

ISSUE 36

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## MESSAGE FROM EDITOR



Asian Fisheries Society with its Gender in Fisheries and Aquaculture section (GAF), Fish Health Section (FHS), Asian Fisheries Social Scientists Network (AFSSRN) and AFS branches in India (AFSIB) and Taiwan (AFSTB) have been quite active during the first half of the year and have planned a number of activities in coming months as detailed under respective sections in the Newsletter.

We are looking forward to more contributions from Members (individual and institutional) on activities they are undertaking – results of research/projects undertaken, conferences and training programs being organised, for wider dissemination to not only to other members of AFS, but also to fisheries fraternity in general who visit AFS website.

Fisheries fraternity has lost one its outstanding scientist and member of AFS – Prof. Tsung Han Lee from Taiwan, who is a renowned fish physiologist. We pray for his soul to rest in peace and give strength to his family to bear the loss. .

**M. V. Gupta**  
*Editor*

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ASIAN FISHERIES SOCIETY

e-Newsletter

## Message From the President



**Dear AFS members,**

Greetings from your President based in cold, wintery Perth. The Council of AFS has just completed its 64th Council meeting in the beautiful city of Bogor, Indonesia on June 26 and 27. This Council meeting was our first hybrid Council meeting and our first opportunity for Councillors to meet face-to-face for over three years. Councilors, heads of Branches (India and Taiwan), Sections (Fish Health, Gender and Fisheries), the Social Science network met over 1 ½ days and discussed the current state of AFS (membership, finances, etc.), plans for our Symposia (Asian Fisheries and Aquaculture Forum, Cage Aquaculture in Asia, Diseases in Aquatic Animals and International Symposia on Aquaculture and Fisheries Education), progress on our journal and revamping our web site and other matters. We were also joined for parts of the meeting by co-opted Council member, the esteemed Dr Jena, who provided us with a brief update on the 14th Asian Fisheries and Aquaculture Forum in New Delhi in 2025 and Dr Clara Obregon who has been working with me on ideas for making the Society more engaging for graduate students and early career researchers. We are very grateful to our host for the meeting, Prof. Budy Wiryanawan of IPB University, and our sponsors, the Fisheries Resource Center of Indonesia, represented by Dr Irfan Yulianto and the Environmental Defence Foundation, represented by Dr Abdul Halim.

### **Activities**

The Executive Committee (EXECOMM) has had two formal meetings online, one in January and the second in June 2023, an informal meeting (September 2022), and participated in three meetings for developing the website and increasing the engagement and profile of AFS for students and early career researchers and people involved with capture fisheries.

### **Members**

In December 2022 following the 13AFAP, AFS had 313 active members from 30 countries and about 20 students from 10 countries. Wilfredo Campos, the Chair of our Membership Committee advised that we now have 289 active members and about 10 student active members. The benefits of membership have been identified and a category of Institutional membership of AFS has been added to encourage greater participation.

### **Website**

Our Editor in Chief of the Journal of Asian Fisheries Science, Professor Mohamed Shariff initiated a revitalisation of the website so that publications in the Journal of Asian Fisheries Science would be more readily accessible on a variety of platforms, and thus increase the profile of the journal of AFS. This requires a redevelopment of the website and Council is working to check the revitalised website so that it can be launched as soon as possible.

## **Increasing engagement and profile of AFS**

### **Students and early career researchers**

Mechanisms for increasing student and early career researchers membership and involvement in AFS have long-term benefits. These were discussed by Council and potentially include identifying specific sessions at our conferences for students and ECRs, establishing a mentor-mentee network for interested people and holding a student forum, virtually.

### **Researchers in Capture fisheries: ecology, assessment and management**

The profile of capture fisheries research in AFS and throughout the region has been in decline. However, an FAO workshop on Asian fish stocks and their assessment in January 2023 identified that a lot of research is being done in the region. The workshop discussed recommendations for how communication might be enhanced among researchers, including the possibility of AFS facilitating a network of researchers in capture fisheries.

### **Other societies and institutions**

We have links with some fisheries and aquaculture societies. There may be others, e.g. national societies of fish biology or aquaculture, that would be beneficial to AFS.

### **Webinars**

During COVID, the Fish Health Section initiated a webinar series that attracted many participants. Developing a program of webinars has potential to increase the engagement of AFS with a broader audience. This is something that could be taken up by the Workshop and Training Committee.

### **The coming year (2023/24)**

It is an exciting time for AFS members as we can now travel and meet face-to-face for the first time in three years. Some of our meetings have been postponed until in-person meetings were possible. The first of these in 2023 is the 7th Cage Aquaculture in Asia (CAA7), which is being held on Hainan Island, China from November 29 to December 1, 2023, convened by Hainan University or AFS, possibly preceded by a hybrid Council meeting. We also discussed the possibility of holding the 5th International Symposium on Aquaculture and Fisheries Education (ISAFE5) in Indonesia in 2024. Dr Jena advised that the 14th AFAF will be held in New Delhi in February 2025.

I wish all members well for their research, teaching and engagement activities and encourage you to contact Council through Malathi, a Councillor or me, if you have ideas on how the Society can be more effective and activities that the society might consider initiating. Thank you all for your support and thanks again to Prof. Budy Wiryawan (IPB University), Dr Irfan Yulianto (Fisheries Resource Center of Indonesia – Rekam Nusantara) and Dr Abdul Halim (Environmental Defense Fund) for their support for the 64th Council meeting of AFS.

**President 14<sup>th</sup> AFS Council**  
**Professor Emeritus Neil Loneragan**



### **GAFS Executive Meetings:**

ExeComm held meetings during GAF 8 and an online meeting on March 4, 2023. During these meetings, options to publish papers from GAF 8 were discussed. Teams/ institutions from Malaysia and Cambodia at GAF 8 have shown considerable interest in hosting GAF 9 in 2025. In the March meeting, the Chair presented the GAF 8 report and also acknowledged the tremendous support provided by partner institutions, ExeComm members and GAFS members for the successful conduct of the conference. The ExeComm meeting discussed the updates on Interventions by GAFS to FAO and other UN consultations and also the proposals from the different networks. Dr. Madu Galappaththi was nominated for the vacancy of the Newsletter Editor. Dr. Galappaththi recently completed her PhD at the School of Environment, Resources and Sustainability, University of Waterloo, Waterloo, Ontario, Canada.

### **Events**

#### **Policy Inputs: Reducing inequalities for food security and nutrition – HLPE-FSN consultation on the VO draft of the report**

A draft report was circulated to the Genderaquafish group for inputs. Contributions were received from our senior members Dr. Meryl J Williams and Dr. Cornelia Quist, along with valuable points by Dr. Madu Galappaththi. The contributions mainly highlighted the under-representation of gender in the draft. The final copy was compiled and submitted on the forum by Dr. Meryl Williams. There has been no update on the publication status of the draft report after the elapse of the timeline for comments and contributions on the forum.

#### **CFS High-Level Panel of Experts on Food Security and Nutrition (HLPE)**

An invitation to support the Norwegian led proposal to update the 2014 CFS HLPE report on Sustainable Fisheries and Aquaculture for Food security and Nutrition was received through the Global Action Network. However, the time to circulate the proposal for input or contributions from GAFS membership was too short. As a former panellist on the HLPE 2014 report, Dr Meryl Williams was mandated to contribute valuable inputs for gender inclusions in the draft proposal. On 23 May, the CFS advised stakeholders that the fisheries proposal was among those given general support (i.e., not requiring elaboration and further consideration at this stage).

## Collaborations

### CAFI-SSF Network

A FAO-supported initiative, the Global Network for Capacity Building to Increase Access of Small Scale Fisheries to Financial Services (CAFI-SSF Network) invited GAFS to join its network. Available information on how to become a member in the network has been shared for review. The CAFI-SSF network was formalized in 2020 and membership is free or open to organizations and institutions, worldwide. The network has held webinars including on women in fisheries. The ExeComm agreed that women, especially in postharvest fisheries, lack access to finance and insurance. GAFS diversity was thought to be an attraction to the network and resulted in the formal invitation.

### GAFS Communications

GAFS continues to be very active in its outreach, through its website, its GAFS members e-mail group, Genderaquafish e-mail group and social media outlets (Twitter and Facebook). GAFS members are receiving a monthly premium news service on GAF news items. GAFS contributes reports to each of the biannual AFS e-Newsletters. For the International Women's Day 2023, GAFS prepared a tribute to women fishing around the world through a video that WorldFish provided technical help to produce "Video tribute to women fishing around the world" posted on March 5, 2023 [Link]. This video was in commemoration and a befitting finale to GAFS contribution to the IYAFA. It was released for IWD 2023. GAFS places on record our appreciation to WorldFish for their help in bringing in out.

Here are the latest stories from our website <https://www.genderaquafish.org/stories/>

- ◆ "Masculinities riptide: wind in the sails or anchor for the inclusion of gender in fisheries?" by Neyra Solano and Inés López-Ercilla, posted on September 28, 2022 Link
- ◆ "Amphibious Living Opportunities: ALO for the Sundarbans" by Vijay Mahajan and SS Tabrez Nasar, posted on January 19, 2023 Link
- ◆ "Participatory Action Research enhances fish smokers' willingness to adopt social change and technology innovation in Lagos, Nigeria" By Kafayat Fakoya, Ayojesutomi Abiodun-Solanke, Adenike Boyo, Shehu Akintola, Kafayat Ajelara, Mayowa Olasope and Ismot Olabamiji, posted on June 4, 2023 Link

**Contributed by: Nikita Gopal, Kyoko Kusakabe and Kafayat Fakoya**

## AFS SECTIONS

### Fish Health Section (FHS)

#### **FHS Executive Committee 2022/25**

Officers, members and observers of the FHS Executive Committee 2022-2025 were elected during the 12th Triennial General Meeting (TGM) held virtually in Kuching, Sarawak, Malaysia on 25 August 2022. The ExeCom is headed by Dr. Kua Beng Chu (Malaysia). The first meeting of the ExeCom was held virtually on 21 October 2022 wherein the status of the recently concluded DAA 11 and planned activities towards the holding of DAA 12 were discussed. Since then, the ExeCom (together with some senior Advisors) has met regularly on a virtual platform.

#### **Fish Health Section Conference**

The Fish Health Section in collaboration with Department of Fisheries Thailand is organising a conference during September 6-8, 2023 at Bangkok, Thailand with the theme 'Aquatic Animal Health: Learning from the past to inform the future' (<https://fhsconference.org>). The Conference is co-organised by the Network of Aquaculture Centres in Asia-Pacific. The Conference will create an occasion for continuing mentorship, with senior experts providing their outlook and perspectives based on decade-long experiences and has the following objectives:

- ◆ Provide a platform for the exchange of experience and guidance from senior experts (pillars) to the current generation of fish health enthusiasts (future pillars);
- ◆ Provide a forum for important issues and updates on aquatic animal health through scientific presentations and open discussion: and
- ◆ Showcase the Fish Health Section from its inception to how it became one of the most reputable networks on aquatic animal health globally.

The present conference is a pre-DAA12 event, intended to create an occasion for continuing mentorship, this time the pillars handing over their future outlook and perspectives based on decade-long experiences – from the 'before' when there was 'something' to the 'now' when there is almost 'everything'.

## **The 12th Symposium on Diseases in Asian Aquaculture (DAA12)**

The 12th Symposium on Diseases in Asian Aquaculture will be held in Chennai, India in November 2025. The Symposium will be organized by the Fish Health Section of the Asian Fisheries Society and Indian Council of Agricultural Research, New Delhi. This would provide an excellent platform for aquatic animal health experts including academicians, researchers and stakeholders to discuss and share their knowledge and experiences on emerging scenarios regarding aquatic animal health, and also the future direction of aquatic animal health research, especially with respect to Asia.

Chennai, the capital city of Tamil Nadu, is one of the Southern states of India and among the most visited Indian cities by domestic and overseas travellers/tourists. The city is located on the Coromandel Coast of the Bay of Bengal. The city is known for its vast cultural heritage and has many eye-catching sites to visit. Chennai is endowed with beautiful beaches like Marina, Elliots and Golden Beach. Mahabalipuram, a UNESCO world heritage site is located just 60 km away. The other major visiting places are Vandalur Zoo, Crocodile Park, Dakshin Chitra, Puducherry Aurobindo Ashram just to name a few. Besides, leading tourist attractions of South India such as Kerala backwaters and Munnar Hills, Kodaikanal, Ooty, Mysore, Hyderabad, Goa, Bengaluru and Mumbai are within two hours by air or overnight travel by train.

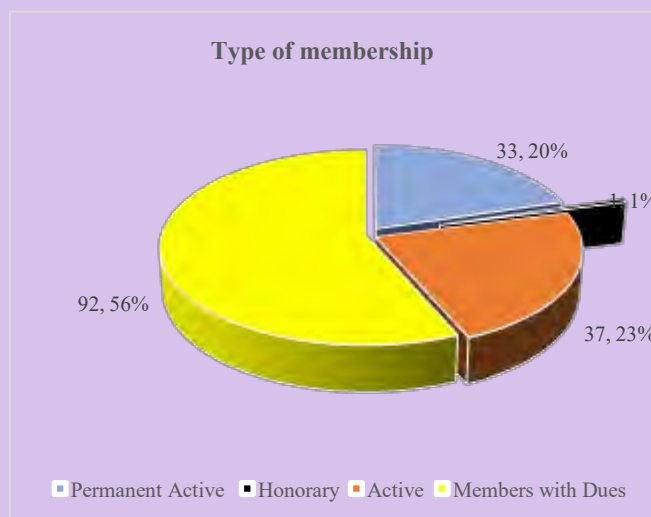
**Contributed by: Dr. Kua Beng Chu**

## Asian Fisheries Social Scientists Network (AFSSRN)

AFSSRN Executive Committee conducted meetings on 3 March 2023 and 12 May 2023. Highlights of the meeting are:

- ◆ Release of AFSSRN Bulletin June 2022 and December 2022 issues
- ◆ Proposal for a 4-country study on single-use plastics (Philippines, Malaysia, Indonesia, India)
- ◆ Membership promotion
- ◆ Enhancing the AFSSRN facebook page
- ◆ Participation (as a panel) during the 2023 International Conference in Fisheries and Aquaculture Sciences (ICFAS), Iloilo, Philippines

AFSSRN Membership: As of 31 May 2023, AFSSRN membership stood at 163 consisting of 33 permanent active members, 37 active members, 92 members with dues and 1 honorary member.



### Activities undertaken:

AFSSRN hosted a panel session at the ISAFE 4 during October 7-8, 2022 with the title "Future Strategy and Integration of Social Sciences in Fisheries Education" which was chaired by Prof Han-Ching Wang of the National Cheng Kung University, Taiwan, and co-chaired by Prof YuHung Lin, also of Taiwan. Keynote speech was by Dr. Alice Joan Ferrer (Philippines), with Dr. Nikita Gopal (India), Dr. Luky Adrianto (Indonesia), Dr. Zafri Hassan (Malaysia) and Dr. Caridad Jimenez (Philippines) as panellists. The session was moderated by Dr. Gay Defiesta (Philippines).



Saturday, October 08, 2022 (09:00-16:15 [GMT +8])	
09:00-10:00	SIGN-IN conference website to receive the conference link
10:00-12:05	<b>Session: Future Strategy: The Integration of Social Sciences in Fisheries Education</b> <b>Chair: Prof. Han-Ching Wang, National Cheng Kung University, Taiwan</b> <b>Co-Chair: Prof. Yu-Hung Lin, Taiwan</b>
10:00-10:05	Introduction of Asian Fisheries Society Social Science Network (FSSRN) <b>Marieta Bañez Sumagaysay, Chair, AFSSRN</b>
10:05-10:35	<b>Keynote speech</b> Enhancing Fisheries Education and Research through a Stronger Connection with Social Sciences [KO-02] <b>Dr. Alice Ferrer, University of the Philippines Visayas, Philippines</b>
10:35-10:50	<b>General oral presentation</b> 1. Social-Ecological System Approach to Sustainable Fisheries – Integrating Social Sciences into Fisheries with some insights from Indonesia [OP-11] <b>Dr. Luky Adrianto, Indonesia</b>
10:50-11:05	2. Integrating Social Sciences in Fisheries Education [OP-12] <b>Assoc. Prof. Caridad N. Jimenez, Philippines</b>
11:05-11:20	3. Title on demand Social Science in Fisheries Education in India [OP-13] <b>Dr. Nikita Gopal, India</b>
11:20-11:35	4. To include or to exclude: Social Science Courses in University-level Fisheries Curriculum [OP-14] <b>Dr. Mohd Zafri Bin Hassan, Malaysia</b>
11:35-12:05	5. Group Q&A (30 min)

## GAFS 8

Co-organized by GAF and AFSSRN of the AFS, a GAF 101 Training workshop on *Gender Analysis in Aquaculture and Fisheries Social Science Research* was conducted where case studies of India, Philippines, Malaysia, and Nigeria were presented. GAF 101 was designed for students and new researchers with current or planned social science fisheries research with a gender component. AFSSRN thanks the organizers of GAF8 for the inclusion of GAF 101 in the conference.

Panel Facilitators:	Prof. Paul Joseph Ramirez (Philippines) Dr. Neha Qureshi (India)
Session Introduction:	Dr. Alice Joan Ferrer (Philippines)
Paper presenters:	Dr. Nikita Gopal and Dr. Neha Qureshi (India) Dr. Marieta Bañez Sumagaysay (Philippines) Dr. Zumilah Zainalaludin (Malaysia) Dr. Kafaya Adetoun Fakoya (Nigeria)
Session Synthesis:	Dr. Zarirah Binti Mohamed Zulperi (Malaysia)

## GAF 101 Poster

**8th Global Symposium on Gender in Aquaculture and Fisheries** 

### GAF 101 TRAINING WORKSHOP: Gender Analysis in Aquaculture & Fisheries Social Science Research

Objective: To immerse participants on the growing range of gender analysis in aquaculture and fisheries social science research and development in the hopes that they start thinking and engaging on innovative gender analysis in their own fields of research and work

**22 November 2022 | 9:30 AM - 3:30 PM (IST) | Hybrid Modality**

#### GENDER ANALYSIS: CASE STUDIES

 <b>Dr. Nikita Gopal &amp; Dr. Neha Qureshi</b> Status and Way Forward for Strengthening Gender Studies in Indian Fisheries and Aquaculture	 <b>Dr. Marieta Bañez Sumagaysay</b> Gender Analysis of the Tuna Fisheries Value Chain in General Santos City, Philippines	 <b>Dr. Zumilah Zainalaludin</b> Gender Analyses on the Vulnerability Types Suffered by Poor and Older Freshwater Fisheries Community Members in Peninsular Malaysia	 <b>Dr. Kafaya Adetoun Fakoya</b> Gender Analysis in Small-Scale Fisheries: Nigeria
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#### INTRODUCTION

 <b>Dr. Alice Joan Ferrer</b>	 <b>Asst. Prof. Paul Ramirez</b>	 <b>Dr. Neha Qureshi</b>	 <b>Dr. Zarirah Binti Mohamed Zulperi</b>
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This session is open to students and new researchers with current or planned social science research with gender component. Only 20 participants will be accommodated. To reserve a slot, please contact Dr. Neha Qureshi at [nehaq@cfre.edu.in](mailto:nehaq@cfre.edu.in)

This session is organized by GAF and AFSSRN of the Asian Fisheries Society



### **Release of two (2) AFSSRN Bulletin Issues**

Two (2) AFSSRN Bulletin issues were released to all AFSSRN members. It is worthwhile to note that members acknowledged, though the numbers really need to be increased.

Here are the links for your reference :

- ◆ [https://www.asianfisheriessociety.org/download/afssrnbulletin/AFSSRN%20Bulletin2\\_December%202022.pdf](https://www.asianfisheriessociety.org/download/afssrnbulletin/AFSSRN%20Bulletin2_December%202022.pdf)
- ◆ [https://www.asianfisheriessociety.org/download/afssrnbulletin/AFSSRN%20Bulletin1\\_June%202022.pdf](https://www.asianfisheriessociety.org/download/afssrnbulletin/AFSSRN%20Bulletin1_June%202022.pdf)

A third issue will be released in July 2023 and will feature researches conducted by AFSSRN members. Efforts are exerted to include members coming from other countries to contribute events, articles, and news for the AFSSRN Bulletin.

### **On-going Project**

AFSSRN is embarking on a 4-country research project on “Knowledge, Perception and Attitude of Stakeholders on Single-Use Plastic and its Effects on the Marine Environment: A Gendered Value Chain Analysis of Fisheries.” This includes India, Indonesia, Malaysia and the Philippines. Research results will be presented during the AFSSRN General Assembly in November 2024.

### **Activities Planned:**

The term of the current set of AFSSRN officers will end in November 2024. From July 2023 to November 2024, the planned activities are:

- ◆ Undertake, complete and disseminate results of the Plastics research
- ◆ Conduct of the AFSSRN General membership assembly
- ◆ Participation in ICFAS 7 (October 2023)
- ◆ Trainings that focus on the importance of social sciences in fisheries curriculum, research and extension
- ◆ Writing of AFSSRN History

**Contributed by: Professor Marieta Sumagaysay**

## AFS BRANCHES

### Asian Fisheries Society Indian Branch (AFSIB)

#### **National Workshop on “Role of Fisheries Sector in Food Security and Sustainability”**

AFSIB was among the organisers of the event “National Workshop on Role of Fisheries Sector in Food Security and Sustainability” held at the Collage of Fisheries Mangalore during 27-28 January 2023. It was inaugurated by Dr. S. V. Suresh, Hon’ble Vice Chancellor, University of Agricultural Sciences, Bangalore, Karnataka. Dr. K. C. Veeranna, Hon’ble Vice Chancellor, Karnataka Veterinary, Animal and Fisheries Sciences, Bidar was the chief guest.

More than 800 scientists, researchers, fisheries professionals and students of various Fisheries Colleges from different parts of the country and abroad participated in the Workshop. From the Asian Fisheries Society Indian Branch (AFSIB), the secretary, Dr. Rajesh K. M., treasurer, Dr. S. K. Girisha, and the executive committee members Dr. P. Keshavanath and Dr. Mridula Rajesh participated in the workshop.

Presentations were made under the following sections:

1. Fisheries policy and tegulations
2. Aquatic food safety, nutrition and health
3. Fisheries, food security and sustainability
4. Aquatic food trade and value chain development
5. Fisheries education
6. Fisheries and livelihoods

### 13th Indian Fisheries and Aquaculture Forum (13th IFAF)

Indian Fisheries and Aquaculture Forum is an illustrious event in the Fisheries Sector of India to realize and relook into recent developments and redefine the goals that would pave the way for realistic achievements in the country. The ICAR - Central Inland Fisheries Research Institute, Barrackpore, the Inland Fisheries Society of India and the Asian Fisheries Society, Indian branch are jointly hosting the 13th Indian Fisheries and Aquaculture Forum (IFAF) during February 23-25, 2024 in Kolkota with the theme “Fostering Indian Fisheries and Aquaculture for Attaining Sustainable Development Goals”.

The first announcement has already been released ([www.13ifaf.cifri@gmail.com](mailto:www.13ifaf.cifri@gmail.com)). It is expected that more than 1000 scientists, researchers and fisheries professionals from different parts of the country and overseas will be participating in the Forum. Facilities for the exhibition will be arranged in the venue of the forum in which the Research Institutes, NGOs, Government Department/Organizations and Entrepreneurs will participate and exhibit their technologies and other research outputs. The forum is designed for the fisheries professionals and companies, innovative farmers, entrepreneurs, youth with ideas, academicians, scientists, researchers, students, government officials, policy makers and others engaged in activities related to education, research, business and entrepreneurship in fisheries and aquaculture.

Satellite Symposia on (i) Fish Genetic Resources and Conservation; Riverine fisheries; (ii) Habitat mapping and environmental health; (iii) Innovations in shell-fish culture and value chain; (iv) Sustainable fisheries and aquaculture in Northeast India and (v) Natural farming” will be organized during the forum. In addition, a number of Conclaves on: (a) Industry innovations in fisheries and aquaculture, (b) Department of Fisheries on Developmental needs for enhancing farmer’s income; (c) farmers conclave and (d) Women empowerment in fisheries will be organized.

Abstracts are invited in the following themes in technical sessions:

- ◆ Open water fisheries resources management
- ◆ Innovations in aquaculture production towards inclusive growth
- ◆ Small-scale fisheries addressing SDGs
- ◆ OMICs approach in fisheries and aquaculture
- ◆ Advances in fish nutrition research, nutraceuticals, and nutrigenomics
- ◆ Frontiers in fish health management
- ◆ Climate research in fish health and management
- ◆ Innovations in fish harvest and post-harvest technology
- ◆ Aquatic ecosystem health and emerging contaminants
- ◆ Precision farming, ICT, sensors, GIS, robotics in fisheries
- ◆ Social science research in fisheries and aquaculture
- ◆ Mariculture and seaweed farming
- ◆ Frontiers in shrimp farming

For more information, refer to detailed announcement at: [www.13ifaf.cifri@gmail.com](mailto:www.13ifaf.cifri@gmail.com).

**Contributed by: Dr. K. M. Rajesh**

**Secretary of Asian Fisheries Society Indian Branch (AFSIB)**

## Asian Fisheries Society Taiwan Branch (AFSTB)

We fondly remember Prof. Tsung-Han Lee, an outstanding fish physiologist.



A member of the AFS Taiwan Branch, Prof. Tsung-Han Lee from National Chung Hsing University unfortunately passed away in May 2023 at the age of 59. Prof. Lee was a renowned fish physiologist who made remarkable contributions to the study of osmoregulatory mechanisms in fish, particularly in unraveling the ion regulation mechanisms in milkfish, tilapia and sea bass gills. He published over 110 important papers. It is a significant loss to the fisheries research community. However, his passion, dedication, and sincere spirit in scientific research influenced his colleagues and students, and we all deeply miss him.

### **Exhibition and Conference information**

Taiwan International Ocean and Fishery Show 2023 will be held on Aug 31-Sep 2 in Taipei. It is the biggest fishery show in Taiwan. This year, the exhibition is divided into six major zones: "Agricultural Technology Zone," "Livestock Technology Zone," "Marine Fisheries Zone," "Aquaculture Technology Zone," "Fresh Cold Chain Zone," and "Aquatic Products Zone." It serves as the best business and procurement platform to explore industry innovation applications, solutions, improve the quality and efficiency of agricultural products, and expand production scale. AFS Taiwan branch will also jointly host the "4th Marine Aquaculture Technology Forum", an activity with the exhibition. The topic of the forum is "Blue Technology: Enabling a Sustainable Future in Aquaculture".

For more information of this event, please visit: <https://www.taiwanfisheryshow.com/en/index.html>.

**Contributed by: Professor Han Jia Lin**

# AFS SECRETARIAT NEWS

## **AFS Publication**

- **AFS Newsletter**

The Secretariat would like to thank all contributors for providing the materials for each issue of the AFS newsletter. We are looking forward to more articles, especially from AFS branches, sections, and members.

- **AFS Journal**

The online manuscript submission system for the Journal of the Society, Asian Fisheries Science is already linked to the UPM 'ScholarOne' package. The journal is now being published on schedule and is accessible to all, including non-members.

- **AFS Journal Management**

Editor in Chief: Prof. Dr. Shariff Din (since Dec. 2010)

Assistant Editor: Dr. Sanjoy Banerjee (since 2018-present)

- **Membership**

AFS has 619 members as of 31st December 2022. Of these, 313 are active members and the balance 306 members have to renew their membership. AFS encourages members to renew membership and to be Permanent Active Members (PAM).

- **Membership Account**

The username and password were remained as below:

Username: ID Number      password: afs@123

- **The Secretariat Office**

The Secretariat is hosted in the Laboratory of Aquatic Animal Health and Therapeutics (AquaHealth), Institute of Bioscience, Universiti Putra Malaysia, Kuala Lumpur

Executive Office: Mrs. Malathi D/O Thanamsegaram (full time)

### FAO publishes draft guidelines for sustainable aquaculture

FAO has published the Guidelines for Sustainable Aquaculture (GSA), which have been developed to support the implementation of the 1995 FAO Code of Conduct for Responsible Fisheries (Code), the FAO Strategic Framework 2022-31, the 2030 Agenda for Sustainable Development (ASD 2030) and its Sustainable Development Goals (SDGs) as well as the United Nations Decades for Ecosystem Restoration and Family Farming.

In 2017, the 9th Session of the Sub-Committee on Aquaculture (COFI:AQ) of the FAO Committee on Fisheries called for the identification of successful initiatives in support of sustainable aquaculture and their documentation and compilation into the Guidelines for Sustainable Aquaculture, towards better implementation of the Code and achievement of the SDGs through the contributions of the aquaculture sector. FAO carried out a global process to consult its Members, partners and stakeholders including representatives of farmers, civil society organizations (CSOs), governments, regional organizations and academia, to develop the Guidelines for Sustainable Aquaculture.

The Guidelines recognize that countries have diverse challenges, needs and capacities with respect to aquaculture development, including in relation to aquatic resources, infrastructure, investment, institutions, levels of education and technical capacities. At the same time, there are major common challenges and opportunities at national, regional and global levels. At the request of FAO Members, the Guidelines aim to provide a clear direction for the development of sustainable aquaculture and identify the concrete actions that need to be implemented for aquaculture to contribute to food security, poverty alleviation, preservation of ecosystems and biodiversity and the broader goals of the ASD 2030 and its SDGs.

**The guidelines can be downloaded from: <https://www.fao.org/3/cc5729en/cc5729en.pdf>**

## UN General Assembly votes to seek World Court's opinion, in quest for 'bolder' climate action

The resolution was put forward by the cyclone-battered Pacific Island nation of Vanuatu, supported by a “core group” of 17 countries from various regions, and is focused on the adverse impacts of climate change on small island developing States as well as climate justice. The ICJ, also known as the World Court, is the UN's principal judicial organ. Although its advisory opinions are not legally binding, they carry legal authority and moral weight. Speaking ahead of the vote, UN Secretary-General António Guterres noted that the Court's advisory opinions have tremendous importance. “If and when given, such an opinion would assist the General Assembly, the UN and Member States, to take the bolder and stronger climate action that our world so desperately needs,” he said.

Source: [https://news.un.org/en/story/2023/03/1135142?utm\\_source=UN+News+-+Newsletter&utm\\_campaign=ec19abf33b-EMAIL\\_CAMPAIGN\\_2023\\_03\\_30\\_12\\_00&utm\\_medium=email&utm\\_term=0\\_fdbf1af606-ec19abf33b-%5BLIST\\_EMAIL\\_ID%5D](https://news.un.org/en/story/2023/03/1135142?utm_source=UN+News+-+Newsletter&utm_campaign=ec19abf33b-EMAIL_CAMPAIGN_2023_03_30_12_00&utm_medium=email&utm_term=0_fdbf1af606-ec19abf33b-%5BLIST_EMAIL_ID%5D)

## Largest river and wetland restoration initiative in history launched at UN Water Conference

A coalition of governments on 23 March 2023 launched the Freshwater Challenge - the largest ever initiative to restore degraded rivers, lakes and wetlands, which are central to tackling the world's worsening water, climate and nature crises. Announced at the UN Water Conference in New York, the Freshwater Challenge aims to restore 300,000km of rivers - equivalent to more than 7 times around the Earth - and 350 million hectares of wetlands - an area larger than India - by 2030. Along with water supplies, healthy freshwater ecosystems provide a wealth of benefits to people and nature, and are critical to mitigating and adapting to climate change, and achieving the Sustainable Development Goals (SDGs). Yet one-third of the world's wetlands have been lost over the past 50 years, and we are still losing them faster than forests. Rivers and lakes are the most degraded ecosystems in the world, with fish populations, many of which are vital for community food security, pushed to the brink.

Released on the occasion, the IPCC's sixth assessment report outlines the serious impacts of climate change on freshwater ecosystems, highlighting the need to protect and restore them to enhance adaptation and build resilient societies, economies and ecosystems. Championed by the governments of Colombia, the Democratic Republic of Congo, Ecuador, Gabon, Mexico and Zambia, the Freshwater Challenge calls on all governments to commit to clear targets in their updated National Biodiversity Strategies and Action Plans, National Determined Contributions and National Implementation Plan for the SDGs to urgently restore healthy freshwater ecosystems.

Source: <https://www.unep.org/news-and-stories/press-release/largest-river-and-wetland-restoration-initiative-history-launched-un>

## Billions lost yearly due to illegal fishing, says Philippines lawmaker

Municipalities in the Philippines fisheries are losing from 24.1 to 37.8 billion Peso per year or from 257,000 to 402,000 metric tons (MT) of fish per year, according to a party-list lawmaker. During the forum of Tugon Kabuhayan on Tuesday, Dennis Calvan, representing Pangingsda Natin Gawing Tama Network, called on the current administration to address the problems caused by illegal and unreported fishing, and to give continuous support to the fishing industry. "The whole fishing industry must be supported through addressing the illegal fishing activities and strengthening the structure of the bureau of fisheries," he said.

According to Oceana, municipal waters in the Philippines are plagued by overfishing caused by "unabated illegal fishing activities, lack of political will to fully implement fisheries laws and regulations, including installation of vessel monitoring devices, lack of postharvest facilities and encroachment of commercial fishers into municipal waters." Asis Perez, former director of the Bureau of Fisheries and Aquatic Resources, also said during the forum that aquaculture is now the biggest producer of fish products. The aquaculture subsector contributed 54.1 percent to total Philippine fisheries production in 2022.

Increases in production were noted in marine municipal fisheries and aquaculture, while commercial and inland municipal fisheries saw production setbacks in 2022. According to the data released by the Philippine Statistics Authority, the total fisheries production grew to 4.339 million MT (MMT) or by 2.2 percent in 2022, higher from the previous year's output of 4.248 MMT.

## Fishing and aquaculture workers recognized as 'key workers' in ILO Values of Essential Work Report 2023

The International Labour Organization, in its report on 'World Employment and Social Outlook 2023: The value of essential work', has included fishing and aquaculture workers as "key workers" whose economic and social contributions need to be more fully reflected in public policy, following the experiences of the COVID-19 pandemic. Gilbert F. Houngbo, ILO Director-General, writes: "The COVID-19 crisis has served to remind us of the importance of key workers, how our economies and societies would grind to a halt if these workers did not come to work, or if the enterprises and organizations that they worked for were to shut down." Key workers can be found among eight main occupational groups: food systems workers; health workers; retail workers; security workers; manual workers; cleaning and sanitation workers; transport workers; and technicians and clerical workers. According to the report, the COVID-19 pandemic has made evident the extent to which societies need key workers – in both good times and bad – but also how undervalued most key jobs are, raising concerns about the sustainability of these essential activities, especially given the likelihood of future shocks.

The ILO report calls for a revaluation of the work of key workers and greater investment in key sectors in order to more fully reflect their economic and social contributions. This is one of the most important public policy lessons to be drawn from the COVID-19 pandemic, as every country has an inherent interest in strengthening its resilience to major disruptions and crises irrespective of their nature. The report states that the COVID-19 pandemic has made evident the extent to which societies need key workers – in both good times and bad – but also how undervalued most key jobs are, raising concerns about the sustainability of these essential activities, especially given the likelihood of future shocks. The report calls for a revaluation of the work of key workers and greater investment in key sectors in order to more fully reflect their economic and social contributions. This is one of the most important public policy lessons to be drawn from the COVID-19 pandemic, as every country has an inherent interest in strengthening its resilience to major disruptions and crises irrespective of their nature. In the case of aquaculture, the report notes, demand fell for fresh fish products, but rose for canned, frozen and processed fish, and border closures impeded fish exports, forcing aquaculture farmers to maintain significant live stocks in production facilities, incurring additional feed and monitoring costs, and increasing fish mortality risks. The report, World Employment and Social Outlook 2023: The value of essential work'.

Geneva: International Labour Office, 2023 can be accessed at <https://doi.org/10.54394/OQVF7543>

## India Proposes Virtual Marine Fisheries Academy

Top experts in the fisheries sector, pitched for the development of a regional marine fisheries platform for the Bay of Bengal region to deal with the issues in the sector, while India proposed the setting up of a virtual marine fisheries academy for the region. The meeting also pointed out that a series of issues, including climate change, are posing threat to the fisheries sector globally and to tackle this, the experts proposed stronger research collaboration among the rim countries of the Bay of Bengal region for the betterment of marine wealth and livelihood of small-scale fishers in the region. This region contributes about 21 per cent of global seafood production and is home to the largest conglomeration of the small-scale fisheries sector. But a range of issues such as climate change, marine pollution, overfishing, and oil spill are plaguing the fisheries sector in this area.

## Heavy Rains and Bumper Fish Crop in Mekong River

Heavy rains and a bumper fish crop have improved life along the Mekong River after a nearly four-year drought, poor harvests and the pandemic took a heavy toll on some 65 million people who rely on the waterway for their daily livelihoods. According to the Mekong River Commission, which coordinates use of Mekong resources, the drought had affected fish and agricultural production but ended as mainland Southeast Asia experienced regular rainfall last year and late rains that extended the wet season into December. The Lower Mekong Basin, including Thailand, southern Laos, Cambodia and Vietnam, fared best, and a commission spokesperson said “the region is not still in a drought.”

A return to “normal” had Cambodia’s Agriculture, Forestry and Fisheries Ministry forecasting a much improved 2022-23, as the annual fishing season got under way with families fermenting carp into the traditional prahok, or fish sauce. It said initial reports suggest this year’s harvest is up by as much as 40% over last year as fish begin migrating from the Tonle Sap Lake in central-west Cambodia, navigating streams and creeks and into the Mekong and Bassac rivers. A targeted moratorium on catching endangered species during spawning season and the “effective prevention of illegal fishing activities in the Tonle Sap Lake” had produced an “increased number of wild freshwater fish” during the 2022 breeding season, the ministry said.

However, analysts said the improved outlook remained patchy and that it was too early to say the drought was over, while many fishers say that although bumper catches were helped by illegal electric nets, the harvest was still low because of dams.

## Continued urgent action needed to prevent food and nutrition crisis from worsening, say organization heads

As millions worldwide continue to go hungry, leaders of five international humanitarian, banking and trade organizations on Wednesday appealed for further urgent action to prevent the global food and nutrition crisis from worsening. The heads of the Food and Agriculture Organization (FAO), the International Monetary Fund (IMF), the World Bank Group (WBG), the World Food Programme (WFP) and the World Trade Organization (WTO) called for rescuing “hunger hotspots” and facilitating trade, among other measures. They advised countries to balance short-term urgent interventions with longer-term resilience efforts.

Food inflation remains high in the wake of shocks from the COVID-19 pandemic, the climate emergency, Russia’s war in Ukraine, supply chain disruptions and rising interest rates, they said in a statement – their third since July. Nearly 350 million people across 79 countries are acutely food insecure, and undernourishment is on the rise. The situation is expected to worsen, with global food supplies projected to drop to a three-year low. The need is especially dire in 24 countries identified as hunger hotspots, 16 of which are in Africa.

“We call on governments and donors to support country-level efforts to address the needs in hotspots, share information and strengthen crisis preparedness,” the leaders said. They stressed that WFP and FAO require funds urgently to serve the most vulnerable immediately.

WFP and partners reached a record number of people last year. The agency delivered food and nutrition assistance to more than 140 million thanks to a record-breaking \$14 billion in contributions.

FAO also invested \$1 billion to support more than 40 million people in rural areas with agricultural interventions, while the World Bank provided a \$30 billion food and security package covering a 15-month period ending this July.

Funding must also be mobilized so that the IMF’s Poverty Reduction and Growth Trust (PRGT) can provide concessional financing to poorer countries, while its new Food Shock Window has so far supported Ukraine, Malawi, Guinea and Haiti.

Donors and governments should also support the Global Alliance for Food Security, which promotes greater crisis preparedness.

**Source: [https://www.icsf.net/newss/continued-urgent-action-needed-to-prevent-food-and-nutrition-crisis-from-worsening-say-organization-heads/?utm\\_source=mailpoet&utm\\_medium=email&utm\\_campaign=SAMUDRA+News+Alert](https://www.icsf.net/newss/continued-urgent-action-needed-to-prevent-food-and-nutrition-crisis-from-worsening-say-organization-heads/?utm_source=mailpoet&utm_medium=email&utm_campaign=SAMUDRA+News+Alert)**

## Japan is first donor to WTO Fisheries Funding Mechanism

The government of Japan is contributing just under JPY 90 million (approximately CHF 763,000) to the WTO Fisheries Funding Mechanism to help developing and least-developed countries implement the landmark Agreement on Fisheries Subsidies adopted at the 12th Ministerial Conference (MC12) in June 2022. This is the first donation deposited to the Fund.

As the new Agreement on Fisheries Subsidies will involve adjustments to WTO members' legislative and administrative frameworks, transparency and notification requirements, and the enhancement of fisheries management policies and practices, Article 7 of the Agreement provides for the creation of a funding mechanism to provide targeted technical assistance and capacity building to help developing and least-developed country members with implementation.

Director-General Okonjo-Iweala said: "I am very grateful to Japan for making the first donation to the new Fisheries Fund. The Fund can now become fully operational, and is ready to staff up and start receiving applications for assistance from members once they have formally joined the Agreement. This donation sends a strong signal that developing and least-developed country members will receive the assistance they need to implement the Agreement on Fisheries Subsidies. Today's donation is yet another meaningful step toward safeguarding global fish stocks and restoring the ocean's health and the livelihoods of millions of people around the world who depend on fishing."

Ambassador Yamazaki said: "We are faced with two big issues. One is bringing the Agreement into force as soon as possible. The other one is, under the new Chair, accelerating the second wave negotiation towards MC13. One of the key elements for this achievement is commitment from developing countries. At such a critical juncture, I am pleased Japan's contribution can be made today and hope this will serve as a thrust for further replenishment of the Fund."

The Fund is operated by the WTO with partner organizations, namely the FAO, the International Fund for Agricultural Development, and the World Bank Group, which bring to bear relevant expertise. Previously, in 2021, Japan contributed CHF 125,000 to a separate fund established in May 2019 at the request of least-developed members of the WTO to cover travel expenses of their officials to take part in fisheries subsidies negotiating meetings in Geneva. Including the most recent donation, Japan's total contribution to the various WTO trust funds from 2002 to 2023 is CHF 12.4 million.

**Source:** [https://www.icsf.net/newss/japan-is-first-donor-to-wto-fisheries-funding-mechanism/?utm\\_source=mailpoet&utm\\_medium=email&utm\\_campaign=SAMUDRA+News+Alert](https://www.icsf.net/newss/japan-is-first-donor-to-wto-fisheries-funding-mechanism/?utm_source=mailpoet&utm_medium=email&utm_campaign=SAMUDRA+News+Alert)

## Our Ocean Conference: EU announces €816.5 million worth of commitments to protect the ocean\*

At the Our Ocean Conference in Panama, the EU confirmed its strong engagement for international ocean governance by announcing 39 commitments for action for the year 2023. These actions will be funded by €816.5 million. This is one of the biggest amounts ever announced by the EU since the start of the Our Ocean conferences in 2014. At the Our Ocean Conference, the EU is taking commitments for action covering all themes of this event: Marine Protected Areas (MPAs), marine pollution, climate change, sustainable fisheries, sustainable blue economies, and maritime security. In addition to the commitments, the EU is also today joining the Illegal, Unreported and Unregulated (IUU) Fishing Action Alliance.

### **New EU commitments for a secure, clean, sustainably managed ocean**

The theme of the 2023 edition is 'Our Ocean, Our Connection', which calls for new commitments and joint efforts worldwide in support of a secure, clean and sustainably managed ocean. In support of these objectives, the EU's new commitments announced today include for example: Around €320 million for ocean research to protect marine biodiversity and address the impacts of climate change on the ocean. For example this will help develop the Digital Twin of the Ocean and implement the All-Atlantic Ocean Research and Innovation Alliance. This will support the objectives of the EU Mission 'Restore our Ocean and Waters by 2030' which has set ambitious targets by 2030: cleaning marine and fresh waters, restoring degraded ecosystems and habitats, and decarbonising the blue economy. €12 million to facilitate the access to Copernicus data and products through a Copernicus Regional Centre for Latin America and the Caribbean operated by Panama. This Centre will facilitate timely access to all Copernicus sentinel data for policy implementation, sustainable development and science.

The EU will also renew its satellite constellation with the launch of Sentinel-1C for a value of €250 million euros. Sentinel-1C will be instrumental to continue the real time observation of icebergs and ice melting over the Arctic in order to monitor the effect of climate change. €126 million to protect biodiversity and fight climate change in Benin, Guyana, and Tanzania. €24 million during the period 2022-2023 through voluntary contributions under the European Maritime, Fisheries, and Aquaculture Fund (EMFAF) for actions to support Regional Fisheries Management Organisations (RFMOs), Regional Fisheries Bodies (RFBs) and relevant International Agreements in the Atlantic, Pacific, Indian, Arctic and Antarctic Oceans and the Mediterranean and Black Seas. The actions will include support to: scientific research to underpin science-based management decisions; improved monitoring of fishing activities and compliance with RFMOs rules; the fight against IUU fishing; evaluation of RFMOs' status through Performance Reviews; as well as to ensuring the effective participation of developing Coastal States in the RFMOs. €1 million to the WTO funding mechanism on fisheries subsidies. The objective is to support developing countries, through technical assistance and capacity building for the implementation of the disciplines under the WTO agreement on harmful fisheries subsidies.

**Source:** [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_1290](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_1290)

## Civil Society groups launch Global Charter for Fisheries Transparency at 2023 Our Ocean conference

The Coalition for Fisheries Transparency – a new international community of civil society organizations launched the Global Charter for Fisheries Transparency. The Charter pinpoints the most essential policy priorities needed to combat fisheries mismanagement, illegal fishing, and human rights abuses at sea. Experts, ministers, and delegates from international organizations and companies around the world discussed the benefits of the Global Charter for Fisheries Transparency at Our Ocean conference in Panama this year – an annual meeting for countries, civil society and industry to announce significant actions to safeguard the world’s oceans.

Global partnership initiatives, like the Fisheries Transparency Initiative (FiTI), emphasized the importance of equal, multi-stakeholder collaboration to increase transparency in coastal countries for achieving sustainably managed marine fisheries. “Given the complexity of fisheries governance, multiple transparency efforts are needed to address the various challenges of unsustainable marine fisheries, such as overfishing, IUU fishing, unequal access to fisheries resources, and unfair benefit sharing,” said Dr. Valeria Merino, Chair of the International Board of the Fisheries Transparency Initiative (FiTI). “The 10 principles of the Global Charter for Fisheries Transparency recognize the need for a comprehensive and coordinated approach to fisheries transparency, and has the potential to support existing global endeavours, such as the FiTI, through a much-needed mobilization of civil society organizations to ensure that marine fishing activities are legal, ethical, and sustainable.”

Finally, the role of the civil society to maximize collective impact to improve transparency has been underlined by Mr. Wakao Hanaoka, Chief Executive Officer of Seafood Legacy (Japan), and a steering committee member of the Coalition for Fisheries Transparency. “Our membership in the Coalition for Fisheries Transparency represents a voice of an international community that allows us to strengthen and amplify our efforts amongst the seafood industry and government towards achieving our goal of making Japan a global leader in environmental sustainability and social responsibility,” he explained. The Global Charter for Fisheries Transparency lays out a new roadmap to advance marine governance internationally, by providing a set of advocacy principles that are both effective and achievable by all stakeholders involved in fisheries governance and management.

“Continuous advocacy efforts by civil society organizations are critical to improving fisheries governance internationally as well as protecting the ocean and the people who depend on its resources,” commented Maisie Pigeon, Director of the Coalition for Fisheries Transparency. “The Coalition’s mission to deliver an urgent shift towards greater transparency in fisheries will be achieved through supporting our members in developing joint strategies, harmonizing and strengthening efforts, and finally – closing transparency policy gaps in fisheries governance,” she concluded.

Through civil society organizations from around the world, the Coalition for Fisheries Transparency calls on governments to apply the Charter’s principles in legislation and practice.

**URL: <https://www.globenewswire.com/news-release/2023/03/02/2619902/0/en/Civil-society-groups-launch-Global-Charter-for-Fisheries-Transparency-at-2023-Our-Ocean-conference.html>**

## INDIA LAUNCHES MOBILE APP TO REPORT FISH DISEASES

India launched an android-based mobile app 'Report Fish Disease' that will help farmers to connect directly to district fisheries officers and scientists. The app will help farmers, who face the issue of fish diseases which used to go unnoticed or unreported earlier, to reach out to the experts in an efficient manner within a short period of time, according to an official statement. "The farmers using this app will be able to connect directly to district fisheries officers and scientists," the ministry said. The farmers and stakeholders can do self-reporting of diseases of finfish, shrimps and molluscs on their farms using the app. They will be provided with scientific technical assistance by scientists/ experts through the same.

Early warning system and scientific advice being provided to the farmers will be helping them to reduce their losses due to diseases and will further strengthen the disease reporting by fish farmers in the country. The mobile application has been developed by ICAR-National Bureau of Fish Genetic Resources (NBFGR), Lucknow and launched under the National Surveillance Programme for Aquatic Animal Diseases (NSPAAD), the statement said. The app will be a central platform for connecting and will integrate fish farmers, field-level officers and fish health experts seamlessly.

**Source:** URL: <https://www.deccanherald.com/national/centre-launches-mobile-app-to-report-fish-diseases-1232128.html>

## UN CAMPAIGN URGES GLOBAL ACTION TO REACH SDG GOALS

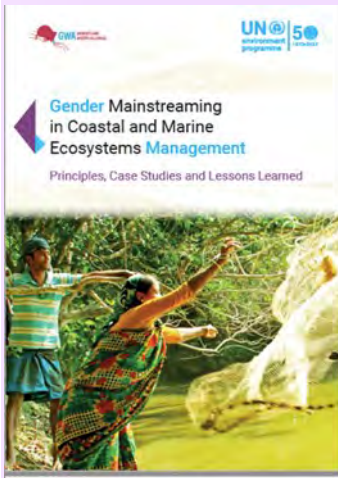
The United Nations kicked off a new campaign to turbocharge the Sustainable Development Goals (SDGs), the roadmap for people and planet adopted by world leaders in 2015. Ahead of the critical SDG Summit in September 2023, the campaign will amplify an urgent call for ambitious new action, showcase the Goals as the blueprint for sustainable progress globally, and mobilize people everywhere around this shared agenda for our common future. Halfway towards the 2030 deadline, the promise of the SDGs is in danger. For the first time in decades, progress on development has gone into reverse due to the combined impact of climate disasters, conflict, economic downturn, and lingering COVID-19 effects.

The SDG Summit will bring world leaders together at UN Headquarters in New York on 18-19 September to reaffirm their collective commitments to the Goals and the promise to leave no one behind. It's being billed as a defining moment to urgently put the world back on track to achieving the SDGs. One core campaign component is the call for individual action worldwide on the SDGs through the UN's ActNow initiative. Starting today, in a major digital activation across platforms and countries worldwide, the UN campaign aims to re-energize the conversation about the Goals.

**Source:** URL: [https://news.un.org/en/story/2023/07/1138362?utm\\_source=UN+News++Newsletter&utm\\_campaign=7bdc9ca5af-EMAIL\\_CAMPAIGN\\_2023\\_07\\_06\\_12\\_00&utm\\_medium=email&utm\\_term=0\\_fdbf1af606-7bdc9ca5af-%5BLIST\\_EMAIL\\_ID%5D](https://news.un.org/en/story/2023/07/1138362?utm_source=UN+News++Newsletter&utm_campaign=7bdc9ca5af-EMAIL_CAMPAIGN_2023_07_06_12_00&utm_medium=email&utm_term=0_fdbf1af606-7bdc9ca5af-%5BLIST_EMAIL_ID%5D)

## NEW PUBLICATIONS

### Gender Mainstreaming in Coastal and Marine Ecosystems Management: Principles, Case studies and Lessons learned



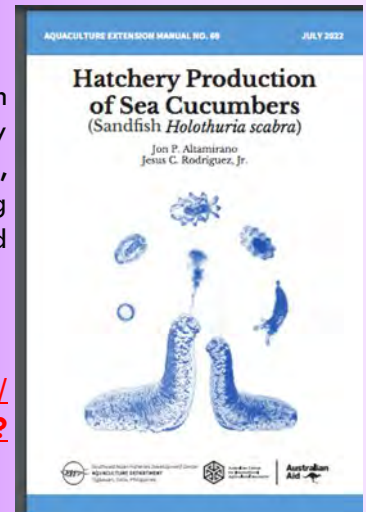
This publication of the UN Environment Programme (UNEP) and Gender and Water Alliance (GWA) released on World Oceans Day - 8<sup>th</sup> June 2022, seeks to explore and document the different ways men and women in coastal areas and small island developing states use and manage coastal ecosystems and their services, through 10 case studies from Fiji, Micronesia, Bangladesh, India, Indonesia, Kenya, Zanzibar, The Gambia and Ghana, Mexico and Barbados.

The report can be downloaded from: <https://www.unep.org/resources/report/gender-mainstreaming-coastal-and-marine-ecosystems-management-principles-case>

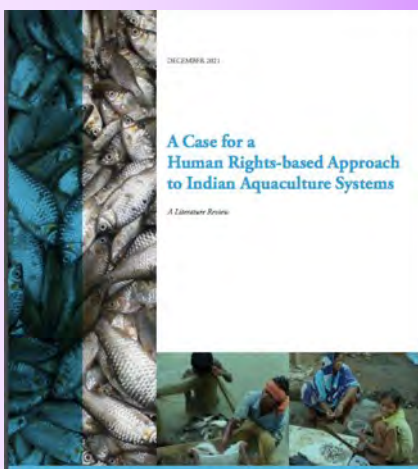
### Hatchery Production of Sea Cucumbers

The manual covers consolidated methods, practical protocols and good practices in sea cucumber breeding based on research and development undertaken by SEAFDEC Aquaculture Department. The manual covers Broodstock selection, collection and conditioning; Natural food (microalgae) cultivation; Spawning stimulation and fertilized eggs management; Larval rearing and settlement; and Harvesting of early juveniles, packing and transport.

The manual can be downloaded from: <https://repository.seafdec.org.ph/bitstream/handle/10862/6336/6336-AltamiranoJP2022-AEM69.pdf?sequence=2&isAllowed=y>



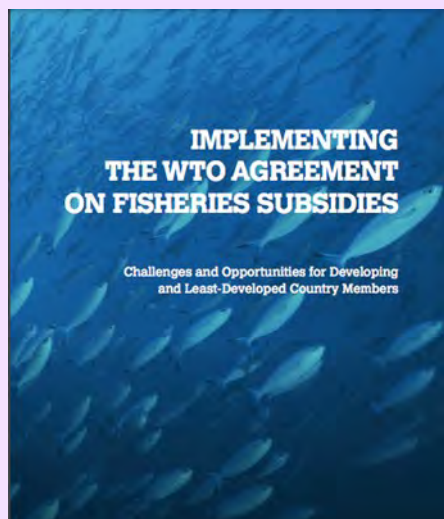
### A Case for a Human Rights-based Approach to Indian Aquaculture Systems



This publication is outcome of a national workshop on the SSF Guidelines and Women in Fisheries organised by the International Collective in Support of Fishworkers (ICSF) Trust. With gender equality and equity being one of the seven pillars of the United Nations International Year of Artisanal Fisheries and Aquaculture 2022 (IYAFA), the national workshop facilitated in building a platform of women in fisheries to promote gender equality and equity, to recognize livelihood space and to improve the participation of women in decision making processes through various discussions.

This 87 page report can be downloaded from: <https://www.icsf.net/wp-content/uploads/2022/05/930.ICSF219.pdf>

## Implementing the WTO Agreement on Fisheries Subsidies: Challenges and Opportunities for Developing and Least-Developed Country Members



The WTO Agreement on Fisheries Subsidies, adopted at the 12th Ministerial Conference, marks a major step forward for ocean sustainability by prohibiting harmful fisheries subsidies, which are a key factor in the widespread depredation of the world's fish stocks. Implementing the new disciplines will present challenges for many developing country members, especially least-developed countries. This report prepared by the World Trade Organisation examines existing bilateral and multilateral assistance in support of sustainable fisheries, including how this may help countries meet obligations under the new Agreement.

The document can be downloaded from: [https://www.wto.org/english/res\\_e/booksp\\_e/implementfishagreement22\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/implementfishagreement22_e.pdf)

## Documentary Film “Unseen Faces Unheard Voices: Women and Aquaculture”

The documentary film *Unseen Faces, Unheard Voices* showcase the impacts of the boom in aquaculture on women in the floodplain regions of the Indian coastal state of West Bengal. Shot in the remote villages, the film makes a pitch to policy makers, researchers and institutions to adopt a gender inclusive and a precautionary approach to actualise sustainable development in the sector.



The 21 minute documentary film can be downloaded from: [https://www.icsf.net/resou21rces/unseen-faces-unheard-voices-women-and-aquaculture-purba-medinipur-west-bengal/?utm\\_source=mailpoet&utm\\_medium=email&utm\\_campaign=publication-news-alert\\_20](https://www.icsf.net/resou21rces/unseen-faces-unheard-voices-women-and-aquaculture-purba-medinipur-west-bengal/?utm_source=mailpoet&utm_medium=email&utm_campaign=publication-news-alert_20)



## Human Development Report 2021-2022

The latest flagship UN report on human development titled “Uncertain times, Uncertain lives: Shaping our future in a transforming world”, warns that multiple crises are halting progress on human development, which is going backwards in the overwhelming majority of countries. Human development has fallen back to its 2016 levels, reversing much of the progress towards the Sustainable Development Goals which make up the 2030 Agenda, the UN’s blueprint for a fairer future for people and the planet.

Full report can be downloaded from: [https://news.un.org/en/story/2022/09/1126121?utm\\_source=UN+News+-+Newsletter&utm\\_campaign=ad9069decdec-EMAIL\\_CAMPAIGN\\_2022\\_09\\_09\\_12\\_46&utm\\_medium=email&utm\\_term=0\\_fdbf1af606-ad9069decdec-107475426](https://news.un.org/en/story/2022/09/1126121?utm_source=UN+News+-+Newsletter&utm_campaign=ad9069decdec-EMAIL_CAMPAIGN_2022_09_09_12_46&utm_medium=email&utm_term=0_fdbf1af606-ad9069decdec-107475426)

## Blue Transformation - Road Map 2022-2030: A vision for FAO's work on aquatic food systems



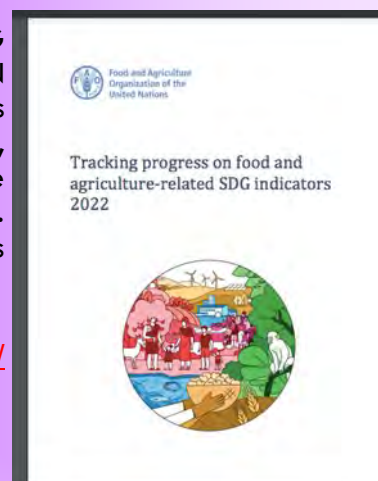
This roadmap for Blue Transformation aligns with the 2021 Declaration for Sustainable Fisheries and Aquaculture of the Committee on Fisheries (COFI) of the Food and Agriculture Organization of the United Nations (FAO) and FAO's Strategic Framework 2022–2031. It focuses on the elements that would maximize the contribution of aquatic food systems to the Sustainable Development Goals (SDGs).

The 40 page document can be downloaded from: <https://www.fao.org/3/cc0459en/cc0459en.pdf>

## Tracking Progress on Food and Agriculture-related SDG Indicators 2022

The report titled, 'Tracking Progress on Food and Agriculture-related SDG Indicators 2022', launched in the margins of the 77th session of the UN General Assembly (UNGA) provides detailed analyses and trends on across eight SDGs: 1 (no poverty), 2 (zero hunger), 5 (gender equality), 6 (clean water and sanitation), 10 (reduced inequalities), 12 (responsible consumption and production), 14 (life below water), and 15 (life on land). The report highlights areas of progress and areas where further effort is needed.

The 179 page report can be downloaded from: <https://www.fao.org/3/cc1403en/cc1403en.pdf>



## Baffling Shades of Blu: Addressing the impacts of the Blue Economy on small-scale fisheries in Latin America

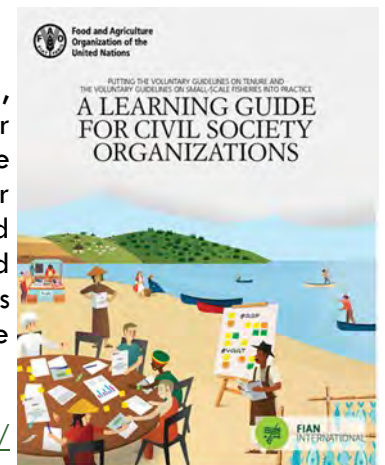


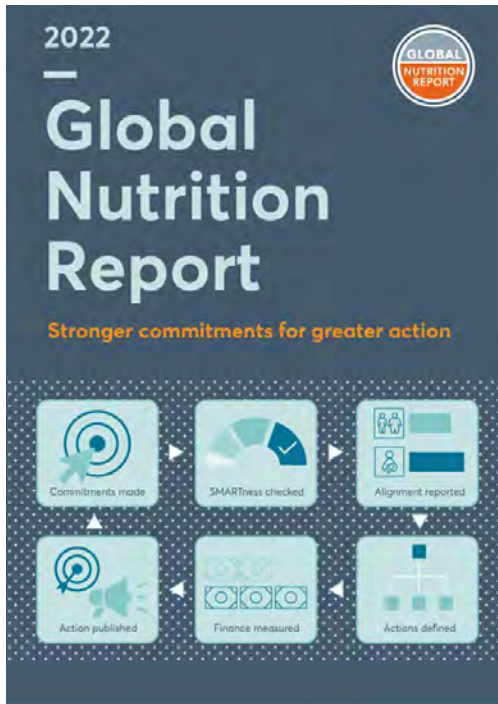
The report can be downloaded from: [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.icsf.net/wp-content/uploads/2022/10/930.ICSF224 Latin America Blue Economy.pdf](chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.icsf.net/wp-content/uploads/2022/10/930.ICSF224%20Latin%20America%20Blue%20Economy.pdf)

## A Learning Guide for Civil Society Organisations

The Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (hereinafter VGGT) and the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (hereinafter SSF Guidelines) are two internationally agreed instruments that can be used by different actors to improve the governance of tenure of land, fisheries and forests as well as to improve the socioeconomic conditions of small-scale fishers and fishworkers, with the aim to contribute to the progressive realization of the human right to food.

The 155 page report can be downloaded from: <https://www.fao.org/3/cc0295en/cc0295en.pdf>





## Global Nutrition Report 2022

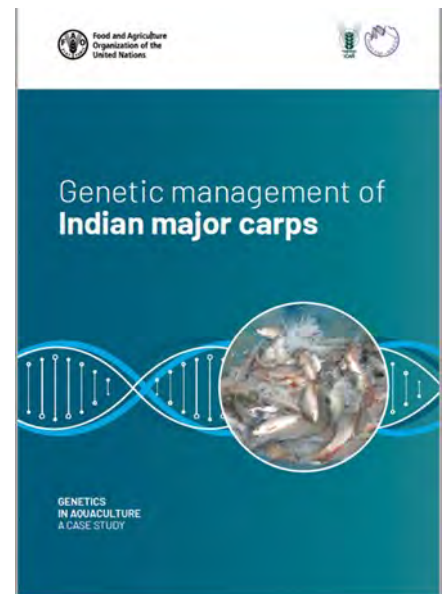
The 2022 Global Nutrition Report showcases the value of the NAF and the insights it can bring, which have the potential to significantly improve nutrition action, and analyses commitments registered under the NAF to date. It sets the baseline for monitoring nutrition actions and their impact. Crucially it serves as a call to action for all stakeholders in the global fight against malnutrition.

The report can be downloaded from: <https://globalnutritionreport.org/reports/2022-global-nutrition-report/>

## Genetic Management of Indian Major Carps

This case study analyses genetic management of Indian major carps since they were first domesticated with the development of hypophysation techniques in the 1950s. A review of literature and a survey of common hatchery practices identifies significant problems prevalent in the sector brought about by a lack of application of best practices in genetic management resulting in loss of genetic diversity, inbreeding and uncontrolled hybrid introgression.

This 28 page FAO publication can be downloaded from: <https://doi.org/10.4060/cc5193en>



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# SYNOPSIS OF PAPERS VOLUME 35 (ISSUE 3) : ASIAN FISHERIES SCIENCE JOURNAL

## Asian Fisheries Science



### Latest Articles

## Asian Fisheries Science 36 (1) 2023

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E-ISSN: 2073-3720

### **Optimisation of Safe Loading Density for Live Transportation of Rainbow Trout, *Oncorhynchus mykiss* (Walbaum, 1792), Yearlings in Plastic Bags**

**MANCHI RAJESH, BIJU SAM KAMALAM, MANEESH KUMAR DUBEY, PARVAIZ AHMAD GANIE, KISHOR KUNAL**

<https://doi.org/10.33997/j.afs.2023.36.1.001>

The safe loading density for live transportation of rainbow trout, *Oncorhynchus mykiss*, yearlings in plastic bags of super-oxygenated water was evaluated. Trouts were subjected to 10 h of transportation by road at  $\sim 10^{\circ}$  C. With increasing fish loading density, there was a corresponding increase in the concentrations of carbon dioxide, total ammonia nitrogen, free ammonia, total dissolved solids concentrations and specific conductivity in the transport water, and a decrease in dissolved oxygen. The differences in vital water quality indicators were significantly more in the 230 g.L<sup>-1</sup> group. However, there was no mortality even at the highest loading density. Based on the findings, it is recommended that a loading density of 230 g.L<sup>-1</sup> is safe for live transportation of rainbow trout yearlings in plastic bags over a transport duration of 10 h at  $\sim 10^{\circ}$  C, following adequate starvation and mild sedation.

### **COVID-19 Induced Impacts on Women Workers of Fish and Shellfish Processing Plants in Bangladesh**

**MD. ASADUR RAHMAN, MD. MONIRUL ISLAM, APARNA BARMAN, SALMA KHATUN, KAZI RUMAIYA BINTA MONIR, MD. RAKIBUL ISLAM, MAKIDUL ISLAM KHAN**

<https://doi.org/10.33997/j.afs.2023.36.1.002>

This study assessed the impacts of COVID-19 on the women workers of the fish and shellfish processing plants. During COVID-19, 32.1 % of respondents' food consumption decreased slightly, and 16.6 % reduced drastically. Children of 18.2 % of the respondents had no access, and 16.9 % had insufficient access to online class facilities. Increased livelihood costs and decreased household income posed adverse economic impacts on women. Formal paid hours and overtime job opportunities were reduced because foreign buyers cancelled orders during the pandemic. Gender-based violence and social insecurity increased. Respondents reported increased mistreatment by their husbands during the pandemic. Women workers' mental health deteriorated as their anxiety and insecurity about life increased during the pandemic. This study recommends overcoming the adverse effect of COVID-19 or COVID-like pandemics in the future.

## **Addressing Illegal, Unreported and Unregulated Fishing of Vietnamese Fishing Vessels in Foreign Waters**

**TO VAN PHUONG, ROBERT S. POMEROY**

<https://doi.org/10.33997/j.afs.2023.36.1.003>

Vietnamese illegal fishing in foreign waters is a prominent issue that has led to a yellow card warning from the European Commission (EC). Although Vietnam has made considerable efforts to halt illegal, unreported and unregulated (IUU) fishing and clear this yellow card, the results were insufficient to remove the yellow card as of the beginning of 2022. The present study analysed why addressing this issue has been so challenging. Specifically, the following questions are addressed: i) how do local fisheries authorities implement central regulation policies against IUU fishing and ii) what are the bottlenecks in legal enforcement for both fisheries agencies and fishers? The secondary data analysis and the findings from interviews with government officials and fishers are presented. Several recommendations are suggested for addressing the problem of IUU fishing of Vietnamese vessels in foreign waters to meet the criteria set by the EC to remove the yellow card and ensure that the results are long-lasting and substantive.

## **Social Capital and Well-Being of Small-Scale Fishers in the West Coast Island of Peninsular Malaysia**

**GAZI MD. NURUL ISLAM, TAI SHZEE YEW, MUHAMMAD ABRAR UL HAQ**

<https://doi.org/10.33997/j.afs.2023.36.1.004>

Poverty in small-scale fisheries is a global issue and most of the time the solution to poverty is discussed through economic variables. The current study investigates the contribution of various livelihood assets to the household income of small-scale fishers in Malaysia. Data for the survey were collected across multiple fishing villages on Langkawi Island, Malaysia. The results showed that the contribution of social capital and trust factors are significant to household income, indicating that social factors are essential in improving the well-being of small-scale fisher households in Malaysia. Policy for livelihood improvement of small-scale fisheries in Malaysia needs to prioritise investments in financial, human, natural and physical capital assets.

## **Behavioural Response Detection in Nile Tilapia, *Oreochromis niloticus* (Linnaeus, 1758) With Different Formalin Concentrations Using Tracker Software-Based Computer Vision Techniques**

**WARA TAPARHUDEE, ROONGPARIT JONGJARAUNSUK**

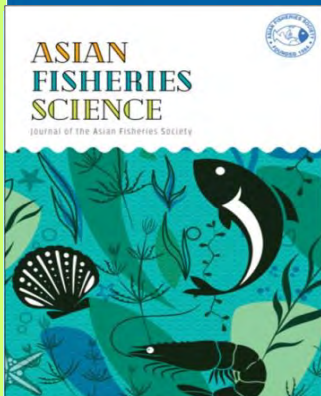
<https://doi.org/10.33997/j.afs.2023.36.1.005>

This study used tracker software-based computer vision techniques with formalin as stressor to measure changes in fish behaviour caused by stress. At different formalin concentrations, stress responses of Nile tilapia, *Oreochromis niloticus*, were examined for fish swimming velocity and behaviour. Results indicated that computer vision techniques were suitable for studying Nile tilapia behaviour, with possible applications in other aquatic animals. Highlights of this technique included continuous real-time results to monitor fish stress using a non-invasive method.

# SYNOPSIS OF PAPERS VOLUME 35 (ISSUE 4) :

## ASIAN FISHERIES SCIENCE JOURNAL

### Asian Fisheries Science



### Latest Articles

## Asian Fisheries Science 36 (2) 2023

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E-ISSN: 2073-3720

### Initial Attempts on Spawning and Larval Rearing of the Blood Cockle, *Tegillarca granosa* (Linnaeus, 1758), in the Philippines

**DENISE VERGARA MIRANDA, VICTOR MARCO EMMANUEL NUESTRO FERRIOLS**

<https://doi.org/10.33997/j.afs.2023.36.2.001>

Blood cockles, *Tegillarca granosa* were induced to spawn by temperature stimulation. Larval to spat rearing was accomplished in the hatchery. The survival rate from day 1 larval stage to day 120 spat stage was 2.48 %. The fertilised eggs passed through the morula stage 5 h postfertilisation and reached the trochophore stage after 8 h. Day 1 D-shaped larvae transformed into umboned larvae by day 7. The majority of the larvae reached the advanced umbo stage by day 12. By day 20, loss of velum and foot development in larvae were observed, marking the beginning of the pediveliger stage. The growth of post-set larvae was periodically monitored. Cockle spats had squarish shells with central elevation and visible radial ribs resembling the morphological characteristics of adult *T. granosa*. Only *Isochrysis galbana* was given as food for the cockles throughout the rearing activity. Further refining of larval and post-set rearing methodology is necessary for future mass production of cockle seeds in the Philippines.

### Impacts of the COVID-19 Pandemic on Vietnam's Marine Fisheries

**TO VAN PHUONG, KHANH QUOC NGUYEN, LUONG TRONG NGUYEN, NGHIEP KE VU**

<https://doi.org/10.33997/j.afs.2023.36.2.002>

This study assessed the effect of the COVID-19 pandemic on Vietnam's marine fisheries, recommend solutions to help fishers recover their operations and suggest long-term policies for similar pandemics in the future. The results showed that fishers experienced negative to strongly negative impacts of COVID-19 on their fisheries activities. The most significant difficulties faced by fishers were accessing the fishing port and dealing with the logistics procedures of docking and departure. The fishers also reported reduced seafood demand and price, and difficulties in seafood transportation. Most respondents expected the government to effectively support fisheries activities and facilitate seafood marketing during an ongoing pandemic. The results of this study are crucial in developing policy solutions to restore disrupted fish supply chains, enhancing online selling or e-commerce in fisheries marketing, and implementing timely subsidy policies to support Vietnam's marine fisheries sectors during a pandemic.

## **Origin and History of Introduction of Rainbow Trout, *Oncorhynchus mykiss* (Walbaum, 1792) Stocks in Southern India As Inferred From Y-linked Marker**

**J.C. WALTER DEVAA, STALIN NITHANIYAL, VIMAL PANNEERSELVAM, RAMESH UTHANDAKALAIPANDIAN**

<https://doi.org/10.33997/j.afs.2023.36.2.003>

The structure and origin of Southern Indian stocks of Rainbow trout, *Oncorhynchus mykiss* was studied by conducting a population genetic study. The Y-linked marker of the trout stocks sampled from Munnar, Ooty, and Kodaikanal was compared with that of the native populations from North America. The results showed less proportion of inter-population genetic variation, suggesting that Southern Indian stocks were derived from multiple origins of population, with a great majority of parental populations belonging to the coastal rainbow trout from North America. The study revealed no considerable genetic differences among the Southern Indian stocks and reported the major ecotype as the Steelhead trout, *Oncorhynchus mykiss irideus*.

## **Deformities in Cultured Striped Catfish *Pangasianodon hypophthalmus* (Sauvage, 1878) in the Mekong Delta, Vietnam**

**NGUYEN THAO SUONG, TRUYEN NHA DINH HUE, MAI DANG TIEN, NGUYEN HUU THINH, NGUYEN PHUC THUONG**

<https://doi.org/10.33997/j.afs.2023.36.2.004>

The present study described for the first time skeletal deformities in cultured striped catfish *Pangasianodon hypophthalmus* from the Mekong Delta, Vietnam. The skeletal deformities recorded included saddleback syndrome, missing pectoral fins, lordosis and kyphosis, unilateral deformities of the opercular complex bones, branchiostegal ray and lower jaw deformities. Abnormalities in bone morphotypes between normal and deformed fish were analysed using X-ray scanning and double staining methods. The morphological abnormalities, in general, can reduce the fillet yield of fish, thereby affecting their market value. Since *P. hypophthalmus* is the most important freshwater fish exported from the Mekong Delta, a regular monitoring program of skeletal deformities can contribute to identifying improved rearing protocols and enhance the product quality available in the markets.

## **Variation of Water Quality in Intensive Aquaculture Areas of the Mekong Delta, Vietnam**

**TRAN VAN VIET, AU VAN HOA, HUYNH TRUONG GIANG, VU NGOC UT**

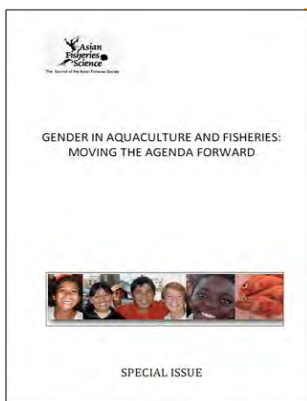
<https://doi.org/10.33997/j.afs.2023.36.2.005>

This study evaluated the spatial and temporal fluctuation of water quality in the waterways of five provinces with intensive aquaculture operations in the Mekong Delta. The study sites included two inland provinces where striped catfish, *Pangasianodon hypophthalmus* is farmed, and three coastal provinces where white leg shrimp, *Litopenaeus vannamei*, and black tiger shrimp *Penaeus monodon*, are cultured. At each sampling site, physicochemical parameters were monitored for 12 months on the main rivers which supply water to aquaculture systems. Water quality data were analysed and compared based on the coefficient of variation, Pearson correlation coefficients to identify relationships among variables and principal component analysis to identify 2–3 key parameters having the most significant influence on spatial and temporal variation in water quality in each province. Overall, water in most provinces was considered polluted. However, the water quality parameters, except for S<sub>2</sub>- and NO<sub>2</sub>- , were within acceptable levels specified by National Technical Regulation on Surface Water Quality for Protection of Aquatic Life.

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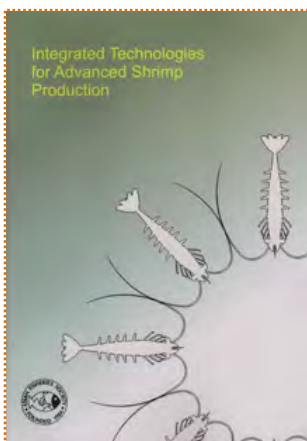
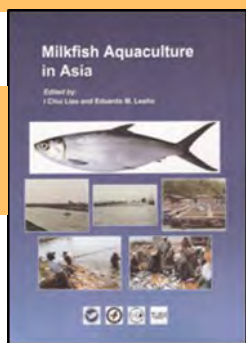


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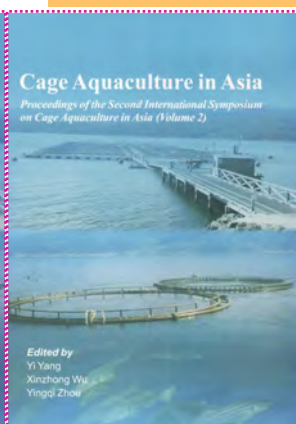
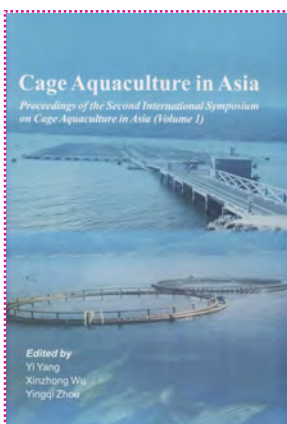
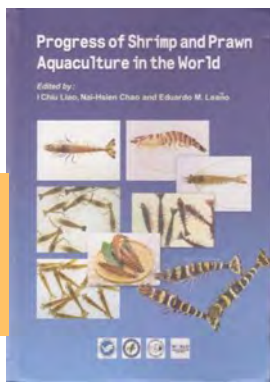


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