



RESONANCE/USAID FISH RIGHT

# JUAN CATCH TECHNICAL BRIEF

## OPEN INNOVATION CHALLENGE AND TECHNOLOGY TRANSFER

### USAID Fish Right Program in the Philippines

This publication was produced for review by the United States Agency for International Development (USAID) by SSG Advisors (d/b/a Resonance), a sub-awardee to the University of Rhode Island Coastal Resources Center, through USAID Cooperative Agreement No. 72049218CA00004, USAID Fish Right Program.

**DISCLAIMER** This report is made possible by the support of the American People through USAID. The contents of this report are the sole responsibility of Resonance and do not necessarily reflect the views of USAID or the United States Government.

## SUMMARY

The USAID Fish Right Program (2018-2025) is a partnership between the Governments of the United States and the Philippines to promote sustainable fisheries. This USD \$25 million project aims to address marine biodiversity threats in the Philippines with special attention to wild or capture fisheries and the communities that depend on them. Building on the gains of previous USAID-supported coastal, marine and biodiversity conservation projects that introduced an ecosystem approach to fisheries management (EAFM), Fish Right promotes the sustainable use of critical coastal and marine resources, enhances the resilience of these resources and capacitates key actors on sustainable fisheries management.

Fish Right has focused its implementation in three marine key biodiversity areas: the Visayan Sea, Calamianes Island Group, and Southern Negros. Fish Right's goals across the three program sites are 1) to achieve at least a 10% increase in fish biomass and 2) to reduce threats to marine biodiversity. The University of Rhode Island (URI) leads implementation of Fish Right in collaboration with a consortium of implementing partners including Resonance, which has led the development of public-private partnership (PPP) initiatives.

## FOCUSED ACTIVITY: JUAN CATCH TECH TRANSFER & CUSTODIANSHIP

Juan Catch is a new online, e-commerce marketplace for sustainable seafood in the Philippines developed through support from Fish Right then transferred to Agro-Digital PH, a startup providing solutions in the domestic food system, as part of an Open Innovation Challenge (OIC).

This brief serves as an important case study of this activity in three significant ways:

- **Technical Documentation of Project Activity.** First, this case brief reports on the underlying challenge (and opportunity) that Juan Catch as a solution seeks to address, situating the project activity in the context of USAID priorities and thus serving as a technical backgrounder of an important Fish Right activity, including an emphasis on building impact-driven partnerships with the private sector that can have endurance beyond the initial project.
- **Process Documentation of Juan Catch Commercialization and Tech Transfer.** Second, beyond the supportive development and even commercialization of innovative ideas that OICs and competitions can yield, this brief tends to legacy planning for Juan Catch. It includes documentation of the custodial process and tech transfer beyond the duration and scope of Fish Right and this PPP, and aims to maximize the potential for this innovative e-marketplace solution to have lasting, sustainable impact for and in local fishing communities after this USAID program concludes.
- **Demonstrating the Potential of Open Innovation Challenges in Yielding Solutions.** Third, this brief details Fish Right's Open Innovation Challenge designed to identify, incentivize, and support promising ideas and effective solutions, which resulted in further development of Juan Catch. This documentation is intended to contribute to USAID's growing body of evaluative learning regarding the potential use, and lingering challenges, of Exploratory Programs and OICs to address global development and humanitarian issues at scale.

## THE JUAN CATCH JOURNEY

### MACRO & ECOSYSTEM CONDITIONS

The USAID Fish Right program identified supply chain engagement as one of the strategies to manage fisheries and reduce threats to marine biodiversity. Aside from the government, Fish Right recognized the market as a driver of compliance through incentives and conditionalities, in some cases with the objective to achieve ecological or social certifications or ratings. While some economic actors intentionally or unintentionally contribute to the problem of overfishing and illegal, unreported, and unregulated (IUU) fishing, pressure from markets can also be a means to reward fishers and supply chain players to source more responsibly—via increased market access, stable/better prices, or partnerships.

Fish Right’s overall situational analysis and stakeholder engagement, including value chain analysis of key fisheries, revealed significant opportunity to build more efficient and equitable fisheries supply chains in the Philippines, given fragmented market information and infrastructure involving millions of small-scale producers. Fish Right engaged export-oriented fishery stakeholders, as well as those within the domestic market, to introduce systems and technologies for improved and more responsible seafood trade that would benefit fishers, buyers, and fisheries managers while contributing to the program objectives.

Philippines – Market Conditions Relevant to Sustainable Seafood		
Small-scale Fishers	Traders	Institutional Buyers
<ul style="list-style-type: none"><li>• Dependence on traders and cash transactions</li><li>• Barriers to consolidate and sell fish beyond traditional channels and product forms (inadequate knowledge, market info &amp; infrastructure / services / equipment)</li><li>• Lack of capacity to develop products beyond traditional processing techniques</li></ul>	<ul style="list-style-type: none"><li>• Multiple levels of consolidation and redistribution</li><li>• No or limited product documentation and traceability</li><li>• Financing and logistics intermediaries</li></ul>	<ul style="list-style-type: none"><li>• Need reliable quantity and quality of supply</li><li>• Perceived lack of supply from responsible sources; some will pay more to source directly from fishing communities but have limited resources to actively identify and capacitate fishers</li><li>• Highest awareness on sustainability in HoReCa (hotels, restaurants, and catering) sector, but highly dependent on distributors</li></ul>

### RATIONALE FOR DEVELOPMENT OF JUAN CATCH

The onset of the COVID-19 pandemic in 2020 accelerated the adoption of e-commerce and reinforced the importance of local supply chains due to the challenges of importation and early curtailing of fishing activities and transportation of food products; in response, Silliman University (SU), a Fish Right consortium member, developed a Facebook page called Fish Tiangge (*tiangge* is a Filipino term for bazaar or market) to support fishers in Negros Oriental province by posting their products to market to household consumers.

While SU's creation of Fish Tiangge arose from the effects of COVID-19, its foundations were laid months earlier, as SU had engaged with fishers' associations and a consumers group in South Negros to encourage them to support sustainable seafood; this provided the foundation for rapid uptake of the Facebook-based platform. In addition, a grant from SU's Dr. Mariano Lao Laboratory provided smartphones and prepaid mobile data credits as an incentive for ten fishers' associations practicing sustainable fishing to use Fish Tiangge as a venue to sell their catch; the use of Fish Tiangge was also replicated in the two other Fish Right sites.

Although Fish Tiangge saw success in the early months of the pandemic, the use of the platform was not sustained, as restrictions in trading and transporting food products eased in the 'new normal' of the pandemic. This left a question as to whether Fish Right was achieving sufficient scale to create momentum towards a level of adoption and investment large enough to improve the seafood trading system as a whole. In addition, if scale meant engagement of institutional buyers, i.e. hotel, restaurant, and catering (HoReCa), processing, and wholesale/retail sectors, an informal Facebook-based platform would not enable them to search for and consolidate seafood based on their specifications, target prices, and other factors.

It was in this context that Fish Right committed to further developing an online platform, branded as Juan Catch, to capitalize on the ongoing shifts in the market and take a B2B approach to support sustainability at scale in the domestic seafood supply chain. USAID indicated its strong support of this approach throughout its conceptualization and development.

## JUAN CATCH PLATFORM OBJECTIVES

- Improve social and financial equity for organized fishers' groups engaging in more responsible practices through better market access, transparent pricing, and transaction support.
- Influence procurement behavior of institutional seafood buyers by offering education on seafood sustainability and options to source from fisheries with improvement efforts, creating new or strengthening existing supply chains.
- Provide trade data to support fisheries management.

## COMPLEMENTARY INTERVENTIONS

In parallel, Fish Right consortium member Sustainable Fisheries Partnership (SFP) began development of [responsible seafood sourcing](#) (RSS) tools and standards for the Philippine domestic seafood market. RSS leverages the active engagement of mid-chain and end-buyers to drive improvements in fishing via their sourcing practices. Through a defined standard, seafood producers and buyers share a common understanding of what responsible seafood is in the local context. A corresponding assessment measures performance of producers, first receivers, intermediaries, and institutional end-buyers on legal compliance, traceability, environmental responsibility, and human and social welfare issues. This assessment identifies risks in the supply chain and helps actors develop a pathway to address these challenges in a responsible manner.

[Juan Catch](#) as a marketplace, and the [RSS tools and standards](#) as a framework, are intended to be mutually reinforcing mechanisms to mainstream seafood sustainability in the Philippines.

The two diagrams below summarize the role of Juan Catch, and complementary RSS interventions and partnerships in the market ecosystem, in encouraging more sustainable seafood supply chains.

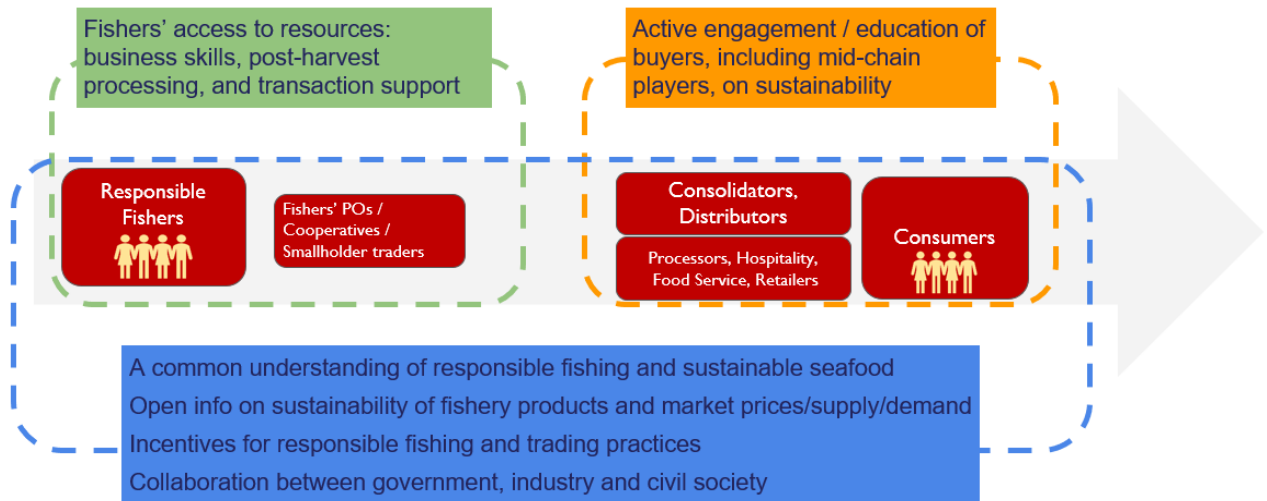


Figure 1. Overview of Sustainable Value Chains (Fish Right)

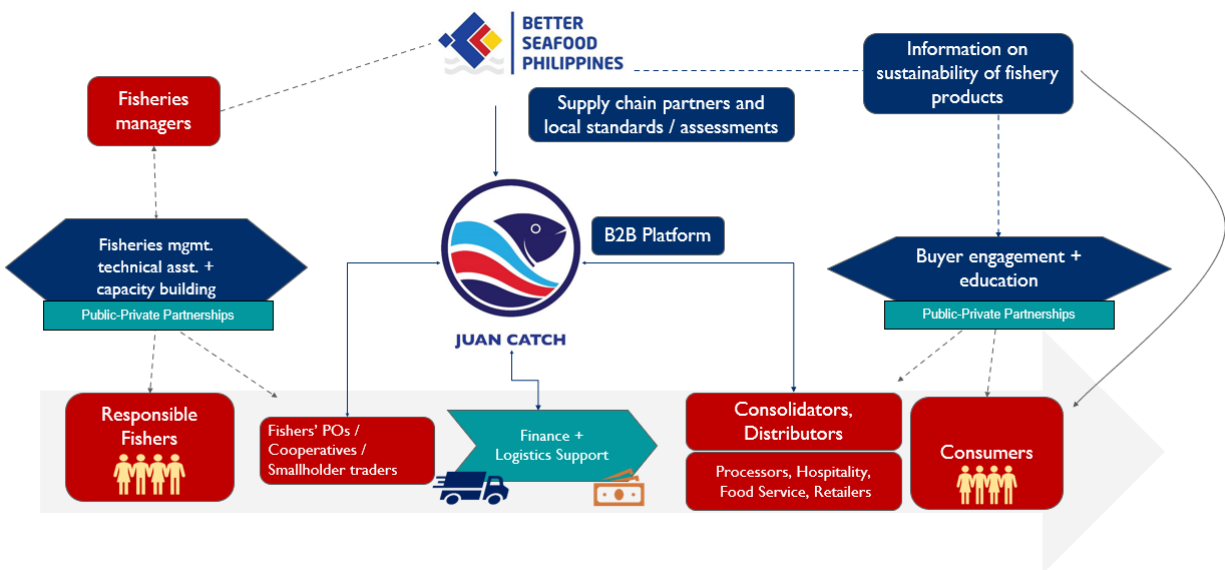


Figure 2. Overview of the Juan Catch Model and Supply Chain Engagement (Fish Right)

## MAJOR PLATFORM ACTIVITIES UNDER FISH RIGHT

Juan Catch underwent several early stages of development before turning to the innovation challenge and incubation, as summarized below.

**Discovery:** Identify the requirements and scope of the project which include platform requirements, user/customer journey mapping, initial Business Model Canvas (BMC), supply and demand analysis, platform roadmap, and focus group discussions. Figure 3, below, depicts the Initial Business Model Canvas (BMC) for Juan Catch.

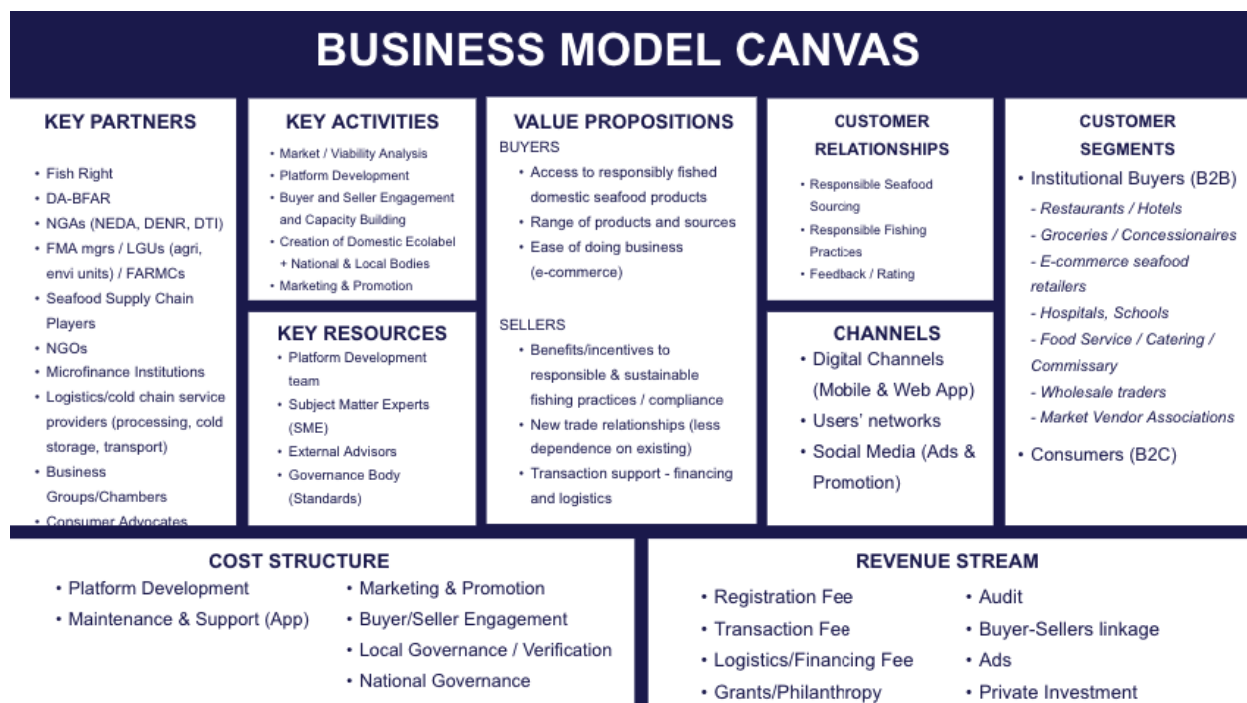


Figure 3. Initial BMC for Juan Catch (Fish Right)

**Planning:** Determine resources and lay out the implementation plan. This includes introduction to requirements prioritization, inception workshops for domestic standards, identification of pilot communities, and partnership for transaction support.

**Platform development:** Lead a consultative process and agile development of the Web app in collaboration with the stakeholders, which includes development sprints, design mock-ups, and social marketing of the platform.

**Pilot experience:** In Capiz province, Fish Right worked in four municipalities on a suite of fisheries management interventions. It also engaged [Gerry Roxas Foundation \(GRF\)](#) [Hublag Microfinance Inc.](#) in a partnership to provide access to finance (microloans for consolidation of fish catch), logistics (reefer van service), and institutional markets (including its partner market vendors in Farmers Market Cubao) to fishers’ cooperatives that comply with responsible fishing practices. This partnership enables Capiz fishers to support sustainable practices and participate in management measures by increasing the value they can capture in the supply chain, while enabling them to deliver high quality seafood to the market and ultimately to consumers. In parallel, partners would actively engage buyers and offer educational resources on RSS.

The pilot of Juan Catch revealed challenges that most startups face in the Philippines such as internet connectivity in the pilot areas outside of the city and the limited use of smartphones among small-scale fishers. To address these, Fish Right provided basic smartphones and prepaid wifi to fishers’ groups that participated in the pilot. In addition, in terms of tech adoption, some members of the pilot communities might be resistant to change; Fish Right addressed this through training and immersion with the platform led by an on-site community facilitator.

While the fishers' groups confirmed the usability and potential value of the Juan Catch platform, the overall pilot with Manila-based buyers was very brief due to highly competitive market conditions. Partners have initiated additional market linkages for specific fishery products and for urban areas within and near Capiz province, but these are starting with one-on-one transaction facilitation and have not yet reached a point where Juan Catch could support transactions of multiple sellers/buyers.

## COLLABORATIVE APPROACH

Fish Right approached activities through the assumption that joint efforts and multi-stakeholder collaborations are required to implement sustainable fisheries management and biodiversity conservation. In particular, to effectively implement initiatives such as Juan Catch that promote sustainable and responsible fisheries, a diverse partnership including academic institutions, NGOs, and both private and government institutions is important.

In addition to the technical expertise to develop the platform, numerous key partners can help build the Juan Catch ecosystem. These include:

- **USAID Fish Right:** platform development, facilitate co-creation of domestic ecolabel
- **Department of Agriculture - Bureau of Fisheries and Aquatic Resources (DA-BFAR):** co-creation of ecolabel, promote use of the platform and analyze trade data for fisheries management
- **Fisheries Management Area (FMA) Managers/Local Government Units (LGUs):** support PO's use of Juan Catch platform/local ecolabel implementation; Analyze trade data for fisheries management
- **NGOs:** co-creation of ecolabel; support People's Organization's (PO) use of the platform and local ecolabel implementation
- **Microfinance Institutions/Logistics Cold Chain service providers:** provide transaction support to users
- **National government agencies, i.e. National Economic and Development Authority, Department of Environment and Natural Resources, Department of Trade and Industry, etc.:** analyze trade data to complement fisheries management with economic incentives, biodiversity management, and larger-scale policy measures
- **Business Groups/Chambers/Consumer Advocates:** promote awareness and use of the platform and ecolabel

## LEVERAGING OPEN INNOVATION

As part of Juan Catch's sustainability plan post Fish Right, the program took a thoughtful approach from the platform development stage and centered technology transfer as a key consideration. This led to the birth of the Innovation Challenge, implemented through a reverse hackathon as a means of transferring the platform. The reverse hackathon differs from traditional hackathons, which usually involve participants engaging in rapid, collaborative software or app development over 24 to 48 hours. Instead, the reverse hackathon invites participants to pitch their business proposals on how they plan to pursue the platform's vision and become its custodian.

### Approach Overview

From the start of the Fish Right program, there was a clear directive to ensure that interventions were scalable and/or could be continued by stakeholders post-program. In 2021, with Fish Right coming into the fourth year of an initial five-year project lifetime, Resonance initiated alignments with URI and SFP to

discuss a plan for Juan Catch on how to further develop the platform and sustain its operations from the fifth year onward, rather than to simply discontinue support as is the case for many time-bound development projects.

The initial options proposed were to select an existing organization to receive the platform and establish a multi-stakeholder advisory board of key partners; or, to create a new organization to operate the platform. At this time, the team also considered conducting further assessments on the commercial viability and possible revenue and financing streams for Juan Catch, and with these assumptions in hand, validating the interest of potential implementing partners/funders.

In these early conversations within Fish Right, it was suggested to hand the platform over to a university to ensure that fisheries management principles would continue to be applied, and to give Juan Catch a sense of neutrality or impartiality in the market. However, one major concern was whether an academic institution could offer the resources to sustain the platform and/or run it as a revenue-generating (or at minimum, self-sustaining) operation, if this were outside its core competencies. At the same time, conducting further business modeling could be of limited value without a more definitive target recipient.

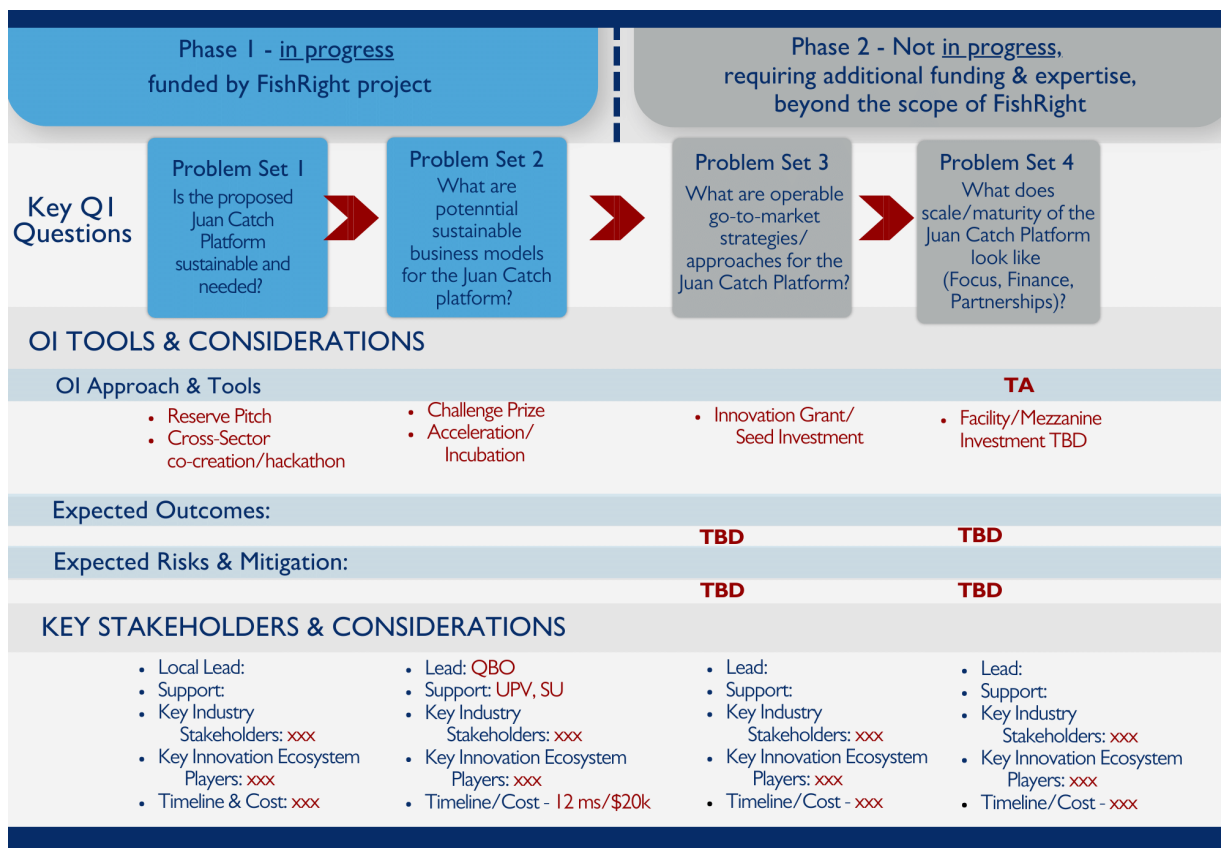


Figure 4. Open Innovation Process in Support of Juan Catch Tech Transfer and Custodianship (Resonance)

It was at this point that the proposal shifted towards an Open Innovation Challenge (OIC) to determine the best way forward from a wider range of options, rather than proceeding with a handover based solely on the limited perspective of the project team. USAID readily accepted this joint plan as an innovative solution for scaling up and sustaining the platform.



As depicted in the diagram above, the overall OI process takes two phases and addresses multiple problem sets. Within the life of the Fish Right program, this OIC and incubation program confirms the demand and potential for a sustainable business model for Juan Catch, while the winner is expected to continue to develop the platform's go-to-market strategy and maturity post-program. This may require additional external financial and technical assistance, if beyond the current capacity of the business model to scale-up independently.

### Technology Business Incubator (TBI) Engagement and Planning Process

TBI collaborations are important for OIC and typically involve a partnership between an organization that supports startups i.e. TBIs and technology-focused entities such as a university. The main objective of this collaboration is to provide support, mentorship, and resources to the startups to develop and scale up.

For the Juan Catch Innovation Challenge, Fish Right engaged three TBIs as partners:

- [QBO Innovation Hub](#), a Manila-based public-private incubator founded by the Department of Trade and Industry, Department of Science and Technology, Ideaspace Foundation, and JP Morgan to unleash the potential of an entrepreneurship-driven economy as a path to nation building, sustainable development, and inclusive growth.
- University of the Philippines Visayas (UPV) Coastline 5023 Fisheries TBI in Iloilo province, which aims to provide potential technopreneurs primarily in the fishery sector a business enabling facility and an entrepreneurial ecosystem
- Silliman University (SU) SInergy TBI in Negros Oriental province, which aims to help students and professionals develop their early-stage technologies into market-ready products by providing them with a range of resources, services and facilities.

SU is a consortium member of the USAID Fish Right Program while UPV has partnered with Fish Right on several initiatives; both are located in Fish Right program sites.

### Innovation Challenge

The Innovation Challenge is a reverse hackathon which will allow groups of startups or organizations to participate, go through a series of workshops and mentorship, and provide a pitch from which the winner will become the custodian of the Juan Catch platform. The Innovation Challenge was one of the major parts of the sustainability plan for Juan Catch along with the incubation program (see next section). Through QBO/Ideaspace Foundation, one of the partner TBIs with a nationwide network in the startup ecosystem and experience in organizing hackathons, Resonance opened the call for applications for potential startups or organizations to take over the Juan Catch platform.

#### ***Design and Activities***

The call for applications started August 8, 2022 via email invitations sent to startups, founders, and universities. Social media postings on the challenge were also released to aid in marketing the program. Through a virtual info session on August 24, 45 potential applicants received a clear overview of the platform, innovation challenge, and the incubation program for the winning team. The call for applications was closed on August 29; a total of 10 organizations submitted their applications for the Innovation Challenge. The applicants could then send a business plan containing their goals for Juan Catch. Four startups and one founder (individual expert) qualified for the Innovation Challenge.

Partners held a series of learning sessions with the selected cohort of participants in September - October 2022. The topics were:

1. Deep Dive with Juan Catch. This kick-off officially welcomed the participating teams/individuals and gave them the opportunity to learn about the platform comprehensively.
2. Guest speakers Ms. Josette Genio of SFP and Ms. Mary Ann Basal, the Juan Catch market research consultant. They delved into the Fisheries Supply Chain and Ecosystem, emphasizing with depth the importance of sustainable fishing, the demand, and the resources available in the market, and referenced some of their recently conducted research and studies.
3. Market Validation. Hosted by Arup Maity, co-founder of Steer Platform, this session focused on the use of the Javelin board, a tool to validate ideas in identifying the customers, problem, solution, and other factors essential to crafting a sustainable and feasible business model.
4. Running a Fisheries Startup. Hosted by the founder of a Philippines-based startup called [Fishbee](#), Diogenes Pascual, who shared his own experiences in attempting a local market intervention for small-scale fishers.

As part of the Innovation Challenge, Resonance also organized a Fireside Chat in October 2022 to share insights from organizations in other markets with similar objectives to Juan Catch. This included Peter Battisti, Executive Director of [Future of Fish](#), an international non-profit whose mission is to support thriving, resilient ocean communities by driving innovation and investment in small-scale fisheries; and Iqbal Miladisa, Manager of International Sales, [Aruna](#) (Indonesia), which streamlines the supply chain of fishery products by connecting small-scale fishermen to the global market through technology. They led a discussion regarding the most critical strategic partnerships each have built; what trends in the seafood market are positively/negatively affecting their businesses; and emerging technology solutions for sustainability in the fisheries supply chain.

### ***Selection of Winner***

In November 2022, three participating startups had completed the learning sessions and made their final pitch presentations to a panel of representatives of Fish Right, the TBIs, and the USAID Science, Technology, Research and Innovation for Development (STRIDE) Program. The startups were evaluated according to the following criteria:

- Market Validation - You must be able to identify the target market and prove that you've validated their needs.
- Responsible Seafood Sourcing - Present social and environment considerations into Juan Catch's continued operations.
- Business Model & Financials - Ensure that your business has the financial resources & capability to operate Juan Catch in the coming years. Consider your cost drivers, revenue sources, resources needed, sales channels and partnerships that you will need to succeed.
- Team - On top of promoting sustainability, you should have a strong team that encompasses tech, business and operations.
- Technology Roadmap - Present what developments you have for Juan Catch in the next 3 years. Showcase how Juan Catch can be integrated to your existing platform. Show your strategic objectives and how Juan Catch and its tech can fit in with your overall strategy.

Judges selected Agro-Digital PH as the winner, and the result of the Innovation Challenge was announced at Philippine Startup Week in November 2022. Excerpts from Agro-Digital PH's proposal, included in the

Excerpts from Agro-Digital PH Proposal for Juan Catch Innovation Challenge:  
Scaling a Unified, Multi-Produce Digital Food Value Chain

## AGRO-DIGITALPH

Agro-DigitalPH is a digital platform that provides complete, full-circle, value chain solutions for farmer and fisher cooperatives and associations.

Agro-DigitalPH challenges the status quo by providing these organizations with the digital toolsets to aggregate their assets and production capabilities, consequently leveraging economies of scale towards enabling a sustainable business.

Agro-DigitalPH deliberately gives organized smallholders the power to transact directly with the Market. To sustainably do this, the technology is coupled with the appropriate training and change management interventions including demand planning, process consolidation, quality systems, and overall community development. Unlike platforms who lead change with their technology i.e. train smallholders by using an application, building sustainable enterprises starts with an appreciation of basic business concepts, having an entrepreneurial mindset, and finances – before talking about the digital toolsets that aids them in their business. Upon completion of training, leveraging production officers (or extension workers) is a proven way of ensuring activity and continued use of the platform.

An integrated platform means sharing common business functions and strategies to help fishers undergo that change journey to Digital. The integrated platform will benefit from a larger community footprint. In addition to Juan Catch's communities, Agro-DigitalPH has its own fishing communities in Quezon, Bataan, and La Union. Apart from these locations, it also has communities engaged in aquaculture, whether in-land or coastal, again in Quezon and Pangasinan. Integration work for both platforms shall leverage Agro-DigitalPH's technology team while cloud infrastructure shall be rationalized.

The integrated platform seeks to expand its pool of community developers to cover Juan Catch areas; this is also an opportunity for Agro-DigitalPH to work with farmers in these areas. Finally, an integrated sales & marketing team makes sense as Agro-DigitalPH can leverage its existing set of clients. More importantly, introducing fish and seafood widens the Company's assortment and therefore tap new clients with what we may consider as premium food items. The integrated platform shall continue to focus on business-to-business transactions. Juan Catch shall have its own portal that we may also leverage for consumer transactions. Items sold under the Juan Catch marketplace will have corresponding entries in Agro-DigitalPH's AgroMarketplace.

Catch through these activities, building on the combined strengths of both incubators and technical partners. Agro-Digital PH signed on to a memorandum of understanding (MOU) with Fish Right and its partners involved in the Juan Catch Innovation Challenge and Incubation Program.

Fish Right also provided financial support to the TBIs to aid Agro-Digital PH in establishing footholds for Juan Catch in their respective areas.<sup>1</sup> The TBIs:

- Assigned staff to assist in the overall implementation and hired Community Developers to link Agro-Digital PH to the target stakeholders.
- Organized and conducted a “Juan Catch Caravan” to create awareness on Agro-Digital PH, the Juan Catch platform, and RSS among communities, buyers, local government units and other stakeholders and enablers.
- Conducted follow-up visits and engagement with the identified communities of suppliers and buyers.

<sup>1</sup> Antique, Aklan, Capiz, Iloilo, and Guimaras provinces for UPV Coastline 5023; Negros Oriental and Negros Occidental provinces for SU SInergy

box below, highlight the strengths of the company's capabilities, team, understanding of the market and localized context, and business and technology roadmap that contributed to its selection.

## INCUBATION PROGRAM AND TECHNOLOGY TRANSFER

### Initial Approach

It was recognized that successful technology transfer and custodial management of Juan Catch would require a well-supported incubation process—a period during which resources, mentorship, and support would help Agro-Digital PH develop and scale the platform, align capabilities, and identify and delineate market opportunities and segmentation. As part of this phase, partner TBIs helped to support and accelerate the growth of Juan

## Business Model Refinement by Agro-Digital PH

### **BMC Go-to-Market**

From the initial BMC until the Juan Catch Caravan with Agro-Digital PH, we've proven that it can cater to 2 market segments: (1) B2B or Business to Business with institutional buyers, and (2) the consumer market. The key to each of these market segments is first to establish a community-driven relationship in which there is direct participation of local community fishers as the 'Sellers' of the seafood products, bridging digitally not only to potential 'Buyers,' but with other fishing communities as well. Partnership with and among the communities, along with the help of the concerned government agencies, will help boost the market viability of the platform and in return, this can benefit both parties in terms of not only revenue, but also in the sharing of information, skills, and best practices essential in sustaining a digital platform in a fishing industry.



Juan Catch Caravan in Concepcion (Resonance/USAID Fish Right)

### **Influence of Incubators on the Go-to-Market Strategy**

**Highlights and Learnings.** Digital disruption works in most industries, especially in the Philippines. However, what we've learned through the Juan Catch journey is there may be some exceptions. The fishing industry tends to be more hesitant to new approaches and technologies, not because local fishers are unwilling to be innovative; rather, they often need to be convinced of the real benefits and value that a particular technology will bring. In the case of Juan Catch—the community based approach in which local TBIs link AgroDigital with community partners and even local government agencies, helps mediate concern through shared and vested participation. This grassroots approach has enabled

AgroDigital to build and nurture relationships with stakeholders via collaboration, which has been conducive to integrating their perspectives and expertise, as well as familiarity of locality/regional-based nuances, to improve both the platform and business model. Instead of introducing the technology as a form of disruption to their current practices, what AgroDigital proposes is to transform first the communities—capacitating them with the right processes, practices, and especially the right mindset, giving them confidence to embrace digitalization and the Juan Catch platform as part of their livelihoods.

**Fit for Context.** The local linkages that TBIs maintain were critical to the introduction of AgroDigital to the region and in incorporating local demographics, customer profiles and opportunities, and needs of the producers, in our case the fisherfolks. There are certain peculiarities in the fishing communities in these regions that only the locals understand, and thus reliance on local informants to better understand their ways can thus help shape approaches to influencing them and helping them transform their ways of working.

## Technology Transfer

Technology Transfer typically includes a series of standard phases and phased processes. It usually begins with the identification and evaluation of the technology to determine its feasibility and market potential. If the technology is considered new intellectual property (IP), it becomes important to secure legal protections such as patents, trademarks, or copyrights. Then it can be marketed to potential partners and/or investors through roadshows, and presentations, etc. If partner negotiations are expected as part of reaching an agreement on the terms of the tech transfer, which usually involves licensing fees or other forms of compensation, then the agreement needs to be formalized in legal terms. The commercialization phase begins to bring the technology to its target market in order to gain revenue/profit with continuous monitoring of the technology provider.

What is unique with the technology transfer of Juan Catch is that it skips a majority of these steps, primarily because there is no IP yet for the platform. Instead, the technology goes directly to commercialization via the community-based approach that includes the TBIs, community partners, and local government agencies. This phase benefited from the support of the Fish Right consortium, which was able to leverage the relationships and networks built and strengthened over the course of the program to identify pilot communities and potential partners. In addition, Fish Right's networks aided in better identifying and delineating different market segments crucial to platform development, as well as additional considerations important to business growth such as logistics, finance, capacity building, knowledge transfer, etc. Since AgroDigital was already an established tech company with an existing digital platform for agri-products, it was easier to integrate Juan Catch from a technical perspective. Juan Catch also aligned with the company's vision of bringing together through technology local food producers, suppliers, and varied consumers in a centralized marketplace through the use of a tailored digital platform.

## COMMERCIALIZATION HORIZONS

Agro-Digital PH will continue to operationalize Juan Catch by:

- Sustaining community engagement, i.e. facilitating direct trade between seafood-producing coastal communities and crop-producing inland communities, and supplying coastal and inland products to urban hospitality and retail establishments, in the provinces and cities which were part of the Juan Catch Caravan; and

- Establishing trade linkages with its existing clients in Manila and in new target markets like Cebu City and Boracay.

In parallel, the TBIs will continue partnering with Agro-Digital PH, local business groups, government agencies, their incubatees and other TBIs to mainstream Juan Catch through site-specific initiatives.

There are a number of critical resource needs beyond the project to ensure the sustainability of Juan Catch as a viable marketplace technology that benefits local fishers, and communities, and contributes to market expansion of local fisheries. These resources include:

**People/Talent** - Finding the right people with the right capabilities and skill sets (e.g. platform management, product development including support and maintenance, sales and marketing, community development etc.) is essential to a digital platform's sustainability and success in the market.

**Technology** - Technological resources such as Cloud infrastructures (e.g. AWS), SMS and email gateways, and other tech stacks are essential not only to support the platform, but also as a factor to consider when commercializing the platform since it is part of the operational expenses that will be incurred and essentially dictates the pricing model.

**Value Chain Partnerships** - Identifying strategic partnership with other stakeholders in the value chain to continuously augment the platform to meet changing demand and supply trends, and to fulfill the combined requirements of clients for various agricultural and fisheries products from sourcing regions, will maximize supply chain efficiencies.

**Capital** - At this stage/scale, Juan Catch is not yet self-financing through revenues. Agro-Digital PH will need to identify the right resource and investment partnerships to 'crowd in' the most aligned patient capital vehicles to support ongoing development of the platform as market dynamics change.

**Financing Models** - While small-scale fishers are accustomed to cash transactions, most bulk buyers operate under credit terms of 30-90 days. To motivate fishers to participate, the platform should integrate flexible financial arrangements, in partnership with banks and/or microfinance institutions, that allow them to receive payment in advance (at least partially). This value chain financing approach should provide ease of doing business to all parties and help fishers build credit data to access other financial services.

**Logistics** - Sellers need to be able to get the product from the landing site to an end-consumer within an arranged timeframe and in good quality. If orders come from larger distances away, delivery takes more time and requires logistics infrastructure and services like a complete cold chain. Securing consistent access for small-scale fishers to logistics providers, like reefer vans and cold storage, is an ongoing challenge which will be tested in pilot transactions, first with short-distance, small-volume orders and moving into larger volumes and longer distances, i.e. delivery to Manila.

## CONCLUSION & NEXT STEPS

As demonstrated by the Juan Catch journey, Open Innovation Challenges can serve as valuable tools for identifying and supporting potential ideas and solutions that address global concerns such as sustainable and responsible fishing. With the right partners, such as the TBIs and government agencies, OICs can create impact driven partnerships that can go beyond the project timeline.

In terms of lessons learned, when local stakeholders exhibit hesitancy in solution adoption, as the team discovered during the incubation stage of tech transfer, it is necessary to implement a cohesive strategy that simultaneously drives technology refinement and business acceleration while dedicating resources helping stakeholders adapt to and integrate change. The latter is often the more difficult task. In many ways, Agro-Digital benefited greatly from the capacity work of the Fish Right consortium over its 4-5 years of implementation in the region. This network became invaluable in pilot selection and success, helping to galvanize support, and connecting Agro-Digital with fishing communities as potential users of Juan Catch who could speak to local challenges and considerations as part of platform development and in addressing needs and apprehensions of participant fishers. This lesson has potential transferable learning for large-scale development and impact initiatives; i.e., recognizing OIC interdependence with dedicated capacity-building and local resourcing. Both are imperative to successful solution design and technology transfer.

To that end, the long-term success of Juan Catch will rely on continuing to build the capacity of the TBIs to engage fisheries stakeholders for future interventions and Agro-Digital PH's commercialisation to augment the platform to changing supply and demand needs through strategic value chain partnership. For example, the TBIs can leverage their well-established resource networks and ongoing initiatives in the local fisheries sector to advocate for additional support for this platform now that it is gaining buy-in from local market stakeholders and integration with a trusted industry platform through this OIC process. Additionally, USAID has programmed ongoing and future funding in the fisheries sector in the Philippines which could be leveraged to help maintain or broker partnerships to scale this platform beyond the life of a single project.