

Case on Green Net Cooperative and Earth Net Foundation's Organic Fishery Project. Change Fusion PROSE Research Team. December 2016. Bangkok, Thailand.

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Acronyms/ Abbreviations

ACT	Organic Agriculture Certification of Thailand
CBO	Community- based Organizations
CFM	Community Fish Market
ISEA	Institute for Social Entrepreneurship in Asia
IUU	Illegal, Unreported, Unregulated
GRAISEA	Gender Transformative and Responsible Agriculture Investments in Southeast Asia
NGO	Non-Government Organization
PROSE	Promoting the Role of Social Enterprise
SEAVCs	Social Enterprise in Agricultural Value Chains
SIDA	Swedish International Development Agency

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I. Brief History and Profile of Green Net Cooperative and Earth Net Foundation and its Primary Stakeholders

Thailand's population of over 70 million people is highly dependent on the food security from the country's fishery sector. The daily catch of the country's fisheries sector provides for both Thai and global demand. The pressure to satisfy the demand prompted the extensive practice of large-scale fishing that caused the exploitation and stark decline in its marine resources.

The evident imbalance between the increasing population and volume of available food presents a serious issue on the fishery and forestry resources. For years, environmentalists have openly criticized seafood businesses for their fishing practices that exploit the marine resources. In the past, about half of the families in Thailand were largely engaged in fishing and agriculture. There was a decline in the number of households engaged in agriculture and fishing due to the high costs and low returns.

Thailand's coastal communities are comprised mostly of small-scale fishers of around 500,000 individuals or 60,000 households from around 3,500 villages. The local fisher folks make use of traditional fishing gears, practice traditional rituals, and utilize various indigenous wisdom inherited from their ancestors. Some of these fishing gears are push nets for shrimps, hooks, surrounding nets, and handmade gears for crabs. A big fraction of their catch is intended for domestic consumption, with only the surplus put up for sale.

Compared to the fishing gears of the local fisher folks, large-scale fishing industries utilize equipment that deplete the resources and are also destructive to the whole marine ecological system. These are gill nets, surrounding nets, long lines for rays, and sand whiting gill nets. In addition, the boats used for fishing have also been transformed to big outboard-powered boats that can travel farther miles away from the shore. "The destruction have been caused mostly by boats using push nets that destroy coastal sea grass and other resources on the seabed," one of the fishers in Prachuab Khirikhan Province expressed. He narrated that this destructive practice of large-scale fishing industries is different from traditional fisherfolk practices. Fisherfolk practices prohibit the catching of certain fish species during their spawning period.

A disparity is evident among the small-scale fishers and the large-scale commercial fishing operations, where the former is more conscious of the need to conserve marine resources and the latter accountable for the rapid depletion of the resources to satisfy the high demand for seafood products.

The demand for seafood products from Thailand was triggered by the expansion of capitalists systems and globalization. The centralized management processes dominated by state agencies made it difficult for the small-scale fisherfolk communities to maintain their traditional livelihoods. Government policies and big-scale projects on the sectors of energy, tourism, and infrastructure along coastal areas have contributed adversely to the small-scale fisheries sector.

Most of the problems and issues are due to the lack of participation and consultation from the community members in the process of proposing development directions that are appropriate and sensitive to the needs of the communities.

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Further, the mismanagement of the marine and coastal resources further worsened the conditions of the disadvantaged small-scale fisher folk communities.

The declining seafood resources present a direct threat to the food security of Thailand, particularly to the poor and vulnerable fishing communities in the coastal areas. Fishers are also forced to stay out in the sea for a longer period of time for a significantly lower volume of catch. This is just an example of the consequential increase in other societal problems brought about by problems in the fishing industry. The Thai Sea Watch Association (TSWA) reported that the negative impacts spillover to problems of rising unemployment, increased cases of informal debts, and drug abuse.

Problems with the fisheries sector goes beyond the individual and environmental level. The problems and issues travel up the value chain and impact the lives of the consumers. Future generation's ability to meet their basic needs is also compromised.

All of these are rooted in the competition and conflict over resources between small-scale fisher folks and large commercial fishing operations, with the latter utilizing modern fishing gear and highly- developed technologies. Some of which are even resort to illegal fishing tools and practices.

The new Fisheries Act provides for a National Framework for Fisheries Management in June 2015. The revisions are on the types of fishing grounds, licensing, offenses and its corresponding penalties.

Fishery Management	<ul style="list-style-type: none">• Designation of fishing areas into three zones: inland, coastal and marine;• Prohibition of destructive fishing gears;• Competent authority powers of arrest;• Improvement of monitoring, control and surveillance system on fishing operations
Public Participation	<ul style="list-style-type: none">• National Fisheries Policy designated by the National Fishery Committee• Provincial committees can propose policies or legal measures;• Involvement of local fishing communities where they are encouraged to participate in the management, conservation and sustainable utilization of aquatic resources by registering as representatives of provincial committees;• Competent authority assistance to promote public participation
Port State Measures	<ul style="list-style-type: none">• Designated ports for landing;• Inspection of documentation, fishing vessels and products.

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Moreover, the Thai Government has scaled up its enforcement and monitoring efforts as a response to the issuance of the “Yellow Card” of the European Union. The issuance is based from a US Traffic in Persons Report and other media investigations that illegal, unreported, and unregulated fishing (IUU), and labor abuse practices are existing in the Thai fisheries sector, particularly those associated in the shrimp supply chain.

Table 1. Improvement in Enforcement and Monitoring Efforts of the Thai Government

Establishment of PIPO (Port-In, Port-Out) for commercial vessels that is submitted to port authorities and details: crew list, legal working age (above 18 years old), vessel registration, fishing permit, fishing license, safety certificate, and fishing logbook
Mandatory vessel monitoring system (VMS) for vessels 30 gross tons and up
Increased fines and penalties
Marine Catch Purchasing Documents (MCPDs) for traceability purposes that details the origin of the raw material throughout the value chain
Increased amount of port inspection and sea patrols
Transshipment to be conducted only by authorized vessels (a no-transshipment moratorium has been established for 120 days since December 2015)

- **Prevailing Conditions at the Small-Scale Fishery Communities Before the Intervention**

In general, the government’s policies on sustainable fisheries management, conservation, and rehabilitation of marine and coastal resources of different government agencies lack integration and coherence that often result to overlapping and/or conflicting approaches.

NGOs, on the other hand, normally adopt a traditional way of social advocacy. The recent efforts from the communities, NGOs, and academe have not succeeded in putting pressure on the government and large private sectors to alter their destructive practices.

While measures are instituted that support people’s participation, these failed to translate to tangible effects in terms of concrete practice. The shift from static and traditional way of doing business is taking shape. Traditional corporate social responsibility can no longer be satisfactory for middlemen, particularly those working to extract profits from natural resources. The current fishery supply chain provides little maneuverability for consumers to know where seafood products are coming from, how they were caught, and if they have been treated with harmful chemicals that are unsafe for human consumption.

Traditionally, men are the ones responsible for fishing in coastal communities. Women take on the tasks of fish handling, grading, and fish small-scale processing, most of which are not recognized as significant contributions to the fishing industry. Aside from these, the principal roles of the women are mostly related with the daily household work, child and elderly care, and the preparation of daily meal and necessities. These unrecognized services are often not measured financially.

Before the depletion of marine resources, the household income earned

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through the men's productive activities is sufficient to sustain the daily needs of the family. The present problem forces women to do work outside of their reproductive duties to augment the household income. Most of the women are involved in the processing and marketing of the seafood products in various scales. It is in their control to dispose and sell the daily catch within the highest possible value. They are also responsible in passing on the knowledge and practice of traditional fish processing and preservation techniques. Aside from these, women are also performing unpaid and unrecognized tasks of mending nets, collecting fish baits, preparing food for the men, all of which are unacknowledged or unrecognized as employment.

Because most of the women's activities don't have an equivalent economic Value, women are usually positioned at the lowest end of the value chain. The gender disparities in terms of income also reinforce the problems of the households. With the women doing most of the reproductive work, the lack of access to fishery resources greatly affect the source of livelihood of women and consequently the household income. As a result of the household economic pressures, the health of the women in small-scale fisher communities is also at risk.

Moreover, the lack of access, information, and participation of the small-scale fishers increase their marginalization vulnerability in the various policy-planning and decision-making processes. The defined roles of women limit their opportunity to learn more about their own situation, develop their own capacities to become key actors of equal standing with their men counterparts in addressing the various issues of their community. This is revealed in the various gender stereotypes within the fisheries sector.

Men dominate the sector of fisheries. The term "fishermen", although rooted in Western culture, is a clear example of stereotyping that tends to exclude women from the sector. To advance gender sensitivity in the sector, there is a need to use gender-conscious terms like fish worker, fish trader, and fisher. The terms, if consciously used, would manifest the existing division of labor between men and women in the fisheries sector.

Further, the fishing gear, modes of transportation, and credit rules and facilities are also among the major factors that disadvantage women in the market. The existing circumstances of these factors make the women look incapable in competing with their male counterparts in marketing the fish products.

The 24-daily pattern of household activities is highly dependent on the routine of catching fish. Most of the fishers go out in the sea at night. With most of their wives working during daytime, there is little and almost no time for interaction between the couple for family life. The women mostly have the responsibility of selling the fish in the community and regional markets. Since most of the small-scale fishers do not have or have only a few places for storage and they also lack the facilities to preserve their products, the women have to sell to the fish fresh and should be disposed within the day.

Processing is done to preserve and improve the flavor of fish. Women are usually involved in semi-processing, as opposed to the full processing, due to huge capital investment needed in the latter. Processing involves smoking, sun drying, and frying. Most of the processing procedures are costly that most women cannot afford it. Improvement of the processing technologies is needed to make it more affordable and accessible to both men and women.

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- **Intervention of Green Net Cooperative and Earth Net Foundation**

Earth Net Foundation is a non-profit body specializing in organic agriculture and supply-chain management. It also provides support to small-scale farmer-members on organic farming and other sustainable development issues, including food security, biodiversity enhancement, community-based enterprise management, and small-scale fisheries.

Green Net is a Thai social enterprise group established in 1993 to promote and support initiatives related to organic production, value chain management, fair-trade marketing, and consumption of organic food and ecological-friendly products.

Green Net Cooperative is the commercial arm of Green Net. Its organic trade and consultancy services in private, public, and inter-government agencies finance the core activities of Earth Net Foundation through profit margins. Because of its financial independence, Green Net is flexible and accommodating to changes in its development agenda and is quick in responding to new challenges.

As a social enterprise, Green Net is committed to building long-term partnerships with its producer-members. Issues related to climate change are crucial to Green Net as it could threaten the survival of its producer-members. Aside from its efforts to address the effects of climate change, Green Net also adopts farmer extension systems with its own employees or farmer leaders as the staff members. These extension workers receive technical support on various sustainable development issues from a Bangkok-based technical officer and through initial and continuous annual training. They are also responsible for providing support to the activities of the farmer-members, from technical training on organic farming techniques, food security workshop, to other additional issues decided upon by the management of Green Net.

The Organic Fishery Project is a partnership of the Earth Net Foundation with the Healthy Public Policy Foundation (HPPF) and the Thai Sea Watch Association (TSWA) since 2013. It aims to improve the social and economic condition of small-scale fisheries through the development of organic fishery products and the promotion of public's engagement on policy change.

Further, the project is directed towards the increase of public awareness in the role of small-scale fishers as producers of safe, quality, diverse products using responsible fishing methods that protect the local coastal ecology for future generations. It also provides an avenue for the public to better understand current ecological crises faced by coastal areas and marine resources through seafood and marine tours.

Aside from its partnership with TSWA and HPPF, Green Net also partnered with Association of Thai Fisherfolk Federation (ATFF) and is operating in the four areas of Southern Thailand, namely Petchburi, Prachuab Khirikhan, Phang Nga Bay, and Songkla Lake.

Green Net's engagement with TSWA is aimed towards the establishment of a social enterprise that is owned and managed by local fishing communities that will provide safe and sustainable seafood products to urban consumers.

Moreover, the project has also identified community-based organizations in the Prachuab Khirikhan Province namely, the Association of Thai Fisherfolk

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Federation (ATFF), the Southern Women Fisherfolk Federation (SWFF), and Krabi Sea Defender Association (KSDA). It has also involved four community fish markets, 1) Ban Hin Rom, Klong Kean Subdistrict, Takuathung District, and Phang Nga Province; 2) Ban Chong Feun, Pak Payoon District, Pattalung Province; 3) Ban Kookud, Satingpra, Songkla Province; 4) Laemg Pak Bia, Ban Laemg, Petchburi Province. In 2013, Green Net and Earth Net Foundation have started working with the Laem Pak Bia Community Fish Market (CFM) to ensure the organic fishery products standard. Green Net's project leader Dr. Supaporn Anuchiracheeva acknowledges that the success of Laem Pak Bia CFM is through the initiative of the seven fishers, who also boosted the income of over 80 villagers.

The project serves as a pilot model to promote market-based solutions to poverty and inequality reduction in Thailand. The model also serves as a showcase of the feasibility of inclusive capitalism for the large businesses.

Social enterprises are viewed as flexible tools for improvement that can offer replicable solutions to fill in gaps and complement government programs, within a clear set of goals and responsibilities.

The enterprises can be owned by community members and can be strengthened with social entrepreneurship frameworks. Green Net, for instance, is actively playing an important role as an agriculture-based social enterprise in Thailand. The target groups' fisher-members have committed to the transformation of their products for organic certification. Green Net gives priority to responsible fishing practices that take the environment and the marine ecological system into consideration. As a policy, it discourages the use of trawlers, push nets, small mesh-sized fishing gears, among others.

Based on the agreement among stakeholders, local fishers are willing and are committed to strictly manage each other for the conservation of marine and coastal resources. All target areas are active and are highly engaged in the implementation of the project of Green Net.

The community-based organizations make decisions collectively for the kind of products they will sell in the market, the pricing, and selling points, as well as the management of logistics. They have developed techniques to preserve the quality and freshness of their daily catch without using harmful chemicals. The fishers also have strictly controlled the group members to comply with the organic fishery regulations. As a whole, Green Net has developed a strong sense of market ownership and consumers' responsibilities. Since most of them are coming from small and closely knitted communities, the management of formal organizations is not that difficult.

Economic status is classified in terms of occupation, income, and asset ownership. The economic status of women in their communities has expanded to becoming more involved. With their desire to replenish the coastal fishery resources, they became more aware and are concerned with marine coastal resource conservation. The various conservation activities where women are involved include the establishment of a coastal conservation zone, development of community guidelines for responsible fishing, promotion of activities for breeding and regeneration of marine species, and the formation of community volunteers that will enforce the community guidelines and early warning systems.

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II. Outcomes and Impacts on Small Scale Producers and Women's Economic Empowerment

The introduction and assistance of Green Net in its partner fisherfolk organization for a first third party organic fishery certification in the country contributed significant impact on the communities. The certification was awarded to the fishery producer/ organization, and not to Green Net, in the process of sealing their strategic partnership.

Ms. Atcharee and her women staff members of the CFM in Laem Pak Bia, Petchburi Province are proud of the certification of fishery products by the Organic Agriculture Certification of Thailand (ACT). "If we don't start now, what will be left for future generations?" Ms. Atcharee said on the reason why they decided to start the CFM project.

Ms. Atcharee and other six other local fishers advanced change by opening a community fish market in Laem Pak Bia in 2008. In the initial stages of the project, only a few fishers were interested in the project until they saw and realized the benefits of moving out of the control of the middlemen to be able to set their own buying price at the CFM. "We want to sell chemical-free seafood like what we eat at home," says a local fisher working with the project.

With its 38 members, the Laem Pak Bia CFM has currently approximate shared gross revenue of 4 Million Baht. Four percent of the revenue is allocated to operation costs, salaries, and community-based insurance for emergency loans.

Green Net's assistance in their partner communities to secure organic fishery certification was part of a broader multi-stakeholder platform for the promotion of the sustainable community-based coastal resource management. Green Net boosted the public relations and calls to participate the "Save Our Sea- Save Our Fish" Network. It has launched a Facebook page to interact with individuals who are interested and is an advocates organic fishery products, responsible resources utilization, and marine resources management. The consumers are not only informed of the products but also of marine ecosystems, responsible fisheries, and eco-friendly fishing activities, among others. The communication through the Facebook page is a two-way channel that allows network members to share ideas and to extensively keep up with marine knowledge.

In relation to the campaign, the organization has set a mobile exhibit display. The display has five panel boards with topics on Introduction to Action, Responsible Fisheries, Organic Seafood, Conservation of Fishery Resources & Installation of Fish Shelters, and Conservation of Fishery Resources. It also has models for destructive and responsible fishing gears, ecologically friendly fishing instruments, and educational games.

The exhibition boards are displayed in the market events in order to educate the consumers. Most of the customers meet-up with the producers at the fishing sites and participate learning by practicing the fishing methods. Several consumers are also volunteering at the event-based markets selling fish.

Based on the Green Net's self-evaluation, the members of the CFMs have improved their management skills and their level of responsibility in organic fishery products and markets. The value-chain management provides greater transparency and collaboration among local stakeholders and consumers.

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Green Net's fisheries products are known for its distinctive quality relative to other producers. The consumers are confident in the quality, the method, and the source of the seafood products. The project has made small-scale fishers visible in the society, especially among consumers. It has also built trust between CFMs' committees and members to collaborate with each other in term of post-harvest fishery management at the community level.

The guaranteed price of organic fishery products is 20%-100% higher than the usual middlemen rate, which translates to higher income for fishers and CFMs. About 75% of the income derived from the sale of products is shared between CFMs and its members. The remaining 25% will be collected and saved as a mutual fund for the market operation.

The intervention of Green Net has introduced the competitiveness and pricing comparison at the community level. Due to the intervention, middlemen have agreed to offer a more competitive buying price. Green Net has also assisted in the development of value-added processed fishery products such as dried shrimp, dried glassfish, dried hair fin anchovy, and dried shredded fish, and shrimp paste.

Further, Green Net has reviewed the fishery management policy in terms of control of appropriate fishing gears, control of suitable size and quantity of harvested fishes, supply chain policy enforcement, and specific local management policies.

The control of appropriate fishing gears is one of the key management practices in protecting fisheries resources. In the discussion of Green Net Bang Khun Sai Community in Phetchburi, it found that the use of ark shell dredges for blood cockle can destroy the muddy beach ecosystem. The use of trawl nets, otter board trawls, and push nets are being reviewed to be included in the fishery conservation mobilization on the local regulations.

The control of suitable size and quantity of harvested fishes is also a crucial problem. The harvest of immature fish and overfishing can lead to the reduction of fish stocks. Harvest of small anchovy and mackerel is being practiced in the coastal areas due to its increasing demand. To address this issue, Green Net has launched a social media campaign on the proper size of the different species of fish for harvest.

The women also expressed in the interviews the significant improvement of the intervention to their conditions as social actors in the social enterprise, and to the situation of their respective family, the community, and the fisheries sector. The involvement of women needs recognition as they render vital supportive roles in the fisheries value chain.

III. Critical Factors that Contributed Positively or Negatively to the Outcomes and Impacts

- **Empowerment of the Community Fish Markets (CFMs)**

Green Net's organic fishery project started with the idea of providing an alternative fair trade to fishers. With the long-established "kiao" system that put the fishers in a disadvantaged position, fishers can only sell their daily catch to a few businessmen/ middlemen who monopolize the trade. They are tied because of debts in the investment of their fishing boats or through loans. They are not allowed to sell their catch to other vendors and the buying and selling price are also regulated by

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the few who monopolizes the trade business. The system is the same as contracted farming.

The project has initiated a business platform for local fishery communities. It aims to solve the negative impacts of overfishing and unfair market systems imposed by middlemen and large corporations through a social enterprise within a small-scale fishing community. In relation to this, Green Net has organized a number of meetings with five (5) target fishers.

Green Net aims to equip them with knowledge on the opportunities and scope of guidelines for the development of organic fisheries products. All of CFMs' members agree to cooperate in developing their products in order to be granted with a standard certification. As a preparation for the standardized certification, the target CFMs officially registered their members to identify the source of their products. The other small-scale fishers groups who do not belong to any CFM joined a small-scale fishers network called Organic Fishers Group. This group was tasked to manage and check the fishery products before sending to the project's markets.

Promotion of the standard is practiced at the market, specifically at post-harvest handling and preservation techniques. The organic fishery products include both fresh and processed products of banana prawn, giant fresh water shrimp, yellow shrimp, Indo-Pacific mackerel, king mackerel, blue crab, mud crab, ornate threadfin bream, chevron barracuda, silver perch, squid, sardine fillet, sweet and salted sardine, marine catfish, spotted scat, among others.

- **Establishment of community-based social enterprises and alternative markets**

Community-based social enterprises are initiated with the target CFMs who have suffered from the negative impacts of overfishing and unfair market systems of the middlemen. With the intervention of Green Net, local communities have realized their capabilities to become active actors in the fisheries value chain to create sustainable improvement in their livelihoods.

The organic fishery products are highly in demand in households, local food shops, restaurants, and luxury hotels in Bangkok. With this, Green Net is planning to develop the delivery service system towards expanding the market's opportunity in urban areas.

It has also developed two market niches, namely online-based market and event-based market. For the event-based market, the project is jointly initiated with the Bangkok's Farmers' Market in a K Village, a community mall in Bangkok. The project has implemented three levels of distribution and logistics systems for organic fishery products.

At the local level, the fishers' community-based organizations (CBOs) and CFMs in the area are responsible in the proper packaging and storage of the seafood products. As for the transportation between the villages in Bangkok, the public bus and other local modes of transportation are hired and are used to deliver the products from the remote areas to Bangkok on a consignment basis. The distribution process is designed based on the appropriate modes of transportation for the organic fisheries products.

Green Net has organized 16 sale outlets, consisting of 7 online markets and 9 physical markets that are being patronized with an estimate of 200 regular

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customers. The total volume of sales reaches about 4 tons with a total value of THB 1.5 Million.

On the demand side, Green Net has scaled up the income for small- scale fishers by reducing the number of middlemen and utilizing the food diversification approach of adding value to the products through processing.

In the process of transfer of the fish products to consumers, several categories of traders are involved. They either work in primary, intermediate, or terminal markets. Green Net has emphasized the increased opportunities throughout the intermediate market, where fish is sold to consumers through online or in market events.

The fish products that are delivered to event-based markets and online-based markets are a variety of prawns, crabs, and fishes from five different coastal areas. The products are delivered to local food shops, restaurants, luxury hotels, and local hospitals. The organic fish market in Bangkok has brought competitiveness and pricing comparison at the local community level. The private CFMs have raised their buying price to ensure fair price in comparison. This is one of the significant changes experienced with Green Net's market intervention.

During the market implementation, Green Net has placed priority on individual consumers. There is an extremely high demand for the organic fishery products, especially from individual consumers, local food shops, restaurants, and top-level hotels. With this, Green Net is set out to develop other market outlets in the future. Proactive marketing options are applied to satisfy the high demand.

- **Linkages with Potential Stakeholders**

Green Net connects potential stakeholders to the small-scale fishery groups to open up opportunities for the CFM in market development. The partnership of Green Net with the Organic Agriculture Certification Thailand (ACT) is directed towards the development of assessment guidelines for organic fishery product standards. Consultations between Green Net and ACT's officials are on the process to develop a procedure in certifying marine products that follow the ACT's organic wild-caught fisheries products standard. This is the first attempt to develop a manual for certification. The project has introduced the organic fisher product to consumers in April 2013. In 2016, nearly 100 percent of the outputs are treated according to the ACT standard. The project requires training for the exercise of certification where fishers of the five target groups have committed to transform their products to organic certification.

- **Documentation of the Communities' Best Practices**

The Green Net also began to gather available narrative data of the CBOs on its historical background, objectives, work performance, and related activities in terms of its conservation of marine and coastal resources and trade of aquatic animals. The data gathered also included the problems encountered and their corresponding strategies for solutions.

Within the project, the fisher folks also get to experiment on ways to sell their products for a better price. For instance, fishers in Petchburi Province follow a strategy on sizing and sorting. With this strategy, they can sell the larger-sized fish

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for a better price in the market. Some are also raising the market value of the product through processing.

For some species of fish, the market price is extremely low due to the large supply such as the sardines from Prachuab Khirikhan Province. A kilogram of fresh sardines is only 6 Baht. For sweetened or salted sardines fish, the price can go as high as THB 60 for 200 grams. Shrimps, on the other hand, are abundant during its peak season from September- November. Surplus shrimps are dried to extend its shelf life.

- **Sub-grants from the Department of Fisheries**

The Department of Fisheries, specifically the Fisheries Technological Development Division was approached by Green Net to work with local fishery communities in developing economic productivity. Sub-grants are made available to the four target communities to enable them to improve the efficiency of their fish markets by providing facilities for post-harvest management without the use of chemical substances; increasing the products' hygiene and cleanliness; providing tools and equipment for products' value-added and processing; providing educational tools for visitors of community fish market; expanding markets for organic fisheries products at local level; and supporting equipment, materials for fisheries resources conservation activities of the CFMs and communities.

Further, increasing the awareness on the degradation of marine ecologies and fisheries has lead to a wider support of the green marketing movement with most of the major buyers patronizing products that are sustainably sourced.

- **Enactment of the New Fisheries Act**

Most of the value chain networks are marketing seafood products from the Gulf of Thailand, one of the world's most degraded fisheries. The network has been successful in the creation of a market for fisher folk seafood by primarily responding to the perception and interests of their more affluent consumers while taking into consideration the interest and welfare of the small-scale fishers. This situation raises some important questions about the potential role of markets in promoting sustainable fisheries in Thailand.

Moreover, global media and Western countries have reported Thailand for illegal fishing and human trafficking in fisheries industry. The illegal boat owners called for amnesty grant from the Department of Fisheries and the National Council Peace and Order. The grant of amnesty bill enabled their boats to become legal and the fish caught by these legal boats can be exported to the EU exempting the trawlers and other destructive fishing gears and boats that poses harmful effects to the ecological system.

The Green Net together with the four allied organizations namely Thai Sea Watch Association (TSWA), the Association of Thai Fisherfolk Federation (ATFF), Green Peace, and Oxfam GB promoted public awareness on these issues. The Legislative Assembly enacted the New Fisheries Act on January 29, 2015 as a legal support to the supply chain policy enforcement on the middlemen and processing plants that are involved in the buying fish channels.

Based on the general concepts of regenerative economy, the effective conservation management requires a decentralized management policy. This will

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enable the different ecosystems to adapt to the cultural condition in each specific area.

IV. Lessons and Insights Useful for Benchmarking Interventions in Agricultural Value Chains that Transform the Lives of Small Producers and Bring About Women's Economic Empowerment

Green Net's intervention convinced the general public not to purchase fishery products during the breeding seasons of the aquatic animals. The Save Our Fish – Save Our Sea campaign has also encouraged the exchange of opinions among consumers throughout social media and networking.

Green Net is involved in every stage of the development process of organic fishery supply chain. The local ecosystem is very crucial for effective fishery conservation management systems and practices. Effective conservation management requires decentralized management policies that will fit with different ecosystems and cultural conditions within each specific location.

The Fishery project is a venture that will most likely be profitable in the future and will benefit both the fishers and the consumers. Its original plan aims to engage 50,000 households of fishers and about 250,000 people. However, present the number of active fisher is not that big because of some fishers' problems on debts with middlemen.

An important intervention to address these issues is the establishment of a logistics platform that has a direct channel to the consumers, leaving out the roles of middlemen. In this scheme, the fishers are able to access their fair share of the buying price, the consumers will get the catch at reasonable prices and are assured that the products came from a sustainable harvest and are not contaminated with harmful chemicals.

Organic fishery products are highly attractive to consumers who are fond of seafood products. The high demand confirms the presence of market opportunity produced by small-scale fishers. Consumers in Bangkok are patronizing seafood products of Green Net. They are aware that their support of the products means they are buying good quality, fresh, safe, and environmental-friendly seafood products. Further, they are confident that by consuming the product of small-scale fishers they are supporting the well being of small-scale fishers.

However, there is a problem on the quantity of regular supplies of seafood products due to the seasonal nature of the products. Small-scale fishers are also restricted because of their use of small boats in fishing. These limitations are some of the challenges faced by Green Net in their marketing strategies, and technology innovations to store and maintain the quality of the products to reduce the cost of logistics management.

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Documentation



Photo 1 A mobile exhibition display to introduce the Green Net's organic fisheries projects with staff members to provide information about 1) responsible fisheries; 2) organic seafood; 3) small-scale fishers; and 4) coastal conservation. The online communication channel is launched with the Facebook page to share information among staff members, customers, and stakeholders regarding activities.

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Photo 2 The Green Net's market implementation has developed the market niches for the certified organic fisheries products. This is a join project with the Bangkok Farmers' Market at the K-Village Community Mall in the CBD area of Bangkok

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Photo 3 Green Net and its organizational arms