

CASE STUDY: VIETNAM CRAB FISHERY PROTOTYPE GAINS BUY-IN AT CRITICAL POINTS IN THE SUPPLY CHAIN

PROJECT OVERVIEW

The challenge

Vietnam's blue swimmer crab in Kien Giang province is threatened by overfishing. Mini-plant operators purchase juvenile and undersized crabs from fishers before the crabs have a chance to reproduce. Weak compliance and enforcement of harvest regulations exacerbates the species decline, and the U.S., a primary export market for crabmeat, competes with Vietnam's growing domestic market, which operates without sustainability or supply chain traceability standards.

50in10 sought to support the transitioning of the fishery to a co-management system that incorporates new harvest control strategies and requires support and consensus building among government, fishers, supply chain actors, and other stakeholders to forge a common approach in restoring the resource and creating sustainable markets.

The prototype

Bai Bon village on Phu Quoc Island in Kien Giang province was chosen as the prototype pilot site to implement rights-based management and a fishery co-management plan in which fishers and government authorities share decision-making and enforcement functions. The managed access program models the 50in10 Theory of Change, which posits that sustainable change in fisheries requires four levers: policy reform, community empowerment, credible science, and market demand. All four levers are in place in this prototype, and it rates highly in our assessment for growth and readiness, making it an ideal 50in10 prototype that other programs might replicate or adapt.

50in10 role and partners

Partners in the Kien Giang Fishery Improvement Project include the WWF-Vietnam, National Fisheries Institute (NFI) Crab Council, Vietnam Association of Seafood Exporters and Processors (VASEP), Department of Agriculture and Rural Development (DARD) Kien Giang, Ministry of Agriculture and Rural Development (MARD), Provincial People's Committee (PPC), Kien Giang mini-plants, and the Research Institute of Marine Fisheries (RIMF). 50in10 helped foster collaboration among partners and provided a \$25,000 matching grant

to support a bio-economic study, along with workshops and trainings for fishers, suppliers, processors, government officials, and other stakeholders.

Theory of Change in action

Policy reform

Co-management and territorial user rights are new concepts in Vietnam. The initiative educated local, provincial, and federal government authorities and fishery stakeholders about the benefits. Policy actions included:

- Consensus-building among stakeholders on the need for a co-management and a secure rights model in which both fishers and government authorities share decision-making and monitoring responsibility to ensure marine resource sustainability
- Agreement to stop purchasing crab that is smaller than 10 centimeters
- Agreement to eliminate the 15 percent tolerance of small-size crab among fishers and buyers
- Agreement to strengthen the monitoring of landed catches to ensure compliance

Community empowerment

The initiative fostered dialogue and consensus building among government authorities, local communities, and fishers, encouraging them to contribute to the planning and management processes for the pilot site. Actions taken to empower stakeholders included:

- Meetings and workshops to build relationships and garner support for the pilot site
- Workshops on blue swimmer crab stewardship and enforcement
- Trainings on principles of co-management and benefits of rights-based systems
- Stakeholder participation in selecting Bai Bon village on Phu Quoc island for the pilot site

Credible science

The prototype leveraged the Kien Giang FIP's scientific tools and data-collection programs. Science tools included:

- Logbook system for fishers to collect crab data
- Stock assessment report to guide sustainable fisheries management

- Bio-economic study to demonstrate that harvest controls increase the value of the fishery

Market demand

The market demand for traceable, sustainably caught seafood is growing, fueled by increased government reporting requirements and consumers who want to know where their seafood comes from. Transitioning to a co-management model will align the economic interests of fishers and supply chain actors with the long-term health of the fishery.

Activities to address this include workshops and meetings with processors and supply chain actors addressing new procurement policies and traceability regulations that have the potential to serve as compelling market incentives for middlemen to answer to both regulators and customers

Results

The prototype set the fishery on a course for implementing a co-management and harvest strategy system that sustains the resource and requires collective action from all stakeholders. Results include:

- Understanding and recognition among stakeholders of the need for a co-management and territorial rights model in which both fishers and government authorities share decision-making and monitoring responsibility to ensure marine resource sustainability
- Agreements by the local governing authority to strengthen enforcement of minimum landing size limits
- Middlemen (picking and cooking stations) have agreed in principle to stop trading undersized species, and the practical application is in process

PROJECT STORY

Prototype Gains Buy-In at Critical Points in the Supply Chain

Vietnam's blue swimmer crab population is threatened by overfishing, and a prototype program aimed at developing a co-management system with territorial rights at a pilot site on the country's largest island is a first step toward fixing the problem.

The program, supported by 50in10, called for action from all participants in the supply chain to adopt new harvest control strategies and forge a common approach to restore the fishery and create sustainable markets at the pilot site on Phu Quoc Island in Kien Giang province.

Some mini-plant operators purchase juvenile and undersized crabs and berried females (female crabs bearing eggs) from fishers. Fisher incomes decline because crabs have gotten smaller and harvest quantity has fallen. The population's decline is further exacerbated by weak compliance and enforcement of regulations limiting harvest crab size, season and marine area closures, and fishing-gear mesh size. In addition, the U.S., a primary export market for the species, competes with Vietnam's fast-growing domestic markets. However, unlike the U.S., Vietnamese buyers have no sustainability or traceability requirements at any point in the supply chain. U.S. seafood consumers demand sustainably caught seafood, and the Monterey Bay Aquarium's Seafood Watch program gives the Vietnam blue swimmer crab an overall "avoid" recommendation because of this lack of enforcement and monitoring.

Community empowerment: collaboration is key to success

"The prototype brought support for collaborative management among fishers, supply chain actors, and government to adopt and enforce harvest controls," says Thuy Nguyen of the World Wildlife Fund-Vietnam.

The blue swimmer crab, which fully matures in only one year, has potential for rapid recovery to meet market demand, Nguyen adds; larger stocks and bigger crabs can lead to increased profits for buying companies and supplier communities. The Kien Giang fishery supports 1,700 fishing boats and 20,000 fishers using bottom gillnets and traps.

50in10 provided a \$25,000 matching grant for a bio-economic study, along with workshops and trainings for fishers, suppliers, processors, government officials, and other stakeholders. The 50in10 grant harnessed the cooperation, scientific data, and favorable political and business climate generated by the fishery improvement project (FIP), and

leveraged the project work, which aligns with the four levers of 50in10's Theory of Change: community empowerment, policy reform, credible science, and market demand.

The workshops addressed:

- Blue swimmer crab stewardship and enforcement
- Co-management principles and benefits of rights-based systems
- Education on organizing and implementing a new co-management system at the pilot site in Bai Bon village

The initiative also attracted matching funds from the National Fisheries Institute (NFI) Crab Council and WWF-Vietnam. Other FIP partners include the Vietnam Association of Seafood Exporters and Processors (VASEP), Department of Agriculture and Rural Development (DARD) Kien Giang, Ministry of Agriculture and Rural Development (MARD), Provincial People's Committee (PPC), Kien Giang mini-plants, and the Research Institute of Marine Fisheries (RIMF).

Credible science: data-based controls; proof of value

WWF-Vietnam initiated the FIP in 2012 to implement the Marine Stewardship Council standard; the FIP developed a logbook system for fishers to collect crab data and produced a stock assessment report. Using this data, the Research Institute conducted the 50in10-funded bio-economic study that demonstrated the effectiveness of enacting harvest controls to increase the value of the fishery. The study investigated the current state of the fishery in terms of market value and fishing effort and projected future value if controls in fishing were enacted.

Over the four-month grant period, project partners facilitated dialogue on sustainability of the species and the benefits of co-management. Participants learned the value of rights-based management to regulate catches and harvest areas so that fishers and suppliers enjoy a vested stake in the health and recovery of the crab and, ultimately, improve their incomes. These management systems are new concepts in Vietnam, and the prototype sought to secure buy-in from government authorities.

Policy reform: strengthening the supply chain

As a result, MARD (the local enforcement agency) agreed to eliminate the 15 percent tolerance of small-size crabs in the catch among fishers and buyers, and strengthen the

monitoring of landed catches to ensure compliance. In addition, the mini-plant operators agreed to stop buying crab that is less than 10 centimeters in size.

“That buy-in was critical,” says Megan Arneson, 50in10 acting executive director. “Fishers work independently and are price takers. They have no leverage with the people they depend on up the supply chain. Through a series of meetings, the partners garnered support from the pickers and processors to reject too-small crabs and to put pressure on the fishers not to fish juvenile crabs.”

Stakeholders also learned about procurement policies and oversight and traceability regulations coming in 2016. A control system with a third-party auditor will monitor the sustainable harvest of the crabs and establish control points throughout the supply chain.

Market demand: traceable, sustainable seafood

A central sticking point was mini-plant owners’ concerns about additional costs. They expressed reluctance to adopt oversight measures unless forced to comply as they did not see any immediate business value, and they were concerned about giving an edge to competitors who don’t take the same approach. However, the market demand for traceable, sustainably caught seafood is growing, fueled by increased government reporting requirements and consumers who want to know where their seafood comes from. These new standards have the potential to become compelling market incentives prompting middlemen to respond to both regulators and customers.

Moving forward, it’s likely that a collaboration of stakeholders will continue the traceability control and investment work for the co-management model.

The Kien Giang prototype has helped to steer the blue swimmer crab fishery along a path to sustainability and is laying a foundation for stronger action in the future. “50in10 support gave this project much-needed traction, and expanded the tools for enabling longer-term solutions,” says Arneson. “That was our goal, and it is the best outcome we could hope for. Now the challenge is how others can support more local partnerships to drive further improvement.”