

Tuskfish CMS V2.1 released

Tuskfish CMS is a free, fast and lightweight open source software project used to build the NACA website. Version 2.1 is a feature release that adds support for blocks (the equivalent of 'widgets' in Wordpress or 'modules' in Joomla). The minimum PHP version has been raised to 8.3.

New feature: Blocks

- Extensible block system added with separate block administration page.
- Spotlight, recent content and custom HTML block types available by default.
- Block display is regulated by route (URL path), customisable block positions and various configuration options.
- Block templates can be readily customised to develop alternative variations.

Updates

- Typed properties for entities, system traits and core Tfish classes.
- Converted switch statements to match for simple cases.
- Implement union types.
- Implement nullable union types on parameters.
- Core interfaces have been moved into a dedicated directory.

Deprecations

- Blocks have been removed as a content type. Blocks are now independent layout components.

Get it from: <https://github.com/crushdepth/tuskfish2/releases>

TCRS Shrimp Summit To Spotlight Issues

Driving Industry Changes

Shrimp Welfare among trending new topics

PORTSMOUTH, NH: Shrimp experts from around the world will gather in Bali this June for the third annual TCRS Shrimp Summit—a one-of-a-kind event that explores the issues impacting the industry's health and future, from the pond to the market. The summit is unique not just because it represents the full value chain, including major buyers, but because it spotlights the topics, both technical and tactical, that are driving change.

This year's Summit, which takes place 22-25 June, 2025, introduces several new sessions that demonstrate the event's role as a singular forum for investigating the issues that matter.

One such issue is Shrimp Welfare, particularly the use of eyestalk ablation for rapid egg production. Dr. Simão Zacarias, one of the session speakers and a recipient of the 2020 Global Aquaculture Innovation Award, says that, "although eyestalk ablation can boost egg production, it is also associated with significant levels of female broodstock stress, physiological imbalance and mortality, and compromised resistance to disease in offspring." Addressing this issue is important not just for social licensing, he says, but for commercial success: "A growing number of international buyers/retailers are beginning to source only shrimp produced from eyestalk ablation-free systems," Zacarias notes, "so it is critical that hatcheries and farmers understand how to move to non-ablation."

Similarly, Zacarias' colleague at the University of Stirling, Amaya Albalat, will speak at the session on current practices for the harvesting, stunning, and slaughter of shrimp. These practices are varied and unregulated, which her research has shown impacts the physiology of decapod species and may impact product quality. Legislative bodies and markets are increasingly demanding more rigorous development and application of best practices in these aspects of shrimp production.

About the 2025 TCRS Shrimp Summit

The Shrimp Summit is co-hosted by the Global Seafood Alliance, the Shrimp Club of Indonesia, and the Indonesian Fisheries Producers Processing and Marketing Association. Early sponsors include USSEC, The Nature Conservancy, Devi Seafoods, Monterey Bay Aquarium, and the North American Renderers Association (NARA).



Areas of special focus at this year's event include Improver Programs; Digital Technology; and Sustainable Feeds and Feeding. Other sessions include Shrimp Welfare; Antibiotic Residues and Management; Regenerative Production; Global Production and Markets; Breeding and Disease Management; Growout Intensification; and Innovation.

A trade show showcasing innovative, leading-edge solutions focused on sustainability has also been added to this year's program.

To make the Shrimp Summit accessible to as many people as possible, registration is offered for both in-person and virtual attendance. AI-powered language-translation services (audio and text) will be available for over 30 languages.

A post-conference tour, available for an additional fee, will provide a firsthand look at local shrimp production. More details about the tour will be announced soon.

Learn more about the 2025 TCRS Shrimp Summit at:

<https://responsibleseafood.org/shrimpsummit>

About The Center for Responsible Seafood

The Center for Responsible Seafood is focused on finding impactful solutions to large issues where the stakes are high for environmental, economic, and social well-being. TCRS strives to continually transform aquaculture through knowledge sharing, applied research, and collaboration. Its track record includes effective programs in areas such as disease management, animal welfare, food safety, and the development of an online educational platform. The nonprofit organization's ongoing work includes global surveys of practices, the identification of solutions, the development of collaborative strategies, and improver programs leading to third party certification.

Global Artemia Summit: 27 June, Entebbe, Uganda

Artemia (brine shrimp) plays a pivotal role in aquaculture, especially as a live food for larval stages of high-value fish, shrimp, prawn and crab. However, despite growing global demand, Artemia availability is increasingly constrained due to overexploitation, habitat degradation, and climate-related changes in hypersaline ecosystems. Untapped potential for Artemia aquaculture exists in many parts of the world, with the opportunity to improve hatchery performance, reduce feed imports, generate livelihoods, and contribute to broader blue economy goals.

To raise awareness, share the knowledge and services generated by the World Bank Global Advisory Services and Analytics on Artemia production and conservation, and foster partnerships, the World Bank and FutureFish will host a Global Artemia Summit, focused on Artemia production, conservation, and innovation, as part of the WAS 2025. The objectives of the summit are to:

- Showcase global and regional advancements in Artemia aquaculture production and resource management, development and conservation.
- Share country experiences, innovative production models, integrated production
- Strategies for Artemia as a feed and as human food, and scalable investment opportunities.
- Raise awareness of Artemia's role in sustainable aquaculture development and biodiversity conservation.
- Facilitate networking and technical exchange between researchers, governments, investors, producers, and other stakeholders.

The summit is expected to provide participants with:

- An understanding of the global and regional trends in Artemia production and use.
- Insights into cost-effective Artemia farming practices, including integration with salt production and other aquaculture practices.

- Awareness of environmental pressures on wild Artemia resources and strategies for conservation.
- Tools and approaches for scaling Artemia value chains in Africa and globally.
- Knowledge of key areas for research, investment, and policy engagement.

Scope and themes

- Artemia Biology and Ecology: Fundamentals of Artemia species, production and conservation requirements, and ecological roles.
- Production Systems: Integrated Artemia-salt farming, pond-based and tank culture, hatchery applications.
- Genetic Resources and Conservation: Wild stock pressures, species and strains biodiversity, biosecurity, and habitat preservation.
- Market Trends and Trade: Global demand, supply bottlenecks, and Africa's potential.
- Novel Artemia Products: Artemia applications in animal and aquaculture feeds and human foods
- Regulatory Frameworks: including laws and policy.
- Investment: Public-private models, enabling policies, and donor-led initiatives.
- South-South Knowledge Sharing: Lessons from Asia, Africa and Latin America on Artemia development.

Target audience

- National aquaculture authorities and ministries.
- Selected Africa country participants.
- Aquaculture private sector, hatchery operators and other supporting activities.
- Investors and agribusiness stakeholders.



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



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- Researchers and academics.
- Development partners.
- NGOs.
- Donor institutions and investor financing platforms.

The programme will provide a global overview and business case for Artemia, new applications and opportunities for investment, new frontiers and will include an open discussion on catalysing innovation and investment.

For more information, please download the prospectus from:

https://www.was.org/Meeting/pdf/AFRAQ25_GlobalArtemiaSummit.pdf