



INFOFISH speaks to.....

HAN HAN

Founder and President, China Blue Sustainability Initiative (China Blue)¹

Q: China Blue is often introduced as the first NGO set up in China in 2015 specifically to promote sustainable fisheries and aquaculture. What were the gaps in the national fisheries and aquaculture landscape at that time that prompted you to

establish the organisation, and what role did you envisage for China Blue in helping to enhance sustainability in the two sectors?

A: Against the backdrop of the sharp decline in ecological resources in China's fishing and aquaculture industries, the vast majority of small-scale producers face multiple challenges. They lack access to scientific information and appropriate technologies, as well as organisational capacity, often struggling independently to cope with pressures ranging from resource depletion and environmental issues to market fluctuations and regulatory constraints. We expect social organisations like China Blue, serving as a third sector, to play a crucial role beyond government bodies, research institutions, enterprises, and industry associations. By connecting upstream and downstream stakeholders across the supply chain and facilitating cross-sectoral and cross-industry communication and coordination, such organisations can help small-scale seafood producers in various regions identify effective technological and management models. This will ultimately promote the sustainable development of China's fisheries and aquaculture sector.

Q: Another national 'first' for China Blue was recorded just a year later in 2016 with the launch of a seafood sustainability database called iFISH, promoted as a platform to identify the environmental, social, and economic impacts of China's most commonly farmed fish species. Now almost a decade later, how has the platform evolved over time and what have been the main findings from the data collected thus far?

A: The iFISH platform indeed became a focal point for stakeholders in its early stages. For instance, the Shanghai operations team of Disneyland hoped to leverage iFISH to guide their procurement practices and achieve the company's "responsible sourcing" objectives. However, we observed that such a database had limited applications, as most of its adoptable

data were relatively coarse-grained and outdated. This made it impossible to accurately assess the sustainability levels and risks of aquatic products supplied by specific vendors, lacking sufficient relevance.

Consequently, around 2019, we shifted our strategy. Instead of focusing on building such databases, we began targeting specific regional and industry-specific aquaculture supply chains, exploring how to gather more data and how this data could more directly guide small-scale producers in effectively managing their environmental risks.

These initiatives subsequently attracted partnerships from companies producing smart fishery equipment and insurance providers:

- The former, connected by us with producers for product trials, refined their equipment based on optimisation feedback facilitated through our collaboration;
- The latter, with our assistance, developed aquaculture insurance products to help small-scale producers mitigate losses caused by market fluctuations (including impacts from the China-US trade war) and natural disasters such as extreme weather.

Q: Highlighting tilapia as one of the main farmed species in China, the Sustainable Fisheries Partnership (SFP) and local tilapia farmers in Hainan province launched the Hainan Tilapia Aquaculture Improvement Project (AIP) in 2014. Led by the Hainan Tilapia Sustainability Alliance (HTSA) and supported by China Blue, the AIP reportedly includes more than 500 farmers producing about 100 000 tonnes of farmed tilapia per year. Could you provide more details on this collaboration and highlight the ways in which the farmers have benefitted from participating in the project? To your knowledge, are there plans to implement similar AIPs for other species?

A: HTSA (Hainan Tilapia Sustainability Alliance) stands as China's first entirely civil-initiated aquaculture industry association, pioneering spontaneous collaboration across the entire tilapia supply chain. At its peak, it boasted over 500 registered members. Since its founding in 2015, the association has engaged stakeholders throughout the industrial chain to co-develop localised farming standards. This culminated in 2019 with the successful registration of China's first Group Standard for sustainable tilapia farming. The association also provided free technical training to hundreds of farmers while promoting automated and mechanised equipment.

Subsequently, HTSA launched multiple pilot projects, uniting fish farmers, distributors, fry suppliers, feed mills, processors, veterinary product suppliers, and wholesale buyers to explore data-sharing solutions. These initiatives enhanced supply chain transparency, traceability, and market premium potential.

¹ Founder and President of the China Blue Sustainability Institute and a Steering Board member of the Global Sustainable Seafood Initiative (GSSI), Han has led China Blue in deeply exploring sustainable development within fishery and aquaculture communities in Hainan. Focusing on the public governance of fishery and aquaculture, China Blue is committed to providing advisory services for government decision-making, innovating solutions for the industry, and enhancing public awareness of marine science and culture. Her work has been recognized by several awards, including selection for the Obama Foundation Asia-Pacific Leaders program in 2019 and being named to the 'Gen. T List'—the definitive list of young leaders shaping Asia's future—in 2020 for her efforts in promoting sustainable fisheries and aquaculture in China. Han holds degrees in Environmental Sciences from Rutgers University and Nanjing University. She has more than 15 years of research and consulting experience in environmental protection and sustainable development both domestically and internationally.

Since 2021, with support from China Blue, the association partnered with PICC (People's Insurance Company of China) to develop a tilapia farming insurance product—China's first dual-coverage policy protecting small-scale farmers against both price fluctuations and production losses. Endorsed as a Ministry of Finance innovation pilot, the insurance was later adopted by Haikou and Wenchang city governments after successful trials, covering over 5000 mu (≈333 hectares) of tilapia ponds with claims exceeding one million RMB.

Nevertheless, these achievements could not mask the association's operational challenges. In China's socioeconomic context, maintaining such an independently operated industry association proved demanding. Most of its contributions—being industry public goods—remained invisible, long-term, and hard to quantify. Consequently, the question of “who should fund such associations” emerged as its greatest obstacle. Had it not been for dedicated funding from the Dutch IDH Foundation secured by Sustainable Fisheries Partnership (SFP) and China Blue, the association could not have been established nor sustained for years.

Regrettably, due to pandemic-related disruptions, the China-US trade war, chronic funding shortages, and lack of industry consensus, HTSA was compelled to suspend operations this year. Still, we believe its decade-long exploration offers invaluable case studies and lessons for sustainable aquaculture development, both in China and globally. The successful and unsuccessful strategies revealed throughout this journey constitute the association's most enduring legacy.

As of now, we have no plans to replicate the Aquaculture Improvement Project (AIP) model elsewhere. In fact, we recognise that AIP's supply-chain-driven approach to upstream production and management reform remains constrained by certain limitations, warranting cautious rather than over-optimistic expectations.

Q: *The Hainan AIP has in fact, been hailed as a success story in zonal aquaculture management. Speaking now in your capacity as a Steering Board member of the Global Sustainable Seafood Initiative (GSSI), how is “success” defined for AIP projects in general? For example, are there aquaculture governance indicators that would be useful for AIP stakeholders to refer to?*

A: The partial or phased successes of Hainan Tilapia AIP suggest that for any industry, “development” constitutes the core objective. Consequently, how we define “development” and measure its “success” may be the fundamental questions underlying your inquiry.

Personally, I believe that regardless of AIP's initiatives, they must tangibly help the industry improve its resource utilisation efficiency and allocation efficiency; in other words, deliver concrete “benefits” that create visible, palpable impacts for producers and all stakeholders across the value chain.

For instance:

- Initially, we focused solely on gathering more data from third-party assessments. Only later did we realise that data becomes truly dynamic—alive—only when producers can meaningfully use it.

- We thus identified insurance as a breakthrough mechanism. Leveraging our pre-collected data, we enabled small-scale farmers—many for the first time—to access insurance services. This incentivised them to actively adopt devices and tools for data collection and sharing.
- Starting with seemingly elusive “pond-gate fish price” information, we developed a user-friendly reporting method and maintained weekly updates for years. This data evolved into a decisive reference for government decision-making and a cornerstone for insurers designing products.

Q: *In an interesting article titled “Can China's fishing villages make a comeback”² written by Songzi Wang of China Blue and which was published in the May/June 2022 issue of the INFOFISH International, it was mentioned that declining catches have resulted in younger people leaving to find jobs in cities. In response, China Blue had launched a project in Hainan province called “Bring fish to table, bring fisher home”. Could you update us on the progress of this project, and do you think that it can be replicated in other provinces?*

A: The “Bring fish to table, bring fisher home” project has achieved milestone developments over the past three years. We have shifted from emphasising cultural diversity and showcasing fishing communities through artistic means to initiating community-driven coastal biodiversity conservation and cultural revitalisation actions in four fishing villages in Hainan. These efforts are empowering local youth to embrace new lifestyles:

- Using telescopes to observe and document migratory birds passing through their villages;
- Applying scientific quadrat sampling methods to monitor seagrass beds; and
- Creatively adapting traditional net-weaving techniques to weave fish-scale mesh wraps—popular with tourists for carrying bubble tea cups, water bottles, and phones.



Credit: Shuangyin Yu

A photo exhibition held in Dongshuigang, a fishing village in Hainan, drew the attention of villagers in conjunction with the “bring fish to table, bring fisher home” project.

² https://drive.google.com/file/d/1gRlqRAT-3TdGAWG46QSPSW0iCc2A4gJ/view?usp=drive_link

Through this initiative, we've led community leaders on off-island study tours to exchange experiences with peers from other villages. Discovering shared challenges and aspirations among rural youth has fostered mutual encouragement and solidarity.

The project has gained recognition from local governments and secured funding from domestic foundations. We are currently documenting the practical methodologies from these pilot villages, aiming to replicate this model in coastal communities across Hainan and nationwide. Inspired by our approach, several peer Chinese NGOs are already implementing similar initiatives in Fujian, Zhejiang, and Guangdong provinces.

Q: You were one of the panellists at the Seafood Expo Asia conference last year which had a big focus on themes linked to FAO's global Blue Transformation³ initiative. For the benefit of people who were not present at that conference, could you elaborate upon the key take-home messages in your presentation that day, which you feel remain relevant today?

A: The concept of "blue foods" has revealed the immense potential of fisheries and aquaculture. Personally, I believe "blue" carries another connotation—signifying a 'Blue Ocean Industry', denoting nascent sectors with untapped growth potential. Overall, compared to other industries, fisheries and aquaculture remain at a nascent stage of development, offering substantial room for enhancing production efficiency and resource effectiveness. This includes reimagining, through wisdom drawn from marine and aquatic systems, our relationship with food and our planet.

Crucially, the sector is predominantly composed of small-scale producers, a reality that aligns with the fundamental characteristics of marine biodiversity and diverse fishery production models. This also presents a critical test: how to strike a nuanced balance between individualised needs and public governance, enabling fisheries—which demand heightened flexibility and risk responsiveness—to develop their own distinct governance philosophy.

Q: Similarly, in your recently published paper titled "Strengthening NGO networks and capacity building for ocean sustainability in China"⁴, could you highlight some key points that you feel are important in charting the way forward in the country?

A: The "post-pandemic era" is an age of heightened uncertainty. Yet this very reality underscores an urgent need for innovation and paradigm shifts. In this context, NGOs possess distinct comparative advantages:

- Compared to public sector entities equally dedicated to communal interests, NGOs offer greater operational flexibility;
- Against intellectual circles similarly focused on long-term ethical and equity issues, NGOs demonstrate superior practical implementation capacity;

- Relative to commercial organisations equally driven by efficiency, NGOs maintain more systematic and holistic perspectives.

Consequently, NGOs should embrace a leading role in driving social innovation—arguably today's most critical imperative—with heightened ambitions and foresight. This demands that we, as practitioners, cultivate unprecedented openness and diligence to authentically engage our multifaceted and rapidly evolving world, ensuring our efforts remain dynamically aligned with global progress.

And lastly, as this year marks the 10th anniversary of the founding of China Blue, perhaps this is a good time to ask what the past decade has been like for the organisation – the achievements and milestones worth celebrating; and conversely, the areas in which you had hoped to have seen greater progress for China Blue as well as the domestic fisheries and aquaculture sectors in China.

Indeed, nearly a decade has passed in a blink, yet it feels like we've only just begun. I recall a study by a globally renowned social innovation institution that analysed over 1 000 NGOs and social enterprises, revealing it takes an average of 13 years to establish a successful model for addressing social issues. Against this benchmark, it seems premature to claim any substantial achievements. We may have just entered a phase of strategic deepening, now validating our core approaches at critical junctures.

Presently, China Blue resembles a toddler who has recently outgrown infancy and begun toddling forward. We take heart in having carved out an initial ecological niche within China's nonprofit landscape for advancing sustainable fisheries through localised pathways. Our trajectory grows clearer by the day: the organisation's limbs grow stronger, its mind more imaginative.

Strictly speaking, China Blue has evolved beyond a single entity into a nascent ecosystem—a compact yet vibrant network. Alumni have blossomed into industry entrepreneurs and executives; some have founded NGOs or social enterprises in their hometowns, while others pursued advanced studies. We've incubated local innovation teams and organisations that complement our efforts from diverse angles, collectively and systematically driving sustainability for fishing communities, fisheries, and fishers. Among them:

- Marketing designers building regional seafood brands
- Village cadres spearheading collective economies
- Tech innovators enhancing production efficiency

Bound by shared vision and values, we collaborate with remarkably low friction, pooling resources from talent to market opportunities. I believe the future we envision—where "vibrant oceans nurture enduring abundance"—demands many such teams and organisations. We are but one catalyst, one puzzle piece. Together, we assemble this grand vision through persistent effort—a journey that may well prove life's most rewarding endeavour. 🌊

³ FAO. 2022. Blue Transformation – Roadmap 2022–2030: A vision for FAO's work on aquatic food systems. Rome. <https://doi.org/10.4060/cc0459en>

⁴ <https://doi.org/10.11647/obp.0395.23>