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What does it take to produce sustainable Asian shrimp?

Navigating the wave of sustainability in shrimp farming by the TARS 2023 Hard Talk panel



The Hard Talk panel at TARS 2023 discussed "What does it take to produce sustainable Asian shrimp?", from right, Prakan Chiarahkhongman, Charoen Pokphand Group, Thailand; Andreas von Scholten, Grobest Group, Hong Kong; Wan Nadhri Wan Fauzi, Blue Archipelago Berhad, Malaysia; Fred Hsi Chung Kao, SyAqua Group, Thailand; and Lourdes Chingling Tanco, MidaTrade Ventures International Inc, Philippines. Ronnie Tan, USGC, Malaysia (left) led the conversation.

A diverse group of industry leaders shed light on the complexities of producing sustainable Asian shrimp. They offered insights into the challenges and their subjective opinions on shaping the path towards producing sustainable shrimp for global markets. TARS 2023 on Shrimp Aquaculture was held in Bali, Indonesia from August 15-16.

Ronnie Tan, Aquaculture Consultant at USGC, began by introducing the panellists, chosen to represent the different segments in the shrimp aquaculture supply chain - farming, genetics and hatchery, feed and aquatic health and processing and marketing.

The panel

Wan Nadhri Wan Fauzi is CEO, Blue Archipelago Berhad, a leading shrimp integrator in Malaysia covering 480 ponds which started operations in 2009.

Fred Hsi Chung Kao has recently joined as CEO, SyAqua Group, Thailand, a leading shrimp genetics and hatchery feed company. With 23 years in poultry genetics, Fred contributed some practices and experiences from this sector.

Dr Prakan Chiarahkhongman, Vice President, Aquatics Animal Health Care Products Specialist, Solutions Provider (AAHCPS), Charoen Pokphand Group travels widely to communicate conceptual ideas to farmers, customers,

clients, partners, industry experts, associations, societies, the government sector and general public.

Lourdes Chingling Tanco, Managing Director, MidaTrade Ventures International Inc, Philippines established in 1990, represented the processor and marketing segment. Chingling has been vocal on how industry in the Philippines and Asia should position themselves.

Andreas von Scholten recently joined as Group Chief Commercial Officer, Grobest Group Holdings Limited, Hong Kong. Previously as CEO of the Barramundi Group, Andreas developed premium markets for sustainable barramundi *Lates calcarifer* from Asia.

What does sustainable shrimp farming mean?

The fundamental question was: "What do you understand by the term sustainable shrimp?"

For Prakan, sustainable shrimp farming is the need for practices that can be passed down through generations, while underlining the importance of environmental friendliness and cost-effectiveness. "At CPF, we believe that we can help farmers reduce their environmental impacts. This is what we have done to promote sustainable shrimp in the future. We educate farmers to understand that products that are good and environmentally friendly

will benefit all, on diversifying products from farm to food and incorporating technology across the shrimp farming process.”

The company prioritises technology and innovation to promote sustainable practices such as genomic selection, changing starch: protein ratio in feeds to reduce water pollution and excessive nitrogen output, diversification in shrimp products, holistic management systems and possibly, in the future, producing shrimp with high selenium content.

From farm to marketing

Chingling, adopting a multifaceted perspective and aligning with views of farmer, buyer, and processing plant, contends that sustainability, from a farmer’s viewpoint, entails enduring practices that ensure generations of growers can maintain profitability. She traces the evolution of sustainability definitions, emphasising their entwinement with market dynamics, particularly in the US.

“I believe certification begun with US buyers wanting assurances that products were safe and produced responsibly at social and environmental levels without having to travel to origin and see it themselves.” While highlighting the proliferation of certifications, Chingling added, “Some buyers have expressed scepticism on the perfunctory nature of annual farm evaluations”.



Lourdes Chingling Tanco says, “There are also hopeful signs as efforts are being made to make certifications more affordable, potentially paving the way for more farmers to join the sustainable movement.”

Chingling underscores the credibility of the Aquaculture Stewardship Council (ASC) due to its focus on the main part of the production chain. Within Asia, she expresses reservations about the narrow focus on consumer safety, highlighting broader concerns for environmental impacts and social responsibility. She highlighted the potential increase in animal welfare requirements, suggesting a clash of developed country thinking imposed on Asia.

There is a pivotal role of governments in promoting sustainability. The Indian government helps the farms with tests for certification. Vietnam’s government supports industry with environmental assessments such that almost all the processing plants are deemed sustainable.

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On the emergence of “fair trade shrimp” as a marketing strategy, Chingling said, “There is a degree of scepticism in evaluating impacts. Here the story is that when a customer buys a bag of this shrimp, a poor farmer in Asia benefits.” (Note: Fair Trade is a global movement that aims to make trade fair by improving prices, working conditions and the deal for farmers and workers in developing countries).

Views from a shrimp integrator

Wan Nadri was pragmatic in his definition of sustainable shrimp production. “The reality prevails with steady financial gains. Sustainability revolves first around earning margins consistently and supporting the local community. The next step is to consider the benefits for the good of the planet. Meaningful environmental initiatives are, realistically, contingent upon financial resources.”

Is there a lack of a compelling sustainability narrative for Asian shrimp?

This was a key question posed for panellists. Is there a sustainability story for Asian shrimp? If there is, how can it be enhanced or, if not, how can one be built?

In Andreas' opinion, there is no sustainability story. He asserted three negative points with the industry in Asia, “While there is progress in efforts across the value chain in Asia, the public image remains a significant challenge. Factors contributing to this image problem include the conversion of mangroves to farms, environmental pollution, antibiotic use, and concerns around labour conditions.”

Secondly, an absence of a unified branding effort for the Asian shrimp industry stands out as a major hurdle. There are successful examples in Latin America, particularly Ecuador, where associations and collaborative efforts have effectively built a brand representing sustainability.

Thirdly, Asia's industry is notably fragmented which not only complicates outreach efforts but also poses challenges in obtaining broad-scale certifications. These issues require structural changes, and the idea of an umbrella organisation covering all Asian farmers to facilitate industry-wide development was raised. “While I acknowledge the difficulty of an easy fix, there is a growing awareness among farmers about the importance of sustainability,” said Andreas.

Wan Nadri believes that Asia does have a sustainability story but unfortunately is not selling the story well. “There is a lot of awareness on social and labour issues and there is no lack of capacity to produce sustainable shrimp. He raised the issue of profitability and the challenge of convincing buyers to pay the fair price for shrimp.”

A consensus emerged that the industry was not doing enough to communicate its strengths effectively. Wan Nadri suggested a one-stop centre and a collaboration among industry players to take control rather than depend on a government to government (G2G) approach to pitch the industry's story.

Countering the negative image

The conversation digressed to the negative impact of documentaries, in particular Netflix's ‘Seaspiracy’, deemed as “the worst publicity ever for aquaculture”. Andreas acknowledged the difficulty of countering such narratives on social media, emphasising the challenge of gaining a shared voice amid billions of global consumers.

He noted the need for an effective response and reiterated that perhaps the suggested umbrella organisation could play a crucial role in addressing misinformation and advocating for the whole industry.

A question raised was: who should represent the industry and counter such negative narratives? Andreas highlighted that while there were advocates discrediting certain adverse narratives, their voices did not gain much traction. The dialogue unfolded into an exploration of Asia's strengths, with the panel underscoring the importance of storytelling to highlight the region's strengths.

The Ecuador versus Asia dynamics became a focal point, with Ronnie questioning if there is a need for collaboration to develop shrimp consumption worldwide. Fred believes that there is a lack of advertising positive aspects and it is the industry's collective responsibility to tell its story. “Every FCR gained, and every ADG improvement is a sustainability metric. We need to advertise these small steps. It is not



“Every FCR gained, every ADG improvement is a sustainability metric. We need to advertise these small steps.”

– Fred Hsi Chung Kao

about comparing Ecuador and Asia or India, it is just that Ecuador is doing a better job for its industry.”

Since the industry is in an oversupply situation, does working together mean some farms should reduce production? For Chingling, when linking buyers and sellers, it is imperative to have a convincing story. “Today, young Indonesian shrimp farmers have started to make a difference by telling the story of Indonesian shrimp. They are looking at niche markets such as small size shrimp into the high-end market in the UK. Pricewise, those for the small shrimp have not moved down as much as for large shrimp (USD0.5/kg versus USD2.5/kg). The message is to find the niche.”

Creating a sustainable story

Fred commented, “The need for collective effort is beyond genetics to enhance farm efficiency. Genetics is not a silver bullet. We try to give best genetics to farmers, but this contributes to only about 25% of growth



“The dilemma is to remain sustainable financially. We need to sell what the market needs, but our tight spot is how can we do it cheaply”.

- Wan Nadri Wan Fauzi

potential. The rest is nutrition from feeds, environmental conditions etc. Even though we are in a fragmented industry, if all players focus on farm efficiency and improve productivity, they can make a big difference.” When prompted on the challenge of getting diverse players to work together, Fred simplified it to a common motivator - making money.

Chingling emphasised the usefulness of certification as a standard operating procedure (SOPs) in entering some markets but brought in the factors: confusion, impracticality, and expense they might cause. Considering the associated costs, the question was consumers would be willing to pay for traceability and certification.

The response from the producers highlighted a dilemma between financial sustainability and market demands. As a producer, Wan Nadri said that he does not have a choice. “The dilemma is to remain sustainable financially. We need to sell what the market needs, but our tight spot is how can we do it cheaply”.

For producers, there is no choice but to align with consumer demands. Andreas, in advocating for sustainable shrimp production that does not excessively burden producers financially, urged industry leaders to focus on profitability through sustainable practices, emphasising the potential for increased viability and profits. “Better performing feeds will deter farmers from using supplements. It is really up to industry leaders to help make farmers to be more profitable.”

Low shrimp survival rates and use of antibiotics

On low survival rates hovering around 55-60%, Fred drew parallels with his experiences in the poultry industry. He highlighted the need for everyone to do a better job at coming up with better environmental, genetic, and nutritional management so the animals can survive longer.

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Use of antibiotics in Asian shrimp farming is tarnishing industry's reputation. Prakan highlighted Thailand's success in reducing antibiotic use and said that all credit goes to the Department of Fisheries (DOF). "DOF has created an electronic traceability system to track shrimp through the supply chain with an electronic Aquatic Purchasing Document (APD). It is a mandatory system for traceability. Farmers need to use this system to buy post larvae and other supplies. It holds information on origin and details of shrimp harvests."

The dialogue then shifted to the viability of self-regulation in countries like Malaysia. Wan Nadri expressed optimism but requires strong political will to shift the focus from quantity-based metrics to quality benchmarks. Weighing in, Chingling proposed an educational approach to regulations such as the example of Thailand.

Insights from sustainable barramundi production

Drawing from his experience at Barramundi Asia, Andreas stressed the importance of advanced vaccines, certified feeds, and transparent supply chains. However, he admitted that more investments and incentives were needed for widespread success in the shrimp industry.



Andreas von Scholten says, "I think sustainable practices is a continuous journey, and not to stop or to start based on the market conditions."

Investing towards sustainability

Finally, Ronnie introduced a notion borrowed from the construction industry, suggesting that with low shrimp prices today, it could be an opportune time to invest in sustainability to be ready to take advantage of the upturn at a later date.

Fred emphasised the continuous journey of improvement, "At SyAqua, similar to other genetic companies, we are investing to be better year on year. For the small or commercial farmers, it is always striving to be better and

not necessarily with the extra amount of dollars until they hit a plateau such as density wise."

"I think sustainable practices is a continuous journey, and not to stop or start based on the market conditions. Now, we have skyrocketing ingredient prices and farmers are squeezed with low prices, it is important to innovate and do things sustainably. We are developing zero fishmeal and low fish meal products with the same farm performance. Proper husbandry is the way to be more sustainable and more profitable which is the way we need to go," said Andreas.

Chingling suggested the need to continue exploring avenues like ASC certification to command premiums in the market. She highlighted their influence on ensuring compliance with regulations too. She shared her struggle to get suppliers ASC certified with high costs being an obstacle. "An upcoming ASC feed standard that will be enforced in about 12 months is not helping late entrants into the standard as if prometheus' mountain just gets steeper and steeper. However, there are also hopeful signs as efforts are made to make certifications more affordable, potentially paving the way for more farmers to join the sustainable movement."



Dr Prakan Chiarahkhongman says, "When we talk about investments to the farmer, I tell them that they need to have the 2Ms: monitoring and maintenance."

Prakan said, "When we talk about investments to the farmer, I tell them that they need to have the 2Ms: monitoring and maintenance. Many farmers allow ponds to deteriorate or pond liners remained unrepaired, and I advise them that when 50% of crop is lost, the cost of production will be 200% and each day the damage is left untended it is USD500/day. Imagine with white spot disease, farmers can lose 10 ponds in the same day."

Wan Nadri said, "I believe in making changes through interventions, in three ways- financial, mechanical and process interventions. Since the latter is free - that is what we need to look at."