

## Training Course on Fish Disease Prevention & Control and Quality & Safety Control for Developing Countries

Full Name	Training Course on Fish Disease Prevention & Control and Quality & Safety Control for Developing Countries		
Organizer	Freshwater Fisheries Research Center of Chinese Academy of Fishery Sciences		
Holding Time	November 9-December 8, 2022 (30 days)	Language	English
Invited Countries	Developing Countries	Planned Number of Participants	25 in total
Objectives	To enable participants to understand China’s advanced concepts, practical technologies, successful cases, and related policy support,especially China's successful experience of fish disease prevention and control technology ; participants can apply practical technology to their own fisheries production based on what they have learned, and it is helpful to combine their own country’s actual conditions, and be able to put forward relevant suggestions that help fishery development and bilateral cooperation based on their own country’s actual conditions.		
About the Participants	Background	——Field or major: fishery, aquaculture or any related with biology —— Position : fishery-related government officials, university teachers, scientific research personnel, grassroots technical personnel, extension officials, business personnel and farmers, etc. ——Level, academic degree or other relevant qualification requirements: fishery technician	
	Age	Not higher than the statutory retirement age	
	Physical Health	Ability to attend online training courses on time	
	Language	Capable of listening, speaking, reading and writing in English	
	Others	Able to use the ZOOM platform and follow the schedule throughout the whole course.	
Course Content	1. Main content introduction (1) Overview of China's national status: mainly introducing the development status of China's politics, economy, society, culture, etc. and achievements in the past 70 years since the founding of PRC and 40 years since reform and opening up; (2) International cooperation of Covid-19 prevention and control: mainly introducing China's contribution in the foreign-aid and international cooperation against Covid-19; (3) <b>Module 1—Fish disease prevention &amp; control &amp; healthy aquaculture:</b> ——The breeding of improved aquatic varieties, mainly introduces China's improved aquatic variety system, healthy breeding technology of main varieties, demonstration and promotion; ——Ecological and healthy aquaculture mode, mainly introduces land-based RAS, marine industrialized aquaculture (deep-water anti-wind and anti-wave cage aquaculture, etc.), IMTA, rice-fish integrated farming, stocking enhancement fishery in large water body, the comprehensive utilization of saline alkali land for fishery and agriculture; ——Regulation and management of water environment in healthy aquaculture, mainly introduces the key technologies of water quality regulation in aquaculture process; ——Technologies for disease prevention and control of aquaculture species, mainly introduces aquatic disease detection technologies, bioengineering vaccines, and green fishery medicine products, which enables participants to learn practical technologies and apply relevant experience to their domestic fishery production practices. ——Aqua-feed additives and healthy production of aquatic products, mainly introduces China’s green and environmentally friendly aquatic feed innovation technologies, including enzyme technology and		

microbial fermentation technology, so as to achieve the goal of precise nutrition and increase the utilization rate of aqua-feed.

——Drugs application and management in aquaculture, mainly introduces the research and development of new aquaculture drugs and its safe use, effect evaluation, enabling the participants understand the development process and future direction.

**(4)Module 2—Quality & safety control of aquatic products:**

——Current situation of aquatic product quality and safety management in China, mainly introduces quality & safety control of the key links for aquatic product production, such as processing, packaging, storage and circulation. Participants can have a further understanding of the current situation of aquatic products quality and safety development in China.

——Aquaculture product quality and safety management system, mainly introduces the relevant laws, regulations and policies issued by different provinces and regions in China on the supervision of aquatic product quality and safety.

——Aquaculture product quality and safety management measures and control technologies, mainly introduces how to ensure the quality and safety of aquatic products through relevant measures and technologies in different stages of aquaculture.

**(5) Module 3—International aquatic product quality & safety system:**

——The inspection and quarantine management of import and export aquatic animals, mainly introduces the general situation of imported/exported aquatic animals, inspection and quarantine regulations and standards, inspection and quarantine procedures, etc;

——Construction of international aquatic product quality and safety system, mainly introduces HACCP system, aquatic product traceability system in some countries, safety supervision and construction of quality and safety evaluation system, through conducting in-depth discussion on how to make aquatic products better in line with the requirement and standards of international market for developing countries.

**2. Introduction to Cloud Visit**

(1) It is planned to virtually visit the modern green fishery industrial park, the provincial fine seed farm, etc., and conduct online inspections and exchanges on green fishery and sustainable aquaculture;

(2) It is planned to virtually visit large-scale aquatic products market and relevant government management agencies,conduct online exchanges on China's aquatic product market development, aquatic product quality and safety system construction.

(1) Xu Pao: Ph.D., Professor, PhD advisor of Nanjing Agricultural University, current DG of Freshwater Fisheries Research Center of Chinese Academy of Fishery Sciences, Dean of Wuxi Fisheries College of Nanjing Agricultural University, Chief Scientist of Chinese Academy of Fishery Sciences; Main research fields: fish genetics breeding, ecological aquaculture of high-value freshwater species, purification fishery;

(2) Ge Xianping: Ph.D., Professor, PhD advisor of Nanjing Agricultural University, current Deputy Director General of Freshwater Fisheries Research Center of the Chinese Academy of Fishery Sciences, chief scientist of China Agriculture Research System (Conventional Fish), and the chief scientist of the Chinese Academy of Fishery Sciences; Main research fields: aquatic animal nutrition and feed, healthy aquaculture;

(3) Zhu Jian: Professor, currently the Director of the Scientific Research Division of Freshwater Fisheries Research Center of the Chinese Academy of Fishery Sciences, Scientist of China Agriculture Research System (Conventional Fish); Main research fields: ecological aquaculture, fish genetics breeding;

(4) Dong Zaijie: Ph.D., Professor, PhD advisor of Nanjing Agricultural University, current Deputy Director of Genetics & Breeding Division of Freshwater Fisheries Research Center of the Chinese Academy of Fishery Sciences, Principal Scientist in the National Technology Research System of Major Freshwater Fish Industry, middle-aged experts with outstanding contributions to the country; research fields: genetic basis of aquatic animals, breeding technology, propagation technology and breeding demonstration and promotion, etc.;

(5) Liu Bo: Ph.D., Professor, PhD supervisor of Nanjing Agricultural University, Master supervisor of Shanghai Ocean University, visiting scholar of Purdue University, currently the Director of Aquatic Diseases and Feed Research Division of FFRC, National Shrimp and Crab Industry Technology System Freshwater Shrimp Nutrition and Feed Post scientist. He has been engaged in the research on the protection and utilization of fishery resources in the lower reaches of the Yangtze River and the protection of the Yangtze finless porpoise. The main research directions: aquatic animal nutrition and epigenetic regulation; aquatic animal stress-related signal pathways and functional feed research and development; new Chinese herbal medicines and microbial preparations.

	<p>(6) Wu Wei: Professor, Master supervisor of Nanjing Agriculture University. Main research fields: pollution ecology and environmental biology, microbial ecology, risk analysis and assessment of aquatic product quality and safety, etc.</p> <p>(7) Xi Bingwen: Professor, PhD supervisor of of Nanjing Agricultural University. Currently the deputy director of the Aquatic Diseases and Feed Research Division of FFRC; Main research fields: fish parasitology and parasitic disease prevention and control; development of medicinal plant resources and creation of fishery drugs; mechanism of interaction between pathogens and hosts.</p> <p>4. Materials to be prepared by the participants</p> <p>In order to facilitate communication with Chinese experts, please prepare the materials related to training topics, such as: ①The current development status and existing problems in the fishery sector in your country; ②The basis for cooperation with China and the future direction of cooperation.</p>		
Host City	Wuxi City	Cities for Cloud visit	Online
Notes	<p>1. ZOOM platform will be used for online training.</p> <p>2. During the training, participants are requested to abide by the schedule time and training discipline. Attendance records will be used as the basis for issuing training certificates.</p> <p>3. Class preparation: Participants are required to enter the ZOOM room 15 minutes in advance. And personal name needs to be changed into English (name-country name).</p> <p>4. Disciplinary requirements: During the implementation, please strictly abide by the project schedule.</p> <p>5. Participants are required to prepare relevant materials for the training according to the schedule.</p> <p>6. The course is equipped with online simultaneous/consecutive interpretator.</p>		
About the Organizer	<p>Freshwater Fisheries Research Center of Chinese Academy of Fishery Sciences (FFRC) was established in 1978. It is a comprehensive institution for fisheries research and development, combining together scientific research, teaching and training, technology transfer and information exchanges within the National Agricultural Sci-tech Renovation System. It has 8 research divisions, 5 technical practice bases and 13 technological innovative platforms such as 2 international joint laboratories; Designated Institution for Clinical Test on Fishery Medicines, MARA; Institution for Effectiveness Testing of Feed and Feed Addictive, MARA; Genetic &amp; Breeding Center for Tilapia, MARA, etc.. It is the leading institute for the Key Laboratory of Freshwater Fisheries and Germplasm Resources Utilization, and the National Technology Innovation Systems for Conventional Freshwater Fishes (CARS-46) and for Tilapia (CARS-49) of the Ministry of Agriculture. FFRC has 197 staff members, of which there are 62 professors, 11 PhD advisors and 39 MSc advisors in aquaculture sciences. Since its establishment, FFRC has been awarded with 10 national level prizes, 70 provincial or ministerial level prizes and has acquired over 300 authorized patents of invention.</p> <p>In 2014, FFRC was authorized as FAO Reference Centre for aquaculture and inland fishery research and training. In 2018, the Agriculture Minister Han Changfu and Director-General of FAO jointly issued the “China-FAO Special Contribution Agency for South-South Cooperation Reward” to FFRC. In 2021, FFRC was authorized as “China-Africa Joint Center for Modern Agricultural Technology Exchange, Demonstration and Training”. As an important component of FFRC, the Asian-Pacific Regional Research and Training Centre for Integrated Fish Farming (IFFC) has been consecutively conducting over 190 international training courses and seminars in fishery and aquaculture since 1981. These training programs covered a wide topics, such as integrated fish farming, pond fish farming, land-based aquaculture, industrialized aquaculture, technical extension, fish seed production, fish feed development, fishery environment and climate change, plan and policy for fishery development, processing technology of aquatic products, quality and safety of aquatic products, value-added fishery products development, healthy management and quarantine of aquatic animals, etc.. Up to now, over 6180 senior fisheries technical and managerial personnel from over 134 countries and regions have been trained. In 2011, it was certified with the ISO9001 Quality Management System Certificate in education and training. Meanwhile, the MSc and PhD programs were initiated in 2011 and currently 20 oversea students are studying at FFRC.</p>		

Contact of the Organizer	Contact: Ye Wei (Mr.) Tel: 0086-510-85555112 Mobile: 0086-15961800794 Fax: 0086-510-85555112 Email: yewei@ffrc.cn
--------------------------	---