



13th Technical Advisory Committee

The 13th meeting of the Technical Advisory Committee (TAC) was held via video conference from 26-28 August 2020. Participants were welcomed by Dr Huang Jie, Director General of NACA. The meeting was Chaired by Dr Yuko Hood, from the Department of Agriculture, Water and the Environment (Australia).

Participants included experts from 13 member states, the Regional Lead Centres for India, Thailand and the Philippines, inter-governmental agencies including INFOFISH, WorldFish and the Food and Agriculture Organization of the United Nations, plus Shanghai Ocean University and the Yellow Seas Fisheries Research Institute, China.

The purpose of the meeting was to review the previous five-year plan and propose revisions to aid formulation of a draft Five-Year Strategic Plan (2020-2024), to be tabled for consideration at the next Governing Council Meeting. Participants were invited to speak on their views as to priority and emerging aquaculture development issues in the region. Issues that are of common interest to several governments form the basis for development of collaborative activities. Several of the key issues are highlighted below.

Unsurprisingly, COVID-19 dominated proceedings, due to the profound impact the pandemic has had on the market and logistical chains, and consumers at every level. To date, discussion of the impact has tended to focus on somewhat superficial analysis of trade and sales data, while many of the impacts may be the knock-on effects of bottlenecks in logistics and transport networks and storage. Of particular concern, analysis of the socio-economic impacts on small-scale farmers and poor rural communities is lacking, although clearly the impact has been very heavy, with declining production, falling farm gate prices and many reports of forced harvests. The Secre-

tariat proposed to convene an online consultation for members to share experience on relief measures that have been implemented for small-scale farmers and their relative effectiveness, to assist in supporting the sector and building resilience going forward.

TAC 13 marked the first time that the ageing farmer population has been raised across a wide range of member states, including both developed and developing economies. There is a common region-wide trend of young people leaving agricultural communities to seek alternative employment elsewhere. Many member states have implemented training and education programmes and demonstration farms to try and encourage young people to take up farming, but the sector is often seen as a high-risk and low-income by young people. Governments need to find ways to increase the attractiveness of the sector to new entrants.

Climate change is now a regular feature of all NACA consultations, including the TAC. The growing urgency to address this issue, while ensuring food security is leading some states to investigate the use of more intensive, controlled environment production systems such as recirculating systems, in-pond raceways and use of “smart farm” technologies that offer the potential to improve production efficiency, in terms of resource consumption per unit production. It was noted the culture-based fisheries also offer a largely untapped opportunity to improve local food security in a low emissions manner, harnessing the natural productivity of water bodies (ie. without feeding).

Aquatic animal health remains a high-profile issue, and several member countries are now actively working to bolster local seed production to reduce dependence on imports and reduce the risk of transboundary disease transfer, especially with regards to crustaceans.

Presentation of the State of World Aquaculture and Regional Aquaculture Reviews 2020

In preparation for next year's Global Conference on Aquaculture (22-27 September 2021, Shanghai), a series of webinars will be held on topics relevant to the sustainable development of aquaculture. The first of these will be a presentation of advanced (pre-final) versions of *The State of World Aquaculture 2020* and six regional review papers, which will be held during the week of 26-29 October 2020.

These reviews provide up-to-date information on the status and trends of the sector, at regional and global levels, developed from national, regional and global datasets, supplemented with expert opinion and literature reviews. The reviews can be of pertinent interest and use to national governments, regional organisations, policymakers, aquaculture farmers and other aquaculture value chain actors, investors, civil society organisations, research and training institutions as well as the general public.

These webinars will be convened by FAO, in partnership with NACA and the World Fisheries Trust. For each review, a presentation of key messages will be followed by a panel discussion. Question and answer sessions provide opportunity for interested parties to comment on the reviews, ahead of their final publication.

The webinars will be held via Zoom (you must install the free Zoom software client) and registration is required to participate. The schedule and registration links are available at:

<https://aquaculture2020.org/reviews/>

Online Training Course on Mariculture Technologies for the Asia-Pacific Region

The Yellow Sea Fisheries Research Institute, Chinese Academy of Fisheries Sciences and NACA organised an online training course on mariculture technologies from 21-25 September 2020. Over 150 people attended from diverse countries and backgrounds, including government officials, researchers, enterprise managers and technicians.

The course was opened with welcome remarks by Dr Jin Xianshi, Director of the Yellow Sea Fisheries Research Institute, Mr Simon Wilkinson (on behalf of DG NACA), and Dr Liu Yingjie, Vice President of CAFS.

The programme covered breeding, disease control and prevention, nutrition and feed research, breeding model construction, farm technology development, engineering, quality, safety and inspection technology for aquatic products. Specific topics covered included:

- Aquaculture in China (Dr Wang Qingyin).
- Surveillance plan and biosecurity system for shrimp farming (Dr Huang Jie).
- Introduction to the Yellow Sea Fisheries Research Institute (Dr Xu Jiakun).
- Global aquaculture development status and technology innovation (Dr Yuan Xinhua).
- Aquaculture of Sea breams (Dr Liu Xinfu).
- Theory and technology of *Porphyra* culture (Dr Wang Wenjun).
- Cage mariculture in China (Dr Cui Yong).
- Breeding and culture techniques of *Apostichopus japonicus* in China (Dr Liao Meijie).
- Viral nervous necrosis of teleost fish (Dr Shi Chengyin).
- History, current status and prospect of shrimp culture in China (Dr Wang Xiuhua).
- R&D and application of rapid detection kits for aquatic pathogens (Dr Zhang Qingli).

- Progeny production and culture technology of marine fish (Dr Xu Yongjiang).
- Seafood products processing (Dr Cao Rong).
- Clinical treatment technique and its application on major shrimp diseases (Dr Wang Yingeng).
- Theory and technology of *Saccharina* culture (Dr Liu Fuli).
- Treatment of aquaculture wastewater with constructed wetlands (Dr Cui Zhengguo).
- Development of coastal integrated multi-trophic aquaculture in China (Dr Zhang Jihong).
- Best management practices for feeds and feeding / lipid nutrition for fish aquaculture (Dr Xu Houguo).
- Health management in grouper aquaculture (Dr Eduardo Leano).

The course was taught in English, with question and answer sessions after every session and a group discussion and presentations by participants on the final day. Participants that completed the five days will be awarded a certificate (in process). Audio and video recordings of the lectures will be published on the NACA website in due course. Links will be announced in the next newsletter.

The NACA Secretariat would like to express our sincere thanks to the Yellow Sea Fisheries Research Institute and Chinese Academy of Fisheries Sciences for developing the programme and sharing their expertise, they clearly put a great deal of effort into the course, and we appreciate it.

This course was in fact NACA's first step into online training, and we were very pleased with the level of interest and the enthusiasm of the trainees. Over the coming months, NACA will offer further webinars, training and discussion opportunities on a range of subjects, which will be largely technical in nature. The details will be published on the NACA website and the newsletter in due course.

Quarterly Aquatic Animal Disease Report, January-March 2020

The 85th edition of the Quarterly Aquatic Animal Disease Report contains information from nine governments. The foreword provides a disease advisory concerning decapod iridescent virus 1 (DIV1), an emerging threat to the shrimp industry.

Free download from: <https://enaca.org/?id=1116>

Regional Webinar on Infection with Decapod Iridescent Virus 1 (DIV1) and Preparedness for Emerging Shrimp Diseases

The shrimp industry has been beset by many devastating diseases in the last three decades, which have caused severe production and economic losses and even caused the collapse of the industry in some countries. Recently, emerging shrimp viral diseases have threatened the shrimp industry. For example, the virus, formally named decapod iridescent virus 1 (DIV1) by ICTV, has caused mortality in farmed Pacific white shrimp (*Penaeus vannamei*) and giant freshwater prawn (*Macrobrachium rosenbergii*). The virus infects all stages of shrimps and has also been observed to infect crayfish (*Cherax quadricarinatus*).

China extended its National Targeted Surveillance Program to cover DIV1 since 2017 and revealed that DIV1 had been detected in 9 out of 15 provincial administrative regions. Positive cases have been reported in the wild populations of *P. monodon* caught in the Indian Ocean. In June 2020, Taiwan, Province of China reported the disease in crayfish and shrimp farms. The geographic distribution of DIV1 may be wider than currently known, since mortality may not have been investigated in other countries or regions.

In order to provide updated knowledge, recommendations, and emergency preparedness for DIV1 and other emerging shrimp diseases, NACA organised a public consultation, the

Regional Webinar on Infection with Decapod Iridescent Virus 1 (DIV1) and Preparedness for Emerging Shrimp Diseases, which was held online from 10-11 September 2020. The webinar was attended by 403 people from around the world.

The regional consultation was undertaken with the primary objectives of discussing and planning actions for the prevention and management of the disease. Specific objectives were to:

- Provide updated technological information on DIV1.
- Advocate the strengthening of diagnostic capacities as well as active surveillance of DIV1 (to detect presence or absence of the virus).
- Formulate recommendations on sanitary measures (including biosecurity) for disease prevention.
- Promote emergency preparedness for emerging diseases.

Audio and video recordings of selected presentations will be made available on the NACA website in due course. Links will be announced in the next newsletter.

China announces import measures to respond to nucleic acid positives of COVID-19 detected from the outer packaging of frozen white leg shrimp from Ecuador

According to CCTV news, the Joint Prevention and Control Mechanism of the State Council of China held a press conference on the afternoon of 10 July. At the meeting, Mr Ke-Xin Bi, Director of the Import and Export Food Safety Bureau of the General Administration of Customs, informed that in order to prevent the risk of introducing COVID-19 through imported cold chain foods into the country, Customs had launched inspections for novel coronavirus in imported foods.

As of midnight on July 9, China's Customs had inspected 227,934 samples, including 43,964 product samples, 147,568 inner and outer packaging samples, and 36,402 environmental samples.

On 3 July, Customs in Dalian detected nucleic acid positives of COVID-19 in one of the samples collected from the inner wall of containers of the frozen white leg shrimp produced with Ecuadorian registration No. 24887 and three outer packaging samples of the frozen white leg shrimp produced with Ecuadorian registration No. 681.

On the same day, the Customs in Xiamen detected nucleic acid positives of the novel coronavirus in two samples of frozen white leg shrimp produced with the Ecuadorian

registration number 654. Nucleic acid tests of the shrimp body and the internal packaging were both negative, and all the other 227,928 samples tested negative.

Experts believe that the positive results did not represent infectious virus, but reflected that food safety management systems in the relevant enterprises were not in order. In order to protect the health of consumers, the General Administration of Customs decided to suspend the registration of the relevant Ecuadorian enterprises, suspend the import and export of the products of the relevant enterprises, and take measures such as the return of goods and destruction of goods temporarily detained.

According to the current knowledge, 2019-nCoV cannot infect aquatic animals, but the virus or its nucleic acid may contaminate products during farming, harvesting, processing, packaging, and shipment. The announcement of China's Customs clearly indicated the positives were only detected on the inner walls of a container and the outer packaging materials with a positive rate of 0.0027% over 147,568 packaging samples. No positive was detected in the over 43,964 product samples themselves and the 36,402 environmental samples. It is speculated that the positives were contaminated by

infected packers for outer packaging or porters, but not from the aquatic animals or the processing chain. As cold chains will protect the inactivation of virus or the degeneration of the nucleic acid, cold chain products will have a higher possibility of being detected after contamination with the virus. Basic biosecurity and food safety measures should be strengthened in handling and processing during the pandemic. Workers infected with 2019-nCoV should not be involved in the production chain of aquatic products until recovery. Any susceptible animals, such as bats, cats, minks, civet, etc., should be kept away from cold chains and products. Necessary disinfection measures should be strictly implemented.

NACA would like to remind our members to strengthen safety management systems in the manufacture of aquatic products during the COVID-19 pandemic. It is reasonable to quarantine products from regions with an outbreak of COVID-19, but the public does not need to fear or be cynical about aquatic products. In contrast, with high contents of quality protein, high unsaturated fatty acids, and micronutrients, eating more aquatic products will better improve human immunity to prevent the disease.

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Translation of the Notice No. 81 of 2020 by the General Administration of Customs, the People's Republic of China: Notice on suspending the registration of three Ecuadorian manufacturing enterprises in China

From <http://www.customs.gov.cn/customs/302249/2480148/3185285/index.html>

Customs recently detected six nucleic acid positives of the novel coronavirus from the samples collected on the inner walls of containers and the outer packaging of frozen shrimp imported from three Ecuadorian enterprises, including Industrial Pesquera Santa Priscila S.A. (registration No. 24887), Empacreci S.A. (Registration No. 681), and Empacadora Del Pacifico Sociedad Anonima Edpacific S.A. (Registration No. 654). The test results of both the shrimp body and inner packaging samples were negative. Through nucleic acid sequence analysis and expert judgment, the test results indicated that the container environment and packaging of the products of the three enterprises were at risk of being contaminated by the novel coronavirus, and that the food safety management system of the enterprises was not fully implemented. In order to eliminate risks of the hidden dangers and protect the health of the people, in accordance with the provisions of the Food Safety Law of the People's Republic of China and its Implementing Regulations, as well as relevant customs regulations, the following announcement is made:

1. The above three enterprises shall be suspended from registration in China.
2. The import of the products of the three enterprises mentioned above shall be suspended, and the import declaration of the products of the three enterprises shall be suspended.
3. The importer shall immediately recall the frozen shrimps produced by the above three enterprises after March 12,



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NACA is a network composed of 19 member governments in the Asia-Pacific Region.



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return the frozen shrimps temporarily detained by the customs after March 12 and destroy them, and provide the import and sales records of the goods to customs at the place of import. In case of refusal to implement the provisions, Customs shall deal with them in accordance with the Food Safety Law of the People's Republic of China and its implementing regulations, as well as relevant customs rules.

This announcement shall come into effect as of the date of promulgation.

This is to announce.

The General Administration of Customs, People's Republic of China

On July 10, 2020