Global FISH Alliance
Fisheries Improved for Sustainable Harvest

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Report Covering
April 1, 2013 – September 31, 2013 Activities

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I. Summary of Activities

The Global FISH Alliance (G-FISH) promotes sustainable fisheries and aquaculture practices through the application of a system-wide approach that balances economic, environmental, governance, and social components essential to enhancing livelihoods and biodiversity. Supported by the U.S. Government and partners, G-FISH brings together government, private sector, and civil society to work collaboratively on specific fisheries around the world.

This document describes activities undertaken by the Global FISH Alliance during the period from April 1, 2013 to September 30, 2013. As summarized here and detailed in subsequent sections of this report, the major activities during this reporting period included:

Component 1: Alliance Development

Management

- No Cost Extension: In order to finalize administrative and operational tasks and complete final evaluation reports, G-FISH received a no cost extension until December 30, 2013.
- Program Closeout and Transition**:** G-FISH has identified and secured opportunities for staff and program activities to continue in each country. Some staff have already transferred to partner organizations, like Rare Conservation in Mozambique, while others continue to work and will transfer to partner organizations like the Center for Marine Ecology in Honduras when the time is appropriate.
- Cost Share and Leverage: To date, G-FISH has captured its full cost share and leveraged funds contract requirement. The current approved cost share is $1,882,730 or 47% of the total expenditures surpassing the the 15% requirement ($61,067 is pending making the expected total 56%). G-FISH has leveraged $3,842,451 or 96% of the contract.

Partnerships and Collaboration

- Honduras: The Global FISH Alliance has continued to work with current Alliance members and other partners in the three countries where the program is active including the Center for Marine Ecology (CME), The Nature Conservancy (TNC), private sector partners in country and in the U.S, community groups, and many others over the last six months.
- Mozambique**:** G-FISH continued efforts in northern Mozambique's Pemba Bay focused on reforming the Bay's fisheries. G-FISH has engaged Wildlife Conservation Society (WCS) to continue work on fisheries reform and co-management.
- Cambodia**:** G-FISH continued work on the Tonle Sap fishery of Cambodia. In Cambodia, G-FISH has held 50 meetings and has completed a community patrolling initiative covering more than 340 hectares on the Tonle Sap.

Associate Awards

FHI 360 continues to work with partners and explore opportunities for Associate Awards in Honduras, in particular. G-FISH has worked to transition our current portfolio to other organizations in the final months of the program.

Component 2: Knowledge Management and Sharing

G-FISH focused on documenting outcomes of the project and producing materials that would grow the knowledge base on fisheries in the last six months.

Communication

Conferences and Meetings

G-FISH attended and presented at the International Congress for Conservation Biology conference entitled Connecting Systems, Disciplines, and Stakeholders on July 22 in Baltimore, Maryland. The Spiny Lobster Initiative was featured in the presentation. G-FISH continued to host monthly spiny lobster calls for stakeholders interested in the fishery and its future.

Media Coverage

Coverage of demonstration programs in Cambodia, Honduras, and Mozambique has continued. Additionally, G-FISH's work in Honduras and Cambodia was covered in multiple local media outlets.

Information and Data

Materials, Course, and Reports Produced

G-FISH worked with partner, the University of Rhode Island, to develop an online course to promote fisheries management to USAID staff. The course is being finalized to roll out to USAID. G-FISH produced the video "Fisheries Matter." for USAID and other audiences showing the multidimensional nature of fisheries work linked to health, economic development, and environment issues. G-FISH produced quarterly G-FISH Tales newsletters. G-FISH commissioned several reports examining the program for an independent perspective including the Seafood Industry Engagement Guide, Social Network Analysis Report, Comparative Case Study, and Program Evaluation report from external reviewers, which are being finalized.

Component 3: Spiny Lobster Initiative

Honduras

The Initiative continued work in Honduras finalizing program efforts. In addition to hosting the fourth annual spiny lobster symposium, SLI worked with partners on the demand side to develop a new Fisheries Investment Fund to support continued work in Honduras.

II. April 1, 2013 – September 31, 2013 Activities and Results

Alliance Development

Management

G-FISH received a no-cost extension from USAID to continue operations through December 31, 2013. To finalize program activities, G-FISH developed and received approval for an official close out plan. G-FISH developed the Closeout Plan in consultation with the G-FISH Team and partners. The Closeout Plan identifies all key actions that are required to bring the G-FISH activity to closure when the current phase of approved funding comes to an end. With the extension through December 2013, it is anticipated that the final months will be dedicated to normal administrative and technical close-out functions. G-FISH will prepare a summary report of the accomplishments of the five-year activity with particular attention to strengths and weakness as well as successes and lessons learned. Second, we anticipate transferring important G-FISH information and databases to several key partners who have committed to take on the responsibility of maintaining and building these groups and resources. In addition, G-FISH is working with USAID's team managing the Natural Resource Management portal to transfer website content and information to make it available indefinitely. The full report can be found in Annex # 1.

Close out G-FISH Event

G-FISH hosted a close out event on September 26, 2013. The purpose of the close out event was to present the achievements of the G-FISH project and to thank and acknowledge all the partner organizations who contributed to the project over its five-year implementation. Nearly 30 people attended and presented including Jimmy Andino and Hugo Escoto from the SLI Honduras program and Isabel Ferreira from the Mozambique program. Participants from USAID, Darden Restaurants, Inc., Peace Corps, The Nature Conservancy, Sustainable Fisheries Partnership, and others were in attendance.

Welcome remarks were given by Nadra Franklin, Social and Economic Development Group Director at FHI 360. She gave an overview of FHI 360, a global development organization operating in 60 countries with 4,400 staff around the world. USAID and Darden Restaurants, Inc. also gave opening remarks and thanked FHI 360 for their work and partnership on the Global FISH Alliance. Then, the G-FISH team presented key findings from the project. Patrick Papania presented details about the SCALE® process. Project Director, Jenny Barker, spoke to the overall achievements of the program and the learning agenda and materials produced to increase knowledge around fisheries issues. Jimmy Andino and Isabel Ferreira presented outcomes from Honduras and Mozambique respectively. Presentations on each of the country programs can be found in Annex # 2.

Cost Share and Leverage

To date, G-FISH has captured its full cost share and leveraged funds contract requirement. The current approved cost share is $1,882,730 or 47% of the total expenditures surpassing the 15% requirement ($61,067 is pending making the expected total 56%). G-FISH has leveraged $3,842,451 or 96% of the contract.

This is leveraged from partnerships, joint sponsorship of key technical meetings, new business development, leveraging of funds to support improved fisheries management, and media coverage. The revised leverage and cost share numbers reflect greater value to the program as a result of media coverage meeting cost share requirements. See the SF 425 for complete reporting.

Partnerships and Collaboration

G-FISH has worked to improve knowledge management and foster a global learning agenda on fisheries conservation by sharing information with partners and the wider community and by promoting knowledge exchanges based on its country programs. In the last six months, G-FISH has worked with key academic partners to expand knowledge about fisheries. In partnership with the University of Rhode Island, University of Washington, and University of California – Davis, G-FISH has finalized several reports conducted by external parties to improve fisheries education and monitoring and evaluation of stakeholder-driven processes and social networks involved in natural resources management. This expansive network of partners allows G-FISH to promote learning and enhanced knowledge of best practices in fisheries management and building and dispersing excellence and technical leadership in the three target countries and around the globe.

In addition, G-FISH has continued work in country programs with partners like WCS, CME, TNC, and others. Partnerships include:

Honduras

- The partnership with **Darden Restaurants, Inc.** was solidified in the last six months. Darden attended the symposium in May with four team members. Darden supported G-FISH and FHI 360 in developing an assessment for Honduras related to the spiny lobster fishery and opportunities for future investment. As part of their Clinton Global Initiative commitment, G-FISH worked with Darden, the National Fish and Wildlife Fund, and the Walton Family Foundation to continue work in Honduras. G-FISH received $5,000 from Darden to complete the assessment.
- SLI continues to work with **CME** and **TNC** on a network of marine protected areas (MPAs) in the Honduran Caribbean, which is funded by the Summit Foundation.

Mozambique

- In Mozambique, G-FISH renewed its subagreement with **WCS** to improve fisheries management in Pemba Bay. WCS most recently conducted a rapid ecological survey of coral reef health and fish diversity and biomass in two priority areas. WCS focused on the development of guidelines for a closed area for the community of Gimpia.
- G-FISH has also promoted the continued involvement of **WSC** in Mozambique.
- **Rare Conservation** is considering Pemba Bay as a site for their Fish Forever project and will be working with members of our team to continue that work.

Cambodia

- G-FISH continues its relationship with the Cambodian Fisheries Administration (**FiA**) acting as a facilitator in maintaining relations and implementing solutions.
- G-FISH initiated partnerships with communities to conduct patrolling activities

Associate Awards

FHI 360 continues to investigate opportunities for Associate Awards especially in Honduras. Given that G-FISH also continues to search for opportunities to use the SCALE methodology and strategic communications to improve biodiversity program outcomes. Given this is the final year of the project, G-FISH is cognizant of the need to transition our current work to other programs or organizations.

Knowledge Management and Sharing

The diffusion and dissemination of sustainable fisheries and aquaculture information and knowledge has emerged as a key issue for governments, communities, private enterprises, and civil society. To ensure that the existing knowledge including best practices, tools, and models of sustainable fisheries management are readily available and accessible to the broadest array of stakeholders and practitioners, G-FISH has worked to improve knowledge management and foster information sharing by informing partners and the wider community about conservation and fisheries. G-FISH does this in all of its country programs and at a global level by maintaining regular flow of information to partners and the wider fisheries community. G-FISH also seeks to validate a social approach to fisheries management to USAID Missions to help them understand the value proposition of using locally owned and led solutions.

Overall, three things feed into knowledge management: 1) communication; 2) information and data; and 3) monitoring and evaluation. Information and data management is about making sure the right information is in the right place at the right time to support decision-making. Monitoring and evaluation is the source of much of this information and one of the ways by which adaptive management is practiced. G-FISH is using demonstration projects in three country contexts to bridge the gap between the theoretical and practical use of information and communication when implementing activities in the country context.

Demonstration Projects

Mozambique - Pemba Bay Initiative

The G-FISH Pemba Bay Initiative continued to increase the level of trust and cooperation among the system stakeholders. G-FISH dedicated efforts to improving the capacity of the CCPs to act as effective advocates for the management of the fisheries interests of their respective communities, to implement a pilot co-management initiative in Gimpia, and to develop a set of shared commitments that will allow the Iniciativa Local to continue to serve as a coordinating mechanism for fishery stakeholders at the conclusion of G-FISH funding in September 2013.

System stakeholders were better positioned to continue to benefit from the range of activities that G-FISH supported in the region.

Like all G-FISH programs, the Pemba Bay Initiative had three major, inter-related objectives:

1) To increase social capital and demand for sustainable management
2) To promote ecosystem-based approaches to fishery management
3) To establish and promote social and economic incentives

In support of these three major objectives, G-FISH staff ramped up the level of commitment and willingness to lead of all initiative partners. During the period covered by this report (second half of FY2013), the focus of the Initiative has been to: 1) continue to strengthen the role of the Conservation Committee as the forum to coordinate and facilitate the implementation of a closed area in Gimpia; 2) build the capacity of Community Council of Fisheries (CCPs) and increase their leadership in fishery management and conservation; 3) motivate and work with stakeholders to engage in collaborative actions; and, 4) ensure local ownership of the program as G-FISH transitions to close the program. The following are specific actions undertaken by G-FISH.

Conservation and Capacity Building Activities

G-FISH Conservation Committee

Locally known as "Iniciativa Local para o Desenvolvimento da Pesca Sustentavel na Baia de Pemba," or just "Iniciativa Local," the Conservation Committee continued to meet twice a month for a total of 12 meetings during the reporting period April 1, 2013 to September 30, 2013. Participation continued to include a core group of community, government and CCP representatives, as well as other stakeholders. It is particularly noteworthy that the committee meetings have changed noticeably over the course of the last year. Whereas many participants seemed to have been coming to the meetings to air grievances or complaints, or to make demands of the project, more recent meetings have served to reach some degree of consensus on the need for capacity building support and the benefits of collaborative, as opposed to antagonistic relationships. Of particular importance has been the catalytic role of the committee in legalizing the Inicitiva Local into a legally registered association to continue work and the personal commitment and investment of members to act as founding partners.

"It was important (referring to the Committee meetings) because it would help me gain more knowledge and better position myself, as a community leader, in matters related to the beach and other resources." Gímpia Leader

Declaration of Gimpia´s Conservation Area

In Pemba Bay region, communities are expected to participate in the co-management plan for marine resources. In order for this to happen and for communities to feel part of the process, there is a need for them to have better access to information that will allow them to make contributions through suggestions and specific actions.

Often, coastal communities dependent on marine resources as a food source and for livelihoods are impoverished, with low levels of literacy and have a feeling of powerlessness. When the Iniciativa Local first approached the Gimpia community, community members were skeptical about their intentions. They had gotten used to having visitors from non-profit organizations talking about change and offering to help; but, in actuality, nothing concrete had ever been left behind with the community to continue conservation efforts.

The process to gain the community´s trust was not easy; but Iniciativa Local managed to gain the community's trust by involving community leaders and the local CCP in the committee meetings on a regular basis; through the promotion of capacity building within the community, and general meetings aimed at explaining the law and the role of the community in the process of co-management.

Gimpia has a well preserved coral area that is being threatened by fishers' activity that is often destructive due to the use of inadequate nets and gear. Fishers often come from Pemba city, on the other side of the bay. Fishers from Gimpia have been made aware, through the continuous participation of their CCP representatives in the Iniciativa´s Committee meetings, of the importance of the coral for the sustainability of the ocean and fisheries.

After nearly two years of promoting communication among all stakeholders and providing guidance on the best way to proceed to create a Community Conservation Area (diffusion of information, research, multiple visits to the community); Gimpia stepped up and decided to take action:

- They understood the importance of preserving the ocean in a sustainable manner
- They became aware that they have on their grounds important sea life habitats that needed immediate attention due to their importance and impact for the general ecosystem balance (mangroves and coral reefs)
- They are aware that fish is becoming more scarce; fish catch is lesser and smaller.
- Fishers from Pemba City have better boats and gear, but are fishing in a damaging way
- They felt that the information that they have been given access to and people that they have met, through Iniciativa Local, have provided them with something important that will last in their minds – knowledge and self-assurance.

The Gimpia community called several meetings to discuss the fisheries situation and to discuss problems and ways to move forward. Out of these meetings came the decision to create a Community Conservation area. They wrote a draft management plan for the area and wrote information letters to official departments and neighboring CCPs, attaching the draft management plan, procedures and penalties to infractions. They've also contacted a tour operator in the area to help them with supervision and enforcement on the area (boat). Iniciativa Local engaged Wildlife Conservation society (WCS) to conduct an ecological survey of the area and to draft a 5-year Conservation Management Plan for proposed conservation area.

Wildlife Conservation Society (WCS) Ecological Survey

WCS has been a valuable partner in the G-FISH Mozambique Initiative. Their contributions have been in sharing recognized scientific fisheries and marine ecosystem knowledge and significant community fisheries management experience with program staff and partners.

Starting in early 2012 with an assessment of attitudes and knowledge about management tools and practices, the WCS team noted that the need for fisheries management is broadly appreciated but there are considerable social organization and governance issues that need to be addressed to develop a progressive management program. Primarily the urban CCPs are only composed of leaders with no participation among actual fishers and therefore there is no forum for stakeholders to express opinions and influence decisions and enforcement actions. The rural CCPs are more integrated but powerless to control urban-based fishers that visit their fishing grounds at night and use small-meshed seine nets when they cannot be detected. WCS

drafted recommendations to help define appropriate management options and the capacity building and training needs of these communities.

The technical assistance provided this period consisted on a broader effort to assess the environment and social context of the Pemba Bay with the objective of identifying key sites and potential interventions for the management of the marine resources of the area. WCS team visited Pemba in late July and conducted rapid ecological surveys of priority areas of the Londo and Maringaha locations. The surveys concluded, "The reefs of Pemba Bay have relatively diverse coral reefs in terms of hard coral taxa and cover. The bleaching and susceptibility measures also indicated that the reefs have a relatively high resilience. The reefs are therefore of national but also regional value, and have the potential to be climate change refuge. However, the finfish community indicated that there is severe fishing pressure, with abundances and biomass of finfish being much lower than other reefs in Mozambique and comparable to heavily fished reefs in the western Indian Ocean. Fishing pressure could significantly erode the ecological benefits of these reefs and ultimately negatively impact the social benefits and sustainability of these reefs." See Annex #3 for complete survey report. High coral diversity, coupled with low fish biomass is an indication of overfishing and the need for establishment of improved management measures. Governance by the CCPs and the national management authorities is a serious issue that needs to be addressed for the sustainability of the fisheries and biodiversity of Pemba Bay.

WCS Technical Assistance on Implementation of Community Management Plans

During their most recent trip last July, WCS team conducted ecological surveys of key sites in Pemba Bay. WCS was able to compare the results of these surveys with similar research conducted in 2007. The WCS team had previously noted exceptionally high coral diversity for the Londo reef, which is easily accessible by both the Jimpia and Ruela CCPs. Because of these scoping exercises, WCS was in a position to support the most receptive communities to begin pilot efforts to put fishing restrictions in place to better manage their fisheries; which in this case was the community of Gimpia, see map below.

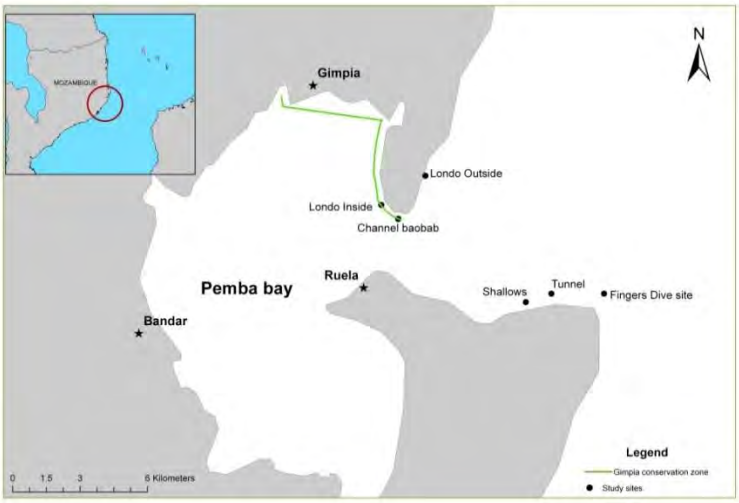


Figure 1. Map of the ecological study sites and the proposed Gimpia conservation zone in Pemba Bay.

In addition to the ecological survey, which will serve as a baseline for the community conservation area in Gimpia, WCS provided sample by-laws for the CCPs to “activate” their function and structure their governance. Furthermore, a management plan for the conservation zone, which had been identified by the community of Gimpia was drafted based on discussions with Gimpia leaders on their objectives for the management of the area that were mediated by Iniciativa Local and discussion with the representative from the lodge adjacent to the proposed conservation zone. The Gimpia CCP has been provided the management plan and was adapting it to reflect the particular needs and circumstances of the proposed conservation zone.

In addition to the on-going technical assistance provided by the WCS in the area of ecological surveys and development of fishery co-management, G-FISH has facilitated the collaboration of WCS with the Mozambican Institute for Fisheries Studies (IIP).

Although there have been ongoing efforts to collect fisheries data by the IDPE and IIP, these lacked a mechanism for verification, reporting and also dissemination back to stakeholders. A review of the data sheets revealed that although there were differences in the data being collected compared with the collection system in use by WCS in the WIO, there were enough areas of compatibility for a reliable comparison. This is important given the large dataset that WCS has accumulated over the years in the WIO. The main issue is therefore not the lack of data collection and it was proposed that instead of creating a new system, the current creel surveys could be evaluated and the gaps can be filled through low cost surveys. The idea of the establishing a forum for dissemination and discussion of the findings and agreement on management interventions was also discussed. The surveys and forum could potentially be supported as part the ProPesca project that has funding for community consultations and fisheries assessments.

Community Strengthening and Capacity Building

Community meetings helped identify a lack of information and training on specific knowledge areas, such as management, accounting, projections and planning, project conception, etc. CCPs are representatives of the community on matters related to fisheries; yet they were perceived as inactive and lacking influence around Pemba bay. “Iniciativa Local” planned a series of capacity building workshops for target groups in the communities, that is, fisher associations, with special emphasis on CCPs and community leaders who were identified and invited to take part in training covering basic concepts to manage organizations, structure of organizations, etc.

A two-day workshop was held in Pemba on June 26-27, 2013 for 35 participants, including five women, representing institutions from IDPPE (Institute for the Development of Small Scale Fisheries), IIP (National Institute for Fisheries Research), DPP (Provincial Fisheries), ADMAR (Maritime Administration) and some associations as the CCP Alley Council (Community Fisheries), APELCADE, VEPESPA, OPHELA, Wiwanana, and WUNWA WATHIANA. In the district of Bahia Metuge in Bandar, the workshop was held July 1-2, 2013, with the participation of 20 participants, including members of the CCPs, religious leaders, and other community representatives, of which seven were women. Bandar was noted as the place with greater collaboration and team spirit. Lastly, in Gimpia the training counted with the participation of 20 people, most of which from the local CCP. The workshop was held July 4-5, with one woman present among the participants.

Overall, participants were enthusiastic about their participation and responsive to the training. Comments that emerged during the training were remarkable and demonstrated the important significance of this workshop for participants either as a group or individuals. Participant feedback collected at the end of the training mentioned that they had never been exposed to this kind of information, which they considered of great value to improve their professional and personal performance.

"Capacity building was of great value to the communities. We´ve learnt lots of things."; "The structure of the CCPs (social structure)…it was of value, to us!" CCP Gímpia Secretary

In order to improve the image and stature of the CCPs, "Iniciativa Local" had uniforms made for them to be easily identifiable. Previously, CCPs were not recognized by the community as a community force and people did not respect them. At the same time, CCP members were not well uniformed or identifiable. One of the objectives of "Iniciativa Local" was to promote the role of CCPs within the community and change people's perception of their role and function. Therefore, as part of strengthening CCPs to enable them to positively reach out to the communities and influence the adoption of better fisheries management practices, was to change their image. Part of the task to help empower the CCPs was to provide them with a professional image and attitude. 50 uniforms and name badges were distributed among the three CCPs around Pemba bay; Ruela, Bandar and Jímpia.

Children's awareness program on sustainable fisheries

One activity identified by the "Iniciativa Local" Conservation Committee was to bring awareness to children as they are powerful vectors of influence in their homes. The outline of the project was developed and presented to the Provincial Department for Education which was very receptive to the concept. Due to the limited life span of the "Iniciativa Local" project and considering that it would require a long term process to integrate this into public schools curriculums; as an alternative, a local school of arts for children, located in Paquitequete, was identified and a partnership was established with the manager. Children with ages ranging from five to 15 attend to this school on Saturdays to learn arts and crafts. These children were eager to learn and "Iniciativa Local" showed short films featuring the life under the sea to promote discussions around the topic. Paquitequete is a community of fishers and children are learning the ways of the sea, mostly harmful, from their relatives; this activity presented itself as a good opportunity to teach them about sustainable ways of treating the marine world.

Collaboration and Communications

Strengthen Partnerships and Commitments with Local Partners

Because of concerted stakeholder engagement efforts in FY 2013, the "Iniciativa Local" program has increased its visibility and credibility with local stakeholders. In the second half of FY 2013, the Iniciativa has been invited to participate in a number of events and seminars organized by other institutions. Of particular note were:

1. Opening of Headquarters of APELCAD (Associação de Pescadores do Litoral de Cabo Delgado), which included representatives of the local and regional government (DPP, IDPPE, etc.)
2. International Union for Conservation of Nature (IUCN) National Conference, in Maputo
3. Public Consultation on the PROPESCA Project, whose goal is to support a value chain approach to the fishing activity, through a range of financing options
4. Workshop on "Introduction of an entrepreneurship course" in the secondary school curriculum, promoting the development of entrepreneurial skills and micro-enterprise for youth
5. Anadarko Public meeting to discuss their activities in Cabo Delgado
6. Fisheries Research Institute (IIP) Workshop for the preparation of the 2014 Action Plan; the Iniciativa proposed the study of the impact of community closed areas as part of the Action Plan, which was subsequently approved by IIP Headquarters in Maputo. The IIP Provincial Delegate expressed interest in collaborating with G-FISH partner, Wildlife Conservation Society (WCS) to take advantage of their work with local Community Council of Fisheries (CCPs).
7. Participation in the First General Assembly of the CCP Ruela where an Action Plan for activities in 2011-2013 was presented

In addition, the Iniciativa Local also met with:

- Quirimbas National Park to explore partnership opportunities in implementing a Closed Fishing Area in the community of Gímpia
- IIP to discuss possible topics for a participatory study, considering the perspective and needs of fishing communities
- National Institute for the Development of Small-scale Fisheries (IDPPE) to plan meetings with the communities to promote open dialogue and collective problem solving, and, in partnership with the CCPs to build their capacity.

This demonstrates the growing influence and institutionalization of Iniciativa Local and the Conservation Committee as a well-regarded and respected body to address fishery related issues. Iniciativa Local was also invited by Provincial Directorate of Fisheries to act as a neutral mediator to resolve a conflict between fishers and a tourism operator in the region of Londo. The meetings of the Conservation Committee have also become the most visible forum where community leaders, CCP leaders and government fisheries representatives have sat together to address common concerns. Over the last meetings, there has been a noticeable change in the dynamics of the meetings. Whereas in the past it was primarily the G-FISH staff that was pushing agendas forward, and reminding participants of the purpose of the meetings, it has been heartening to see partners beginning to carry the torch. This is a very positive development as G-FISH started to wind down the program and transition leadership and initiative to the local stakeholders.

"Institutions now invite us to participate in the resolution of conflicts between fishermen and tour operators, invite us to participate in events like FECADE (Economic Fair Cabo Delgado). These last two years can be defined by two distinct stages: "The first phase was to make known the project, discovering people, paths, and the second part is action."

"The players look to Iniciativa Local with credibility and the fact that governmental institutions are inviting us to their events and workshops is evidence of that. Civil Society Representative

Engaging Partners

The G-FISH Conservation Committee continued to expand its reach by bringing interested individuals and organizations to participate in their meetings. During the last six-month period, G-FISH has reached out to environmental, women's, academic and scientific groups to open up a space for collaboration around common objectives and has participated in meetings organized by the oil and gas industry as part of their community outreach effort. In FY 2013, G-FISH expanded the system by bringing in six additional organizations from the government, private sector and civil society. While this number may seem small, the number of collaborative actions recorded within the system increased significantly from 51 in FY 2012 to 82 in 2013.

"There were several the factors that have helped me in my communication because (initially) I didn´t know some of the members; I met them at IL and, from then onwards, I knew who they were and where to go if I needed to share ideas, experiences, to learn how to do things…all because of IL" Gímpia Leader

Iniciativa Local newsletter

G-FISH continued to produce and disseminate a newsletter to keep stakeholders informed and motivated to support program objectives. During this last reporting period, three newsletters were produced and distributed electronically to all interested parties to keep partners informed on recent and upcoming events, and addressed issues such as safe handling of fresh fish, the important role of community organizations and a consumer guide for catching and purchasing fish. See Annex #4.

End of Project Activities and Transition of Leadership

Iniciativa Local staff conducted end of project evaluations to learn about the perceptions of and experiences with the G-FISH project in Pemba. Seven key informants representing different stakeholder groups were interviewed. The information collected has been used to evaluate the program and to access perceived accomplishments and lessons learned to improve potential future work.

On August 19, 2013, Iniciativa Local hosted a Close-Out Event in the Red Cross Building in Pemba. The event was attended by the Conservation Committee members as well as other G-FISH partners who had been involved with the project. The purpose of the close out event was to present the achievements of the G-FISH project in Pemba and to thank and acknowledge all the partner organizations who contributed to the project goals over its two year implementation.

Members of the Conservation Committee have made a commitment that will allow for Iniciativa Local to continue serving as a coordinating mechanism for fishery stakeholders at the conclusion of G-FISH funding in September 2013. The Committee decided to legally register Iniciativa Local as an organization and have recruited ten required founding members; which include the former Provincial Director of Tourism and a lawyer from Musiricas, where the Iniciativa Local was hosted for the past couple of years. Members have come forth and committed their time and resources to complete all the necessary requirements to register the association. This is very encouraging since at the moment, there is no other local organization dedicated to fisheries management issues in the Pemba region.

Finally, G-FISH has been in discussions with the Fish Forever project and Rare Conservation in order to secure Pemba as a site of their future work.

Cambodia - Tonle Sap Project

The G-FISH Cambodia program continues using the SCALE process to keep stakeholders acting collaboratively to undertake priority actions to achieve desired results.

The Initiative has three major, inter-related objectives:

1) To increase social capital and demand for sustainable management
2) To promote ecosystem-based approaches to fishery management
3) To establish and promote social and economic incentives

During the period of April 1, 2013 – September 30, 2013, G-FISH continued to disseminate relevant information to a broad range of stakeholder groups, and enhance information sharing and collaboration among fisheries stakeholders from the government to the local fisher.

G-FISH played a role in improving communications among stakeholders at the local, regional, and national levels, an activity that no other donor or group is focusing on in the sector. The government of Cambodia, through the FiA, had requested that G-FISH continue to act in a neutral communicator and facilitator role among different groups in the fisheries sector. Key achievements in the previous six months include:

Conservation and Capacity Building Activities

Patrolling Support with CCF

Through our networks and from feedback from FiA, it was clear that patrolling was an important priority and that support was needed with patrolling. To meet our goal of improving community livelihoods through proper natural resource management, G-FISH piloted a patrolling activity in the Phat Sanday and Peam Bang communities in Kampong Thom.

The G-FISH team conducted the following steps to prepare for this pilot activity:

1. Developed a plan that included draft agreements, processes and procedures, and the report for the patrolling team to complete.
2. Convened a meeting in Phnom Penh on June 14, 2013 with members selected from the Task Force for their expertise related to patrolling to discuss the agreements, the processes, and to help us identify which communities the patrolling activities could be conducted in. From the information gathered at this meeting, a patrolling structure was established, an agreement was formulated, and the worksheet for patrolling observations was developed.
3. Following the meeting, the G-FISH team refined the documents and established a short-list of potential communities for patrolling before finally selecting two communities to conduct the pilot activity – Peam Bang and Phat Sanday. The communities were selected because: 1) there was no patrolling support and they had issues with illegal fishing; 2) there were flooded forest and conservation areas; and 3) they had the capacity to conduct patrols and displayed enthusiasm to undertake patrols.
4. The pilot project event was launched on July 9 at Phat Sanday where patrolling agreements with Peam Bang and Phat Sanday were signed. This event was run in tandem with the speaker series event on the same day. A guest speaker from FACT attended the speaker series event to provide information about patrolling and patrolling management.

Each community had a specified number of participants for a patrolling team, a specified amount of funding support for gasoline, a per diem for each patrol member, and funds were provided for the coordination of patrols, administration expenses and for arranging paperwork and meeting reporting requirements.

Over the course of the pilot project, the government officials with communities were able to conduct 32 patrols over an area of 340 hectares multiple times. In just two months, patrol teams recorded 94 illegal fishing activities and issued warnings and destroyed illegal fishing gear. There was evidence of three flooded forest fires and two localized deforestation efforts in flooded forest areas.

'G-FISH assisted communities to protect flooded forest as well as fishery resources by supporting them with patrolling. Patrolling is something that communities' really needed support with because communities want to protect fish resources and flooded forest area.

Ms. Lov Samnan, Director, PFD

'The amount of illegal fishing activities has decreased by running regular patrolling activities and through the dissemination of information. I always take a megaphone with me when I go out on patrols in order to share information I obtained through the G-FISH network with communities around conservation areas during patrolling.

Mr. Morm Sovann, FiA Officer

Communications and Collaboration

After launching the "Sustainable Fisheries Radio Discussion" program and Speakers Series earlier in the year, G-FISH continued these two successful and highly regarded programs. A monthly G-FISH newsletter discussed topics of relevance to sustainable fisheries management. G-FISH continued expansion of our media tracking and routine communications and the TWG met on a bi-monthly basis.

Workshops
G-FISH attended the following workshops during the past six months:

- May 23, 2013 – Community Fisheries (CFi) workshop on 'Sixth Anniversary of Bueong Raing Penbeitor Conservation Lake and Flooded Forest Replanting'
- May 30, 2013 – Cambodian Children's Fund (CCF), FACT, FiA event in Banteay Meanchey: 'National Workshop for Fisheries Stakeholder Groups'
- June 26, 2013 – Inland Fisheries Research and Development Institute (IFReDI) workshop on 'Food and Nutrition Security Vulnerability to Mainstream Hydropower Dam Development in Cambodia'

- June 28, 2013 – Global Nature Fund and FACT workshop on 'Mangrove Restoration in South East Asia'
- June 28, 2013 – Cambodian Agricultural Research and Development Institute (CARDI), WorldFish and IFReDI annual workshop on the project 'Assessing Economic and Welfare Values of Fish in the Lower Mekong Basin'
- August 19, 2013 – IUCN and FACT workshop on 'Strengthening Capacity of Fish Communities in the Tonle Sap to Manage their Natural Resources Sustainably'

Additional Events

- May 2, 2013 - USAID Feed the Future Seminar
- May 21, 2013 – Speaker Series Event at Battambang 'Fisheries Law and Fishing Gear'
- July 1, 2013 National Fish Day event at Kampong Thom
- July 9, 2013 – Speaker Series Event at Phat Sanday 'Community Patrolling'
- September 11, 2013 – G-FISH Cambodia Project Closeout Event

Radio Program

To help establish effective and efficient communications on Tonle Sap resource management and to raise awareness of fisheries issues to the public, G-FISH in collaboration with the Communications Task Force created a radio discussion program on VAYO FM. The program "Sustainable Fisheries Radio Discussion," provided regular, up-to-date information about the activities of fisheries stakeholders in the Tonle Sap Lake and addresses any urgent and important issues that arise from the FiA, Tonle Sap Authority (TSA), Ministry of Labor, local authorities, and fishers. The program intention was to benefit all people associated with fisheries and as well as those interested in learning more about fisheries. Fisheries experts from government, NGOs, academic institutes, and communities participated on the program and share their work and experiences. Listeners were given the opportunity to call into the radio station and ask the expert panel questions relevant to the topic.

A live show was conducted every two weeks and listeners were provided with opportunity to call in to the show and ask the guest speakers on the program questions.

The program began on February 16 with 16 live programs broadcast over the course of the project. Topics on the program included:

- Flooded forest conservation
- Conservation areas on the Tonle Sap Lake
- The Fisheries Reform
- Closed season fishing
- Patrolling
- Community savings groups
- The roles of various members of the lake such as the government, communities, authorities, civil society, and the media
- Family fishing gear and fisheries law

Guest speakers came from FiA, FACT, CFi, CCF, WorldFish, and communities to share their work and experience with listeners. Listeners were given the opportunity to call in to the radio

station and ask the expert panel questions relevant to the topic. Calls to the program came predominately from the lake and its immediate surrounds but we also received calls from as far away as Kampong Som and overseas. The program received positive feedback from listeners and government authorities. FiA has indicated that they will continue to do the radio program when G-FISH ends and will spread fisheries information through television programs.

'Community members would listen to the G-FISH Sustainable Fisheries Radio Program then talk about, and share information they heard on the program with other members of the community who did not listen to the radio program. Topics discussed in the radio program were also discussed in saving's group meetings and with family who live nearby. Communities have said that the radio program is important for them as it helped them to understand the bad impacts of cutting down flooded forest areas.

Ms. Vy Vanndy, Coordinator, Women's Savings Group

Speaker Series

In cooperation with FiA, community fisheries, local authorities, the community committee, Ministry of Environment, FACT, and local villagers, G-FISH facilitated the Speaker Series.

Two Speaker Series events were held over the past six months:

1. Fisheries Law and Fishing Gear – May 21, 2013 – Doun Tree, Battambang

The second Speaker Series event was conducted to share information with the community about fisheries law and family fishing gear as there were problems associated with understanding current fisheries law and some confusion over what family fishing gears are allowable. G-FISH invited an expert from FiA to share information with the participants. The event was attended by local FiA, Ministry of Environment, community fishers, police, the District Governor, Commune Chief, and local villagers. There were 47 participants, 18 of which were women.

2. Patrolling and Community Patrolling Management – July 9, 2013 – Phat Sanday, Kampong Thom

The third Speaker Series event was conducted to share information about patrolling and community patrolling management. This was conducted to coincide with the launch of the G-FISH patrolling pilot activity in Peam Bang and Phat Sanday. G-FISH invited experts from FACT and CCF to advise participants. The FACT speaker provided information about patrolling processes, patrol budget management, and the activities that needed to be completed for a patrol. As community fisheries members from Peam Bang were involved with the patrolling pilot, they were sponsored to attend this event. There were 24 patrol team participants.

'The G-FISH approach is quite similar to other NGOs but their approach was effective because G-FISH made people understand the importance of fisheries resources and encouraged communities to share information with both floating communities and villages alongside the

Tonle Sap Lake. I found the Speaker Series to be quite unique as it broadened community knowledge of fishery resources and made my community's problems better known to more people'

Ms. An Socheath, Women's Group – Koh Chiveang

Monthly Newsletter

A monthly newsletter in English and Khmer was published and shared with Task Force members, those on the G-FISH email contacts list, local communities and organizations on Facebook. The newsletter contained up to date information obtained from fisheries stakeholders, which G-FISH solicits. The articles written are selected by assessing feedback we receive during our routine communications, events held within the fisheries sector, and the current fisheries situation, and covered topics such as health, research, conservation, savings schemes, and organization achievements. Since June 2012, 10 issues, 41 articles, and 1550 copies of the Sustainable Fisheries in the Tonle Sap Lake newsletter were published in English and Khmer. Hardcopies were distributed to stakeholders and electronic copies were posted on the Global FISH Alliance website and Facebook page. For all the newsletters, see Annex # 5.

'The newsletter was beneficial to all the G-FISH partners as they could use the newsletter as a resource document.'

Mr. Moeurk Mee, Program Manager, Live and Learn Environmental Education

Media Tracking

G-FISH tracked and collated press coverage daily from television, radio, print, and online. Records were taken of all relevant articles and recorded in the PMP. During the project fisheries related media coverage was recorded:

- 12 television segments;
- 33 radio programs/segments;
- 97 printed articles; and
- 94 online articles.

This media tracking provided valuable information that assisted with planning activities such as the Speaker Series.

'I can say that G-FISH used media as an effective way to disseminate information through the radio program. Media gets out to more people and the G-FISH approach toward protecting flooded forests has been beneficial, when flooded forests are protected the ecology system is also protected, once the ecology system is protected fish will increase rapidly so communities are able to benefit more from fish resources.'

Mr. Khuon Sopheak, Programmer, Voice of Democracy (VoD)

Routine Communications

WSR and Task Force members were contacted on a routine basis so the program can keep up to date on their progress, and are made aware of the current situation within their organization/department. Members from the WSR event as well as contacts made after the

WSR event were contacted on a quarterly basis. Over the last year G-FISH made 313 calls. This information helped to identify areas where more information was needed to be disseminated, such as the regulations relating to family fishing gear on our radio program. G-FISH despite being a three-person team in Cambodia was able to attend 93 fisheries events, which involved well over 3000 participants. Of the 93 events that G-FISH were involved, 62 were convened by G-FISH.

Social Media

Our team routinely contributed to the G-FISH Facebook page, posting our monthly newsletter here. The popularity of the website steadily increased and feedback suggested that it provided valuable information to a broad audience that may not generally be exposed to our project.

End of Project Evaluations

End of project evaluations were conducted to learn about the opinions and experiences with the G-FISH project of 26 key stakeholders. This information was sought to help the project improve their future work. The questions in the interview related to what interview participants perceived to be accomplishments of the G-FISH program and what they believed the project could have done better, if they considered the G-FISH approach to be different from other development programs and their thoughts on the G-FISH approach, and how they could continue to activities after the G-FISH program finished in Cambodia.

Closing Event

On September 11, 2013, the Global FISH Alliance (G-FISH) organized the Project Closeout Event at the Naga World Hotel and Entertainment Complex in Phnom Penh. The event was officially opened at 8.30 am and was attended by His Excellency Srun Limsong, Deputy Director of Fisheries Administration (FiA) representing His Excellence Nao Thuok who was unable to attend, Ms. Amy Weissman, Associate Director of FHI 360, Ms. Jenny Barker, the G-FISH Director from Washington D.C., Mr. Youk Senlong, Fisheries Action Coalition Team (FACT) Program Manager, Mr. Long Socheat, Leader of Coalition of Cambodian Fishers, and members of the three Task Forces and other G-FISH partner organizations.

The purpose of the close out event was to present the achievements of the G-FISH project in Cambodia and to thank and acknowledge all the partner organizations who contributed to the project goals over its two year implementation.

Welcome remarks were given by H.E Srun Limsong. He advised participants that he is happy that FiA worked with G-FISH to improve sustainable fisheries and natural biodiversity on the Tonle Sap Lake. He noted that since the beginning of the project, G-FISH has work closely to consult with FiA, fisheries development partners and communities, which has had a positive impact on sustainable fisheries. Following on from H.E Srun Limsong, Amy Weissman gave an overview of the FHI 360, a global development organization operating in 60 countries with 4,400 staff around the world working in the areas of health, education, nutrition, environment, economic development, civil society, gender equality, youth, research and technology.

Jenny Barker presented details about the SCALE® process and the Whole System (WSR) event conducted in Siem Reap in September 2011 and the goals set at this event. Jeanette Robinson, G-FISH Cambodia Program Manager, spoke about the achievements of the project, next steps, and thanked those who have been involved with the project's success.

Mr. Youk Senlong from FACT provided an overview of the 'Improvement of fishers' livelihood through fisheries conservation' project FACT conducted with funding support from G-FISH during 2012 in Phat Sanday. The final presentation was given by Mr. Long Socheat of CCF and highlighted the recent patrolling project conducted in the Phat Sanday and Peam Bang communities during July and August 2013.

Closing remarks were given by H.E. Srun Limsong who said FiA is very regretful that G-FISH is ending their project. He encouraged other development partners, villagers and fishers to take what they have learned from G-FISH and keep implementing these lessons in the activities they conduct to protect the natural resources in their communities. H.E. Srun Limsong then presented G-FISH with a letter of acknowledgement for the work that G-FISH conducted during its project on behalf of the Cambodian government.

At the end, many participants said they would continue to implement the lessons learned during the project and commit to continuing the activities which G-FISH implemented.

Next Steps

G-FISH developed a draft concept note for future collaboration with FiA to be included in their submission to the EU for funding and support. The Program Manager also attended the October 8 Technical Working Group meeting to offer the final event presentation to those present to secure interest in continuing the work.

Communication

Communication is a key input and complementary activity of knowledge management (KM). Communications allows the dissemination of knowledge to improve coordination and increased effectiveness and impact of projects. The integration of KM with communication activities allows a substantial reduction in costs and generates products that are consistent, more valuable, and relevant for the different audiences, enhancing effectiveness.[1] This section will focus on communication to influence change at a global level (communications efforts in country programs are highlighted in their sections).

Media Coverage

G-FISH has continued to monitor media coverage related to Honduras has received extensive media coverage nationally and internationally. Multiple newspaper articles at the national and regional levels, several TV interviews with local stakeholders were part of the coverage in the last few months. An inventory of media articles linked to or influenced by program activities include:

- http://www.triplepundit.com/2013/10/interview-talking-darden-restaurants-sustainable-seafood/
- http://www.seafoodsource.com/newsarticledetail.aspx?id=15908
- https://www.devex.com/en/news/as-restaurant-company-expands-so-do-development/80153
- http://www.usaid.gov/global-waters/november-2010/global-fish-alliance
- http://degrees.fhi360.org/2012/06/protecting-the-world%E2%80%99s-oceans-through-responsible-fishing-practices/

[1] Adaptation Fund, http://www.adaptation-fund.org/sites/default/files/AFB.EFC_.5.3_Knowledge_Management.pdf

- http://www.fhi360.org/news/g-fish-sustainable-fishing-resilient-communities
- http://www.fhi360.org/g-fish-spiny-lobster-initiative-improves-safety-and-management-lobster-fisheries-honduras
- http://degrees.fhi360.org/2013/06/fhi-360-celebrates-world-oceans-day/

G-FISH Tales

G-FISH Tales is a quarterly newsletter updating Alliance partners and allies about the activities of G-FISH and our partners. The last edition of G-FISH Tales was Spring 2013. This edition reported on the G-FISH work in Pemba Bay, the Tonle Sap fishery in Cambodia, and highlighted the continued work by SLI in Honduras.

G-FISH Website

The Global FISH Alliance updated its website during this period and continues to update it to feature its new work. G-FISH's Facebook page can be found at: https://www.facebook.com/pages/Global-FISH-Alliance/198270160253219?sk=wall.

Information and Data

Fisheries Video

G-FISH developed the "Fisheries Matter" informational video about fisheries to alert USAID staff and others to the importance of fisheries. G-FISH developed the script for the video and completed the video with the Design Center at FHI 360. The video has been shown at staff meetings and the closing G-FISH event and received positive feedback. The final work of making the video 508 compliant is being completed now.

Fisheries Online Course

G-FISH worked with partner, the University of Rhode Island (URI), to develop an online course to promote fisheries management to USAID staff. URI is developing an innovative, interactive, online training module based on the feedback from the one-day course held in February 2013. The purpose of this course was to introduce USAID staff to fisheries issues and their importance to development objectives such as food security, economic growth, poverty reduction, governance, and biodiversity conservation.

Seafood Engagement Guide

G-FISH did a call for proposals to develop a seafood industry engagement guide to provide guidance to USAID staff on how to engage the private sector in the seafood industry in meaningful dialogue and build public-private partnerships that promote sustainable fisheries and aquaculture. The guide will serve to share best practices with seafood industry stakeholders who wish to further develop their collaborative approaches and to explore how stakeholder engagement processes currently underway and planned for the future can drive responsible practices in the workplace, marketplace, community, and environment. See the full report in Annex #6.

Fisheries and Food Security

FHI 360 continues to use and promote the food security fact sheets on eight countries.

Mapping of G-FISH Partner Fishery Management Activities

G-FISH continues to pursue the goal of improving awareness of where partners work around the world. To help disseminate this information a map of Alliance Partner Activities was developed that can be viewed either as a Google map or in table format on the G-FISH website.

Monitoring and Evaluation

The G-FISH Program continues to gather PMP data and relevant information from all three country programs. Following are the highlights of the monitoring and evaluation effort for the leader award for the second six months of FY2013. All data will be presented and analyzed in the annual PMP Report submitted with this report.

G-FISH Leader

G-FISH has contracted authoritative fishery experts to provide leadership and guidance on the design and implementation of an empirically supported study to assess the impacts and lessons learned from the entire G-FISH program. Though significant changes in biophysical indicators may not be able to be readily observed in the limited life of the individual initiatives, G-FISH is committed to examining the critical importance that relationship-building and focused stakeholder engagement and communication have in the long-term commitment to the sustainable fisheries agenda.

Comparative Case Study and External Evaluation Final Report

Dr. Patrick Christie of the University of Washington has been working with G-FISH since January 2013 to provide research and evaluation support for the program. G-FISH did a call for proposals to develop a seafood industry engagement guide to provide guidance to USAID staff on how to engage the private sector in the seafood industry in meaningful dialogue and build public-private partnerships that promote sustainable fisheries and aquaculture. The guide will serve to share best practices with seafood industry stakeholders who wish to further develop their collaborative approaches and to explore how stakeholder engagement processes currently underway and planned for the future can drive responsible practices in the workplace, marketplace, community, and environment.

This external evaluation report is intended to provide a candid, information-based review of the G-FISH project. The review includes an overview of G-FISH goals and approaches and the analysis presents the conclusions of an international assessment that informed USAID fisheries investments. It also links G-FISH to accepted (and peer reviewed) metrics for ecosystem-based fisheries management (EBFM). In conclusion, it makes a few overarching recommendations for future similar projects. Overall, the evaluation found that the project approach was fundamentally sound. Significant progress was made in each context. G-FISH was an ambitious, perhaps overly ambitious, attempt to initiate participatory fisheries management in three contexts. Any institution would be challenged to reach the goals laid out by G-FISH. The recommendations made to move toward action taking or staff technical training should be made in a way so as not to undermine FHI 360's commitment to SCALE and participatory planning. See the report in Annex #7.

Social Network Analysis

G-FISH commissioned a final set of data collection and report detailing the social network analysis (SNA) of survey data collected by the Spiny Lobster Initiative (SLI) over the course of several years in Honduras. The data were collected at four events: a Whole System in the Room event in June 2009, the First Spiny Lobster Symposium in May 2010, The Global Fish Alliance (G-FISH) Network Census in Winter 2011, and the Fourth Spiny Lobster Symposium in May 2013. The goal of the following analysis is to explore the dynamics of the network structure and key actors over the course of the SLI.

According to the report, the bottom line of this analysis is that while there is limited evidence of increasing intensity of collaboration among spiny lobster fishery stakeholders, there is substantial evidence of a redistribution of social relationships in ways that make the network less hierarchical, increase the representation of marginal groups, and break out of sector-based "silos". While there is no consensus on how different changes in network structure are related to overall levels of cooperation or sustainability, there are plenty of theoretical arguments that suggest the types of changes observed in the SLI network are supportive of cooperation. This hypothesis is further corroborated by stakeholders' largely positive perceptions of the effectiveness of the Spiny Lobster Initiative for achieving short-term process goals such as information and trust. However, there is a more moderate view of how well the SLI has achieved some of the longer-term substantive goals suggesting that much of the short-term changes have been in process, relationships, and information. See the full report in Annex #8.

Spiny Lobster Initiative Honduras

The continued success of the G-FISH SLI program is due to a system of stakeholders that has consistently remained engaged over the life of the project. Their continued effort has led to substantial changes in all aspects of the fishery from governance to social and environmental issues.

The Initiative has three major, inter-related objectives:
1) To increase social capital and demand for sustainable management
2) To promote ecosystem-based approaches to fishery management
3) To establish and promote social and economic incentives

Conservation and Capacity Building

Fourth Annual Technical Symposium

The Global FISH Alliance, through the Spiny Lobster Initiative in Honduras, held the Fourth Annual Spiny Lobster Symposium entitled "Transitioning to a Reform of Fisheries," on May 15 and 16, 2013 at the Regional Centre for Environmental Documentation and Interpretation (CREDIA) in La Ceiba, Honduras. This technical symposium was held to strengthen networks and collaboration among key stakeholders working in the lobster fishery of Honduras. The agenda consisted of variety of presentations and panel discussions, as well as breakout sessions focused on current issues for industry in managing the fishery and addressing technical gaps in information. Other technical sessions focused on fisheries management, conservation of coastal marine resources, data collection, and climate change adaptation.

For the fourth consecutive year, the symposium offered a unique opportunity for a technical gathering of diverse stakeholders representing the whole lobster fishery system. The symposium brought together 154 participants representing organizations in the environmental, civil, and private sectors, as well as government. All of the participants represent important links in the value chain of the lobster fishery at both national and regional levels, including representatives from the United States, El Salvador, and the Bahamas. The objectives of the symposium were to: 1) Strengthen technical fisheries expertise and improve local and national capacity for management; 2) Promote application of current regulations across Central America regarding the transition of the fishery; and 3) Ensure good fishing practices for the growth, regulation, and monitoring of a safe and sustainable fishery.

The symposium provided a forum to discuss the transition away from dive lobster fishing and Central American regional ban on diving for lobster prior to the opening of the season on July 1, 2013. Different members of the fishery system expressed interest in coming together and continuing to act collectively to achieve an environmentally sustainable, economically profitable, and safe lobster fishery for all.

Highlights from the Fourth Spiny Lobster Symposium include:

- **Broad representation of key sectors**: 154 participants representing all the sectors involved in the lobster fishery, including twenty-nine Honduran government officials representing ten ministries and members of governmental agencies that make up the Intergovernmental Commission for the Prevention and Treatment of the Problem of Dive Fishing (CIAPEB). Governors, mayors, and vice mayors from Gracias a Dios (La Moskitia) and the Governor of Atlantida were also present. Diver associations and the lobster industry were well represented with the participation of 49 members, including 32 members of the industry (owners and captains of dive and trap boats), plus four seafood processing plants from La Ceiba and the Bay Islands, and key buyers like Darden Restaurants, Inc. from the U.S.
- **Constructive debate on fisheries**: DIGEPESCA representatives discussed several key issues related to the lobster fishery including: 1) Expressing the need for follow-up with the Congressional Review Committee on the adoption of the new fisheries law in Honduras, which is expected to be approved in the near future; and 2) Honduras Ministry of Agriculture and Fisheries (SAG/DIGEPESCA) expressed political will to present an action plan for transition of the dive fishery with an extension of diving in 2013, in preparation for the permanent ban of the activity. This plan will be presented by the Minister of SAG at the next OSPESCA meeting of Central American Fisheries Ministers in June in Costa Rica.
- **Participation of media**: The media covered the event interviewing participants and attending a press conference with Miskito representatives, members of the industry, and governmental authorities.
- **Widening of technical knowledge**: Technical sessions created a platform for dialogue, information exchange, and learning opportunities on various topics supporting reform of the lobster fishery.
- **Better stakeholder dialogue**: The symposium generated space for consultation, dialogue, and negotiations among all the participants in the lobster fishing industry creating traction for further partnership to develop joint strategies

A full report of the symposium can be found in Annex #9.

Closure Diving in Honduras and National Plan for Transition 2013-2015

In July 2013 after national governmental and regional meetings, the Central American countries (including the Honduran government) amended the regulation on the ban of commercial lobster diving scheduled to go into effect in June 2013, and another two-year extension period was granted for the transition to closure, the first phase started on July 1st , 2013. In late September 2013, the Regional Fisheries authority, OSPESCA, shared the Regional Plan for Transition and Closure of Diving for Honduras and Nicaragua with the donor community. To promote and strengthen a more transparent process, SLI encouraged the national government to widely circulate the plan and has made its database of over 350 members available to the government for dissemination.

The two-year regional transition Plan describes the conditions of the transition, including the different phases of the closing, financial strategies, and technical aspects. The plan focuses on key areas; creation of alternative livelihoods for divers, protection of the fisheries grounds, financing opportunities, and the reconversion of the lobster diving industry. The plan is now under the coordination of the national fishery authority (SAG/DIGEPESCA), a regional commission (CORECIB), and a national committee (CONACIB) needs to be created to include representation of all stakeholders along the value chain of the lobster fishery in order to oversee the implementation of the plan. The budget for the regional transition plan for the assistance and coordination components has been set at $490,000. This regional budget does not include operative national actions in each country, which still need to be elaborated and included into more specific national transition plans.

The regional plan also provides strategies for the reconversion of the diving industry by reducing fleet size and harmonizing fishing techniques; however, no details are provided on how this will be funded. While the reconversion of diving boats is mentioned in the plan, very few details have been provided on how to achieve this and if funding will be made available. Additionally, regulations and governmental actions are required to be put in place for the enforcement.

Declaration of a marine territory for the exclusive use of artisanal fishing for Honduran Moskito indigenous population

In an effort to establish an ecosystem-based approach to management of fisheries and empower marginalized groups, SLI has been working with TNC and the CME to establish an indigenous rights-based artisanal fishing zone, combined with designated no-take zones in the Moskito Cays. SLI has facilitated networking among the social platform of stakeholders, called for meetings between the local Miskito authorities, the technical partners and Government of Honduras; and provided technical input on the declaration of the proposed area. The reserve will be 15,400 km^2, approximately 1.5 million hectares, and within this area, it is proposed that 20% be declared as no take zones. The program will work specifically at building the ability of fishers groups to manage their own fisheries, filling the current vacuum in marine governance by providing tools to collect, analyze and interpret fisheries information at a local level. Ultimately the program seeks to develop a network of fish refuges and build their effective management through fisher-led no take reserves that will encompass 20% of the suitable fishing areas in Honduran Caribbean waters by 2016.

La Moskitia governor who championed this initiative, together with Mr. Maylo Wood, La Moskitia congressman drafted the bill for the declaration of a responsible fishery areas based in indigenous rights with exclusive artisanal use area for the 54 Miskito cays, the bill was completed this July. The bill currently rests with the Miskito Congressman, the local Miskito divers association and the technical community partners. A consultation on the latest iteration

needs to be held among local stakeholders and industry. This will be an important step to harmonize concepts, zoning, limits and management towards getting final consensus. Given the incoming presidential elections in November 2013, local stakeholders from Moskitia have decided to wait post-election and to re-start this process of consultation and the declaration in early 2014 with the new governmental authorities

Darden Restaurants, Inc. Partnership

The FHI 360 partnership with Darden Restaurants, Inc. has increased in the last year and they will have been to Honduras several times in the last two years including being represented at the symposium in May 2013. G-FISH and Darden have consulted through calls or meetings several times a month.

Darden requested that G-FISH assist them with their CGI commitment of doing fisheries improvement projects and the development of an investment fund by creating an assessment and list of opportunities in Honduras. The 30 page assessment included inputs from partners interested in working in Honduras.

The lobster fishery in Honduras is very complex with diverse stakeholders and issues related to environmental degradation, economic stability, governance, human health, labor, and social justice. In order to address these issues, FHI 360 was asked to develop a conservation assessment in order to shape the development of a new Fisheries Investment Fund (FIF). The assessment has two main components: 1) the context and landscape of the social, economic, and environmental issues related to the spiny lobster fishery; and 2) opportunities for investment based on input from partners.

Consensus among experts is that there are several key things that need to happen to achieve this goal: the functional close of the SCUBA dive fishery (officially or through market forces and alternative livelihoods); better management of the industrial trap fishery (access and traceability); and development of a sustainable artisanal fishery.

Five key objectives of the fund that have been identified include (in no particular order):

1. Sustainable management of the trap and artisanal fisheries
2. Increased access to capital for improved system
3. Alternative livelihoods developed that reduce dependence on SCUBA diving
4. Improved biodiversity conservation for sustainable fisheries and livelihoods
5. Improved social justice and labor conditions in the fisheries industry

G-FISH received $5,000 from Darden to complete the assessment.

Darden has also been in contact with other organizations in the region to enlist further investment and partnerships. In September 2013, Darden sent a request to USAID Honduran Mission, including a request for their continued engagement on the issue through the Global FISH Alliance. See Annex #10 for the full letter. The USAID Mission is scheduling a meeting in mid-December 2013 to discuss future engagement.

Communication and Collaboration

SLI continued its consistent communication with stakeholders and partners over the last six months organizing and attending meetings in Tegucigalpa, La Moskitia, and La Ceiba.

In April, in order to have better understanding of issues associated with the transition from dive caught lobster, US Ambassador to Honduras Lisa Kubinske met with SLI Chief of Party and four other interested parties in La Ceiba. The meeting was a success in sharing information. In June, Ambassador Kubinske visited La Moskitia and SLI worked with diver associations to organize their comments and to develop a letter to share with her about their position on fisheries issues.

Many meetings were hosted by the government on the fisheries law and the timeline for transition of the dive lobster fishery. G-FISH also worked with partners to secure more information about the status of the dive fishery and the extension of dive fishing by OSPESCA, the regional authority.

Finally, SLI and CME collaborated to support extended media coverage of the dive issue in Honduras in El Heraldo. Articles were run for a full week in July and can be found here: http://www.elheraldo.hn/Secciones-Principales/Al-Frente/Misquitos-piden-area-exclusiva-para-pesca-artesanal-langostera.

Monthly Spiny Lobster Call

Starting in January 2013, G-FISH has been hosting monthly calls among partners to discuss updates on the spiny lobster fishery in Honduras and Nicaragua. More than 30 unique participants have participated on different calls, including representatives from Darden Restaurants, USAID in Washington and Missions, State Department, National Geographic, and other NGO partners. For all of the Spiny Lobster Call Notes see Annex # 11.

Spiny Lobster Initiative Transition

The Global FISH Alliance project activities closed at the end of September 2013. A no-cost extension has been granted through December 31st to do the operative close-out for the Spiny Lobster Initiative in the field and to transition responsibilities to local stakeholders and organizations to continue the work. An initial transition meeting was held with SLII working group in July 2013 to start this dialogue. So far, it has been agreed that the communications and networking component will be carried on through the coordination of the Center Marine Ecology (CME) in collaboration with other technical partners. The elaboration of the SLI bi-monthly newsletter and its dissemination will continue to be coordinated by Pesca del Atlantico, an industry member who is already handling this. The Smithsonian Institute (SI) will also be part of the technical partners who will continue to support the research component. To strengthen, the capacity of the local organization, the SLI equipment and office furniture will be donated to the Miskito indigenous associations according to a disposition plan approved by USAID. Finally, the SLI staff will be let go in December 2013, but are hopeful they will be able to transition to other technical partners who will continue coordinating activities.

A final closing program event with the core group and the national value chain stakeholders of the Spiny Lobster Initiative in Honduras will take place in November 2013 in La Ceiba. At this event, a full package of information and SLI contacts database will be distributed, in addition to presenting the main highlights and remarkable actions taken by the stakeholders through the life

of the project and announcing important commitments from the stakeholders to continue certain actions.

Partnership and Conservation and Funding Opportunities 2014+

As part of a 2011 commitment made at the Clinton Global Initiative (CGI), Darden Restaurant Inc. announced in September 2013 that Honduras will be their second Fishery Improvement Project (FIP). Darden will invest for two years and Walton will match Darden's funding to catalyze improvements in fisheries through the fund managed by the NFWF. The Honduran spiny lobster fishery will be the first beneficiary of the fund.

What's next?

- SLI December closing event with local Honduran spiny lobster stakeholders in November 2013.
- Meetings regarding the New Fisheries Investment Fund (FIF) supported by Darden, Walton Family Foundation, and National Fish and Wildlife Fund
- Continue communicating and networking for collaboration transition into a new local partner in Honduras
- Continue creating the enabling conditions for the closure of the scuba lobster fishery in Honduras

Annex 1. Closeout Plan
Annex 2. Country Presentations
Annex 3. WCS Survey Report
Annex 4. Iniciativa Local Newsletters
Annex 5. Cambodia Local Newsletters
Annex 6. Seafood Engagement Guide
Annex 7. Comparative Case Study & Final Evaluation Report
Annex 8. Social Network Analysis Report
Annex 9. Report of the IV Spiny Lobster Symposium
Annex 10. Darden letter to USAID Mission in Honduras
Annex 11. Spiny Lobster Call Notes

Annex 1.

Global FISH Alliance

Fisheries Improved for Sustainable Harvest

FY2013 Closeout Plan

Funding provided by the
United States Agency for International Development
under Alliance for Sustainable Fisheries and Aquaculture
Leader with Associates Award
Cooperative Agreement # EPP-A-00-08-0005-00

Submitted by:
FHI 360

Submitted to:

Barbara Best, PhD
Coastal Resources and Policy Advisor
USAID/EGAT/NRM
202-712-0533
bbest@usaid.gov

G-FISH Closeout Plan

G-FISH has developed this Closeout Plan in consultation with the G-FISH Team and partners. Once approved by USAID, the G-FISH Closeout Plan will be shared allowing all parties to collaboratively share information on progress toward achieving our completion targets. The Closeout Plan identifies all key actions that are required to bring the G-FISH Activity to closure on September 30, 2013, when the current phase of approved funding comes to an end. It is anticipated that the final month will be dedicated to two important tasks in additional to the normal administrative and technical close-out functions. First, G-FISH will prepare a summary report of the accomplishments of the five-year activity with particular attention to strengths and weakness as well as successes and lessons learned. Second, we anticipate transferring important G-FISH information and databases to several key partners who have committed to take on the responsibility of maintaining and building these groups and resources. This report includes:

- Transfer of Program Roles and Responsibilities to groups or organizations who may want to complete certain tasks and activities;
- Transition event to both close the program and highlight the key findings from the work but also to plan and organize communities to continue similar work moving forward; and
- An operational plan for close out

A. <u>Transfer of Program Roles and Responsibilities</u>

In each country program, G-FISH intends to seek sponsorship and interest for managing or facilitating the Working Groups and/or Task Forces. In addition, FHI 360 is seeking partners to develop and distribute the monthly newsletter to keep people aware of major issues related to fisheries management in each country. G-FISH, as part of our program evaluation, is also requesting input from partners about the most useful role that G-FISH played in order to identify what other activities might be transitioned.

In each country, there are organizations who may take leadership:

- Honduras – Working Group member Enrico Cruz of Pesca del Atlantico, a processing plant, took responsibility for developing the SLI newsletter more than a year ago and will continue to issue the newsletter after the end of the project. In addition, the Center for Marine Ecology (CME) has expressed interest in the work of the Spiny Lobster Initiative (SLI) and continuing some of the key activities.
- Mozambique – FHI 360's partnership with Wildlife Conservation Society had opened up the opportunity for their continued investment in Pemba Bay to further their East Africa agenda. FHI 360 is seeking partner inputs to manage the Task Force, newsletter, and other program activities.
- Cambodia – FHI 360 is seeking partner inputs to manage the Task Forces, newsletter, and other program activities.

If an organization does not show interest, G-FISH leaders in the field will identify key community leaders to see if they are interested and able to sustain these activities over time.

As part of the transfer proposition, G-FISH requests the allowance for communities or organizations be able to use of the country initiative names to continue after the program as an organizing force for communities. This does not include using FHI 360 or USAID logo but instead allows the communities to use the same name for continuity. In addition, FHI 360 recommends that the Global FISH Alliance be available for use by partners if anyone is interested in either continuing the Alliance or reworking it to suite their program needs.

B. Transition Event or Materials

In each country program, G-FISH intends to have a small closing event or issue a special newsletter about the closing of the program. Although many stakeholders are informed and aware already, G-FISH will either:

- Organize a meeting to announce: 1) key outcomes of the work in-country; 2) do a close out exercise seeking commitments to assume some G-FISH responsibilities; and 3) establish commitment to continued work for the group; and/or
- Develop a final newsletter highlighting: 1) key outcomes of work; and 2) contact information for those organizing moving forward.
- FHI 360 will host an event to close the program and highlight key program outcomes at the end of September 2013.

Transition of materials and other information is addressed in the Operational Closeout Plan below including submission of all relevant documents to the Development Experience Clearinghouse (DEC). For both administrative and other technical responsibilities, there are several categories and for each of these we have listed specific activities, when each is due to be completed and who is responsible for ensuring that it is completed.

In order to track progress, the plan also incorporates a provision for registering the completion date and for making any relevant comments.

C. Operational Plan

Task	Completion Due Date	Responsibility	Current Status	Comments
Close Down: Administrative				
Inventory Control and Transfer				
Review and update inventory of all project items	07/12/2013	Honduras: Jimmy/Hugo Mozambique: Isabel/Machona Cambodia: Jeanette	In Progress	
Prepare report on expendable inventory and disposition plan	07/19/2013	Honduras: Jimmy/Hugo Mozambique: Isabel/Machona Cambodia: Jeanette	In Preparation	No non-expandable property (=>$5,000 per unit under coags)
Send disposition plan to AOTR for concurrence	08/01/2013	HQ: Jenny	In preparation	
Prepare contact list for all key organizations	08/01/2013	Honduras: Jimmy/Hugo Mozambique: Isabel/Machona Cambodia: Jeanette	In Preparation	
Transfer expendable inventory to designated recipients	09/15/2013	Honduras: Jimmy/Hugo Mozambique: Isabel/Machona Cambodia: Jeanette	In Preparation	Obtain signed and dated receipts
Transfer/donation receipts on file	09/20/2013	Honduras: Jimmy/Hugo Mozambique: Isabel/Machona Cambodia: Jeanette	In Preparation	
Participate in preparing a transition plan to G-FISH II if required	09/01/2013	HQ: Jenny Honduras: Jimmy	In Preparation	
Shipment				
Mark and sort essential documents for shipment to Home Office	09/01/2013	Honduras: Jimmy/Hugo Mozambique: Isabel/Machona Cambodia: Jeanette	In Preparation	
Pack hard copies of all technical	09/15/2013	Honduras: Jimmy/Hugo	In Preparation	Include packing list of boxes contents and

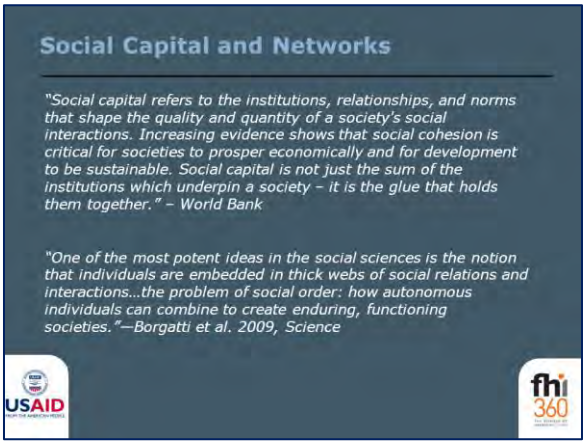
reports and all original contractual documents (personnel, contracts, grants, lease, etc.)		Mozambique: Isabel/Machona Cambodia: Jeanette		number boxes
Make shipping arrangements	09/01/2013	HQ: Ana	In Preparation	Preferred vendor, arrange from HQ with specifics from field
Dispose of all files not being shipped	09/25/2013	Honduras: Jimmy/Hugo Mozambique: Isabel/Machona Cambodia: Jeanette	In Preparation	Inquire and follow local recycling policy
Electronic Data				
Back up all electronic files to external hard drive	09/15/2013	Honduras: Jimmy/Hugo Mozambique: Isabel/Machona Cambodia: Jeanette	In Preparation	Provide guidance on Record Retention Policy (POL 01013). Include hard drive in shipment to HQ or with last imprest
After backup erase all files from Hard Disks	09/30/2013	Honduras: Jimmy/Hugo Mozambique: Isabel/Machona Cambodia: Jeanette	In Preparation	*Free software for download:* http://www.dban.org/download
Data Transfer				
Review and update G-FISH website	09/15/2013	HQ: Kevin	In Preparation	Hosting paid through 01/31/2015
Burn all G-FISH documents onto CDs and transmit to ?	09/15/2013	HQ: Kevin	In Preparation	Obtain guidance on transferring website content and other data (USAID NRM Portal ?)
Archive the G-FISH website	10/01/2013	HQ: Kevin	In Preparation	?
Transmit G-FISH databases to all Partners		Honduras: Jimmy/Hugo Mozambique: Isabel/Machona Cambodia: Jeanette	In Preparation	Final meeting or closing event?
Prepare simplified G-FISH summary materials for transmission with electronic data (CDs)	09/15/2013	HQ: Kevin	In Preparation	
Financial				
Arrange for payment of final bills	09/15/2013	Honduras: Jimmy/Hugo	In Preparation	

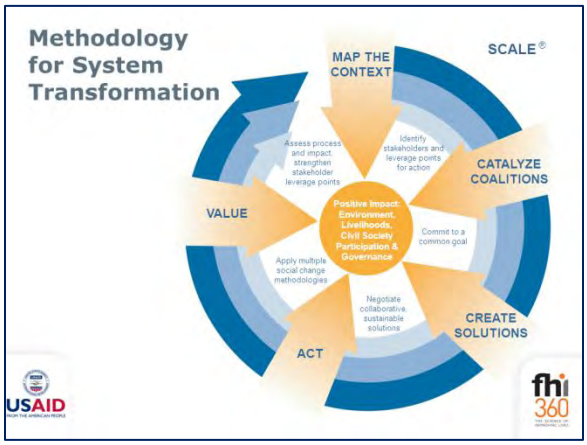
(utilities, etc.)		Mozambique: Isabel/Machona		
Inform subscriptions and local support services of termination (newspapers, DHL, etc.)	09/01/2013	Honduras: Jimmy/Hugo Mozambique: Isabel/Machona Cambodia: Jeanette	In Preparation	
Arrange for payment of final cleaning service bills	09/15/2013	Honduras: Jimmy/Hugo	In Preparation	
Clear all outstanding advances/travel vouchers.	09/15/2013	Mozambique: Isabel/Machona	In Preparation	
Prepare final invoice	09/30/2013	HQ: Elvin/Acct	In Preparation	
Prepare Final SF-425	09/30/2013	HQ: Elvin	In Preparation	
Final VAT report	09/30/2013	HQ: Elvin	In Preparation	Due 90 days after end of program
Cancel office and equipment insurance agreement	09/01/2013	Honduras: Jimmy/Hugo	In Preparation	Do we have anything?
Finalize any necessary contract and/or budget modifications	07/15/2013	HQ: Jenny/CMS	In Preparation	No cost extension
Close out local bank accounts (lmp account and US$ account)	10/01/2013	Honduras: Jimmy/Hugo	In Preparation	No outstanding checks
Bank signature authority terminated	10/01/2013	HQ: Neil	In Preparation	
Make arrangements for any continuing administrative activities	09/15/2013	HQ: Jenny	In Preparation	
Verify that all financial records are complete	09/30/2013	HQ: Elvin	In Preparation	
Leases				
Terminate office lease	09/01/2013	Honduras: Jimmy/Hugo Mozambique: Isabel	In Preparation	
Paint/repair office premises	09/15/2013	Honduras: Jimmy/Hugo	In Preparation	
Walk through with office landlord	09/27/2013	Honduras: Jimmy/Hugo	In Preparation	

Recover security deposit	10/01/2013	Honduras: Jimmy/Hugo	In Preparation	
Staffing				
Prepare and submit legal notifications of termination to local staff	8/31/2013	HQ: Ana (with HR)	In Preparation	
Prepare letters of recommendation for local staff	8/31/2013	HQ: Jenny/Ana	In Preparation	
Pay final salaries and social charges to local staff	09/30/2013	Honduras: Jimmy/Hugo Mozambique: HR	In Preparation	
Pay any outstanding benefits and allowances	09/30/2013	HQ: Ana/Elvin	In Preparation	Severance for Honduras
Email and access to email deleted	10/01/2013	HQ: Ana/Terry	In Preparation	
Signature authority terminated	10/01/2013	HQ: Ana	In preparation	Neal?
Close Down: Technical				
General				
Prepare and submit G-FISH Final Program Report	09/30/2013	HQ: Jenny	In Preparation	
Prepare and submit close-out plan to USAID	06/30/2013	HQ: Jenny	Completed	
Submit all deliverables to DEC	09/30/2013	HQ: Kevin	In preparation	Need to be 508 compliant?
Sub-recipients				
Sub-awardees to submit all deliverables	Per schedule	HQ: Ana/Kevin	In Preparation	
Final Project Close-out Letter	08/31/2013	HQ: Ana/Kevin	In Preparation	
Issue payment for all final invoices	09/30/2013	HQ: Ana/Kevin	In Preparation	
Obtain certification letter	09/15/2013	HQ: Ana/Kevin	In Preparation	

Annex 2. Closeout Event Presentations

Global FISH Alliance: Promoting sustainable fisheries practices using the SCALE methodology





SCALE Application Around the World

Collective Impact

Stanford Social Innovation Review

Isolated Impact vs. Collective Impact

Isolated Impact	Collective Impact
Funders select individual grantees that offer the most promising solutions.	Funders and implementers understand that social problems, and their solutions, arise from the interaction of many organizations within a larger system.
Nonprofits work separately and compete to produce the greatest independent impact.	Progress depends on working toward the same goal and measuring the same things.
Evaluation attempts to isolate a particular organization's impact.	Large scale impact depends on increasing cross-sector alignment and learning among many organizations.
Large scale change is assumed to depend on scaling a single organization.	Corporate and government sectors are essential partners.
Corporate and government sectors are often disconnected from the efforts of foundations and nonprofits.	Organizations actively coordinate their action and share lessons learned.

Fisheries Awareness

- Fisheries Management Courses
- Conference Presentations
- Informational Videos
- Communication & Meetings

The GFISH participants, through interviews, expressed a **deep appreciation for this process in all contexts**. They appreciated learning, collaborating, creating linkages with one another and with policy making agencies. They held the **FHI 360 staff in high esteem and appreciated their sincerity, integrity and hardworking nature. In short, there is widespread appreciation for the SCALE process.**

Perhaps, ultimately, a balance must be struck between good process and tangible output. **The G-FISH process seems to have created excellent process that has created the enabling conditions** that, hopefully, will lead to behavior change. *The challenge ahead is to determine the means by which these initial and value investments can be capitalized on.*

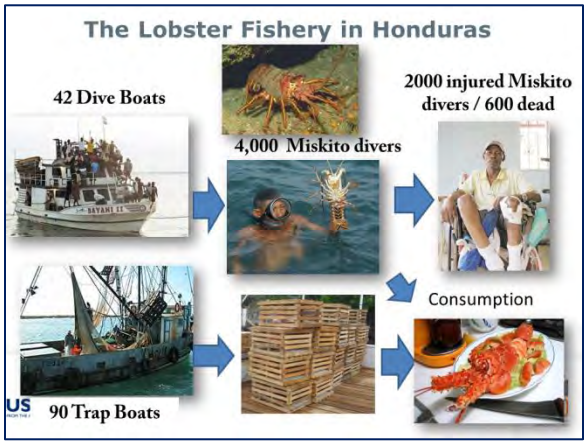
The most tangible examples of commitment are the sustained engagement of actors in regular meetings and in a process through which they receive no direct and obvious economic benefit. The network of individuals and institutions has grown in Honduras. Government agencies have been made more accountable for their decisions. Miskito divers have used the forum to raise awareness about their plight and the consequences of the industry. Similarly, government officials in Mozambique and Cambodia have been made more accountable to constituencies, although progress in these contexts **has had relatively little time to develop and may be difficult to sustain without the continuation of funding and FHI 360's presence.**

The actions taken by G-FISH were **modest, but significant**. G-FISH provided essential support for the declaration of protected areas in Honduras and Mozambique. Marine tenure rights of Miskito and Mozambique fishers are now codified. The development of specific rules for each MPA is in progress and if well implemented will likely result in improved fisheries benefit small-scale fishers. **G-FISH provided important support for these policy directives, most notably providing a process through which government, NGO and community groups could discuss and reach consensus on these MPAs.**

G-FISH's support for decentralized, co-management in all contexts has the potential to **increase social ecological resilience**. Coastal fishing communities are on the front lines of rapid change and in contexts with weak enforcement capacity, their buy-in into regulations is essential.

Countries

The Spiny Lobster Initiative in Honduras: An Integrated Approach to Fisheries



Common Ground Goals for Spiny Lobster fishery in Honduras

	Common Ground Goals	Environment	Economic	Social	Policy
1	Market expansion	X	X		
2	Development of La Moskitia		X	X	
3	Intersectoral Work	X	X	X	X
4	Lobster fishery activity better regulated				X
5	Certification of the lobster fishery	X	X	X	
6	Sustainable and profitable lobster industry (better practices application)	X	X	X	
	Awareness and education	X		X	X
7	Compliance with the regulatory framework			X	X
8	Conservation and protection of marine resources through management tools	X			X
9	Lobster fishery management based on intersdisciplinary research	X		X	X
10	Regional and binational integration	X		X	X
11	Fulfillment of the fisheries regulation	X			X

Social Change: Actions and Outcomes

- Environment
- Economic
- Social
- Governance

WSR. 2009

Environment: Responsible Fishing Area

- Declaration of the biggest responsible fishing area in the MesoAmerican region
- Rights-based exclusive use areas for indigenous communities in La Moskitia

Governor, Minister of Environment and Ethnics - Socialization of the proposed area in Moskitia

Map of the proposed artisanal fishery area in Moskitia

Environment: Four Technical Lobster Symposia

- ✓ More than 1,400 participants from different fishery sectors
- ✓ Average of 35% of attendees from the private sector
- ✓ 11 countries represented
- ✓ 29 thematic workshops and field visits
- ✓ 12 technical trainings promoting best fishery practices (BMP)
- ✓ Fisher to fisher exchange

Social: Communication and Media Engagement

- More than 65 news reports on lobster fishery
- Three media rounds tables on fisheries
- Media Award for sustainable fisheries
- Press conferences
- Investigative media coverage of lobster fishery in Moskitia 2013

" I am guardian of the reef"

www.knowyoursource.com

KNOW YOUR SOURCE

Social : The Indigenous Voice

SLI has increased the visibility and access for indigenous Miskito & Garifuna communities through participation in:

- ✓ More than 18 workshops
- ✓ More than 20 Working Group meetings
- ✓ Two field trips (Roatan, Moskitia)
- ✓ 1 international exchange (Belize)
- ✓ Met with US Ambassador

"We feel and super-prepared to negotiate. Before we were screaming , now we have a voice. Now we sit with the Minister and the President all together to talk." Miskito informant

Economic : Public - Private Partnership

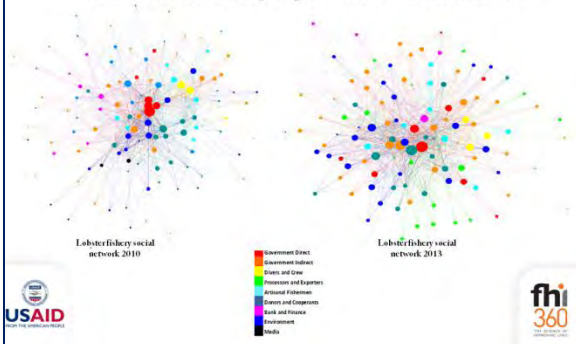
- Three key industry statements to government: Reduce the fleet, monitor licenses and rethink exploratory fisheries
- Darden Restaurants, Inc. engaged government and stakeholders to comply with the dive ban

Governance: Fishery commission & Honduras Fishery Law

- National Fisheries Commission created in Congress (2011)
- Support for the first new fishery law in Honduras in 50 years. (Status)
- Special chapter in the law to declare indigenous rights to marine and fisheries resources
- The scuba lobster ban amendment (2013)

HN Elections 2013

Social Network Analysis – Density of the lobster fishery system in Honduras



Social Network Analysis – Decreased Hierarchy in Access to Information

There is substantial evidence of a redistribution of social relationships in ways that **make the network less hierarchical,** increase the representation of marginal groups, and break out of sector-based "silos".

Honduras Stakeholders Speak: SLI

SLI Key Achievements

- Eighty three (83) multi-sectorial organizations involved
- More than 25 policies and agreements developed as results of collaboration
- Appx. 30% in cost share from the private sector and media
- Appx. 3,100 ha of lobster critical habitats in Moskitia to be protected
- More than 350 indigenous Miskito fishers supported in participation and decision making (20% female inclusion)
- Nearly 50 consultative process done with the participation of the private, civil, government and environmental representative sectors

Next Steps for transition …

- December close date
- New Fisheries Investment Fund supported by Darden Restaurants, Inc., Walton Family Foundation, National Fish and Wildlife Fund
- Continue communicating and networking for collaboration
- Continue to create enable conditions for the closure of the scuba lobster fishery in Honduras

and us….

Oceano Vivo
Con pesca sostenible
INICIATIVA DE LA LANGOSTA ESPINOSA
LANGOSTA ESPINOSA
Jimmy & Hugo
Muchas Gracias (Spanish)
Tinki Pali (Miskito)
Tankiniabu (Garifuna)
Thanks
USAID
fhi 360

Global FISH Alliance: Pemba, Mozambique

fhi360 THE SCIENCE OF IMPROVING LIVES

Global FISH Alliance

PEMBA, MOZAMBIQUE

Iniciativa Local para o
DESENVOLVIMENTO DA PESCA SUSTENTÁVEL
na Baía de Pemba

Region of Focus

Pemba Bay, Mozambique

- 170,000 residents
- 3 major fishing councils

USAID

fhi 360

Biological Context

- Biodiversity hotspot under threat
  - ✓ Unsustainable Use of Resources
    - Illegal/inappropriate fishing techniques
    - Overfishing
  - ✓ Scarcity of data
  - ✓ Pollution

USAID

fhi 360

Social & Economic Context

- Impoverished Communities
- Poor Collaboration between Stakeholders
- More Fishermen
- Dependency on the Resource
- Artisanal Fisheries
- Less Fish & Revenue

"It's very expensive (fish)! We are ending the month just like this, without seeing fish"
Women's Association

USAID

fhi 360

Institutional Context

- Department of Fisheries
- CCPs
  - Unclear/conflicting mandates
  - Lack of coordination
    - ✓ Trust
    - ✓ Participation
    - ✓ Ownership

USAID

fhi 360

Whole System in the Room (July, 2011)

USAID

fhi 360

Common Goals

- Conservation and Management
- Collaboration
- Increase Capacity
- Improve Monitoring and Regulations
- Alternatives to Fishing
- More Research Initiatives
- Increase Investment in Infrastructure
- Institutional Strengthening

"Iniciativa Local" - Local Management

Conservation Committee

- Community Council of Fishers
- Community Leaders
- Fishers
- Lurio University
- Department of Fisheries
- FOCADE
- Private Sector
- Civil Society

"If government institutions now recognize us it's because we've transmitted a positive image of the work we do." *Representative of Civil Society*

G-FISH Strategic Communication

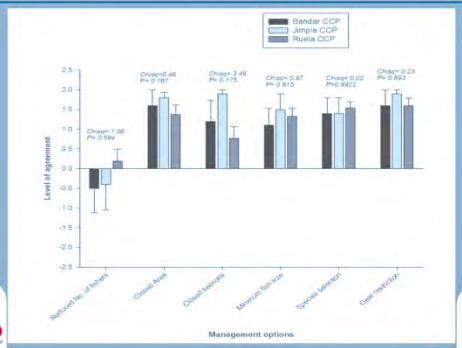
- Committee Meetings
- Radio Program
- Monthly Newsletter
- Capacity Building Trainings
- Public Events
- Educational Messaging to Children
- Recognizable Local Branding

Objectives

Bring Stakeholders Together	Trust
Information	Discussion
Evaluate Results	Action Planning

DESENVOLVIMENTO DA PESCA SUSTENTÁVEL

Wildlife Conservation Society Research



G-FISH Accomplishments

"IL was the link between all stakeholders."
CCP Ruela

Outcomes

Communication and Socialization	Improved Governance & Environmental Management	Economic
• 29 Community Training and Sensitization • 49 Committee Meetings • 29 External Meetings • 51 Stakeholder Meetings • 5 Radio Shows • 13 Newsletters	• WCS Research • Management Plan • 1 Conflict Mediation • 1 Community Conservation Area • 50 New CCP Uniforms	• Alternative Livelihoods: • Handicrafts • Kitchen Herb's garden • Tourism • Business Partnerships

"The Conservation Committee meetings were of extreme importance because during all those days we would sit, we would collect, we would harvest; a person would leave with knowledge that he had never had in his life! It was a full basket. And it would allow us to get to know one another." Jimpia's Leader

Stakeholders Speak

"... CCPs didn't know how to collaborate with others; with IL, other institutions became aware of the role of the CCP!"
CCP Jimpia

- No provisions were considered to support continued work
- Larger awareness campaigns would have had bigger impact
- Implementation period too short
- No investment for practical actions

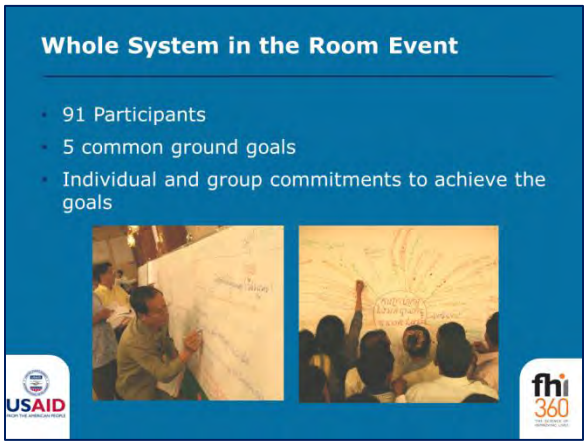
- Iniciativa Local = Influential Role
- IL = Registered Association
- Improved Collaboration
- Capacity Building
- Community Empowerment + Ownership
- Community Involvement
- Jimpia Community Conservation Zone

Next Steps...

- Other Stakeholders to include IL in their own projects
- Committee Members to take Ownership of the project = Registered Association

THANK YOU

Global FISH Alliance: Collaborating on Community Fisheries in Cambodia



Common Ground Goals

Enrichment of Livelihoods
Improvement of community livelihoods through proper natural resource management

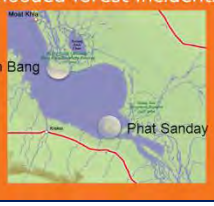
Capacity Building
Effective and efficient communications on Tonle Sap resource management

Good Governance
- Improvement of collaboration among stakeholders
- Effective compliance with fisheries laws

Increase in fisheries resources
(i.e. increase productivity)
Conservation of flooded forests and promotion of sanctuaries for future generations to have food to eat

Enrichment of Livelihoods

- Patrolling
  - 1390 hectares patrolled ($2.70/hectare)
  - 32 patrols
  - 94 illegal fishing incidents
  - 5 flooded forest incidents



Regular patrols have scared illegal fishers away and some illegal fishers have become more aware of fishery regulations and this has encouraged some of them to come back and find other jobs in the village.
- CCF Member

Capacity Building

- Radio Program
  - 15 live radio programs – fisheries reform, flooded forests, patrolling, governance, etc.
  - 69 calls received from:
    - Community members, NGOs, government staff
- Routine communications
  - 313 calls to WSR and Task Force members in the last year

Community members would listen to the G-FISH sustainable fisheries radio program then talk about and share information they heard on the program with other members of the community who did not listen.
- Women's Saving Group

Capacity Building

- Speaker Series
  - 3 events in Battambang and Phat Sanday
    - Flooded forest conservation and fishery law; Fishing gear and fishing laws; Community patrolling and patrolling management
- Newsletter
  - 1450 copies distributed
  - 381 Likes on Facebook
  - 42 articles

Conducting information sessions in one place [speaker series] is effective because it shares information at a grass roots level.
- Research Institute

Good Governance

- Task Force Meetings
  - 25 meetings
  - 48 participants in 3 Task Forces
- Governance Partnership (FiA, CCF, FACT, WorldFish)
- Collaborative Actions
  - Attended 90 events on fisheries
  - 3349 participants
  - 47 events convened by G-FISH

Increase in Fisheries Resources

- Flooded Forest Replanting
  - 9 hectares of replanting at Stung Sen River at Phat Sanday and Preah Kanlong
  - 12 educational sign posts
  - 18 concrete poles demarking conservations areas

Cambodia Stakeholders Speak

G-FISH Project Cambodia

- Community-level engagement and ownership is essential.
- Engaging the whole system including the government is important.
- Patrolling pilot was important to decreasing illegal fishing.
- Short time-frame made it less effective.
- Liasing with the media – training, radio programs, etc. was beneficial.
- Economic development and livelihoods should be a focus.
- Information and communication network was unique and valuable.
- Expand efforts to more communities.

Transition/Next Steps

- Transfer program activites and Task Forces to partners
- Distribute information gathered and provide evaluation reports
- Establish new opportunities to partner with government and new donors

Communications, Livelihoods, and Resource Conservation Taskforces

The Communities of Phat Sanday and Peam Bang

Coalition of Cambodian Fishers (CCF)

Community Capacities for Development (CCD)

Partners for Development (PFD)

Annex 3. Report to Global FISH Alliance: Survey of the coral reefs of Pemba Bay, July 2013

Authors: Nyawira Muthiga and Timothy McClanahan

In July 2013, a survey was undertaken of the coral reefs of Pemba bay. This report details the results of those surveys that were a component of the follow-up activities to provide technical input and guidance as part of the SOW for G-FISH. The objective of these surveys was to complete additional sites in Pemba bay especially in Londo peninsular a potential area for community protection as recommended in the previous surveys. Information collected during the surveys would serve to increase the baseline information of coral reefs in the Pemba bay and add to the overall data available for northern Mozambique and the western Indian Ocean. At each reef site data on the benthic substrate, bleaching susceptibility, finfish diversity and biomass and urchin density and biomass were collected using methods detailed in the report from the previous surveys (McClanahan & Muthiga 2012). During this field visit, surveys were undertaken at Finger, Londo (outside) and Tunnel (Fig. 1), between the 27th June to 3rd July 2013. The results are compared with the previous surveys in Pemba bay as well as averages for sites in the western Indian Ocean (WIO).

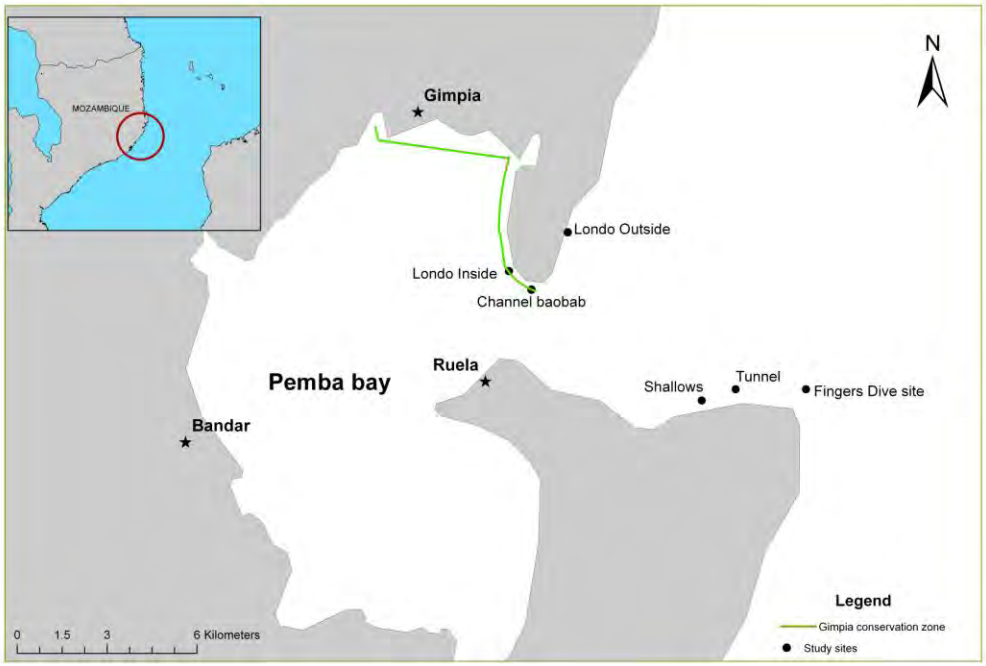


Figure. 1. Map of the ecological study sites and the proposed Gimpia conservation zone in Pemba Bay.

Results and discussion

Finfish communities

The diversity of finfish at the studied sites ranged from 28 to 49 species in 500m^2, an average of 40 species (Table 1) and varied with site and family. This average is marginally higher than the findings from previous surveys in Pemba bay (McClanahan & Muthiga 2012) and much higher than the average number of species reported for the fished sites in the WIO (28 species) and about the same as the number reported in closures (43.5) in the WIO. The reef at Tunnel 2 was the least diverse of the studied reefs and while Finger reef had the highest diversity (49 species) recorded so far in Pemba bay. This is still much lower than the highest diversity recorded in Mozambique in the Vamizi closure where 60 species were recorded (McClanahan & Muthiga 2011). The wrasses (Labridae), angelfishes (Pomacanthidae) and surgeonfishes (Acanthuridae) had the most species of the studies sites which is comparable to the findings from the previous surveys in the WIO.

Table 1. Number of species of fish families in 500m^2 belt transects

Families	Tunnel 1	Tunnel 2	Finger	Londo outside
Acanthuridae	5	3	6	3
Scaridae	1	2	4	2
Balistidae	2	1	1	1
Chaetodontidae	8	3	11	4
Pomacanthidae	3	3	3	4
Diodontidae	0	0	0	0
Labridae	13	10	10	11
Pomacentridae	8	6	12	13
Monacanthidae	3	0	2	2
Total	43	28	49	40

The density of finfish also varied between the sites and the families (Table 2). The Finger and Londo outside sites had the highest density of fish approximately three times higher than the Tunnel sites. Individuals of the Pomacentridae contributed between 59% and 84% of the density at each site especially *Chromis dimidiate* and C. *ternatensis* that together contributed 89 and 90% of the density at Londo outside and Finger (respectively), while *C. agilis* and *C. ternatensis* contributed 83% and 76% at Tunnel 1 and Tunnel 2 (respectively).

Table 2. The density of fish of the dominant families in 500m^2 belt transects

Families	Tunnel 1	Tunnel 2	Finger	Londo outside
Acanthuridae	39	23	72	36
Scaridae	2	4	16	2
Balistidae	5	3	4	3
Chaetodontidae	28	6	28	22
Pomacanthidae	13	7	16	10
Diodontidae	0	0	0	0
Labridae	26	26	31	51
Pomacentridae	171	157	672	718
Monacanthidae	4	0	3	10
Total	**288**	**226**	**842**	**852**

The biomass of finfish also varied with family and sites (Table 3). The Finger reef site had the highest biomass of finfish, which is not only the highest recorded for Pemba bay, it is comparable to the average biomass in closures in the WIO (1050 kg/ha). The biomass of finfish at the Finger reef site was also comparable to records of reefs further south in Malongane and Inhaca (~1100kg/ha) although this biomass was only 55% of the biomass recorded in Bazaruto (~1800 kg/ha). The lowest biomass was recorded at Tunnel 2 and this was lower than the average recorded for fished reefs in the WIO (314 kg/ha). The biomass of finfish was highest for the surgeonfishes (Acanthuridae), grunst (Haemulidae) and butterflyfishes (Pomacentride) that together contributed more than 40% of the total biomass at the studied sites. This was similar to the findings in the previous surveys in Pemba bay except for the high biomass of Haemulids at Finger that was almost 460% higher than the WIO average in closures.

Table 3. Biomass of the dominant finfish families in 500m^2 belt transects

Family	Tunnel 1	Tunnel 2	Finger	Londo outside
Acanthuridae	48.79	38.46	115.89	55.20
Aulostomidae	8.62	12.51	5.22	8.62
Balistidae	5.30	10.53	14.25	6.99
Carangidae	0	0	0	0
Chaetodontidae	41.76	14.83	57.38	29.67
Diodontidae	0	0	0	0
Fistularidae	0	0	0.63	0
Haemulidae	0	0	294.80	0
Holocentridae	10.17	0	64.30	14.70
Labridae	55.63	60.42	51.89	62.18
Lethrinidae	0	0	0	0
Lutjanidae	5.68	0	17.04	5.68
Mullidae	2.20	2.20	4.40	2.20
Muraenidae	0	0	0	0
Pempheridae	0	0	0	0
Penguipedidae	0	0	0.68	3.54
Pomacanthidae	20.83	17.25	20.32	25.87
Pomacentridae	30.63	28.12	120.38	134.13
Scaridae	20.91	4.31	75.70	2.87
Scorpaenidae	0	0	0	0
Serranidae	0	20.02	3.21	0
Siganidae	0	0	0	0
Sphyraenidae	0	0	0	0
Others	169.66	4.98	147.5	11.62
Total	**420.19**	**213.63**	**993.58**	**363.18**

Sea urchin density and diversity

Urchin surveys were conducted at Finger and Londo outside. There were no urchins recorded during the survey at Finger, while small numbers of two species the small bodied *Echinostrephus molaris* and the large bodied *Echinothrix diadema* were recorded at Londo

outside. The biomass of *E. molaris* was very low >1kg/ha while that of *E. diadema* was 385.6kg/ha, marginally lower than that recorded at Londo in the previous surveys.

Corals and benthic substrate

Hard coral cover dominated the benthic substrate contributing more than two thirds of the benthos at all the sites (Table 4). There was little variability in the benthic substrate measured between the reefs except for soft coral cover that was half the cover at the sites at Finger and Londo outside. Hard coral cover was relatively high averaging 66% and was highest at Tunnel, the reef with the lowest biomass of finfish. Hard coral cover was more than twice the average cover of reefs in the WIO. The diversity of corals measured as the number of genera was also relatively high averaging 35 genera that was significantly higher than the WIO average of 20 genera but lower than for reefs around Malongane (45 genera) and Vamizi Is. (43 genera). There was very little bleaching and the bleaching index was low at all the sites. The site susceptibility, a measure of the resilience of sites to bleaching was higher than the estimates for sites in the WIO except for the Tunnel reef.

Table 4. The average benthic cover variables (STD in brackets) at the studied reefs and the average western Indian Ocean (WIO) estimates based on 365 surveys.

Estimates	Finger	Londo (outside)	Tunnel	*WIO region
Bleaching index	0.43	0.27	0.35	7.25 (12.6)
Site susceptibility	18.48	16.19	14.47	16.8 (2.3)
Coral richness (genera)	37	37	33	19.9 (5.4)
% Hard coral	65.0 (8.6)	64.3 (10.4)	70.4 (8.4)	31.2 (16.3)
% Erect algae	12.1 (9.8)	13.6 (8.6)	12.7 (8.7)	11.0 (12.9)
% Soft coral	17.1 (8.9)	13.6 (10.3)	6.06 (1.5)	11.7 (14.4)

* Source Coral Reef Conservation Project database

The results of the surveys reinforce the findings from the previous surveys that the reefs of Pemba bay have high biodiversity and biomass of fish and hard coral cover measures that are comparable or higher than for protected areas in the WIO. However, governance by the CCPs and the national management authorities is a serious issue that needs to be addressed for the sustainability of the fisheries and biodiversity of Pemba Bay.

References

McClanahan T, Muthiga N 2012. Environmental and resource survey of Pemba marine environment. Report to Global FISH Alliance 35pp

McClanahan T, Muthiga N 2011 Climate Change Priority Assessment of the Northern Islands of Mozambique: Vamizi Trip Report 7pp

Boletim Informativo

No. 11 Abril 2013

Iniciativa Local para o DESENVOLVIMENTO DA PESCA SUSTENTÁVEL na Baía de Pemba

Aumento da consciência ambiental nas comunidades

O Comité de Conservação do Grupo da "Iniciativa Local" tem-se reunido de forma quinzenal, onde os membros se encontram para debater assuntos relacionados com a sustentabilidade da actividade pesqueira nas comunidades. Dentro do seu programa de reuniões participativas, a 07 de Março, o IDPPE (Instituto para o Desenvolvimento da Pesca de Pequena Escala) esteve presente, juntamente com os líderes comunitários do Paquitequete e membros dos CCP de Ruela e de Jímpia, para abordar o papel dos "Conselhos Comunitários de Pesca" na comunidade. Os líderes comunitários mostraram-se preocupados com a actual prestação do CCP de Ruela, mencionando que "a comunidade não está a sentir a sua presença". Dizem ser necessário que o CCP de Ruela realize a Assembleia Geral, prevista nos seus estatutos, para apresentação do plano de actividades e de contas, assim como, deve considerar a convocação de novas eleições.

Deste encontro saiu a decisão de se promoverem encontros na comunidade com a participação dos seus líderes, o IDPPE, os membros do CCP, pescadores e a comunidade, em geral, com o objectivo de difundir informação, explanação do papel do CCP e fomentar o diálogo entre todos os participantes. A finalizar a reunião, todos concordaram que a resolução da problemática do uso insustentável de artes de pesca dentro da comunidade só poderá ser resolvido se os seus membros estiverem coesos e unidos na mesma decisão – banirem as artes e práticas nocivas!

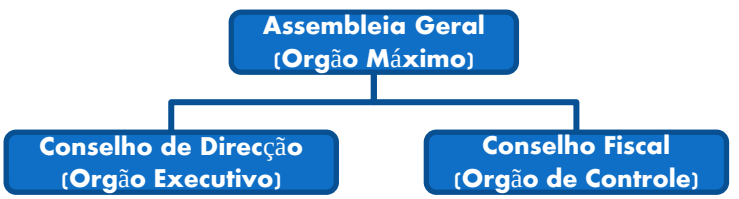
Vamos Falar!

A importância do Associativismo para as comunidades (parte I)

As primeira associações, em Moçambique, foram as dos "Engraxadores de Sapatos" e a dos "Cantineiros", na década de 60. Na comunidade, o associativismo visa unir um conjunto de pessoas, organizadas em torno de uma actividade, com o objectivo de a potenciar e aumentar os rendimentos familiares dos seus membros.

Unidos em Associação, os seus membros ficam melhor protegidos e representados, uma vez que, pertencem a um organismo estruturado, identificado e com maior credibilidade para aceder a apoio técnico-financeiro por parte de outras instituições. O corpo dirigente da Associação deve gerir os recursos humanos e financeiros de forma a cumprir o plano de actividades a que se propôs.

Organigrama de uma Associação – Tipo:



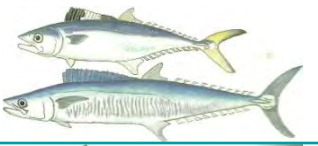
Guia do consumidor

O tamanho do peixe que compramos dá-nos uma indicação do seu estágio de vida e se já é adulto. Considere alguns exemplos de peixes comerciais e não compre peixe juvenil:

Bonito: Adulto 45cm - 1m (quando jovens têm riscas verticais)

Albacore: Adulto 90cm (3-5 anos)

Atum de barbatana amarela: Adulto 1m (2anos)



Peixe-serra: Adulto 1m (2 anos)

Marlin Preto: Adulto, macho, 50/80Kg; fêmea, aprox. 200Kg

Garoupa de Coral: Adulto 25cm

Imperador: Adulto 60-70cm (4-6 anos)

***In* "Coastal Fishes of Southern Africa"; Heemstra&Heemstra**

Mercado Informal de peixe - Paquitequete

Agenda de Abril:

✓Encontros na Comunidade:

- ✓- Os CCP dentro da comunidade
- ✓- Actividades alternativas & Associativismo

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Boletim Informativo

No. 12 Maio 2013

Iniciativa Local para o DESENVOLVIMENTO DA PESCA SUSTENTÁVEL na Baía de Pemba

Mexilhão, fonte de alimento e rendimento - Maringanha

O Grupo da " Iniciativa Local ", em encontro conjunto com o IDPPE (Instituto para o Desenvolvimento da Pesca de Pequena Escala) e o Grupo "Nova Vida", sedeado no bairro da Maringanha, abordaram o impacto que a apanha do mexilhão tem para a economia da comunidade e para o próprio ecossistema. As senhoras presentes manifestaram a sua preocupação pela actual sobrepesca deste bivalve, do qual dependem para assegurar parte da sua dieta alimentar e equilibrar o orçamento familiar. O problema identificado:

- ***Aumento do numero de pescadores provenientes de outros bairros, como Gingone, e o não cumprimento da tradição local de respeitar determinados tempos de defeso***

O solo da Maringanha não é propício à agricultura e as senhoras dedicam-se à apanha do mexilhão que, também, vendem ao copo nos mercados locais ou em troca directa por mandioca, em terras do interior. Segundo palavras da dirigente deste grupo, Sra. Wathana, são muitas as forasteiras que praticam a recolha deste bivalve sem fazer uma pré-selecção nem respeitar o seu estado de maturação. Na Maringanha, as mulheres repartem o seu tempo entre a pesca de peixe-miúdo e a do mexilhão. Estas senhoras querem que se estabeleçam regras para a gestão da pesca do mexilhão e, inclusivé, mostram-se dispostas a encontrar actividades alternativas e reduzir a utilização das redes mosquiteiras para permitir alongar o tempo de repouso do mar.

Vamos Falar!

A importância do Associativismo para as comunidades (parte II)

Os Conselhos Comunitários de Pesca (CCP) são associações de base comunitária que têm a tarefa de contribuir na gestão participativa das pescarias, de garantir o cumprimento das medidas de gestão vigentes, de gerir os conflitos resultantes da actividade da pesca, tendo em vista a sustentabilidade das actividades na sua àrea geográfica e a melhoria das condições de vida da população local.

(in Estatutos do CCP de Ruela*)*

Os membros do CCP podem agrupar-se em:

- **Membros Fundadores** - Subscrevem os estatutos da associação
- **Membros Efectivos** - Após constituição do CCP, tornam-se membros
- **Membros Conselheiros** - Membros, ou não, que pelas suas qualidades são reconhecidos como tal
- **Membros Honorários** – Membros, ou não, que tenham contribuído para o desenvolvimento do CCP
- **Membros Beneméritos** – Membros, ou não, que contribuíram em bens ou serviços para concretizar objectivos do CCP

Guia do consumidor

A existência de mexilhão na Maringanha é pouco conhecida, assim como, algumas das suas características e o potencial de negócio através do cultivo com técnicas de maricultura. O mexilhão é um molusco (animal sem estrutura óssea), bivalve (com 2 conchas) e de elevado valor nutricional em proteínas (fundamental para o crescimento, desenvolvimento e manutenção celular).

Características:
- Sexos Separados e fecundação externa
- 24 horas após fertilização desenvolve uma concha
- 1 mês, depois, possui a aparência adulta
- Atinge a maturidade em 12 meses, dependendo da espécie
- São organismos filtradores - alimentam-se de material orgânico da água que os rodeia
- Um indivíduo adulto pode filtrar 100L/dia de àgua
- Gastronomicamente, compõem pratos suculentos

O mexilhão tem um óptimo potencial para cultivo em maricultura, com investimentos relativamente baixos (cordas, redes de pesca, bambu, flutuadores e outros materiais locais). Em climas tropicais podem reproduzir-se durante todo o ano.

(*In* "Cultivo de Mexilhão" – BMLK)

Cultivo de mexilhão no mar

Mulheres-pescador de Mexilhão - Maringanha

Agenda de Maio:

✓Encontros com as Comunidades:
- ✓- Gímpia
- ✓- Maringanha

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Boletim Informativo

No. 13 Setembro 2013

Iniciativa Local para o DESENVOLVIMENTO DA PESCA SUSTENTÁVEL na Baía de Pemba

Conflito Pescadores / Operadores Turísticos - Londo

A zona do Londo, do outro lado da baía de Pemba, é considerada por muitos cientistas como rica em diversidade de corais, comparativamente a outros locais similares do Oceano Índico Ocidental. Recentemente, começa a mostrar indícios de destruição, á medida que dois interesses entram em choque:

- o pescador quer pescar para a sua sobrevivência
- o operador pretende preservar uma riqueza única, de valor ecológico e turístico

Dia após dia, o operador move as redes de emalhar para fora da área de coral; percebendo esta acção como desafio, o pescador volta a colocar as longas e extensas redes no mesmo local, justificando-se por ser local de passagem de atum. A Direcção Provincial das Pescas convocou os pescadores,os CCPs de Ruela, Gímpia e Bandar, a Iniciativa Local, a Administração Marítima e o Operador Turístico para discutir a situação e encontrar soluções. Deste encontro ficou claro que *não se pode pescar em cima dos corais*. No entanto, a fiscalização esporádica, aliada ao incumprimento da lei por parte dos pescadores, promete arrastar este diferendo, transformando-o numa ameaça imediata a uma importante àrea de corais.

Vamos Falar!

A importância do Associativismo para as comunidades (parte III)

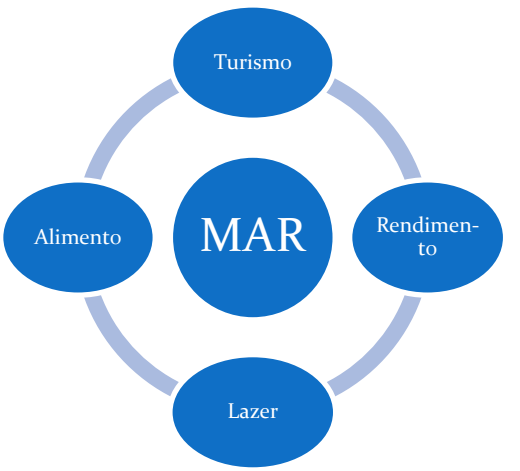
As associações têm de ser bem estruturadas para poderem ser bem sucedidas. Os órgãos Sociais devem garantir a boa execução dos planos de actividade, dentro de uma gestão transparente e eficiente. A compreensão do papel e responsabilidade de cada um deles é a base para o bom desempenho da sua função:

Orgão	Função	Descrição
Assembleia – Geral (Orgão Máximo)	Normativa e Deliberativa	•É representada pela Mesa da AG • 1 Presidente, 1 Vice-presidente, vogais, etc.
Conselho de Direcção (Orgão Executivo)	Executa as políticas da associação	• Eleito pela AG • Subordina-se á AG • 1 Presidente, 1 Vice-presidente, 1 Secretário, 1 tesoureiro, etc.
Conselho Fiscal (Orgão de Controle)	Fiscal	•Fiscaliza a implementação das políticas da associação • 1 Presidente, 1 Vice-presidente e 1 Secretário

Estrutura- tipo de uma associação

"Iniciativa Local" termina o seu projecto

A 30 de Setembro do corrente ano, termina o projecto da "Iniciativa Local" que, durante 2 anos, se empenhou em promover o desenvolvimento da pesca sustentável na baía de Pemba com o objectivo de melhorar as condições de vida das comunidades costeiras. No final, fica a noção de que só poderá haver mudança de comportamentos se todos trabalharmos em conjunto, uma vez que, o mar é um bem público e todos somos responsáveis pela sua conservação.



Os membros do Comité de Conservação, em avaliação ao projecto, consideraram de bastante positivo o trabalho efectuado pela "Iniciativa Local" mas que ainda seria cedo para se terminar com as actividades. Neste contexto e por unanimidade, decidiram unir-se em associação , registada e reconhecida, e dar continuidade ao legado deixado pela "Iniciativa Local".

Actividades com Crianças do Paquitequete

Agenda de Setembro:

- ✓Actividades de encerramento do projecto
- ✓Actividades de registo da nova associação

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SUSTAINABLE FISHERIES IN TONLE SAP LAKE

Volume 1, Issue 5 **April 30, 2013**

GLOBAL FISH ALLIANCE

Content:

- Speaker Series – Conservation Areas and Fisheries Law
- Devoting Life to Protecting Natural Resources
- Taskforce Reconvening
- Sustainable Fisheries Radio Discussion May 2013

Speaker Series – Conservation Areas and Fisheries Law

In cooperation with: Fisheries Administration (FiA), community fisheries, local authorities, the community committee, Ministry of Environment (MoE), Fisheries Action Coalition Taskforce (FACT), and local villagers, G-FISH facilitated a Speaker Series event at Path Sanday, Kampong Thom Province.

The purpose of the Speaker Series was to share information about flooded forest conservation and fishery law. G-FISH invited an expert from FiA to speak to participants about flooded forest conservation, current fishery laws, and to give advice. It is hoped that by disseminating this information participants will be discouraged from destroying flooded forest areas during dry season rice farming, and prevent illegal fishing activities in the Path Sanday commune area.

Currently there are problems with the understanding of fisheries law, the legal use of fishing gear, and destruction of conservation areas at Steng Sen where dry season rice farming is undertaken.

Mr. You Chanpraseth, Vice Director Department of Fishery Conservation at FiA, gave a presentation about the benefits of flooded forests and what happens when we cut down flooded forest areas. "We should protect the flooded forest together to ensure we keep this fishery resource." Mr.You Chanpraseth.

Mr. Pen Saveng, local FiA officer, gave a presentation about fishery laws and the kind of fishing gear allowed for family fishing use.

Participants were happy at the end of the Speaker Series event and hope that this opportunity will be available at Path Sanday again in the future.

For further details, contact: Mrs. NOU Vannsan , Communications and Networking Facilitator-G-FISH.

Devoting Life to Protecting Natural Resources

Mr. Long Sochet, CCF Leader

Sitting in a meeting room to discuss sustainable fisheries on the Tonle Sap Lake, Mr. Long Sochet, Coalition of Cambodia Fishers (CCF), shares about his life and how he become a leader of CCF.

Since being married, Mr. Sochet 's life has changed a lot. He moved to live with his wife on the Tonle Sap Lake in 1981. Once there, he became a teacher at the local primary school. He said "I was living on a small boat with my wife. We were very poor and my salary was not enough for us to save."

Mr. Sochet and his wife decided to open their first grocery shop and fish. Because he did not possess a fishing background, it was initially hard for him to fish. He did not know how to fish and where the best places were to fish. As days went on Mr Socheat was able to learn to fish from his neighbor.

Many years passed; during this time there was a conflict between the owner of the fishing lot with fishers and villagers. When the fishing lot owner took over their allocated fishing lot area villagers and fishers who had lived in the area located within the fishing lot were forced to move to other places as the lot owner did not want them residing within. Mr. Sochet was one of the victims of this conflict, he stood up to advocate for the place where the villagers and fishers lived and earned their living. The villagers and fishers saw how active he was and voted him as their representative.

Initially, as a community representative in Rangtil Village, Pursat Province, Mr. Sochet did not know what natural resources were and what he needed to do to protect his village. Within the position he was able to participate in training related to rights and environment and these skills progressed. Over time he realized that natural resources are really important for his family and for other people in Cambodia.

Besides helping his wife and children with their own enterprises, Mr. Sochet spends his time learning from others and participates in many activities. He said, "The more I am involved in the program, the more I learn how important the environment is." He adds, "I realize that by working to protect our environment and fisheries, our villagers and fishers' livelihoods are also going to get better."

With over ten years' experience working with community fisheries, Mr. Sochet, with consultant fisheries, NGO,s and old people in the communities, has built a substantial fisheries network on the Tonle Sap Lake. After discussing and joining many meetings, this fisheries network has expanded their team to encompass coastal areas and the Mekong River. In 2005 the Coalition of Cambodia Fishers was successfully established.

In order for CCF to continue to build and strengthen, and to be able to work to help fishers and villagers, Mr. Sochet and his members are working hard to build their capacity. They learn how to adapt to modern technology; Mr Sochet is learning to type on a computer and is using his computer skills to connect with other fisheries networks throughout the world.

"I am committed; I will spend my time with my team working to protect our natural resources for our people." Mr. Sochet says.

For further details, contact: Mr. Long Sochet, CCF Leader.

"The more I am involved in the program, the more I learn how important the environment is. " Mr. Long Sochet Says

CCF showing their work to participants at a workshop

Taskforce Reconvening

Taskforces were established during a Whole System in the Room event in 2011. A reconvening of the current taskforces (Communications, Resource Conservation, and Livelihoods) organized by G-FISH, took place on 26 February 2013 to bring these fisheries stakeholders together to share their work activities and discuss the current situation on the Tonle Sap Lake. Individual members provided an update on their work activities and their achievements to date. The participants that are involved in the taskforces include government, NGOs, development partners, and community members.

Re-planting flooded forest areas, patrolling, improving livelihoods, and building the capacity of community fisheries and villagers are the main priorities for the stakeholder groups.

During the meeting participants discussed fisheries issues that have been occurring on the lake and finding solutions for individual stakeholders to contribute to.

During the meeting most of the Taskforce members were also concerned about illegal fishing on the lake. They raised the most common issues that have been occurring on the lake:

Task Force meeting, 26 February 2013

1. The use of illegal fishing gear -- arrow-shaped traps with pens (NOR RAV), machine fishing nets, mosquito fishing nets, and Uy (U).
2. Unlawful requests from CFi members and FiA staff.
3. Illegal activities being conducted with disregard of authorities and laws.
4. Cutting and burning of flooded forest areas. Pumping water from the lake.
5. No budget for Authorities to implement activities in the field such as patrolling.

Following is what the Taskforce members have identified as what they can do to solve these problems:

1. Identify cases and collect information related to illegal activities i.e. fishing techniques.
2. Identify the places where illegal activities are frequently occurring.
3. Compile a report regarding illegal activities on the Tonle Sap Lake and send this to the relevant FiA officer for each case.
4. Identify ways to strengthen law enforcement.

For further details, contact: Mrs. NOU Vannsan , Communications and Networking Facilitator-G-FISH.

CCF present their work activities.

We should protect the flooded forest together to ensure we keep this fishery resource." Mr.You Chan Brosith, Vice Director Department of Fisheries Conservation.

Mr. Kong Sa Oum, HOM Adviser, presents HOM activities and achievements during the Task Force Meeting.

Sustainable Fisheries Radio Discussion May 2013

Sustainable Fisheries Radio Discussion broadcast every Saturday from 8:00-9:00 am on VAYOFM105.5MHz

FiA and CCF on the show at VAYOF-M105.5MHz to discuss Fisheries Reform.

In collaboration with the Communications Task-force, the radio program, "Sustainable Fisheries Radio Discussion", was developed to share fisheries collaboration work on the Tonle Sap Lake and raise awareness of fisheries issues to the public. It provides regular up to date information about the activities of fisheries stakeholders on the Tonle Sap Lake.

Following is the May program:

4 May: **'Patrolling Community Fisheries (CFi)'**

Expert speakers will discuss how CFi are working on patrolling. Speakers from Fisheries Administration, Community, and NGOs will share how patrolling work is helping to protect the natural resources of the Tonle Sap Lake.

11 May: Re-broadcast of 'Patrolling Community Fisheries

18 May: '**What aquatic resources are in the Tonle Sap Lake'**

Expert speakers will discuss species that live in the lake and how important these species are to biodiversity and sustainable fisheries. They will provide information about how to contribute to protecting and improving natural resources. A representative from the Royal University of Agriculture will share information about their studies and expertise.

25 May: Re-broadcast of 'What aquatic resources are in the Tonle Sap Lake'

Tune in to our program on VAYO FM105.5 (Phnom Penh, Kampong Chhnang) and 88 MHz

(Pursat, Battambang, Siem Reap and Kampong Thom Province) from 8:00am to 9:00am Saturday mornings.

For further details, contact: Mrs. NOU Vannsan , Communications and Networking Facilitator-G-FISH.

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SUSTAINABLE FISHERIES IN TONLE SAP LAKE

Volume 1, Issue 6 **May 31, 2013**

GLOBAL FISH ALLIANCE

Content:

- Community Patrolling Saving Groups
- Fisher Catch Monitoring in the Tonle Sap Lake
- PNKA - Community Development and Natural Resource Conservation
- JICA Aquaculture Project

Community Patrolling Saving Groups

After receiving support from Phnom Neang Kongrei Association (PNKA), a community in Kampong Tralach Luer is able to put money aside for community patrolling. Mr. PEN Saveth, Kampong Tralach Luer Fisheries Community Leader says, "Since the PNKA provided support to our community, we have been able to stand up by ourselves. We can now put money aside for our patrolling activities which allows us to protect the natural resources in our community."

Almost seven years ago the Kampong Tralach Luer Community formed a group called "Savings Group" which established a budget for supporting capacity building and food security. This group was supported by financial input from PNKA to keep as capital for their community. The community has invested this money in an account with a two percent interest rate.

Kampong Tralach Luer Community receives financial contributions to the fund from fishers who conduct fishing activities in their area. In addition, each employed villager in this community contributes 500 Riel per month towards protecting the natural resources in their area.

Once a month, community members meet to discuss how the money should be used. Money is used for community patrolling, improving community livelihoods, assisting the community elders, and supporting their neighbors if necessary.

Mr. Ouk Samet, PNKA Executive Director says, "I do appreciate the work the Kampong Tralach Luer Community do. They are strong and able to stand by themselves." PNKA continue to monitor and support the Kampong Tralach Luer Community in order to ensure their valuable work continues to flow well.

"I have noticed there are areas near my community which are empty of trees while my community still has them." Mr. Saveth says. The Kampong Tralach Luer community is strong and working together to protect their natural resources for their family income and for the next generation. He says, "Without support from PNKA and local authorities, my community would not be as successful as we are today." Mr Saveth and his community members extend their gratitude and thanks to PNKA and the local authority in their community who have always supported them in their activities.

For further details, contact: Mr. PEN Saveth, Kampong Tralach Luer Fisheries Community Leader.

Fisher Catch Monitoring in the Tonle Sap Lake

Activity of fishers recording fish catch into logbook

Tonle Sap Lake is the biggest freshwater lake in South East Asia. It is a natural reservoir and important for fish habitats and sustaining livelihoods for millions especially those living around the lake. Fisheries resources are an important livelihood option, especially for people living in provinces around the Tonle Sap Lake.

To sustain the fisheries resources, the Royal Government of Cambodia issued a new regulation on disciplinary measures to reduce illegal fishing activities in the six provinces around the Tonle Sap Lake in May 2011. All fishing lots operated in the provinces around the Tonle Sap Lake were revoked and measures have been taken to allow these areas to be co-managed by concerned institutions and local communities in order to conserve fish and biodiversity resources in Cambodia.

The Tonle Sap Authority (T.S.A), funded by the Mekong River Commission (MRC), developed a Fisher Catch Monitoring Survey to study the catch rates around the lake. The objective of the project is to determine fisheries yield indicators related to fish catches, abundance and diversity of fish species, and the trends of fisheries resources in the provinces. This study is a part of routine capture fisheries monitoring in the Lower Mekong Basin. The data collected during the study contributes to the interpretation of the status and trend of basin-wide capture fisheries as well as providing more effective means of monitoring and assessing the effects of management activities and basin developments.

The Fisher Catch Monitoring is conducted in five provinces around Tonle Sap Lake - Kampong Chhnang, Pursat, Kampong Thom, Battambang and Siem Reap.

After monitoring, the results have shown that the total catch by 15 fishers for the period of eleven months was 66,836 kilograms (kg); 99 different fish species were identified in the catch records. Geographically, the total catch fluctuated widely, but was dominated by Battambang Province which represented 27% of total data recorded; followed by Kampong Thom which represented 26% of total data recorded, the smallest data collection, at 10% was from Siem Reap Province. Key main species reported in the catch were *Puntioplites proctozysron* (Chrakaing), 10%; *Henicorhynchus siamensis* (Trey Riel Tob), 9%; and *Osteochilus hasselti* (Trey Kros) 7%.

The average fish catch around the Tonle Sap Lake collected from the five monitoring sites was 14 kg per day. Daily fish catch with horizontal cylinder traps (Lop) was also reported from June to November. The average catch for the horizontal cylinder traps was 6.65 kg per day. Gill nets indiscriminately caught most of the species and amounted to 98% of the total catch, while horizontal cylinder traps caught the least (2%).

Fisher catch monitoring in the Tonle Sap Lake is important in order to establish baseline data and information which is necessary to help understand the current trends of catch rates by fishers.

(Sea, P. 2013. Report on Fisher Catch Monitoring in the Provinces around Tonle Sap Lake, Cambodia)

For further details, contact: Mr. PHEM Sea, Deputy Director of Exploitation Control and Conservation Department, Tonle Sap Authority, Ministry of Water Resources and Meteorology.

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Community Development and Natural Resource Conservation

Phnom Neang Kongrei Association (PNKA) is a non-government organization, non-political party. PNKA was established in the 1993 and registered with the Ministry of Interior in March 1994. The current Executive Director, Mr. Ouk Samet, has been with PNKA since 2003.

The purpose of establishing an Association was to improve the education of children in Cambodia, focusing on assisting with access to schooling; and to organize a library and a boarding school for girls who live in remote country-side areas so they can gain access to high school education.

PNKAs Strategic Directions for 2013-2015 include: working in poor rural communities to assist children of poor families to access basic education; primary health care with a focus on water sanitation and hygiene (WASH), nutrition and reducing child mortality; Natural Resource Management (NRM) including Community Forestry and Fishery (CFF); promoting participation in good governance; and strengthening capacity and fundraising development to generate sustainable income sources.

PNKA have received funding support from a number of donors including Australian Catholic Relief, Concern Worldwide, International Relief and Development (IRD), Live and Learn Environmental Education, People In Need (PIN), Cambodian Civil Society Partnership (CCSP) and Volunteer Service Overseas (VSO).

Volunteer team visited Community members

As a result, PNKA has achieved the following outputs:

1. The target groups have received knowledge and skills related to poultry raising, home-gardening, and vegetable growing.

2. The target groups have developed business planning and family economic planning skills.

3. The target groups have knowledge about the transition of market prices and they have an understanding of the requirements of production for markets.

4. Village Committee Association (VCA) of rice banks has developed the knowledge to manage a rice bank project. The members of the rice bank project have borrowed and repaid 95% to 100% during each year.

5. The target groups have established a system for allocation of livestock. For example when a cow has calved the family retains the calf and the cow is moved on to another family. Farmers have also been shown how to make compost from animal and organic waste.

6. The Village Committee Association (VCA) of the financial bank have the capital to provide loans to its members for their businesses and agricultural production

7. The VCA of health have systems in place to assist ill and injured members to access public health treatment.

8. The VCA for social compassion provide financial assistance to elders and children. This fund is also available to support funeral ceremonies.

For further details, contact: Mrs. Uk Sameth , PNKA Director.

ទ្រនាយ VAYO FM

KHMER INTERNATIONAL RADIO

Sustainable Fisheries Radio Discussion broadcast every Saturday from 8:00-9:00 am on VAYOFM105.5MHz

"I have noticed there are areas near my community which are empty of trees while my community still has them." PEN Saveth, Kampong Tralach Luer Fisheries Community Leader talking about Community Patrolling

JICA Aquaculture Project

JICA (Japan International Cooperation Agency) have been supporting an aquaculture project in Siem Reap Province since the end of 2011 to help increase productivity and the implementation of freshwater aquaculture.

JICA previously conducted this project in Kampot and Kampong Som Provinces before conducting activities at Battambang, Siem Reap, and Pursat Provinces.

JICA provides training to 11 family farmers in the techniques for fish production, fish raising, and pond selection for family aquaculture. The project is run at Chi Kreng, Soth Ni Kom, Ba Korng, Pouk, Angkor Chhum, Angkor Thom, Va Rin, and Bonteay Srey districts.

FiA facilitates the training to teach famers how to produce and feed fish and encourage them teach other famers at their villages how to produce and raise fish also. The farmers have created a network of participants who produce small fish in their provinces and they share knowledge and experience to assist each other.

FiA anticipate that this project with have a positive result so that JICA will continue this kind of activity in the future.

For further details, contact: Mr. PREN Savin, FiA Provincial Officer, Kampong Thom Province.

Sustainable fisheries Radio Discussion June 2013:

June 1, 2013: ***Why and how closed season is important for fisheries breeding, feeding and migration.***

The speakers from Government and the NGO sector will come to share information related to closed season and why we have a closed season.

June 15, 2013: ***Community Fisheries Saving Group***

Speakers from the community and the NGO sector will share their experience working with communities to establish "Saving Groups". They will also share how Saving Groups are working to protect natural resources and improve livelihoods in their communities.

June 29, 2013: ***Who are the relevant government officials for the Tonle Sap Lake.***

Speakers from Government and the NGO sector will discuss who the relevant government officials are who work on the lake, and their duties and responsibilities to protect, improve and enhance the natural resources of the Tonle Sap Lake.

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GLOBAL FISH ALLIANCE

SUSTAINABLE FISHERIES IN TONLE SAP LAKE

Volume 1, Issue 7 **June 30, 2013**

GLOBAL FISH ALLIANCE

Content:

- Community Fisheries Workshop Showing a Successful Conservation Lake
- National Fisheries Conference
- UNIDO Project for Better Quality and Safety of Fish and Fishery Products
- Speaker Series– Fishing Gears and Fisheries Law

Community Fisheries Workshop Showing a Successful Conservation Lake

Battambang--Community Fisheries (CFi) in Battambang with support from Village Support Group (VSG), a non-profit and non-governmental organization, established a workshop which gave fishers the opportunity to meet with Provincial FiA and the Governor of Battambang. It also allowed government, organizations, and fishers the opportunity to visit the Rang Te Bei Tor Lake and plant trees.

The workshop aimed to show fishers, government and NGOs the importance of natural resources, and solidarity between community members, villagers, NGOs and government. CFi in Battambang requested the contribution and support of villagers, fishers, NGOs and government in protecting natural resource.

There were approximately 200 participants at the event, including H.E. CHEAM Chan Sophorn, Deputy Governor of Battambang Province. H.E. Governor advised villagers during the workshop that natural resources are very important for people. He said that the Royal Government of Cambodia is paying more attention to the protection of natural resources and that they care about people's livelihoods.

Since 2007, Rang Pen Bei Tor Lake has been kept as a Conservation Lake controlled by Rohal Soung Community Fisheries. This conservation area is 1390 hectares of which 80 hectares is flooded forest area.

With funding from the Asia Development Bank, OXFAM, and ForumSyd through VSG; and with contributions from villagers and communities, CFi in Battambang Province conduct patrolling activities and coordinate social activities. One such activity was to re-construct the road from the village to the conservation lake to help people in the community.

Mr. HOR Sam Ath, Deputy of CFi in Rohal Soung Commune said "We do hope this workshop is able to show other communities, villagers, fishers, government, and NGOs our achievements and the natural resources that we are working really hard to protect." He continues, "We do it because we are thinking about how everyone can benefit. During the rainy season the fish will move to the river and rice fields for people to fish and flooded forest will reduce some of the adverse effects associated with climate change."

For further details, contact: Mr. HOR Sam Ath, Deputy CFi Sdey Kroum Rohal Soung .

National Fisheries Conference

Banteay Mean Chey – The National Conference on the "Progress of Community-based Fisheries Management After Fundamental Fisheries Reform and Future steps", organized and funded by Forum Syd, McKnight Foundation, European Union, FiA, FACT, CCF, IUCN and G-FISH, was conducted on 30 May 2013 in Phneah Koh Pong Sat Community Fisheries, Banteay Mean Chey province.

H.E.Dr. NAO Thouk and Mr. OM Savath at the National Fisheries Conference

The objectives of the conference were:

- To understand the progress communities have made and the challenges they have faced in the area of fisheries resource management after the fundamental fisheries sector reform;
- To offer opportunities to community fisheries representatives, civil societies and other stakeholders, share lessons learned, determine needs, and propose recommendations that address the challenges communities face, and to strengthen empowerment and ownership in an effective and sustainable manner in fisheries management which the government has delegated to them;
- To strengthen even stronger collaboration and support from stakeholders, to allow the process of community fisheries management throughout the country to contribute to making the implementation of the Government's fisheries sector reforms a success.

H.E. Nao Thouk, FiA Director, said, "The purpose of doing this conference in this community is to show donors and all fisheries stakeholders the achievements that FiA, NGO, and communities have accomplished in this area."

With short remarks from H.E Nao Thouk and Mr. OM Savath, participants from each community fisheries gave presentations about their activities, achievements and challenges to the participants, donors, partners, and government.

At the conclusion of each community fisheries presentation, a question and answer session was run to allow participants the opportunity to ask the presenter questions about their presentation. During this time, H.E. Nao Thouk said, "FiA is happy to see the achievements that community fisheries have made so far. FiA is happy to give more conservation areas to communities and NGOs to protect if they would like." He continued, "We are working to protect our natural resources together."

After H.E Nao Thouk reported the results of workshop, H.E. Dr. Yim Chhay Ly, Deputy Prime Minister and Chairman of the Council for Agricultural and Rural Development (CARD) expressed his appreciation for the topics that were discussed. During his visit, H.E YIM Chhay Ly was able to visit a conservation lake, view a photos exhibition of CCF and Cfi activities, and give certificates to outstanding community fisheries members.

For further details, contact: Mrs. NOU Vannsan, Communications and Networking Facilitator, G-FISH.

UNIDO Project for Better Quality and Safety of Fish and Fishery Products

The Project, Better quality and safety of fish and fishery products for improving fish trade development in Cambodia is funded by a multi donor trust fund including EU, DANIDA, and others and implemented by the Cambodian Ministry of Commerce.

The project is aimed to enhance Cambodia's fish trade through improved capacity and strengthened capability of those engaged in the post-harvest fisheries sector for better quality and value of fish and fishery products and increasing access to domestic, and later on, the international market.

UNIDO is contracted to work with the Fisheries Administration (FiA) – Department of Fisheries Post Harvest Technologies and Quality Control in Kampong Thom and Pursat where there is a large number of processing businesses currently established. The processing areas the project will focus on are dried fish, smoked fish, and fish paste.

The project will include five outputs:

1. Output 1 is for current quality at safety issues in the post-harvest fisheries to be assessed. This will involve a review of fish processing, handling, and storage practices; conducting a food safety risk assessment; and proposing changes to allow for better quality and safety improvement.

Smoked Fish

2. Output 2 is to increase awareness of fishers, fish processors, and traders on quality and safety assurance and standardization. This will include an assessment of training needs; designing necessary training curriculums, implementing an awareness raising campaign; and assessing the current levels of awareness.

3. Output 3 is for fish cooperative associations to be established. To achieve this potential areas and targets groups to establish cooperative associations will be identified; assisting with the setting up of regulations for established cooperative associations by adopting more participatory and consultative decision making; and assisting with developing internal quality control and management based on national and international requirements.

4. Output 4 is for provision of necessary technical guidelines and standards, and appropriate technologies to support the fish cooperative associations. To accomplish this, guidelines on Good Aquaculture Practices GAP, Good Hygiene Practice (GHP), Good Management Practice (GMP), Hazard Analysis and Critical Control Point HACCP, product standards, and traceability recording system will be developed; appropriate technologies for better value addition and market supply chain will be identified and introduced; and assistance will be provided for the implementation of the guidelines and technologies adaption.

5. Output 5 is to conduct a pilot intervention for better quality and safety. This will be achieved by identifying products and feasibility; providing basic equipment to support the activities; providing training and study tours to support the implementation; and technical support for the implementation of the pilot intervention.

The UNIDO will be partnering with selected producers to apply different project activities at their facility in order to create showcases for the sector. It is anticipated that the project will improve fisheries products and bring producers/traders together so they can cooperate in a better manner. It is hoped that this project will create a 'snowball' effect that will benefit other producers/traders in the long term.

Initially, the focus of the UNIDO project will be on the local market with a long term goal of moving into the international market, in particular the European market.

Contact details for article: office.cambodia@unido.org

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VAYO FM

KHMER INTERNATIONAL RADIO

Sustainable Fisheries Radio Discussion broadcast every Saturday from 8:00-9:00 am on VAYOF-M105.5MHz

Speaker Series– Fishing Gear and Fisheries Law

This Speaker Series event about fishing gear and fisheries law was conducted with the assistance of expert, Mr Sam Satya from FiA, and was presented to community fishery members at Dun Tri village, Chrey Commune, Moung Russey District, Battambang Province on 21 May, 2013.

The objective of this Speaker Series event was for our fisheries expert to provide advice on fisheries law and family fishing gear in order to protect fisheries resources.

Mr. Choung Sophea, Battambang Provincial FiA, provided information from the Ministry of Agriculture Forestry and Fisheries about using fishing gear. Mr Chhoung Sophea explained the different classes of fishing gear and how commercial fishing is no longer allowed. The government currently allows the use of family fishing gear in seven fishing lots in Battambang Province. Mr. Choung Sophea explained the restrictions of family fishing gear allowed within boundaries during open season; currently there are 50 kinds of family fishing gear currently allowed during open season. During closing season there are 44 kinds of family fishing gear permitted for use.

Speaker Series Event in Dountri Village

Mr. Sam Satya, Deputy Director of Administration Affairs Litigation Department said that fishers who use illegal fishing gears i.e. mosquito fishing nets and electric fishing gear; or those who pump water and destroy flooded forest should be punished. People who are found conducting illegal fishing activities could face imprisonment and fines. He also said that the use of illegal electric fishing gear is as detrimental as destroying flooded forest and that if the community observes this happening they should report this illegal activity to authorities so they can crack down and send offenders to court.

At the end of the presentation participants were given the opportunity ask the expert speaker questions related to illegal fishing gears. A great deal of questions were asked and participants were very happy with the information shared and would welcome this kind of event in their area in the future.

For further details, contact: Mrs. NOU Vannsan, Communications and Networking Facilitator, G-FISH.

Sustainable Fisheries Radio Discussion July 2013:

July 13, 2013: 8:00am-9:00 am — **Role of police and authorities in addressing illegal fishing activities. Who the government officials are for the Tonle Sap Lake**

This topic is aimed to inform villagers and fishers about the contact person if they encounter illegal fishing activities. The speakers from FiA, Police. and Commune in Chief will come to share information related to their role in addressing illegal fishing activities and who the Government officials are for the Tonle Sap Lake. Villagers, fishers, and other related stakeholders are invited to call during the live program in order to share ideas or ask our expert speaker questions.

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SUSTAINABLE FISHERIES IN TONLE SAP LAKE

Volume 1, Issue 8 **July 31, 2013**

GLOBAL FISH ALLIANCE

Content:

- National Fish Day
- Lucky Iron Fish
- G-FISH Supported Patrolling Activities at Phat Sanday and Peam Bang
- Mangrove Restoration Project

National Fish Day

Kampong Thom - Approximately a million fingerlings were released into the Stung Chinit Reservoir, Kampong Thom Province during the National Fish Day event held on 1 July 2013..

The event, hosted by the Ministry of Agriculture Forestry and Fisheries (MAFF), had the honor of being attended by H.E YIM Chhay Ly, Deputy Prime Minister and Chairman of the Council for Agriculture and Rural Development (CARD). This was the 11th National Fish Day to be celebrated, and it also celebrated the launching of a national aquaculture institute.

The National Aquaculture Institute has been established with contributions from development partners and Government. The Government anticipates that his institute will have the capacity to produce 20 million fish each year.

Standing in front of an expanse of more than thousand participants H.E. Chan Sarun, the Minister of MAFF, said, "We hope this National Aquaculture Institute will succeed in producing enough fingerlings to meet

National Fish Day Event- July 1, 2013

people's needs and prevent fish from extinction". His Excellency also addressed illegal fishing activities and advised that the government was able to crack down on 5307 illegal fishing activities this year. This is an increase of 848 cases since 2011.

Following the Fisheries deep reform, Fisheries Administration has established 95 conservation areas, 79 of which are located in fresh water. A large number of concrete boundary poles have been already been installed at these conservation areas, and where concrete poles have not yet been installed, wooden poles have been placed in the interim.

Following H.E. Chan Sarun's speech, H.E. YIM Chhay Ly, Deputy Prime Minister and Chairman of the Council for Agriculture and Rural Development (CARD) kindly acknowledged the achievements that MAFF, FiA, development partners, and communities have made to protect Cambodia's natural resources and encouraged the continuation of this effort.

For further details, contact: Fisheries Administration (FiA) Office in Phnom Penh.

Lucky Iron Fish

The Lucky Iron Fish

Anemia, a condition that is caused by low iron levels in blood, is a condition that is prevalent in approximately 40% of women and 60% of children across Cambodia and can have serious health effects. To help combat this problem among the Cambodian people a method of boosting iron levels in rural communities in particular needed to be sought. To overcome this important health issue the concept of the Lucky Iron Fish, a small piece of iron in the shape of a fish was born.

Cooking with iron to boost iron levels in food is not a new concept and in 2008, the University of Guelph, Canada together with Resource Development International and the Ministry of Rural Development began a partnership to explore solutions to the problem of iron deficiency in rural Cambodia. Dr. Christopher Charles with is colleagues developed a new option fostering the same principals as iron pot cooking, which is a method that has been widely used in other countries to increase iron levels in cooked food, and the Lucky Iron Fish was created.

The Lucky Iron Fish is made from high quality scrap iron and formed to resemble a smiling fish. This small, low-cost, very versatile object is simply placed in a pot of soup during the cooking process or in water which is boiled for drinking; all that is needed is about 10 minutes of cooking time. During the cooking process iron is slowly released at a constant rate which provides sufficient iron supplies for the entire family. At the end of the cooking process the person who prepared the soup or water, gives it a quick wash and puts it aside until the next day when they prepare more water or soup. Placed in water, with a small addition of citrus juice (karowcheema) has been found to be the most effective method to add iron to the diet. Consuming just 1 liter of drinking water prepared in this way on a daily basis has been shown to provide 75% of daily iron requirements.

Anemia is a common condition that can affect growth, brain development in children, and energy levels of individuals as it helps to transport oxygen around the body. A significant consequence of anemia, and perhaps the most severe, is maternal mortality during childbirth (postpartum hemorrhage). When iron stores are at a healthy level, an individual will have more energy, an increased ability to learn, and maternal mortality is reduced during and immediately following pregnancy.

The huge advantage of the Lucky Iron Fish is that is does not merely treat an individual, as iron supplement tablets do, but the whole household. The Lucky Iron Fish is much cheaper long term than iron tablets. One Lucky Iron Fish costs about $5.00, approximately 20,000 reil. It estimated that one fish can last for 10 years or more and despite being made of iron it does not rust due to the method of casting.

To date, Dr. Charles with his colleagues have conducted trials in four communities and the results of this study have shown that the Lucky Iron Fish has had positive results in treating anemia, hemoglobin levels in individuals has been shown to have risen, along with valuable iron stores. The project group anticipates expansion of this project to produce 10,000 more fish to two districts in Kandal and throughout. In the future is hoped that the Lucky Iron Fish will be available throughout Cambodia in the next 4-5 years.

For further details, please visit website: www.luckyironfish.com

G-FISH Supported Patrolling Activities at Phat Sanday and Peam Bang

Special patrolling team meeting to discuss patrolling areas and budget management

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VAYO FM

KHMER INTERNATIONAL RADIO

Sustainable Fisheries Radio Discussion broadcast every Saturday from 8:00-9:00 am on VAYOF-M105.5MHz

G-FISH is working in partnership with two community fisheries on the Tonle Sap Lake in Kampong Thom Province – Phat Sanday Community Fisheries and Peam Bang Community Fisheries. In these community fisheries, G-FISH is providing financial support so Enforcement Officers and Community Fisheries Members are able to conduct routine patrols during July and August of 2013. The support will cover a per diem for patrolling and fuel.

The fisheries reform was brought into effect in March 2012 and fishing lots have been broken up into community fishing areas, subsequently communities fisheries have become more actively involved in the management of their community fishery areas. The Government is providing some funding and support to assist with patrolling of community fisheries, however, a gap still exists.

The main objective of this patrolling support is to assist communities in establishing and enhancing their patrolling systems to allow them to begin to effectively and confidently manage their fisheries independently.

Peam Bang Community Fisheries will be conducting their patrolling in three areas:

1. Bark Darv and Prek Korng Mey
2. Doun Sderng
3. Tavery—Prek Khvang Ta so and Prek Tor Tueng Thngay

Phat Sanday Community Fisheries will be conducting their patrolling in four areas:

1. Kbal Prous Lake Conservation Area
2. Stung Sen – from Phat Sanday to Phreah Kanlong
3. Former Fishing Lot number 2
4. Former Fishing Lot number 3

The two community fisheries members will work in cooperation with authorities at their communities to do patrolling. In order to ensure their natural resources are well protected, patrolling teams will patrol at least twice a week. A patrolling facilitator for each community will provide regular reports to the G-FISH team in Phnom Penh for each patrolling activity.

G-FISH hopes the two community fisheries are able to work independently after the project ends and the activity will enhance their patrolling skills. With a two month pilot patrolling project, G-FISH hopes to learn from this activity and share the knowledge and experienced gained with other donors, development partners, and Government.

For further details, contact: Mrs. Jeanette ROBINSON, Program Manager G-FISH Cambodia .

Mangrove Restoration Project

Funding for the Mangrove Restoration in Southeast Asia has been provided by Global Nature Fund (GNF), the German Ministry of Co-operation of Economy, and the Fisheries Action Coalition Team (FACT). A recent meeting was held on 28 June 2013. The meeting was entitled "Disseminating Progress of the Project for Mangrove Restoration in Southeast Asia" and aimed to share information about the rehabilitation and replanting of an area of mangrove forest in Tropaing Sangke Commune in Kampot Province. This project has allowed community capacity building and improvement of fisher livelihoods by enhancing the communities' knowledge about conservation, sustainability, protection of natural habitats, and biodiversity.

Mangrove restoration seedlings

Livelihoods of coastal fishers rely heavily on catch of sea fish, shellfish, crabs, sea snails and other edible marine species. The coastal mangrove forests which provide shelter for fish and marine animals are therefore an important asset to maintain and enhance to protect this important source of food and livelihoods.

Families from the Tropaing Sangke Commune gain income from growing vegetables, fruit, and small mangroves for re-planting efforts. The implementation of this project has allowed women and children of the community to get involved with various activities including mangrove seed collection, planting mangroves, and construction of the park area. This mangrove restoration project not only enhances livelihoods it also contributes to reducing climate change.

For more information about this project you can contact Mr. Om Savath, FACT Executive Director or visit the FACT website: www.fact.org.kh

Sustainable Fisheries Radio Discussion August 2013:

August 3, 2013: Role of Civil Society Organizations

A speaker from The NGO sector will join the program to share information related to the Role of Civil Organizations and how they can contribute to protecting natural resources in the Tonle Sap Lake.

August 17, 2013: Role of Media in Broadcasting Fisheries Law

A journalist from the Communications Task Force will join the program to share information related to the role of journalists when reporting and interviewing sources related to Fisheries issues. The speaker will share what the do's and don'ts are for journalists, and how communities should respond when media interview them.

August31, 2013: Fishing Gear – Family Fishing Gear

An expert speaker from FiA will join the program to share information about family fishing gears that the Ministry of Agriculture Forestry and Fisheries allow people to use for their family fishing.

FHI 360/Global FISH Alliance

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GLOBAL FISH ALLIANCE

SUSTAINABLE FISHERIES IN TONLE SAP LAKE

Volume 1, Issue 9 **August 31, 2013**

GLOBAL FISH ALLIANCE

Content:

- Working Together to Protect Flooded Forests
- Speaker Series on Managing Community Patrols
- Conservation International Activities on the Tonle Sap Lake
- Scientific Capacity Development Initiative (Sci-Cap) Research in Cambodia

Working Together to Protect Flooded Forests

On July 15, 2013, the Sdey Kroum Rorhal Soung Community Fishery in Battambang Province, with support from the Village Support Group (VSG) and the Fisheries Administration (FiA), organized a flooded forest re-planting event at the nearby Community Conservation Lake in Prek Loung Commune, Ek Phnom District, Battambang Province. A total of 250 trees were planted at the conservation lake with FiA providing 100 trees, and VSG 150 trees for the event.

The purpose of re-planting this area of flooded forest was to help to enhance and protect fish spawning areas and bird nesting areas, reduce the impacts of climate change, and to educate participants about the benefits of flooded forest areas.

Mr. Soun Sarun, the Deputy Governor of Ek Phnom District, shared information with participants about the importance of flooded forest areas and how their contribution towards replanting to protect natural resources is really important. He said, "At present, our flooded forests are decreasing because of our people exploiting the resources and that they do not understand the benefits of flooded forests." He added, "Flooded Forests are really beneficial to all of us. They're not only valuable fish ecosystems but they also provide important benefits such as protecting us from storms and attracting more rain."

Re-planting Flooded Forest at a Conservation Lake in Ek Phnom District

This event allowed the Community Fisheries, FiA, the Deputy Governor, Police and VSG the opportunity to share information about closed season to fishers and remind them about their responsibilities during this time. They requested that the community do not use illegal fishing gear, and to fish within the parameters of the law.

The 51 participants, Mr. Soun Sarun, and VSG representatives involved with the flooded forest re-planting efforts at the Conservation Lake were seen to be smiling and helping each other throughout the event. Mr. Soun Sarun added that he hoped this group would be able to continue to protect the natural resources for their generation and also future generations.

For further details, contact: Mr. HOR Sam Ath, CFi Sdey Kroum Rohal Soung, Battabang Province .

Speaker Series on Managing Community Patrols

Path Sanday—On July 9, 2013, the third Global FISH Alliance (G-FISH) sponsored Speaker Series was conducted at Phat Sanday Commune, Kampong Thom Province. The purpose of this event was to share information about how to manage community patrolling; both coordinating and conducting the activity, and managing patrol finances.

This event also gave villagers and community members the opportunity to direct questions or raise concerns about their patrolling work with experts who were invited to join this event to share advice with the villagers.

There were 22 participants from Peam Bang and Path Sanday Community Fisheries who came to listen to what experts were sharing about patrolling management. Representatives from the Fisheries Action Coalition Team (FACT) and the Coalition of Cambodia Fishers (CCF) provided expert advice and information about natural resource protection and patrolling.

During the course of this event, the two experts discussed with participants how to manage patrolling among the team. They provided advice to the communities on how to identify appropriate patrol locations and how to manage the team and avoid conflict. Mr. Soung Sophat, FACT Program Officer said, "If you do not treat and manage the team fairly, the patrolling work will not be achieved." Mr. Long Sochet, CCF leader, said, "Remember, we are working to protect our natural resources, myself or G-FISH will directly benefit from this work, but you will as a community."

Speaker Series Event at Path Sanday Commune on Managing Community Patrols

The feedback provided at the end of the event from participants was that they were really happy with the event. Participants thanked the experts and G-FISH for sharing information with them about patrolling management as this is a topic which is very important to them that they wanted to know more about.

The Speaker Series is aimed to bring fisheries and natural resource management experts into communities to share their knowledge and expertise with community members and villagers and expand their knowledge of natural resource management and community fisheries management. G-FISH is a non-profit organization and focuses on communications and collecting information from stakeholders to share among the fisheries network. G-FISH uses a number of methods to share this information. These include a monthly newsletter, workshops, regular meetings, a radio program on VAYO FM, sharing information on the social network site Facebook, through e-mails, as well as inviting experts to events such as the Speaker Series to disseminate information to target areas.

For further details, please contact Ms. NOU Vannsan, G-FISH Communications and Networking Facilitator

Conservation International Activities on the Tonle Sap Lake

CI and FiA Re-planting Flooded Forest together at Tonle Sap Lake

វិទ្យុខ្មែរអន្តរជាតិ

VAYO FM

KHMER INTERNATIONAL RADIO

Sustainable Fisheries Radio Discussion broadcast every Saturday from 8:00-9:00 am on VAYOF-M105.5MHz

Conservation International (CI) is a non-profit organization whose mission is to build upon a strong foundation of science, partnership, and field demonstration. CI empowers societies to responsibly and sustainably care for nature, its global biodiversity, and for the well-being of humanity.

Since 2008, CI has been working to protect the Kampong Prak Fish Conservation Area. They have created a Fish Conservation Area that is connected to the adjoining flooded forests to conserve habitat for rare and endangered water birds, mammals, and reptiles. This area also provides a protected fish breeding ground, which helps ensure food security for the local communities. The main purpose of the project is to improve the management and service delivery for the Kampong Prak Fish Sanctuary, the associated dry season ponds, and flooded forests.

With support from the CCCA Trust Fund and the MacArthur Foundation, CI is working in partnership with Fisheries Administration (FiA) and three community fisheries in Kampong Prak, Ou Ta Prok, and Kampong Lor community fisheries. They aim to integrate a conservation plan into the government natural capital management approach to ensure it is sustained into the future.

CI has worked closely with community fisheries in Kampong Prak to conserve four community dry season at Andoung Toch Lake, Andoung Thom Lake, Boeung Veal Samnab Lake and Ti Sampouch Lake; protecting and re-planting 92 hectares of flooded forest; and, providing communities with aquaculture advice. To help improve the community livelihoods, CI's is helping to support and facilitate the setup of small community operations (producing fish paste, smoking fish, and drying fish) so they can become viable enterprises.

By implementing activities together with community fishery committees, CI is able to integrate long-term management plans that empower local people to act in a sustainable manner. CI believes that through improved management of their natural capital and sustainable micro financing, local people can enjoy income security.

After implementing their activities, CI has observed that illegal fishing activities in these areas have decreased as the community better understands the importance of flooded forests, the wildlife that lives in these areas, and the benefit these areas bring the community. They often report to CI if they catch any wild animals, which CI then takes and releases in conservation areas. More importantly, CI has observed a change in the community behavior. They have noticed that community members are conducting less illegal activities on the lake and have now joined a number of CI's small enterprises (producing fish paste, smoking fish, and drying fish), which get support from CI so they can become viable enterprises.

As a result of all of this work, the Kampong Prak Conservation Area has been highlighted by the Fisheries Administration of Cambodia as one of the largest, most productive sanctuaries, one that was, prior to this work, under significant threat. It covers 2,700 hectares (ha) and directly supports the livelihoods of more than 2,000 families.

For further details, contact: Mr. HENG Sokrith, CI Program Manager .

Scientific Capacity Development Initiative (Sci-Cap) Research in Cambodia

The Scientific Capacity Development Institute (Sci-Cap) is a group of scientists who are working on building natural resource management capacity in Cambodia and the region. They are working with the Inland fisheries Research and Development Institute (IFReDI), and Fisheries Administration (FiA) to develop systematic monitoring for the Cambodian Watershed through collaboration and consultation.

This research project aims to develop the national infrastructure and scientific capacity in the region, so government and community-based fisheries can monitor and effectively conserve biodiversity and manage natural resources in the lower Mekong Basin, including the Tonle Sap Lake.

To achieve their goals, Sci-Cap will develop government infrastructure for fisheries monitoring in parallel with community-based capacity development for fisheries and resource management by:

Local Researcher Taking Scientific Measurements

1. Providing concurrent training and education in fisheries monitoring and management protocols for implementation by government personnel, community fisheries, and community-based organizations (CBO).

2. Providing training to community fisheries and CBOs in the area of fisheries monitoring protocols and in collaboration with community-based NGOs.

3. Developing an online database for fisheries monitoring data and data management.

During the five year research process (April 2013 to April 2018), Sci-Cap will be working in collaboration with local and international NGOs, including the Fisheries Action Coalition Team (FACT), Conservation International (CI), 3 Rivers Protection Network (3SPN), WWF, WorldFish, FiA, and 25 Community Fisheries around the Tonle Sap Lake. They will be engaging community fisheries organizations in the research and will provide training in monitoring techniques, collecting catch data, and assessing and analyzing data. The community fisheries, after receiving training, will submit their fish catch data, which will be compiled in the online database.

With this system of collaboration and data collection, Sci-Cap will be able to identify the amount of productivity of the Tonle Sap Lake by how much fishers are able to catch per day, per month, or per year, the types of fish they are catching, and what type of fishing gear they are using.

After receiving all the data from the community and local NGOs, Sci-Cap will facilitate analysis of the data and disseminate the research findings to the government, NGOs and community to use for improving fisheries management on the Lake.

For more information about this project you can contact Dr. Vittoria Elliotton SciCapd@gmail.com or Laura Boon on cambodianmolecularge netics@gmail.com.

Sustainable Fisheries Radio Discussion August 2013:

September 14, 2013: **Fisheries Law**

8:00am -9:00 am

A speaker from the Fisheries Administration will share information related to fisheries law. They will discuss what the relevant laws are to help community stop illegal fishing activities and destruction of flooded forest areas. The Speaker will talk about how illegal fishers will be punished under current legislation.

FHI 360/Global FISH Alliance

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SUSTAINABLE FISHERIES IN TONLE SAP LAKE

Volume 1, Issue 10 **September 30, 2013**

GLOBAL FISH ALLIANCE

Content:

- Project Close Out Event
- Partner's Opinion about G-FISH's Work
- Two Year Pilot Project in Cambodia—Global FISH Alliance
- Acknowledgement from FiA
- Thank To Partners

Project Close Out Event

G-FISH Project Close Out Event

On 11 September, 2013, the Global FISH Alliance (G-FISH) organized the Project Close out Event at the Naga World Hotel and Entertainment Complex in Phnom Penh. The event was officially opened at 8.30 am and was attended by His Excellency Srun Limsong, Deputy Director of Fisheries Administration (FiA) representing His Excellence Nao Thuok who was unable to attend, Ms. Amy Weissman, Associate Director of FHI 360, Ms. Jenny Barker, the G-FISH Director from Washington D.C., Mr. Youk Senlong, Fisheries Action Coalition Team (FACT) Program Manager, Mr. Long Socheat, Leader of Coalition of Cambodian Fishers, and members of the three Task Forces and other G-FISH partner organizations.

The purpose of the close out event was to present the achievements of the G-FISH project in Cambodia and to thank and acknowledge all the partner organizations who contributed to the project goals over its two year implementation.

(Continued to page 2)

Project Close Out Event (Continued from page 1)

Welcome remarks were given by H.E Srun Limsong. He advised participants that he is happy that FiA worked with G-FISH to improve sustainable fisheries and natural biodiversity on the Tonle Sap Lake. He noted that since the beginning of the project, G-FISH has work closely to consult with FiA, fisheries development partners and communities which has had a positive impact on sustainable fisheries.

Following on from H.E Srun Limsong, Amy Weissman gave an overview of the FHI 360, a global development organization operating in 60 countries with 4,400 staff around the world working in the areas of health, education, nutrition, environment, economic development, civil society, gender equality, youth, research and technology.

Jenny Barker presented details about the SCALE® process and the Whole System (WSR) event conducted in Siem Reap in September 2011 and the goals set at this event. Jeanette Robinson, G-FISH Cambodia Program Manager, spoke about the achievements of the project, next steps, and thanked those who have been involved with the project's success.

Mr. Youk Senlong from FACT provided an overview of the 'Improvement of fishers' livelihood through fisheries conservation' project FACT conducted with funding support from G-FISH during 2012 in Phat Sanday. The final presentation was given by Mr. Long Socheat of CCF and highlighted the recent patrolling project conducted in the Phat Sanday and Peam Bang communities during July and August 2013.

Closing remarks were given by H.E. Srun Limsong who said FiA is very regretful that G-FISH are ending their project. He encouraged other development partners, villagers and fishers to take what they have learned from G-FISH and keep implementing these lessons in the activities they conduct to protect the natural resources in their communities. H.E. Srun Limsong then presented G-FISH with a letter of acknowledgement for the work that G-FISH conducted during its project on behalf of the Cambodian government.

At the end, many participants said they would continue to implement the lessons learned during the project and commit to continuing the activities which G-FISH implemented.

Gift exchange

Partner's Opinion about G-FISH's Work

OM Meng, a Community Fisheries Member at Path Sanday, has been working with G-FISH since the beginning of the project. "I am happy to have worked with G-FISH since the beginning of the project. G-FISH has not only given me the opportunity to expand my network but has also taught me how to work independently. More importantly, G-FISH helped my community (Path Sanday) to protect and improve fisheries resources and flooded forests. No other NGO had come to replant flooded forest in my community before G-FISH. The recent patrolling support that G-FISH provided my community has been very much appreciated. These patrols have helped my community to combat illegal fishing activities and protect or valuable fisheries resources. G-FISH has also involved youth and students in activities to learn about the importance of natural resources. G-FISH staff are professional and respectful when working with me and my community. I do wish that G-FISH are able to continue their project work in Cambodia and continue to help my community."

LONG Sochet, a Cambodia Coalition of Fishers (CCF) leader, was one the participants involved in the advisory group that established the whole-system in the room (WSR) and is an active member of the Communications Task Force. "I have learnt a lot by being involved in the G-FISH work. I have learned how to organize workshops, facilitation skills and I have also learned how to develop work plans. Most importantly, G-FISH has helped us as a community to have our voice heard via the sustainable fisheries radio program, their various meetings and work with the government. G-FISH helps our work to be recognized and accepted by the government. I would really like to thank G-FISH (in particular Patrick Papania who helped my team to meet and establish a relationship with FiA. G-FISH is working in the right direction that I want to focus my work. They established the Communications Task Force which allowed members to share fisheries information with other fisheries stakeholders. Finally, if G-FISH could continue their program this would be beneficial as CCF seem to get more support with its program working alongside G-FISH.

OM Sovath, Country Director of FACT, worked in partnership with G-FISH in 2012 to strengthen conservation areas and promote awareness of flooded forest and fisheries issues among fisheries communities. I appreciate the facilitation work that G-FISH has done. G-FISH has been able to strengthen the connection between FACT, CCF and FiA so they can work together. CCF and FiA who historically misunderstood each now sit around the table every two months to share information about the fisheries situation and discuss their concerns and solutions together. FACT really enjoyed the six months working as a partner with G-FISH on its activities. I have seen the big achievements that G-FISH has made with FACT such as providing funding support for patrolling during 2012, flooded forest replanting, building the communities capacity to protect natural resources, the exposure visit to Kampong Pluk, and installing educational sign posts in Phat Sanday. G-FISH has a good connection with all networks. They coordinated the task forces well, government and other fisheries stakeholders. It will be regretful if G-FISH leave its project here."

SREY Keosopheak, FiA Chong Kneas, Siem Reap Province. "I like the task force meetings as they enable everyone to share information about what happens in their communities and surrounding areas. When there are issues, team members are able to give ideas for resolving the problems. I am happy that G-FISH gave me a chance to learn from them. Being Involved with G-FISH activities has helped me to learn a lot about the fisheries situation and exposed me to ideas from different institutions. I have also been able to apply some of the methods from the meetings in my daily work which has been very beneficial. G-FISH treats everyone fair and gives members time to talk and share their ideas. All in all, I have been happy to work with G-FISH and its staff."

Two Year Pilot Project in Cambodia—Global FISH Alliance

Path Sanday Community Patrol-2013

The Global FISH Alliance (G-FISH) is a USAID-funded project managed by the non-profit organization FHI 360 working to improve livelihoods and strengthen communications and collaboration of Tonle Sap Lake communities. During the past two years (2011-2013), G-FISH has been implementing a program in Cambodia. G-FISH worked to provide a forum for collaborating and sharing information on the importance of productive and biologically diverse fisheries for food security. G-FISH engaged key stakeholders to jointly assess the governance obstacles and opportunities for sustainable development of fishery livelihoods on the Tonle Sap Lake and facilitated communications and networking among local stakeholders to achieve common goals.

Starting in 2011, G-FISH worked with the Fisheries Administration (FiA), community fisheries (CFi), WorldFish Center, Fisheries Action Coalition Team (FACT), Coalition of Cambodia Fishers (CCF), Cambodia Peace Network (CPN), Cambodia Development Research Institute (CDRI), Culture and Environment Preservation Association(CEPA), Cambodian Organization for Women Support (COWS), the Learning Institute, Wildlife Conservation Society (WCS), and the Royal University of Agriculture (RUA), to establish an Advisory Group. The Advisory Group was tasked with organizing a Whole System in the Room (WSR) retreat which brought together the system of stakeholders impacting, or impacted by, fisheries on the Tonle Sap Lake to increase communications and collaboration among these stakeholders. The WSR retreat was held in Siem Reap on September 13-16, 2011, and culminated with an agreement by all 91 participants on five common goals:

1. Improvement of community livelihoods through proper natural resource management
2. Effective and efficient communications on Tonle Sap resource management
3. Improvement of collaboration among stakeholders
4. Effective compliance with fisheries laws
5. Conservation of flooded forests and promotion of sanctuaries for future generations to have food to eat

A total of 53 participants volunteered to serve on the Task Forces. Initially, seven Task Forces were established and after consultation with stakeholders these were later reduced to three: the Communication Task Force, Resource Conservation Task Force, and Livelihoods Task Force. Each was tasked with focusing on the key issues related to increasing the natural productivity of fisheries and impacts on livelihoods. These three Task Forces were the main organizing entities promoting and leading collaboration among stakeholders.

(Continued to page 5)

Two Year Pilot Project in Cambodia—Global FISH Alliance (Continued from page 4)

In 2012, G-FISH worked with the Task Forces, FiA, CFi, CCF, media personnel and partnered with FACT to improve conservation and strengthening communications among stakeholders. A number of activities were implemented including a Media Field Trip to ensure media had accurate and first-hand information about fisheries and a Community Awards program to promote conservation awareness in schools. G-FISH also ensured consistent communication through monthly newsletters and frequent Task Force meetings. The main objective of working in partnership with FACT was to support and strengthen conservation areas and promote awareness by strengthening the function and management of the existing Community Fisheries (CFi) and Community Base Organizations (CBO) in the Phat Sanday Commune.

In 2013, G-FISH continued working with Task Forces to implement many activities including a Speaker's Series, a weekly radio program on fisheries, a monthly newsletter, and monthly Task Force meetings that focused on communications and information sharing and improvement of fishers' livelihoods through fisheries conservation. In addition, G-FISH developed a pilot patrolling program working directly with communities and local government to curb illegal fishing.

For the Speaker's Series events, G-FISH invited expert speakers to discuss topics such as fisheries laws, fishing gear, flooded forest management, and patrolling management to disseminate information to fishers, and villagers in particular areas. A weekly fisheries radio program was run on VAYOFM. FiA, NGO partners and Community Fishery members were featured and addressed topics including flooded forest management and fisheries regulations to provide listeners and stakeholder groups with current information. After consulting with Task Force members, G-FISH developed a patrolling program working with the Peam Bang and Path Sanday Community Fisheries to conduct a two-month pilot of patrolling flooded forests and conservation areas to monitor for illegal activities that occur. This activity was successful as it showed a decrease in illegal fishing activities in both communities and it also helped to strengthen communities' capacity to manage patrolling.

G-FISH's continued communications and collaborations activities to support and facilitate partnership building and collaboration between government bodies and stakeholders. To support this, G-FISH tracked and collated in country press coverage of fisheries issues (audio and print); and produced monthly newsletters with relevant and up to date information for stakeholder groups.

(Continued to page 6)

Media Field Trip Activities -June 2012

Two Year Pilot Project in Cambodia—Global FISH Alliance (Continued from page5)

The project has the following achievements to date:

- Patrolled 1390 hectares during 32 patrols with 94 illegal fishing and five flooded forest incidents observed during patrols.
- Established 25 hectares of conservation area;
- Replanted 9 hectares of flooded forest – 11,000 flooded forest seedlings were replanted with the involvement of 233 people;
- Constructed 18 sign boards for public education;
- Built concrete poles with signs along the boundaries of the conservation areas;
- Promoted the active participation of the Community Fisheries members, villagers and commune members and local authorities in G-FISH and Task Forces activities;
- Supported the community in mitigating the effects of illegal fishing activities which led to a marked decrease in illegal fishing activities;
- Community Fishers disseminated information on the impacts of illegal fishing activities and flooded forests during the closed season in the Phat Sanday.
- Hosted three speaker series events disseminated information to 106 fishermen and community members (31 women) related to fishing gears, flooded forests, and fisheries law.
- Reached out to a mass audience in the fisheries sector through the Sustainable Fisheries Radio Program and the G-FISH Newsletter.
- Conducted 15 live radio programs on topics including: fisheries reform, flooded forests, patrolling, and good governance. We received 69 calls from around the country and internationally.
- Produced 1450 copies of the G-FISH Newsletter to distribute to Government, Development Partners and Communities.

Local fishers and government have been pleased with the G-FISH program highlighting the patrolling support and activities in their areas as it has assisted in protecting fisheries in their communities. Local communities and authorities have been impressed with and support the G-FISH project. The activities which G-FISH conducted helped the local communities to protect forest areas which help to conserve fisheries for livelihoods. G-FISH hopes to continue to work with the government and communities through alternate funding.

Sustainable Fisheries Radio Discussion with Mr. Sam Satya (FiA)

KINGDOM OF CAMBODIA
Nation Religion King

Ministry of Agriculture
Forestry and Fisheries
Fisheries Administration

No:....1689.....FiA

Phnom Penh, 03 September 2013

ACKNOWLEDGEMENT

Fisheries Administration (FiA) would like to express deep appreciation to Global FISH Alliance (G-FISH) who have worked to improve sustainable fisheries and natural biodiversity on the Tonle Sap Lake. Since the beginning of the project, Global FISH Alliance has worked closely to consult with FiA, fisheries development partners and communities. G-FISH allows all fisheries stakeholders a chance to share and discuss issues related to fisheries on the Lake. This dialogue has allowed communities the opportunity to have their issues easily communicated to FiA and has also increased the ability for FiA to share and disseminate their valuable information with communities.

G-FISH contributions and support have helped to build community capacity to protect their natural resources. The facilitation and coordination work that G-FISH has done in its time here has helped to strengthen relationships between Cambodia Coalition Fishers (CCF), Fisheries Action Coalition Team (FACT), Tonle Sap Authority (T.S.A) and FiA. FiA and these organizations are now more familiar with each other, and understand more about each other's work.

G-FISH provided opportunity for FiA experts, NGOs and Community Fisheries to share information and answer questions from callers related to fishery issues on the "Sustainable Fisheries Radio Program" which enhanced community knowledge of fisheries issues, management, and regulations. This radio program was very beneficial for communities, NGOs and Government to learn from each other and share their messages. The "Sustainable Fisheries Radio Program" has provided an excellent mechanism to clearly disseminate valuable fisheries information to reach a mass audience.

Based on G-FISH facilitation, the dissemination of information, and the collaboration work which G-FISH did during their project, I have noticed an improvement of work and collaboration amongst NGOs working in fisheries. FiA staffs were given a greater understanding of the real situation in communities on the Tonle Sap after staff visited the Tonle Sap Lake with the G-FISH media event.

I am looking forward to cooperate with you further in the future.

Sincerely yours,

Prof. NAO THUOK Ph.D.
Delegate of the Royal Government of Cambodia,
Director General of Fisheries Administration, MAFF

អាសយដ្ឋាន:អាគារលេខ១៨៦ មហាវិថីព្រះនរោត្តម សង្កាត់ទន្លេបាសាក់ ខណ្ឌចំការមន រាជធានីភ្នំពេញ កម្ពុជា ប្រអប់សំបុត្រលេខ៥៨២ ☎/Fax: (855) 23 215 470 www.fia.gov.kh
Address #186 Preah Norodom Blvd., Sangkat Tonle Bassac, Khan Chamcar Mon, Phnom Penh capital, Cambodia. P.O.Box 582. ☎/Fax: (855) 23 215 470 www.fia.gov.kh

Thank you

The Communications, Livelihoods, and

Resource Conservation Taskforces

The Communities of

Phat Sanday and Peam Bang

Coalition of Cambodian Fishers (CCF)

Community Capacities for Development (CCD)

Poor Family Development (PFD)

FHI 360/Global FISH Alliance

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Annex 6.

DRAFT

USAID Seafood Industry Engagement Guide: Working Together for Healthy Fisheries

Written by:
Nadine S. Bartholomew

Designed and Published by:
FHI 360

Fish exports and trade is a major source of income for developing countries. They represent close to 50% of global fish exports with their annual net export revenues exceeding US$25 billion. Jobs are created in production, processing and trade, and local food security is strengthened through the nutritional contribution of fish to human consumption. In fish production, capture fisheries as well as fish farming, a large share is carried out by the small-scale sector. It is therefore of crucial importance to arrive at polices that safeguard the interests of the small-scale producers not only by enabling them to access international markets but also to obtain prices and margins that let them achieve long-term sustainability from an economic, social and biological resource perspective.

-- NORAD-FAO Project (August 2012)

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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Abbreviations and Acronyms

BAP Best Aquaculture Practices
BMEA Bahamas Marine Exporters Association
BSI P.T. Bali Seafood International
CGI Clinton Global Initiative
DMR Bahamas Department of Marine Resources
EDF Environmental Defense Fund
E.U. European Union
FAO Food and Agriculture Organization of the United Nations
FIP Fishery Improvement Project
G-FISH Global FISH Alliance
IUU Illegal, Unreported and Unregulated
MSC Marine Stewardship Council
NAI North Atlantic, Inc.
NFI National Fisheries Institute
NGO Non-governmental organization
NOAA National Oceanic and Atmospheric Administration
PPP Public-private partnerships
SCALE System-wide collaborative action for livelihoods and the environment
SFP Sustainable Fisheries Partnership
SLI Spiny Lobster Initiative
SMART Specific, Measurable, Attainable, Relevant, and Time-bound
SOFIA The State of World Fisheries and Aquaculture 2012
Sq Km Square Kilometers
TNC The Nature Conservancy
USAID The U.S. Agency for International Development
U.S. United States
USD United States Dollars
WSR Whole system in the room
WWF World Wildlife Fund

Purpose

The purpose of this guide is to highlight how the private sector, conservation community, government agencies, and charitable foundations engage in meaningful dialogue and build public-private partnerships that promote sustainable fisheries and aquaculture. This guide includes best practices in developing collaborative efforts and explores how stakeholder engagement processes currently underway and planned for the future can drive responsible practices in the workplace, marketplace, community, and environment.

Through this guide the U.S. Agency for International Development (USAID) will investigate and communicate how varied and innovative market-based approaches were used by Global FISH Alliance (G-FISH) partners to identify resources, focus on gaps in technical expertise, and improve fisheries management for wide-scale impact.

Comments from sixteen contributors were compiled to 1) share three case studies from developing world fisheries, 2) explore the best practices in public-private partnerships from the conservation community, and 3) outline the perspectives and key lessons learned from the seafood industry and charitable foundations.

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Overview

Consumer tastes drive demand in the food retail and food service industries, and today more and more consumers are taking environmental and social considerations into account when purchasing products and services. To meet growing customer demand, leading U.S. companies like Darden Restaurants, Inc., Wal-Mart Stores, Ahold USA, Publix Super Markets, and Food Services of America have made public commitments to sourcing sustainable seafood and will soon require all fresh and frozen, farmed and wild seafood suppliers to become third-party certified as sustainable using Marine Stewardship Council (MSC), Best Aquaculture Practices (BAP) or equivalent standards.

Seafood products are one of the most important internationally traded food commodities. According to the Food and Agriculture Organization of the United Nations (FAO) publication, *The State of World Fisheries and Aquaculture (2012):*

- Capture fisheries and aquaculture supplied the world with about 148 million tonnes of fish in 2010 (with a total value of US$217.5 billion), of which about 128 million tonnes was utilized as food for people.

- Concerning utilization of the world's fish production, 40.5 percent (60.2 million tonnes) was marketed in live, fresh or chilled forms, 45.9 percent (68.1 million tonnes) was processed in frozen, cured or otherwise prepared forms for direct human consumption, and 13.6 percent destined for non-food uses in 2010.

- Fisheries and aquaculture provided livelihoods and income for an estimated 54.8 million people engaged in the primary sector of fish production in 2010, of whom an estimated 7 million were occasional fishers and fish farmers.

- Apart from the primary production sector, fisheries and aquaculture provide numerous jobs in ancillary activities such as processing, packaging, marketing and distribution, manufacturing of fish-processing equipment, net and gear making, ice production and supply, boat construction and maintenance, research and administration. All of this employment, together with dependants, is estimated to support the livelihoods of 660–820 million people, or about 10–12 percent of the world's population.

- The seafood industry in Latin America and the Caribbean accounts for 3.6 percent of the 54.8 million people engaged in the world's primary sector of fish production, having almost 2 million people engaged as fishers and fish farmers.

Public-Private Partnerships: Improving Fisheries in the Developing World

Public-private partnerships (PPP) can be described as the collaborative use of financial investments and technical expertise from multiple stakeholders to develop and implement a public project. This model is primarily used when sufficient funding is not readily available from any one sector or stakeholder group. In support of their public

commitments to sustainability, seafood industry leaders have been working with key stakeholders – from fishermen and fish farmers to non-governmental organizations, processors, distributors, retailers, restaurants, food service providers, and government agencies – to develop public-private partnerships that take a proactive role in improving the environmental and social conditions of fisheries, farms and processing plants worldwide.

Engaging all individuals and organizations who have a vested interest in fisheries helps to ensure a sustainable systematic solution where stakeholders at every stage of the supply chain become committed to implementing action plans created together and to sharing resources.

According to NOAA Fisheries, the United States imports 91 percent of its seafood, about half of which is from aquaculture. Therefore, it could be argued that preserving or restoring the health of key global fisheries is vital to the ongoing security of the U.S. food supply. To support marine conservation efforts in geographically strategic locations like Asia, Latin America and the Caribbean, key stakeholders in the U.S. seafood industry have initiated public-private partnerships in the Bahamas, Honduras and Indonesia.

Bahamas Spiny Lobster Fishery Improvement Project (FIP)

Situated approximately 200 miles from Miami, Florida, the Commonwealth of the Bahamas is an archipelago of roughly 3,000 small islands and cays that boasts a land area of about 13,935 sq km and a total continental shelf area of approximately 116,550 sq km. Fishing communities, and accompanying landing sites for fishing vessels, are found throughout these islands.

The fishing industry is the country's third largest source of revenue after tourism and the financial sector. According to the Food and Agriculture Organization of the United Nations publication entitled, *National Fishery Sector Overview of the Commonwealth of the Bahamas*, over 90 percent of the spiny lobster landed in the Bahamas is exported. Reportedly, 60 percent goes to the United States (U.S.), 30 percent goes to the European Union (E.U.), and 10 percent goes to Canada. In 2007, landings of spiny lobster totaled 6,977 tonnes at an approximate value of US$70 million.

In 2009, the Bahamas Department of Marine Resources (DMR) and the World Wildlife Fund (WWF) shared their mutual concerns about the environmental impacts of the Bahamas' commercial fishing practices and facilitated the completion of a Marine Stewardship Council (MSC) pre-assessment. The Bahamian seafood industry was encouraged to take a leadership role in the nation's fishery reform efforts. Rising to meet this challenge, in 2010 the country's licensed seafood exporters formed a new industry group called the Bahamas Marine Exporters Association (BMEA).

The BMEA partnered with the World Wildlife Fund (WWF), the Bahamas Department of Marine Resources (DMR), The Nature Conservancy (TNC), Friends of the Environment in Abaco, and other local NGOs and fishermen. Together this public-private partnership

developed and implemented a strategy to improve the lobster fishery under an initiative known as the Bahamas Spiny Lobster Fishery Improvement Project.

The ultimate goal of this FIP was to have the fishery certified as sustainable by the MSC, so a work-plan and improvement objectives were designed to promote fishing practices that would ensure the fishery performed at a level consistent with MSC standards. According to Mia Isaacs, President of the Bahamas Marine Exporters Association (BMEA), "The FIP team is very action oriented, so we meet regularly to share ideas, plan our work, and track our progress. Working together is definitely a key component to the projects progress. We give our time, technical expertise and finances because we believe our efforts to encourage effective management and sustainability of the country's marine resources will benefit and secure a productive future for all Bahamians."

Since the project's inception, the BMEA and its partners have successfully completed a number of activities including: completing a stock assessment for lobster populations; establishing a data collection system; reviewing the occurrences and implications of Illegal, Unreported and Unregulated (IUU) fishing in the country; conducting stakeholder meetings with fishermen, buyers, community members, and government officials to increase awareness of the issues facing the lobster industry; supporting the Catch Certificate Program implemented by the DMR; and implementing a zero tolerance policy against harvesting, buying and selling of undersized lobster tails.

"We wanted to match the funds contributed by our partners, so BMEA members voluntarily agreed to have fees of 5 cents USD per pound of exported lobster levied against them. A 'nickel per pound' is the slogan we used when making our presentations. In the beginning it was challenging to get everyone together on this, but we knew that it was important to have co-ownership of the process and a financial stake in the project. Self-funding was instrumental to the success of the project. We did and will continue to do our part," continued Isaacs. "In an industry that lands 5 million pounds of spiny lobster annually, the fees could total US$250,000. This is a huge investment for our industry, but the end goal for many BMEA members is responsible management of the spiny lobster fishery, greater opportunities for the fishery to enter new markets and the increased brand value of 'Product of the Bahamas', which benefits our entire country."

Global FISH Alliance – Spiny Lobster Initiative (Honduras)

Honduras, officially the Republic of Honduras, is part of the Central American Isthmus and has an area of 112,492 sq km. The seafood sector (fisheries and aquaculture) accounts for approximately 5 percent of the country's GDP. According to the United Nations Food and Agricultural Organization (FAO) report entitled, *Value-chain Analysis of International Fish Trade and Food Security in the Republic of Honduras*, the country produced 1,112 tones of Caribbean spiny lobster in 2007, which represented approximately 2.7 percent of the country's overall seafood production that year. Reportedly, the United States is the major buyer of Caribbean spiny lobster from Honduras.

In 2008, USAID, FHI 360 (formerly AED), and Darden Restaurants, Inc., joined forces to initiate the Global FISH Alliance (G-FISH) Spiny Lobster Initiative (SLI), a public-private partnership aimed at leveraging the marine conservation initiatives of stakeholders from the government, private, civil society, and environmental sectors who were connected to the spiny lobster value chain in Honduras and Nicaragua.

In 2009, the Honduran Spiny Lobster Initiative hosted its first multi-stakeholder meeting based on FHI 360's SCALE model (See Appendix). The expressed goals of the meeting were to 1) create a space for reflection and analysis among the principal actors involved in the area of lobster fishing in Honduras, 2) strengthen the existing communication networks, identify synergies and promote new alliances, 3) create new strategies and identify future areas for action, and 4) make commitments for concrete actions towards reaching common short, medium and long term goals.

Jimmy Andino, Chief of Party for the Spiny Lobster Initiative (SLI) in Honduras, commented: "I learned early on that while marine conservation is a passion of mine, fishing represents the lives and livelihoods of many of the stakeholders who participated in our meetings. Scuba diving to catch spiny lobster has been practiced in Honduras for over thirty years and is the main economic activity for the indigenous Miskito people. Much of the catch is done on board the industrial fleet, but often the divers do not have employment contracts or proper training on the use of specialized diving equipment."

The Honduran lobster industry is a multi-faceted, dynamic sector with complex and intertwined social, economic and environmental issues, so a 22-member Working Group was created to address eleven common ground goals. Since the project's inception, the Spiny Lobster Initiative and its partners have successfully completed a number of activities including: identifying knowledge gaps and collecting data on fisheries in the north coast of Honduras; identifying zoning sites to conserve the spiny lobster critical habitats in La Moskitia in collaboration with the Center for Marine Ecology; assisting the Roatan Marine Park and the Coral Reef Alliance collaborative in their sustainable seafood campaign; and facilitating the Association of Miskito Divers initiation of action for government assistance to create an Environmental Plan for the Marine Shelf in La Moskitia.

Over the years, the Global FISH Alliance has succeeded in empowering people to drive their own development process by strengthening their capacity for informed decision making and sustainable, collaborative action. "The Working Group became the Spiny Lobster Initiative and the G-FISH staff guided the process and provided the facilitation and networking needed to create space for innovative thinking and collaboration. With G-FISH the public-private partnership focused on fishery reform also led to social reform and our communities became stronger because of these efforts," concluded Andino.

<u>The National Fisheries Institute's Crab Council</u>

Based in Baltimore, Maryland, Phillips Foods, Inc. (Phillips) is a major importer of pasteurized crab meat in the United States. The company supplies crab cakes, soups,

appetizers, seasonings, sauces, crab meat, and seafood skillets to restaurants, retailers and food distributors nationwide. The family-run company also operates or franchises seafood restaurants along the Eastern Seaboard under such names as Phillips Seafood House and Phillips Crab House. Many believe that Phillips was one of the first suppliers to import blue swimming crabmeat to the United States from Indonesia and the Philippines.

In 2009, Steve Phillips, President and CEO of Phillips Foods, Inc., organized a meeting of U.S. importers of crab meat to explore concerns about the decreasing sizes of the Asian crab available on the market then. That initial meeting was the impetus for the National Fisheries Institute (NFI) Crab Council, which was formed later that year to organize and engage industry stakeholders and provide a common voice for U.S. companies and suppliers who were concerned about the status of the blue swimming crab. In addition to Phillips and NFI, founding members of the Crab Council included Twin Tails Seafood, Handy International, Newport International, Lawrence Street Seafood, Heron Point Seafood, Chicken of the Sea, RGE Agridev Corp., Bumble Bee, and Blue Star.

Today, the NFI Crab Council funds fisheries improvement efforts in Indonesia, the Philippines, Thailand, Vietnam and Sri Lanka. Over the past four years the group has had several accomplishments including: the formation of Crab Producer Associations in Indonesia, the Philippines, Thailand, Vietnam, Sri Lanka and India; the adoption of minimum size requirements on imported blue swimming crab by Crab Council members; working with members to support the Indonesian government's adoption of a minimum size requirement on blue swimming crab caught in all provinces; and working with members to help the Philippines approve a national crab management plan.

Gavin Gibbons, NFI Staff Lead of the Crab Council, said, "to be successful public-private partnerships need to have a critical mass of pertinent participants willing to lend financial and technical support to the project. Today members of the Crab Council include 16 of the biggest crab buying companies, which engenders a high level of industry engagement and attention. Our members voluntarily contribute 1.5 cents USD per pound of crabmeat sold to fund this project. Though we are primarily self-funded, we also receive support from other partners including the World Bank and the Walton Family Foundation."

One of the key leverage points the seafood industry brings to public-private partnerships is an in-depth understanding of this unique source of protein. Today, half of the global seafood supply is captured from the wild and the other half is farm-raised (about 600 aquatic species are raised in captivity worldwide). "Having an open mind about scientific data is also very important. NFI understood the importance of building consensus. We helped our members to put aside their natural inclination to compete and to focus instead on universal conservation concerns. That first Council meeting was very sobering as each participant came to realize what the fishery data meant for the industry. NFI's approach to public-private partnerships is different in that we don't force preconceived ideas onto the group; rather we provide the information and resources that enable evolutionary

changes in mindset and practice. When our members meet with crab suppliers in Indonesia, Vietnam or the Philippines they speak about the U.S. experiences and challenges in fishery management. Our members express concern and the desire to avoid the collapse of another fishery like the Chesapeake Bay Blue Crab fishery. They speak to the in-country fishing industry from a perspective of solidarity. Our message often revolves around our plans to support local fishery improvement efforts to ensure members' continued access to a better seafood product," stated Gibbons.

Public-Private Partnerships: The NGO Perspective

The seafood conservation community is as dynamic and ideologically diverse as the business community, and their approach to public-private partnerships reflects that diversity. Six of G-FISH's NGO partners identified what they considered to be the key component of highly successful stakeholder engagement efforts around fishery reform, each from their unique organizational perspective.

Six Key Components of Successful PPP include:

- Identifying the right stakeholders
- Acting on credible scientific data
- Communicating effectively
- Setting clear goals, responsibilities and objectives
- Coordinating efforts consistently
- Funding projects sufficiently

<u>Identifying the right stakeholders</u>

Broadly defined as any individual or group that can be affected by or that can affect the project's outcomes; stakeholders are all those who need to be considered in achieving a project's goals and whose participation and support can influence its success. FHI 360 is a human development non-profit organization dedicated to improving lives in lasting ways by advancing integrated, locally driven solutions. In 2008, FHI 360 partnered with a network of government, private sector, and community-based groups to implement the Global FISH Alliance Spiny Lobster Initiative. Funded by the U.S. Agency for International Development (USAID) and Darden Restaurants, Inc., this program was aimed at improving fishery management practices on specific fisheries in developing countries.

According to Jennifer Barker, Director, Global FISH Alliance, at FHI 360, "Her organization brings a unique human development understanding to fisheries work. Our 40-plus year history empowering marginalized communities was important to USAID's efforts in Honduras. Our staff recognized the need to engage a broad range of stakeholders to effectively implement marine conservation activities. Working within the SCALE framework, we were able to identify a broad range of non-traditional stakeholders essential to the success of the project. Our efforts catalyzed system-wide changes that resulted in improved awareness of ocean issues and increased citizen engagement in the region. For example, the indigenous Miskito Indians were previously

not as engaged in conservation efforts, but we facilitated the dive association's initiation of action for government assistance to create an Environmental Plan for the Marine Shelf in La Moskitia."

Fishery managers recognize the need to engage a broad range of stakeholders to effectively plan and implement marine conservation activities. They also recognize that trying to accommodate too many stakeholder perspectives can stall progress. "The SCALE framework allowed us to develop a strategic view of the social and institutional landscape of the Honduran spiny lobster fishery, and the relationships between different stakeholders and issues. An analysis of stakeholder influence and issue relevance helped us to identify the right stakeholders. This analysis was vital during the initial stages of the public-private partnership and must be an ongoing iterative process," stated Barker.

Acting on credible scientific data

Having access to accurate scientific data is essential to understanding marine ecosystems and finding solutions to issues like habitat degradation and population decline. Continuous assessment of the ecological health of a fishery accompanied by adaptive fishery management practices is necessary for meaningful conservation and restoration. The Environmental Defense Fund (EDF) links science, economics and law to create innovative, equitable and cost-effective solutions to society's most urgent environmental problems. Guided by science, EDF evaluates environmental problems and works to create and advocate solutions that win lasting political, economic and social support.

"Catch shares offer a great example of EDF's science based fisheries work," said Pedro Zapata, Director of Ocean Programs at EDF Mexico. "The transition to catch shares from an open access fishery model is often used as an opportunity to implement more robust and effective monitoring and fishery information systems. When this is done effectively, data quality and reporting accuracy improves. This transparency also helps to increase trust among fishermen, managers and other stakeholders."

Larry Epstein, Project Manager, Environmental Defense Fund – Belize, adds "establishing a rights-based management system like catch shares is the best way to change incentives and influence fishing behavior. Under open access systems fishermen have incentives to race to fish and to overfish. However, by assigning rights through territorial-user areas and/or quotas, fishermen have incentives and the data needed to better understand and steward the resource. Collecting good fishery information and ensuring effective monitoring and compliance is important for all fisheries."

Communicating effectively

Managers of public-private partnerships understand that if stakeholders' perspectives and language are uniformly aligned with the group's strategic priorities, then the project is likely to succeed. However, the ideological and organizational diversity that exist between business, conservation and government stakeholders can challenge sustained alignment over the long term.

SeaWeb is an international non-profit ocean conservation organization dedicated to using the science of communications to fundamentally shift the way people interact with, and act on behalf of, the ocean. The organization works collaboratively with targeted sectors to encourage market solutions, policies, and behaviors that result in a healthy, thriving marine eco-system, which ultimately promotes a culture of ocean conservation.

Dawn Martin, President, SeaWeb, credits the organization's theory of change for their unique understanding of cultural diversity and group dynamics, "we strive to explore and understand the different motivations, perspectives and objectives of stakeholders," said Martin. "By encouraging open and honest conversation in an atmosphere of trust and non-reprisal, we can uncover the assumptions, misinterpretations and subconscious agendas that often lead to issue confusion and project drag. One way that we do this is through our Seafood Summit, where we convene and connect thought leaders and practitioners from industry, government, and the scientific community in discussions that explore the challenges and seek practical solutions for ocean conservation."

Setting clear goals, responsibilities and objectives

Goal alignment and goal accountability allows for quicker execution of a project's strategy. There is a positive correlation between successful projects and effective goal setting. By setting goals, specifically SMART (Specific, Measurable, Attainable, Relevant, and Time-bound) goals, PPP managers can engage their stakeholders and encourage them to focus on successfully achieving these goals together.

Sustainable Fisheries Partnership (SFP) is a business-focused organization that creates powerful information tools and a methodology that allows companies to directly engage with suppliers of natural resources. SFP operates through two main principles: accurate information and continuous improvement.

"SFP is data driven and process oriented," said Andrei Klimenko, Director of Development at Sustainable Fisheries Partnership, "we encourage managers of public-private partnerships, like our fishery improvement projects (FIP), to draft detailed work-plans driven by what is known about the stock, the impacts of the fishery, and the requirements of local laws and regulations. These plans detail exactly what actions need to be undertaken to achieve sustainability or to address the fundamental deficiencies of the fishery. PPP or FIP work-plans should also outline the responsibilities of individual stakeholders and establish milestones and timelines for specific tasks. We encourage managers of public-private partnerships to obtain written commitments to accomplish specific tasks from pertinent stakeholders, and to publicize this information. Ultimately, these work-plans serve as an essential management tool to make sure everyone understands what is expected of them throughout the project and can be used to measure and communicate progress."

Coordinating efforts consistently

Coordination helps to improve the overall efficiency of public-private partnerships by avoiding overlapping and duplication of efforts, while moving participants progressively towards the end goal. Integrating, balancing, and recognizing the efforts of individual stakeholders can also provide a platform for smooth and harmonious team work, so the success of any organized venture depends upon effective coordination of its processes.

The Nature Conservancy (TNC) is a conservation organization working around the world to protect ecologically important lands and waters for nature and people. The organization pursues non-confrontational, pragmatic, market-based solutions to conservation challenges. The Conservancy works collaboratively with partners — communities, companies, government agencies, multilateral institutions, individuals and other non-profit organizations in all 50 U.S. states and in more than 30 countries around the globe.

"Since 1951, TNC has worked to protect more than 119 million acres of land and 5,000 miles of rivers worldwide. We operate more than 150 marine conservation projects globally. We have more than one million members and our work is supported by more than 500 staff scientists. Effective coordination is fundamental to our organizational culture," said Carmen Revenga, Fisheries Strategy Lead, The Nature Conservancy Global Priorities Group, "public-private partnerships require a lot of work, day-in and day-out. Different stakeholders often have different priorities and competing job responsibilities, but where participants' involvement in public-private partnerships had been managed effectively their effort and power were maximized and often achieved the project's fishery reform goals."

Funding projects sufficiently

In the past two decades, government agencies and charitable foundations have funded a variety of fishery reform efforts. As such, the allocation of funding for marine conservation efforts has been driven by resource availability and political considerations.

Though budgets vary depending on the types and extent of improvements required in a fishery, developing the operational budget is a key element of the PPP design process. However, the fact that fishery improvement projects generally have five to ten year time horizons can make it challenging to develop accurate cost projections and to determine the level of funding that will be required to achieve the desired outcomes at the beginning of the project. This uncertainty can be a deterrent to potential investors.

Founded in 1961, World Wildlife Fund's (WWF) mission is to conserve nature and reduce the most pressing threats to the diversity of life on Earth. WWF's programmatic investments are designed to address some of the toughest conservation issues of our time. With the goal of conserving many of the world's most ecologically important regions by 2020, one of WWF's key strategies is to work in partnership with others to transform markets and policies to reduce the impact of production and consumption of commodities

like seafood. Support from a diverse range of stakeholders—from governments to companies to local communities and donors—is critical to the organization's efforts to transform the global marketplace into a force for conservation.

"Having adequate funding for a project is essential. Admittedly, it can be difficult for many organizations to attract and hold on to the dedicated pool of funding needed to coordinate and administer the day-to-day activities of a fishery improvement project over a five to ten year period," says Jesse Marsh, Manager, Major Buyer Initiative, World Wildlife Fund (WWF). "Often, additional funding streams need to be developed throughout the project. They can come from a variety of sources including contributions by a single company, across multiple companies, by a foundation, by an NGO, by an international development agency, or even through creative cost sharing mechanisms such as self assessed taxing. At WWF we know that fishery improvements require strategic, focused, and sustained engagement. Our funding strategies for, and commitments to, these projects reflect that same long-term vision," concluded Marsh.

Public-Private Partnerships: The Business Imperative

The National Fisheries Institute (NFI) is the U.S. based trade association that represents the seafood industry. This non-profit organization is committed to helping its members succeed in the global seafood marketplace. Membership includes over 200 national and multi-national seafood suppliers, restaurants and retailers. As the U.S. seafood industry's primary trade association, NFI also serves as surrogate representative for its members' interests on a variety of subjects. The organization helps its members to make sense of the increasing breadth and complexity of global seafood issues, including the long-term impacts of poorly managed commercial activity on global fisheries.

John Connelly has been the President of the National Fisheries Institute (NFI) for almost a decade. "The seafood industry is constantly changing. Likewise the NGO landscape is not monolithic; these groups compete for funding and attention just like businesses do. Engaging in public-private partnerships allows us to help members understand not only the broad range of stakeholders but also their abilities, competencies, experiences, sphere of influence, and mindset. Traditionally, harvesters and farmers need to be convinced that there will be an economic benefit to any proposed conservation effort in addition to anticipated environmental improvements. NFI's involvement in PPPs like the Global FISH Alliance allowed us to represent our members' perspectives by expanding the conversation around fishery improvement from a focus on stock status and habitat protection to include discussions about ensuring market access and increasing competitive advantage," said Connelly.

Leading NFI members including, Darden Restaurants, Inc., and North Atlantic, Inc., have forged their own inroads with public-private partnerships. Like NFI, and other trade associations, these companies use public-private partnerships to review the landscape of pertinent stakeholders, and to identify, engage and build trust-based relationships with credible and reputable groups or individuals in support of their sustainability and social responsibility goals. "It makes sense for our members to take the lead on sustainable

seafood. Businesses move faster than government and, unlike the NGO community, our members work directly with, and benefit most directly from, fishery resources. The Crab Council is a great example of how industry stakeholders can take the lead on seafood sustainability," Connelly concluded.

Jerry Knecht, founder and president of both North Atlantic, Inc. and P.T. Bali Seafood International (BSI), is one of the leaders in the design, capital formation and execution of the new Indonesian fisheries business model. An active NFI member, Knecht was inspired to develop and launch the pioneering sustainable seafood company P.T. Bali Seafood International through lessons learned from his formal and informal involvement with public-private partnerships.

P.T. Bali Seafood International (BSI) is an Indonesian seafood processing company based in Bali, Indonesia. BSI is an operating processor formed in a joint venture between North Atlantic Inc and P.T. Intimas Surya, a minority Indonesian operating partner in BSI with a longstanding relationship with North Atlantic Inc. North Atlantic is an established Portland, Maine based primary processor, importer, and distributor of both fresh and frozen seafood. The company specializes in providing sustainable products for supermarkets, restaurants, and wholesale distributors.

"I own and operate two seafood companies, but I got into the seafood business by accident. As an undergrad I wanted to have a career in investment banking," laughs Knecht. This academic background in finance has served Knecht in his business ventures and has helped him to develop the business and social formulas he uses to successfully lead both companies. "I have four criteria for engaging with stakeholders on seafood sustainability: they must add value (financial and technical); they must be flexible and open to acting on input from industry, they must want to collaborate, and they must have a proven track record of successful past collaborations. I developed this formula through past observations of what did and did not work in the other PPP I participated in," continued Knecht. "It is just as important for partners to have the right characteristics as it is to involve the right stakeholders in the project. When each member of a PPP met all of these criteria the project usually succeeded, but when these characteristics were missing groups tended to lose focus and projects usually failed to achieve their goals."

Brandon Tidwell is the Manager of Sustainability for Darden Restaurants, Inc., another NFI member who lends substantial financial and technical support to fishery reform efforts through their involvement in various public-private partnerships.

Darden Restaurants, Inc. (Darden), the world's largest full-service restaurant company, owns and operates more than 2,100 restaurants that generate over $8.5 billion in annual sales. Headquartered in Orlando, Florida, and employing more than 200,000 people, Darden is recognized for a culture that rewards caring for and responding to people. In 2013, Darden was named to the FORTUNE "100 Best Companies to Work For" list for the third year in a row and is the only full-service restaurant company ever to appear on the list. The restaurant's brands – Red Lobster, Olive Garden, LongHorn Steakhouse, Bahama Breeze, Seasons 52, The Capital Grille, Eddie V's and Yard House – reflect the

rich diversity of their customers. The company has a US$2.6 billion supply chain, 24 percent of which is spent on seafood – approximately US$600 million annually.

In 2008, Darden invested a matching stake of US$100,000 to launch and implement the Global FISH Alliance Spiny Lobster Initiative, in Honduras, in partnership with USAID. And in 2011 the company made an even bigger commitment to the Clinton Global Initiative (CGI), investing over US$200,000 to date. "Darden is committed to helping rebuild troubled fisheries, both as a part of our sustainable fisheries mission and with our 2011 commitment at the Clinton Global Initiative. Working in partnership with companies, NGOs and private foundations, we will help fund, implement and launch three FIPs in the next several years. The lessons we learned from the Honduras Spiny Lobster Initiative will continue to inform our work," Tidwell stated. "As a major seafood buyer, Darden understands the health of fisheries will impact our business model to provide healthy, affordable seafood for our guests. That said, these problems are too big for any one company to tackle alone, so we will work strategically to raise awareness of the importance of FIPs and to identify additional partners for implementation. We launched our first FIP in the Gulf of Mexico with Publix Super Markets and the Sustainable Fisheries Partnership (SFP). Through these sustainability efforts we hope to develop a model for engagement that will inspire others to do the same."

Public-Private Partnerships: Idea Generation a Key Stakeholder Benefit

Accurate forecasting of near-future and distant challenges is an important first step in developing long-term plans for fishery reform. The data on fisheries are constantly changing. Species populations rise and fall, consumer preferences change, suppliers merge, divest or go out of business, and the attention of local communities dependent on fisheries often shifts and wanes. As the factors that impact fisheries change, the socio-economic and environmental management solutions must also change.

Knowledge exchange leading to idea generation is an important benefit of public-private partnerships (PPP). Under the right conditions, the idea exchange process afforded by PPP can be an important means for enhancing creativity and innovation. Many governments and charitable foundations look to key fishery stakeholders for innovative ideas that yield high return on their missions, goals and financial investments.

The David and Lucile Packard Foundation, the Gordon and Betty Moore Foundation, and the United States Agency for International Development are three organizations that maximize the idea generating potential of public-private partnerships.

The Foreign Assistance Act mandates that the United States Agency for International Development (USAID) engage in actions which support tropical forest conservation and sustainable management. USAID fulfills this responsibility through the strategic coordination of a variety of programs that conserve biodiversity of the planet's natural resources. Reportedly, thirty years ago, 70 percent of resource flows from the U.S. to the developing world came in the form of Official Development Assistance. Today, 80 percent of those resource flows come from foreign direct investment, private donations,

remittances, and other non-governmental sources. Official Development Assistance accounts for only 14 percent of these resource flows today, underscoring the increasing importance of the private sector in the development process.

According to Barbara Best, Senior Costal Resources and Policy Advisor for USAID, "Public-private partnerships can provide an innovative approach to development assistance which mobilizes ideas, efforts and resources of government, businesses and civil society. USAID's public-private partnership programs are designed to ensure sound and effective development, environmental sustainability, economic profitability, and social responsibility. And we partner with visionary stakeholders like Darden Restaurants, Inc., and the World Bank to leverage funding and to expand technical expertise for these projects. Public-private partnerships are essential for the success of our missions."

As the world's population and the accompanying demand for food increases, responsible management of freshwater and marine ecosystems, and sustainable capture of wild foods becomes essential to avoiding overexploitation. Governments of developing countries have been slow to address fisheries management, habitat protection, and ocean conservation issues, and while some developing countries have implemented robust fishery management policies few have the capacity needed to enforce their regulations.

"Involving local communities, who are often the first users or nearest extractors of local resources, plays an increasingly important role in the future of fishery reform. Public-private partnerships that include these stakeholders could bring seafood into the discussions about global food security where unmanaged resources have become overexploited due to unsustainable or criminal activity by local and foreign entities. Even in regions where corruption is high and rule of law is weak, active involvement from community stakeholders in conservation efforts and community ownership of the resource can lead to proper governance, equitable use, and responsible management. This 'community enforcement' offers a near-term solution in route to longer term improvements in government policing," said Best. "Our experience with the Global FISH Alliance Honduras Spiny Lobster Initiative reiterated the importance of leveraging local community stakeholders for new approaches to food sustainability and security."

Substantial amounts of money are required to manage, implement and enforce international agreements on fisheries, shipping and migratory species. The David and Lucile Packard Foundation is a family foundation that invests in innovative people and organizations to improve the lives of children, enable the creative pursuit of science, advance reproductive health, and conserve and restore the earth's natural systems. The Marine Fisheries subprogram of the David and Lucile Packard Foundation is among the Foundation's largest conservation initiatives. In 2012, it awarded approximately US$10 million in grants to support strategies designed to positively impact global marine fisheries conservation.

Lisa Monzón, Program Officer, The David and Lucile Packard Foundation, Marine Fisheries Program, values public-private partnerships as an opportunity to identify and

explore new and innovative financing strategies to fund ocean and coastal conservation, restoration, and planning initiatives in the long-term. “Fisheries are recovering in many areas of the world as best management practices are being replicated. However, too often financial hurdles keep these successful management practices from being continued after foreign involvement and investment in these fisheries cease,” said Monzón. “Public-private partnerships expand the community of stakeholders involved in fishery reform efforts and by extension they expand the community that is supportive of funding the fishery. In challenging economic times we must challenge the old funding models and embrace new ideas like venture capital, micro financing and voluntary contributions by seafood companies. ”

Launched in July 2005, the Gordon and Betty Moore Foundation’s Marine Conservation Initiative focuses primarily on two key ocean issues: overfishing (including by-catch and discards of unwanted catch) and habitat degradation. The initiative addresses these threats through support for a broad range of diverse constituents with the goal of ensuring sustainable use of the ocean and its resources. In 2012, the initiative awarded over US$20 million in grants to support strategies that align economic incentives with conservation goals to achieve lasting benefits for ocean ecosystems and the people who depend on them.

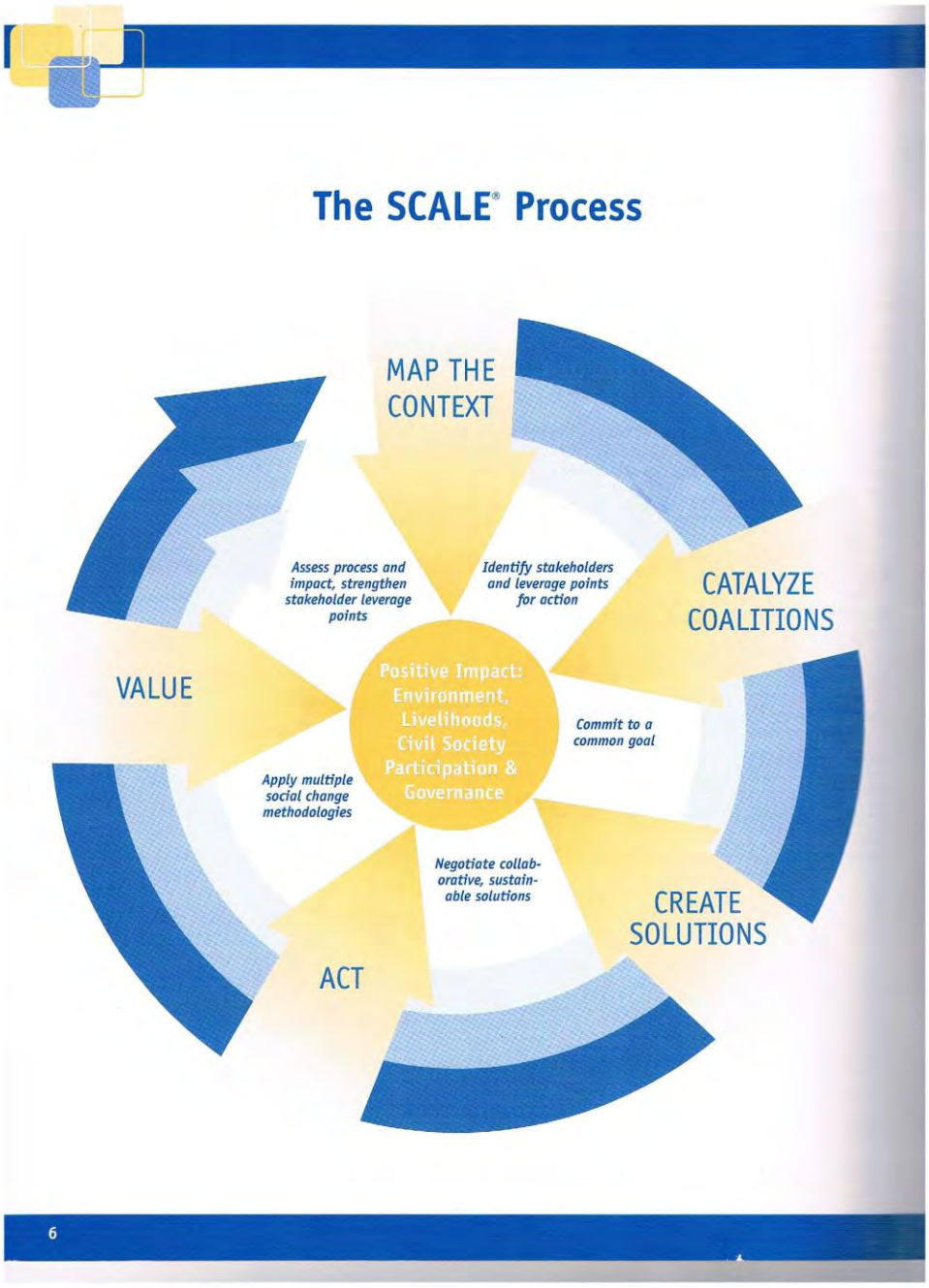
According to Meredith Lopuch, Program Officer for the Gordon and Betty Moore Foundation’s Marine Conservation Initiative, “public-private partnerships are critical to our work. We believe we can have the greatest impact in marine conservation by encouraging collaboration among different and even unlikely partners and grantees. Public-private partnerships can provide access to trade associations, industry and other stakeholders we would not likely meet otherwise. Engaging with myriad users of the planet’s natural resources greatly informs our perspective, helping us to see the big picture even more clearly and to direct our support to previously unidentified gaps rather than duplicating the efforts of partners and other stakeholders.”

Conclusion

There is no one perfect method of organizing a public-private partnership. Instead, the lessons learned by contributors to this document suggests that reforming overexploited or unsustainable fisheries requires strong engagement and commitment of all stakeholders involved in the value chain to ensure a globally-driven but locally-owned process. Fishery reform efforts are designed to deliver sustainable seafood products to the market while inspiring and growing a society capable of producing them. Historically, government agencies and charitable foundations have been the primary contributors to marine conservation efforts, but a challenging economic climate has constrained the ability of these entities to support fishery improvement efforts alone. The progression of innovative fishery practices from the pilot phase to the marketplace requires the financial and technical support of multiple stakeholders throughout the seafood value chain. There is great potential in integrating knowledge from fishermen, scientists, government, the private sector, and civil society in active fishery reform efforts. Such un-biased integration creates effective public-private partnerships. Public-private partnerships

provide opportunities for ongoing, iterative communication that can break down misperceptions, promote a common language and understanding, and enhance mutual understanding and learning between multiple stakeholders.

Appendix. The Scale Process



References

FAO 2009. *National Fishery Sector Overview: The Commonwealth of the Bahamas*. May 2009.

FAO 2011. Claudia Stella Beltrán Turriago. *Value-chain Analysis of International Fish Trade and Food Security in the Republic of Honduras*. February 2011.

FAO 2012. *The State of World Fisheries and Aquaculture 2012*. Rome.

NORAD/FAO 2012. *A value-chain analysis of international fish trade and food security with an impact assessment of the small scale sector*. August 2012.

Annex 7. Comparative Case Study & Final Evaluation Report

G-FISH project case study

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Acknowledgement: This report was prepared with the support of Chelsea Combest – Friedman, who conducted interviews in Honduras, and FHI360 staff, who conducted interviews in Mozambique and Cambodia and provided G-FISH background information and text. Informants generously volunteered their time for this effort.

Introduction

Tropical, small-scale fisheries provide important sources of protein, employment and are linked to long-standing cultural practices. These fisheries also take place in areas of high biodiversity and productivity. The management of these fisheries needs to be improved considering both social and ecological dynamics.

There is a long history to tropical fisheries management. Many approaches have been tried, but the vast majority of them have been technocratic and dependent on government intervention and external donor input (Christie et al 2007). While technical information is important and fisheries management tools have evolved, there remains an unmet need for planning processes that engage and empower local fishing communities. Recent global assessments of tropical fisheries management (Cinner et al. 2012; Guiterrez et al. 2010) highlight the central importance of co-management (whereby governments and fishing communities collaborate in management), participatory planning, leadership development, and context factors (such as unmanaged access to markets potentially resulting in overfishing) to improved fisheries management. The concept of co-management is not unique to fisheries and has been offered as a solution for more than two decades (Christie and White 1997).

The G-FISH project is an ambitious attempt to apply participatory and decentralized planning to establish fisheries co-management in three unique contexts—Honduras, Mozambique, and Cambodia. This case study presents essential contextual information and describes project activities in each context that followed a consistent planning process. The case study draws from interviews in each context to present the perspectives of participants in G-FISH. It also draws from social network analysis that was conducted over time in one project site, Honduras. The case presents background information on each site, interview results from a variety of informants for each site, and conclusions. The overall goal of this case study is to provide an empirically-grounded assessment of how G-FISH and the SCALE process evolved in each context and to identify, to the degree possible, consistent outcomes in all project sites.

Introduction

Honduran Spiny Lobster fishery

The spiny lobster (*Panulirus argus*) fishery in Honduras is worth nearly US$50 million in exports to the United States annually and provides direct employment to more than 4,000 people from coastal communities. It is Honduras' most valuable wild caught fishery. Yet,

despite its economic importance, national management strategies and weak fisheries governance have made the fishery unsustainable. Honduras is one of the poorest countries in the Western Hemisphere and La Moskitia is its most impoverished region. In addition, SCUBA dive fishing is one of the principal ways that lobster is caught and threatens divers, lobster stocks, and biodiversity. As stocks decrease, fishers have to dive deeper, longer, and more frequently increasing injuries, disabilities, and mortality. Approximately 2,000 Honduran divers have been injured and at least 600 have died from decompression sickness as a result of unsafe diving practices in pursuit of spiny lobster (personal communication, Dr. Elmer Mejia). The lobster fishery in Honduras is very complex with diverse stakeholders and issues related to environmental degradation, economic stability, governance, human health, labor, and social justice.

The Caribbean spiny lobster is the highest valued single species fishery of the Caribbean. In Honduras, the fishing industry exports an estimated $50 million worth of lobster annually to U.S. markets. The Honduran industrial fisheries started to exploit lobster, conch, and shrimp in the late 1950s. These fisheries developed under a private enterprise model with a few companies owning large fishing boats and processing plants for export centered on the Bay Islands of Roatán and Guanaja. As the lobster fishing sector continued to expand through the 1970s and 1980s, additional packing plants and port facilities were established in the coastal town of La Ceiba in Atlántida on the Caribbean coast (Box 2013).

There are two ways that lobster is caught in Honduras – through SCUBA diving and traps. In the 1990s, boats based in Roatán gradually shifted their fishing technique away from diving and focused instead on using wooden lobster traps. Meanwhile the boats based from La Ceiba and Guanaja continued with SCUBA diving (Box 2013).

The dive fishery grew through a cheap labor force comprised of men from poor indigenous communities that stretch along the isolated Miskito Coast. The fishery supports the livelihoods of thousands of Hondurans who fish, process, and export lobsters to consumers in the U.S. However, high demand and weak management has led to overfishing. While not published, the Box (2013) study reports that lobster production has decreased over the last decade despite increasing fishing effort. SCUBA-dive fishing for lobster threatens healthy lobster stocks and related biodiversity because poor oversight enables divers to remove lobsters of any size that they encounter along with other commercial species such as conch and fin fish. It is also an extremely dangerous activity for the divers who catch the lobster.

As industrialization of this fishery intensified, safety protocols were ignored. Exceeding the number of divers for the boats' carrying capacity, inferior and poorly maintained dive gear, and untrained divers engaging in unsafe diving are common practice. As stocks decrease, fishers have to dive deeper, longer, and more frequently increasing injuries, disabilities, and death rates. Over the years, thousands of Honduran divers have been injured and at

least 600 have died from decompression sickness as a result of unsafe diving practices in pursuit of spiny lobster and this continues in 2013.

The vast majority of lobster exports from the region are destined for the United States, which accounts for almost 90% of the market. Diving in the lobster fishery is the principal source of cash and provides an estimated $7.2 million annually to the rural economy in the Moskitia (Box 2013).

Fisheries governance is weak in Honduras and the lobster fishery is poorly managed and monitored. Labor laws are inadequate and there is little accountability or responsibility placed on vessel owners or boat captains for SCUBA diving related injuries. In 2009, Honduras signed a regional agreement of the Fisheries and Aquaculture Sector Organization of the Central American Isthmus (OSPESCA) to harmonize lobster fishing regulations across Central America under agreement OSP-02-09 (Table 1). This included standardizing a minimum size and weight, a closed season and gear restrictions, including the prohibition of collecting lobster whilst SCUBA diving. These regulations were phased in over a two year period with the SCUBA diving prohibition given an extension of two years until July 2013 to allow Honduras and Nicaragua, the last two countries still using SCUBA diving in that capacity, more time to transition the fishing communities to better practices and alternative livelihoods. Unfortunately, in March 2013, in spite of having already developed a national transition plan, the Nicaraguan legislature voted to override the regional agreement and extend SCUBA diving for lobster for three more years. Honduras similarly proposed a transition plan; yet, continued to issue licenses to SCUBA diving vessels to start fishing in July 2013. Skeptics fear there is now a track record of postponement and divers will keep dying or becoming paralyzed, resources will decline, and maximum economic yield will be lost.

Table 1 Regulations for the Honduran Lobster Fishery

Regulation	Details	Regulation document
Total Lobster Licenses	192 trap vessels, 0 dive vessels	La Secretaría de Agricultura y Ganadería (SAG) Regulation

		1093-2011
Closed Season	1st March to 30th June	OSPESCA OSP-02-09
Gear Restrictions	Maximum of 2,500 traps per boat	OSPESCA OSP-02-09
	Traps must have 5.4 cm high escape slot	OSPESCA OSP-02-09
	All traps must be made from biodegradable material	SAG Regulation 0002-2011
	All traps must be taken out of the sea and returned to port at the end of the season, including their concrete bases	SAG Regulation 0002-2011
	Prohibition of the capture of lobster using compressed air from July 2013	OSPESCA OSP-02-09
Minimum Size	140 mm minimum tail length	OSPESCA OSP-02-09
Minimum Weight	5oz ±½oz minimum mean weight (unfrozen).	OSPESCA OSP-02-09
Trade	Prohibit the capture, retention and sale of lobsters that are in their reproductive phase, with eggs or molting, or the sale of lobster meat without the shell or chopped	OSPESCA OSP-02-09

	Lobster stored at processing plants must be inventoried by fisheries department within three days of the end of season so that they can sell during closed season.	OSPESCA OSP-02-09

There is a need for better data for both the trap and dive lobster fishery in Honduras. Four sources of data for lobster production statistics from Honduras are available: La Dirección General de Pesca y Acuicultura (DIGEPESCA), Fisheries and Agriculture Organization (FAO), Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA) and the National Oceanographic and Atmospheric Administration (NOAA). Packing plants report their production figures to DIGEPESCA at the end of each month. These data are collated into annual reporting statistics by DIGEPESCA, which are then submitted to FAO as part of their commitment to global reporting of food production. When lobster is exported, the volume of the export is recorded by OIRSA, the national-level organization responsible for agricultural health. When the lobster is imported into the U.S., it is recorded by the NOAA seafood trade monitoring system (Box 2013).

Reported production and export of lobster from Honduras peaked in 1986 (according to the FAO and NOAA). Exports have been steadily declining over the past three decades. Facing rising fishing costs, which are no longer matched by a growth in dockside product value, Honduras' lobster fishery has been contracting. Given the importance of the lobster species, additional information is needed to ensure accuracy.

Honduras' lobster fishery is governed by a suite of regulations, but there is no management plan that specifies an actual strategy to ensure the fishery is sustainable by setting catch limits or quotas or establishing mechanisms to measure the efficacy of the regulations combined with triggers and responses for adaptive management. As such, the Honduran fishery has regulations but lacks a framework to measure and interpret whether they are being effective to ensure the sustainable use of the resource (Box 2013).

Political will to address some of the major fisheries issues has been lacking. Although there are those in the national government who have shown a commitment to the environment and Honduras' natural resources, the government of Honduras has struggled to address the

issues with fisheries and communities especially within DIGIPESCA and the La Secretaría de Agricultura y Ganadería (SAG) Ministry. In addition, 2013 is an election year and fisheries are not a priority issue. Due to these factors, more attention should be paid to leveraging market-based approaches and engaging directly with communities.

A central aim to improve the management of Honduran fisheries must be to improve the coordination between government agencies for planning and implementation, and to remove institutional overlap that could lead to conflict or redundancy in specific policies or activities. Steps have been taken to address this by building an inter-institutional panel for coastal and marine management to improve coordination and discuss priorities and plans from each department; however, there is significant room to improve this and build capacity that could greatly enhance coordination of marine strategy (Box 2013).

Mozambique small scale fishery

In Mozambique, fisheries help ensure food security, reduce poverty, and promote proper nutrition. A majority of Mozambicans' are food insecure. According to the FAO, the annual per capita consumption of fish is 5 kilograms whereas the worldwide average is 16kg. The country has over 2,700 km of coastline and approximately 13,000 km^2 of freshwater. Additionally, fisheries create jobs that employ both genders in coastal communities. According to the FAO, "About 500,000 people [in Mozambique] directly depend on fishing activities for their livelihood. This provides livelihood for a large number of women operating from landing sites to the markets."

The small-scale and artisanal fisheries in Mozambique play a significant role in the national economy. FAO reports that the sector accounts for about 80% of the total marine catches. The artisanal fisheries consist of individuals or small groups of fishermen with very weak economic power. They make use of non-motoric fishing vessels/ boats of 3-8 m in length. They use beach seine, gillnet and longline to catch fish. The sector also consists of fish collectors and divers. It is estimate that there are approximately 15,000 small-scale fishing boats and canoes in Mozambique, of which 3% are equipped with engines, using beach seine and gillnet fishing gears.[1]

Pemba Bay is small but significant place in northern Mozambique with a population of 170,000. The bay is known as the third deepest bay in the world and is home to extensive biodiversity of both habitats and species. An ecological survey, performed by WCS, suggests that Pemba is at the southern end of the high biodiversity area reported in the Western Indian Ocean (WIO) that extends from northern Madagascar to southern Tanzania and south the Quirimbas in Mozambique. While high coral diversity was reported for the reefs on the seaward side of the Londo Peninsula, other sites surveyed showed various signs of degradation. In addition, the biomass of fish is among the lowest reported in the

[1] *UN Food and Agriculture Organization Mozambique Fisheries Overview:* ftp://ftp.fao.org/FI/DOCUMENT/fcp/en/FI_CP_MZ.pdf

Mozambique region suggesting a large fish demand footprint from Pemba town extending to the Quirimbas Marine National Park. [2]

In addition, a large off-shore natural gas reserve North of Pemba was recently discovered. This discovery has the potential to result in economic development and support for resource management programs. Development, if poorly managed, may damage the fishery and provide economic benefits for few.

Some of the primary threats to biodiversity and barriers to conservation have been identified as:

- **Confusion about enforcing rules and regulations**: Throughout meetings between FHI 360, Community Fisheries Councils (CCPs), community leaders, and the Department of Fisheries, it became apparent that the rules governing the Pemba fishery are not completely known, and additionally, the bodies responsible for enforcing rules are not known as the Department of Fisheries believes CCPs enforce certain rules while the CPPs believe that the Department of Fisheries is responsible for enforcement.

- **Lack of Awareness:** Many fishers, boat owners, and middlemen are unaware of declining fisheries.

- **Need for local control of fishery:** The Gímpia CCP leaders have relayed their concerns to FHI 360 staff about the illegal and destructive fishing happening near their community by outside fishers and the impacts on Gímpia's catches.

- **Improve compliance:** Neither CCPs nor the Department of Fisheries have the capacity or funding necessary to enforce fishing regulations. Therefore, promoting incentives for compliance with fisheries regulations is crucial for sustaining the Pemba Bay fishery.

- **Lack of trust between CCPs and community leaders:** Currently, there are three CCPs in Pemba that oversee the fisheries. Within these three CCPs there are seven communities, and each community has a community leader. At the start of G-FISH there was distrust between the community leaders and heads of CCPs.

Cambodia small-scale fishery

In Cambodia, G-FISH has been organizing efforts to improve Tonle Sap Lake fisheries, which provide more than 70% of the total protein intake for the Cambodian diet, especially the rural poor. The Mekong region is a biodiversity hotspot, whose magnitude is only being discovered: in the last decade, more than 279 new species of fish have been discovered in

[2] McClanahan, Tim and Nyawira Muthiga. Environmental an Resource Survey of Pemba Marine Environment. Wildlife Conservation Society, Coral Reed Conservation Project.

this basin (WWF 2009). According to the WorldFish Center, the Mekong River is second in the world for its freshwater fish diversity, after the Amazon (Baran 2010). The FAO cites the inland fishery of Cambodia as one of the richest natural resources in the Mekong river region and in the world, due to its seasonal changes of water regime and its ecological diversity. The high productivity stems from the annual inundation by the Mekong River of the floodplains found in central Cambodia around the Tonle Sap (Great Lake) and northeast and south of Phnom Penh, where important fish habitats such as flood forests are found. When all animals and plants are considered, more than a thousand new species have been discovered in the basin within a decade. Sixty-two percent of the Tonle Sap's water originates from the Mekong River. In October 1997, the lake was nominated as a Biosphere Reserve under the Man and the Biosphere Program of the United Nations Educational, Scientific, and Cultural Organization.

The lake's biodiversity underpins the livelihoods of much of the one quarter of the Cambodian population who lives in the five provinces around the lake (about 2.9 million people) and supplies up to 70% of the protein intake of Cambodia's population as a whole. The fisheries sector is critical to domestic food security, providing the main source of animal protein in the national diet and essential vitamins and micronutrients in a country where 30 percent of children are undernourished. Food security is also linked to the fishery through livelihoods. According the government of Cambodia, their fisheries provide full-time, part-time and seasonal employment for up to six million people—more than one-third of the population. Yet, in the recently published Ocean Health Index, Cambodia score places it in 142nd place among all countries evaluated. More importantly, Cambodia received sub-scores of 3 (out of 100) for "Food Provision," a measure of the sustainability of seafood harvested primarily for human consumption.

Significant efforts over the past decade have aimed at improving management of fisheries resources for the benefit of local communities and the broader population. In 2001, Cambodia was the first country in Asia to introduce a dedicated Community Fisheries Development Office within its Department of Fisheries. The legal basis for establishment of community fisheries organizations was put in place in 2005 with a Sub-Decree on Community Fisheries Management, which also outlines the scope of community roles in resource management and enforcement. By 2009, 469 community fishery organizations were formally established (So et al. 2010). Yet, creating the legal space for a new resource regime was only one step in establishing secure and equitable access for fishing communities, who today face a range of challenges.

G-FISH initiated the SCALE process in Cambodia in June 2011, in collaboration with WorldFish. Based on stakeholder consultations especially during the Whole Systems in the Room meeting at the onset of G-FISH, FHI 360 concluded that the key threats to biodiversity on the lake are:

1. Tonle Sap is utilized by permanent residents of floating villages, immigrants from Vietnam, commercial and semi-commercial fishers, and villages bordering the Tonle Sap. Overfishing threatens this biodiversity and aquatic resources;

2. Demands for fish products from Tonle Sap have increased export demands compromising fisheries conservation;
3. Seasonal deforestation of flooded forest for rice cultivation has posed threats to critical spawning grounds and habitats for Tonle Sap fish species;
4. Increased commercial activities around the Lake have increased pollutants in the water.
5. Lack of proper hygiene and sanitation is a threat to environmental health.

This group also identified a number of key barriers to conservation:

1. Due to a lack of conservation and management policies for Tonle Sap, proper no-take zones or fisheries management schemes have not been developed to protect fisheries resources.
2. Due to low capacity of enforcement entities and lack of awareness and knowledge of sustainable fishing techniques by communities, the use of illegal and destructive fishing gear is prevalent on the Tonle Sap
3. Cambodian laws have created multiple layers of regulator entities. Therefore, there is a lack of clear governance structure between the Fisheries Administration (FiA), the Tonle Sap Authority, and local enforcement entities impacting the efficient governance of the Tonle Sap.
4. Poverty among subsistence fisheries on the Tonle Sap leads to an overutilization of the resource. As individuals fish more to try to improve their livelihood, the sustainable utilization of the Tonle Sap fishery is compromised.
5. Community advocacy for reforming fisheries is not grounded at the local level due to a lack of capacity of community members to effectively call for and facilitate meetings and then present meeting findings and commitments to the government or donor community;

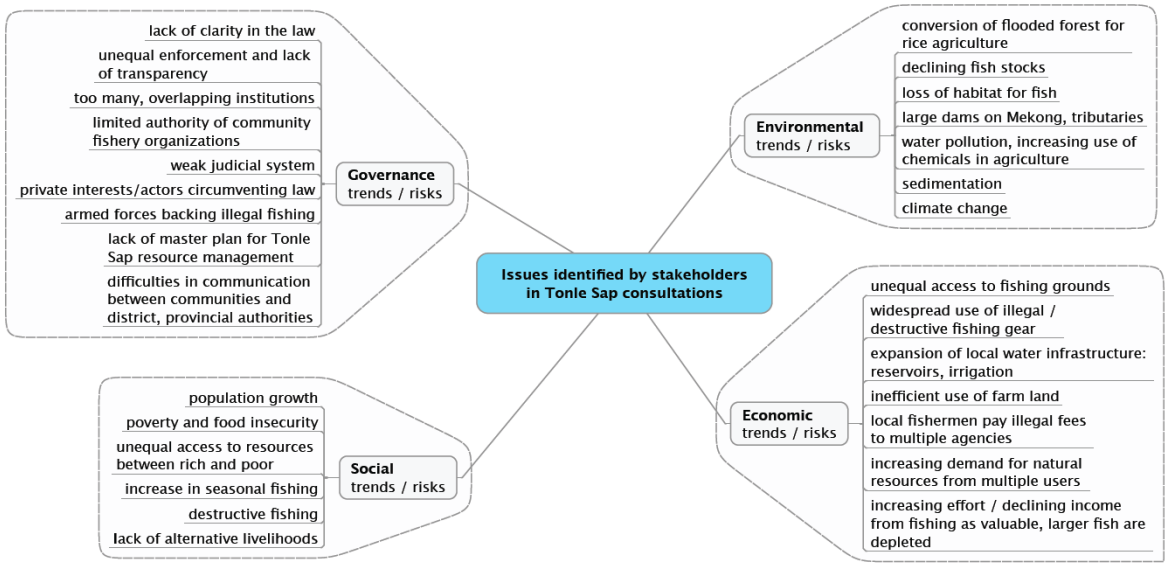
Key challenges facing Cambodia's inland fisheries identified by this group include:

1. Competition over fishery resources. This includes competition between the commercial fishing lot concessionaires and small-scale fishers, among neighboring fishing villages, and between local users and seasonal migrants. It also includes conflict around illegal fishing techniques including electric shock fishing and use of poisons.
2. Competition between conservation and local livelihoods. This includes tensions stemming from the overlapping of protected areas for biodiversity conservation and fisheries exploitation, as well as efforts to limit or prohibit fishing to protect target species such as the critically endangered freshwater dolphin.
3. Incompatible infrastructure, land use, and water management. Local disputes stem from competition over water (such as when flood recession fish refuges are pumped to irrigate crop agriculture), infrastructure planning (including reservoirs, irrigation systems, and roads that can block fish migration between the lake, tributaries, and floodplain), and land use (such as agricultural development schemes that would convert flooded forest zones to crop agriculture).

4. Constraints to community-based management and local governance. Some actions, such as clearing flooded forests or encroachment into fishing grounds allocated for community management, are illegal but backed by powerful local elite with effective impunity. This points to gaps in accountability and mechanisms for equitable dispute resolution.
5. Constraints to market development and gender equity. Processing, marketing, and trade account for a large percentage of livelihood activities in the fisheries sector, and are especially critical for women's income. Yet inefficiencies and constraints in the fish value chain pose obstacles to wealth generation for poor households and equitable distribution of benefits.
6. Development of hydropower dams on the mainstream and tributaries. Though community fisheries have so far had little voice in the matter, a major threat to the future sustainability of fisheries is the proposed hydropower dams on the Mekong mainstream in Laos, along the Lao/Thai border, and in Cambodia, which would alter the flood cycle and jeopardize fish species that migrate long distances (Baran et al. 2007).

An issue mapping exercise conducted at the first Advisory Group meeting in preparation for the Whole System in the Room (WSR) meeting (June 2011) identified a wide range of issues and trends of current concern to stakeholders. These are shown in Figure 1, supplemented by several additional points raised in local consultations and individual stakeholder meetings.

Figure 1. Output of Advisory Group meeting in Cambodia.



Poverty levels remain high in provinces surrounding the Tonle Sap Lake, and poverty reduction efforts depend significantly on progress addressing the challenges of natural resource competition and governance. The Tonle Sap Lake plays a critical role in rural

livelihoods, food security, and the national economy.[3] The Tonle Sap Lake and its floodplain provide important sources of livelihoods, food and employment to about 4.1 million people (about 31 percent of Cambodian population) living in six provinces around the Lake (Kompong Chhnang, Pursat, Battambang, Banteay Meanchey, Siem Reap and Kompong Thom). More than 1.2 million people make a direct living from fisheries related activities. The Lake provides more than half of the total inland fish catch and its floodplain habitat is essential to the productivity of the Mekong basin fishery within Cambodia and beyond.

However, poverty in the Tonle Sap basin remains high relative to other regions. About 46 percent of the population in the Tonle Sap basin was poor in 2008, significantly higher than in the Mekong plain (12 percent), the central plateau (34 percent) and the coastal area (11 percent). With limited alternatives for income generation, poor households in the basin rely heavily on natural resources, including fish, to sustain their livelihoods. Of all fishing households, 90 percent are small scale. Almost all diversify their livelihood strategies, incorporating fishing, fish processing, farming and other occupations.

Poor households face challenges in securing benefits from the fisheries reform. In 2000–01, the government introduced a series of reforms that constituted the most dramatic, large-scale shift in all of Asia from private, commercial use rights to community access in inland fisheries. In March 2012, the Royal Government of Cambodia decided to reform the fisheries sector by abolishing all private fishing lots in the country. This meant that more than 538,000 hectares, 56 percent of the former total area of commercial freshwater fishing lots, were released for public access. While the early post-reform years were characterized by intense conflict and de facto open access in the absence of a legal and institutional framework to replace the commercial lot system, this framework has gradually been strengthened. Initiatives supported by the government, development partners and NGOs have promoted awareness of fisheries and environmental laws and regulations, built the capacity of community fisheries, addressed local conflict management and supported the establishment of fish sanctuaries in community fishery areas to improve resource productivity. However, the development challenges in the Tonle Sap basin remain intense. Poor households often lack human and financial capital to take advantage of the opportunities generated by the fisheries reform to improve their livelihoods and move out of poverty.

[3] Section excerpted from So Sovannarith, Blake D. Ratner, Mam Kosal, and Kim Sour, 2011 (in press). Conflict and Collective Action in Tonle Sap Fisheries: Strategic Priorities to Improve Governance and Support Community Livelihoods. Policy Brief. Phnom Penh: Cambodia Development Resource Institute. An extended report (CDRI Working Paper), including full referencing on sources of background data, is also available.

Overview of SCALE AND G-FISH

SCALE Methodology

Reforming fisheries requires strong local engagement of the stakeholders involved in the value chain to ensure a locally-driven and owned process. Stakeholders along the entire value chain are engaged to strengthen vertical integration and competitiveness. A systems approach to fisheries can improve the impact of development assistance to the sector by identifying and targeting the key leverages points with appropriate technical assistance, from changing individual and stakeholder group behaviors to strengthening institutions to changing economic incentives. Over the last 15 years, FHI 360 has developed and refined a systems approach to social change, the System-wide Collaborative Action for Livelihoods and the Environment (SCALE) approach. SCALE is a communications-driven management approach that results in greater impact at scale, creating social capital, strengthening governance, and increasing sustainable economic growth and livelihoods. Developed from the 13-year, 30-country experience of the USAID GreenCOM project, SCALE takes a systems approach to social change. This innovative approach provides all stakeholders with a common road map to identify resources within the system, focus on gaps in technical expertise, and evaluate, initiate, and implement system-wide collaboration for wide-scale impact. To better ensure a sustainable systematic solution, a project must engage all individuals and organizations who have a vested interest in fisheries. The end result is that stakeholders become committed to implementing action plans created together and sharing resources, thus translating ownership of the issue into local leadership structures. G-FISH seeks to empower people to become the drivers of their own development process by strengthening their capacity for informed decision-making and sustainable, collaborative action.

Originally featured to the Stanford Social Innovation Review (SSIR), the collective impact theory holds that "Large-scale social change comes from better cross-sector coordination rather than from the isolated intervention of individual organizations ... greater progress could be made in alleviating many of our most serious and complex social problems if

nonprofits, governments, businesses, and the public were brought together around a common agenda to create collective impact. It does not happen often, not because it is impossible, but because it is so rarely attempted. Funders and nonprofits alike overlook the potential for collective impact because they are used to focusing on independent action as the primary vehicle for social change." [4]

This is the theory that contributed to the development of the SCALE process. In order to create lasting solutions to social problems on a large scale, organizations need to coordinate their efforts and work together around a clearly defined goal. There is no "silver bullet" solution to systemic social problems, and these problems cannot be solved by simply scaling or replicating one organization or program. Collective impact is best employed for problems that are complex and systemic rather than technical in nature. Collective impact initiatives are currently being employed to address a wide variety of issues around the world, including education, healthcare, homelessness, the environment, and community development. Many of these initiatives are already showing concrete results, reinforcing the promise of collective impact in solving complex social problems. Successful collective impact initiatives typically have five conditions that together produce true alignment and lead to powerful results:

1. Common agenda
2. Shared measurement systems
3. Mutually reinforcing activities
4. Continuous communication, and
5. Backbone support organizations[5]

SCALE includes five key elements: 1) Map the Context; 2) Catalyze Coalitions and Partnerships; 3) Create Collaborative, Sustainable Solutions; 4) Facilitate System Integration to Act; and 5) Monitor and Evaluate the Value. One of the initial steps in the SCALE process is the Whole-System-in-the-Room (WSR) event, using Future Search methodology. The WSR is a catalytic activity in which stakeholders can springboard into a new course of action, one with collaboration at the base. In the Create Solutions and Act steps, SCALE implementers employ communications strategies and social change methodologies to assist stakeholders in the pursuit of their common goals.

Social change methodologies include several broad categories of activities including:

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[4] John Kania & Mark Kramer, Winder 2011, Stanford Social Innovation Review, Collective Impact: Large-scale social change requires broad cross-sector coordination, yet the social sector remains focused on the isolated intervention of individual organizations. By http://www.ssireview.org/articles/entry/collective_impact

[5] John Kania & Mark Kramer, Winder 2011, Stanford Social Innovation Review, Collective Impact: Large-scale social change requires broad cross-sector coordination, yet the social sector remains focused on the isolated intervention of individual organizations. By http://www.ssireview.org/articles/entry/collective_impact

- Conflict Resolution
- Social Marketing
- Institutional Capacity Building
- Education and Training
- Mass Communication
- Organizational Development
- Advocacy

These approaches can be used simultaneously when needed over the course of the project (or intervention) to ensure that stakeholders remain mobilized and focused on their common goals. Technical assistance is woven into these broad categories of activities; in the case of G-FISH, the technical expertise of partners is identified to complement the social change expertise of FHI 360. One of the most important parts of SCALE is to ensure a wider impact of a technical intervention by keeping stakeholders focused on collaborative actions after the WSR for months and years to follow; thus ensuring locally-driven and sustainable solutions. SCALE can be applied for the development process – at the beginning of the planning process or to initiate a new program and galvanize local stakeholder buy-in. SCALE is particularly suited to identifying and engaging with new and non-traditional partners, such as local private sector partners and media representatives. The SCALE process can also be an effective coordinating mechanism when there are multiple donors and/or multiple NGOs working in a specific geographic area and there is a need for closer coordination and synergy.

A combination of best practices from various disciplines, SCALE's innovation is the way it combines these practices into a process that focuses on system-wide change (Figure 2). SCALE generates this change by catalyzing and supporting concurrent and sustainable collaborative action toward common goals by as many stakeholders in the system as possible including individuals, groups, organizations, businesses, institutions, partnerships, and coalitions. G-FISH seeks to empower people to become the drivers of their own development process by strengthening their capacity for informed decision-making and sustainable, collaborative action.

Figure 2.

Traditional Development Methodologies vs. SCALE — A Comparison[1]

Elements	Traditional Development Methodologies	SCALE
Changes Agents	Typically, outside experts, project staff, consultants	Primarily system stakeholders (with limited but strategic support facilitated by technical experts)
Targets/Desired Outcomes	Generally specific outcomes or results with variable outcomes in change of beliefs, knowledge, attitudes and practices in select groups or societal segments	Systems-level change, often broad-based change in beliefs, attitudes and practices as well as increased level of collaboration and participation between and among multiple stakeholders
Scalability/ Applicability	Low to high, specific to society, a sector, or organization	Appropriate at variable scales, from geographically defined region (i.e., watershed, eco-region), to national to regional (transboundary) levels. but with high likelihood of broad applicability to various development issues
Scope	Often limited to a single/ limited number of dimensions of a single/limited number of institutions/sectors	Often multi-dimensional; multi-sectoral
Sustainability	Often times difficult to attain once project funding ends and measure impact after project is completed	At present, mostly anecdotal, with limited empirical evidence available of sustainability of the approach, but appears promising. More work is needed.
Pathways of Change	Business as usual, often top-down or bottom-up, with occasional two-way approach applied. Stakeholders frequently engaged after project has been designed and implementation begun	Transformational and non-traditional, as system stakeholders are active participants in the change process from the outset and not passive observers
Measuring/ Evaluating Development Impact	Relatively easy to measure development impact using established M&E and performance-based methodologies	At present, somewhat difficult to assess using traditional evaluation methodologies as well as many impacts are often unexpected and unplanned, or fall outside the traditional indicator framework
Value for Money	Heavy reliance on donor financing. Great variability in overall cost of implementation (Low-High)	Relatively Low-Modest level of donor financial support. Stakeholders share implementation burden by committing own resources (cost share) and leverage additional funds. System mapping and SNA used to help target use of donor resources strategically to strengthen the system where needed.
Control/ Management	Heavy donor oversight and direction. Generally inflexible, rigid work plan/implementation path developed by project staff	System- driven; donor/client has limited control or management oversight of process. System stakeholders lead activities identification for work plan

1 - Mapfumo, P.; Onyango, M.; Honkponou, S.; Mzouri, E.; Githeko, A.; Rabeharisoa, L.; Obando, J.; Omolo, N.; Majule, A.; Denton, F.; Ayers, J.; and Agrawal, A. Table adapted from and based on a presentation entitled: "Pathways for Transformational Change in the Face of Climate Impacts," made at the Development & Climate Days, sponsored by IIED, in conjunction with COP 17, Durban South Africa, December, 2011.

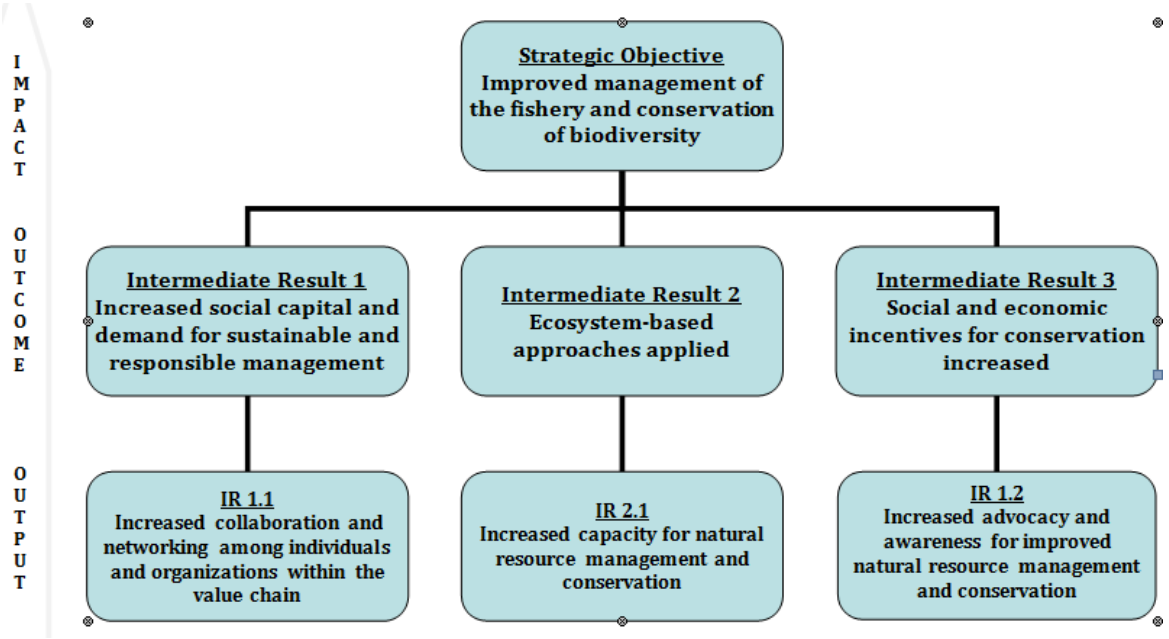
The overall agenda for G-FISH the final year of the program was to identify which interventions have the greatest impact in a given context, which interventions are most cost effective, and what combination and or consequence of interventions/investments have the greatest impact on fisheries. It is also necessary to develop a Learning Agenda to determine related effects of interventions on vulnerable populations and improved natural resource management that sustains livelihoods and resources for future generations. Through this Learning Agenda, G-FISH seeks to contribute to the body of knowledge on social engagement and fisheries management for enhanced biodiversity conservation for improved design and management of interventions in the fisheries sector.

The Global FISH Alliance

The G-FISH program applied a system-wide approach that integrated governance (fisheries management policies, advocacy, and strategies), civil society (managing existing knowledge, attitudes, and practices of fisheries, food security, livelihoods and biodiversity

issues with partners), private sector (businesses engaged in fisheries issues as well as tourism and agricultural/livelihood issues), and environmental (best ecosystem-based management practices for biodiversity/natural resource preservation, technologies, and services) that are all essential to sustaining and improving livelihoods and biodiversity. Figure 3 presents the 'results framework' for G-FISH. The focus of G-FISH has been on collaborative planning, increasing human and institutional capacity, and raising awareness about relevant and critical social and environmental conditions. This approach has resulted in policy innovation and improved environmental but the contexts have been challenging and the time frame short for Mozambique and Cambodia especially. The following sections provide an overview of actions taken and results. The impacts are examined by using interviews with G-FISH participants in each context.

Figure 3. G-FISH results framework.



Case Study Methods

Monitoring and evaluation (M&E) data collected by FHI 360 and reports by other evaluation studies were reviewed and considered in this analysis. Key informant interviews and brief surveys were conducted with at least: 1) project staff, 2) government officials, and 3) a mix of key project collaborators (resource users, community leaders,

industry leaders, etc.) in each context. Semi-structured interviews varied by context, but generally focused on G-FISH accomplishments, challenges, influential contextual variables, impact of G-FISH on fisheries management, involvement of marginalized people through G-FISH, and the possibilities of sustaining G-FISH initiated efforts. Twenty-six interviews were conducted in Cambodia by G-FISH employees. Seven interviews were conducted in Mozambique by a G-FISH employee. Fifteen interviews were conducted in Honduras by Chelsea Combest-Friedman (who is not a G-FISH employee). Patrick Christie interviewed G-FISH four staff members and other key partners from WCS Interviews were coded considering the strengths, weakness, opportunities and threats (SWOT) in each context. Interview quotes were analyzed to identify successes and challenges in each project site. Consistent trends across sites were also identified and linked to the best practices for co-management and EBFM.

Specific interventions and accomplishments by country

Honduras

The lobster industry is a multi-faceted, dynamic sector requiring a comprehensive approach. USAID partnered with FHI 360 and Darden Restaurants, Inc. — owner of Red Lobster, Olive Garden, and others and the largest U.S. importer of lobster from Honduras – after a shared interest in reforming the lobster fisher was discovered. Together, USAID, FHI 360 (legacy AED) and Darden formed the Global FISH Alliance in Honduras to promote sustainable fisheries practices through an approach that balances economic, environmental, governmental, and social issues essential to enhancing livelihoods and biodiversity. "FHI 360 uses the SCALE approach that engages a diverse set of stakeholders (the whole system) from the outset of the program so individuals drive the decisions on the type of work that is done in-country. Using demand driven development ensures the programs efforts are truly sustainable because they are embedded in and championed by the communities where we work in Honduras. Due to the complex nature of this fishery, we knew we needed work with more than one stakeholder group; we needed to focus attention on leveraging market-based approaches and engaging directly with communities to support reform", Jenny Barker, Director of the Global FISH Alliance.

To start the reform process, G-FISH first met with community members to inventory issues from different perspectives and to identify opinion and leaders. Leaders were invited to join a 26-member Working Group made up of fishers, non-governmental organizations, industry, government and others to guide the process and support the partnership and networking needed to achieve a set of common goals identified by the community. As a result, the Spiny Lobster Initiative (SLI) was launched in 2009.

The private sector – from processing plant owners, to boat owners to exporters and importers – was identified as a key player and the strongest economic and political constituency in the fishery. However, when the program started, the lobster value chain was not vertically integrated and little information flow traveled along the value chain due to the lack of trust. Through the efforts of the SLI and the Working Group, greater trust has developed among the different trade associations, enhancing collaboration for an ecologically and economically sustainable fishery. Industry members have become strong advocates for reforming the lobster fishery. They have petitioned the National Congress to create a Fisheries Commission to address fisheries issues in the Congress, including a new Honduran Fishery Law, the National Scuba Dive Lobster Transition Plan, and the national industrial fleet inventory. They have also called for limiting the number of boat licenses.

> "The Spiny Lobster Initiative has partnered with more than 80 local and international organizations, businesses, and the government to reform the lobster fishery. We enhance collaboration along the value chain, empower local stakeholders to address key threats to biodiversity and the fishery, and build stewardship to improve management." Jimmy Andino, SLI Director.

Prior to the program, the Miskito had little voice to influence and affect policy and were rarely invited to participate in discussions about their future health and livelihoods. The SLI brought them into the decision-making process and empowered the community to speak on their own behalf as key members of the value chain. By the end of the first year, Miskito representatives were confident and active participants in meetings with government authorities and donors, negotiating for better contracting and diving practices, and requesting support for fisheries management workshops and the development of alternative livelihood projects. "The Lobster Initiative works very differently from other projects, doing a lot of promotion of the rights of the fishers in Honduras and making the Miskito known to the world." (Erasmo Granuel- Director of Disabled Divers Association, La Moskitia, Honduras, November 2011). The significance of the involvement of Miskito divers in the G-FISH was apparent to major private sector interests as well.

> "Just the fact that the Miskito Indians were a significant part of it [the Initiative]. The other projects we've worked on, that piece of it wasn't there to the extent it is here, the social issue with the Miskito Indians, it's an overriding concern of ours...and it's been a priority of the effort." (Industry informant, May 2013)

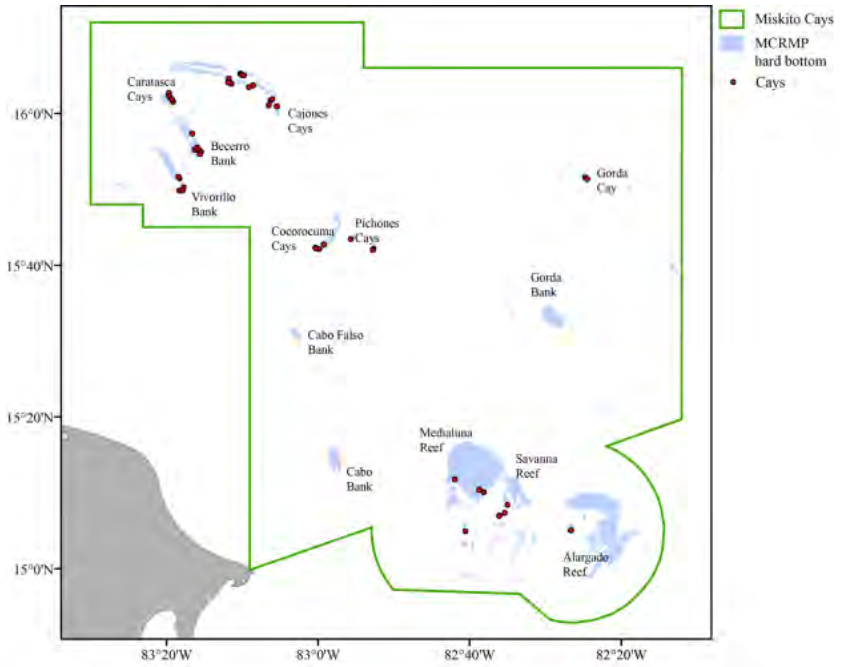
G-FISH is clearly appreciated by the Miskito divers themselves. Since Miskito divers have been historically marginalized, their active involvement is a clear indication of utility of the SCALE process in bringing forward the voice of important, but often ignored, voices.

> "We have been supported a lot by SLI , because we are brought to have a dialogue with the authorities and express our ideas we have and talk about our problems of disabled divers in Moskitia. Every time we come it's because of the support of the Spiny Lobster Initiative, because so far no institution has supported us as SLI covering the transportation, food, and return ticket. It's costly." (Miskito Informant, May 2013)

SLI saw a great need to promote more sustainable fisheries while providing small-scale fishing opportunities for indigenous Miskito Indians as they transition away from the industrial scuba-dive fishery. SLI worked with the entire value chain to establish an important marine reserve. In May 2012, the Honduran organization Center for Marine Ecology (CME) worked with key constituents to develop the first zoning map that declared 1.5 million hectares of fishery grounds and cays in the Honduran Moskitia exclusively for artisanal, indigenous fisher use (Figure 4). The facilitation role that the SLI played in the establishment of the reserve is illustrative of the SCALE process. The SLI originally worked with CME and The Nature Conservancy (TNC) Honduras staff to develop the idea to establish a marine reserve in Honduras. Originally, SLI introduced CME to communities on the Miskito Coast. SLI facilitated a series of meetings with the Active Diver Association and local Miskito authorities supporting the necessary dialogue that engaged key stakeholders. SLI sponsored an exchange visit for representatives from the Miskito Coast to travel to Belize and learn about their fisheries. After that trip, the idea of an exclusive use area for an artisanal fishery in the reserve area was established. The Miskito Diver Association, the Governor and Congressman of La Moskitia, and others endorsed this initiative. Subsequently, there were some videos created for the social campaign by CME supported by SLI to highlight the benefits of conservation of the natural resources and local management

This declaration will include zoning with no-take reserves for protection of critical habitats, reproduction, and nursery sites for marine biodiversity and responsible artisanal fishing areas enabling indigenous rights-based use. A legal national decree endorsed by the indigenous Miskito will make the official declaration, turning this area into the largest protected marine area in Central America. The Miskito Indians will be assigned community-based exclusive use rights for the fishery resources in the coastal areas near their communities. The exclusive use rights will be codified for the first time into a new Honduran National Fishery Law. "The Spiny Lobster Initiative has shown great concern and has helped us to understand more about the lobster fishery in Honduras and how we can improve the fishery in the Moskitia" Nora Trino- Governor of La Moskitia, Honduras, October 2012).

Figure 4. Map of the proposed exclusive use area for artisanal fishery with locations of 49 cays and the coral reef areas



While the USAID G-FISH program is scheduled to end this fall, the effort is continuing. Darden Restaurants is leading a broad coalition of partners including the private sector and foundations to continue efforts to reform the lobster fishery and transition divers away from the dangerous industrial scuba-dive fishery. They are working with the Walton Family Foundation and National Fish and Wildlife Fund to develop a Fisheries Investment Fund with Honduras as the first priority country.

> "Our partnership with FHI 360, USAID and the Honduran Government for the Global FISH Alliance's Spiny Lobster Initiative in Honduras has successfully demonstrated the importance of engaging all of the stakeholders in the value chain—from divers to boat owners to processors to buyers—to promote long-term solutions. We are proud to be a part of the Alliance to demonstrate how industry, government, and nonprofits can come together to promote solutions." (Roger Bing— former Vice President, Protein Purchasing, Darden Restaurants, Inc, August 2012)

The approach that FHI 360 brings is novel and appreciated by individuals involved in the lobster seafood business.

> "One thing for me is that I've been very impressed with is the way that FHI360 and the previous organization have approached it [the initiative], we tried various approaches ourselves but we didn't have the expertise that these people that we're dealing with now, bring to this... Again the way they've engaged the stakeholders, the way they're on the ground, the networking they've got has been very impressive on how they've reached out to people, who's doing what and then bringing them together in more of a concerted effort. For over 15 years we, on and off, tried various things but nothing to the extent that this brought to the table…It appears that there isn't another opportunity for all the stakeholders to get together and talk about the issues, their concerns, so from that perspective I think it's very very beneficial…" (Industry informant, May 2013)

> "I think everybody has been affected in a positive way. I know that there are people that got to understand…the reality of this and the story because of the work that the initiative has been doing. Myself I learned a lot. I was able to go to Hong Kong and I was so surprised that sustainability is around the world and how there [are] a lot of people worried about it. But even here people got to understand, because I think most of them care, about sustainability, about social responsibility and that the market cares not just for the resource, but for the workers involved." (Industry informant, May 2013)

The presence of a major private sector actor at the table is relatively unique in tropical fisheries management. It may represent a long-term means to sustain the efforts of the SLI.

In 2009, FHI 306 hosted the WSR event in Honduras. The theme was " Working together for a sustainable, profitable and safe Spiny Lobster fishery in Honduras"

The general objectives of the workshop were to:

1. Create a space for reflection and analysis among those involved in the field of the lobster fishery in Honduras
2. Strengthen existing communication networks, to identify synergies and promote new partnerships.
3. Innovation strategies and identify guidelines for action plans in the future.
4. Commit to concrete actions in the short, medium and long term towards common goals.

At the WSR event, there were several common ground goals agree to by the stakeholders and SLI decided to work with different groups to achieve certain goals.

	Common Ground Goals	Environment	Economic	Social	Policy
1	Market expansion	X	X		
2	Development of La Moskitia		X	X	
3	Intersectoral Work	X	X	X	X
4	Lobster fishery activity better regulated				X
5	Certification of the lobster fishery	X	X	X	
6	Sustanaible and profitable lobster Industry (better practices application)	X	X	X	
	Awareness and education	X		X	X
7	Compliance with the regulatory framework			X	X
8	Conservation and protection of marine resources through management tools	X			X
9	Lobster fishery management based on intersdisciplinary research	X		X	X
10	Regional and binational integration	X		X	X
11	Fullfillment of the fisheries regulation	X			X

Some of the goals included improving regulations and management of the fishery which could be achieved by a major policy shift. Various contextual conditions made this impossible while G-FISH was underway. The extension of the transition period from diving to trap fishing methods by Nicaragua set a difficult precedent. The political will required by the Honduran government in this context, especially considering the unstable political climate in an election year, was difficult to garner. Ultimately, despite a transparent planning process and pressure from various sectors on the Honduran government, they opted not to ban lobster diving. This outcome was not completely unexpected. The lobster fishery is lucrative, and there are deeply vested interests in the status quo. The SLI, however, has provided an important forum for these difficult issues to be discussed and debated. Ultimately, the Honduran government was made more accountable to the public, a rarity in natural resource planning in most contexts.

> "…Amongst all institutions dealing with the environment, DIGEPESCA is the only institution that is really weak … DIGEPESCA doesn't seem to have a working plan. The participation of DIGEPESCA… has been very important ... I think the participation of DIGEPESCA has been successful and has been more than expected. "(NGO informant, May 2013)

While some informants mentioned that the national fishery agency DIGEPESCA has become more engaged through the SLI process, primarily through its participation at the annual symposiums and other meetings organized by SLI, there seem to be increasing frustrations with the government and their lack of leadership. The lack of progress on a spiny lobster dive fishing ban, where different factions of the government have publicly stated opposing positions on the status of the ban, was particularly notable. Many informants, including those with ties to the dive industry, would like to see stricter regulations on the dive industry. Many blame the government for not having achieved more in this area. There is a sense that DIGEPESCA is a weak institution. While frustrations toward the government may be a positive sign of increasing expectations for this public institution built through the SLI process, some informants cautioned that long-term progress might be hindered if better communication channels were not created with the government. The creation of such communication channels will depend, in part, on consistent and open leadership with DIGEPESCA. There have been three agency directors in the last four years.

There are strong opinions about the ban on diving for lobster. The media and outreach campaign raised awareness about some important, and disturbing, aspects of the lobster fishery.

> "Many people ignored the problem just as we had in the media. People ignored the problem and did not know what had been going on in this activity—diving or fishing or about the Spiny Lobster Initiative. Now people have learned more about what this is all about. When there is news coverage in the media about this topic, the people can handle more compared to before."(Media informant, May 2013)

Most informants at the May, 2013 SLI annual symposium felt that Honduras, at this moment, is not ready for an immediate ban to be implemented, primarily because economic alternatives have not been implemented to the extent necessary to ensure that Miskito fishermen will be able to transition to new livelihoods.

> "We totally agree that the ban needs to happen but right now the country is not ready… This kind of forum has been useful because everyone has been informed and there have been many meetings unlike before. So I say that it has been very positive because you have allowed all sectors to sit together... "(NGO informant, May 2013)

There is concern that if the ban is put into place without these alternatives that the number of individuals involved in the drug trade in the Moskitia will increase, consequently increasing social problems. Some informants also supported moving forward with a

transition period toward an eventual ban. Other informants felt that dive fishing should continue, but should continue with much stricter regulations, laws (especially for human rights and labor issues) and enforced safety precautions. While there is no clear policy change, awareness of the issue and policy options has been raised and some feel that a ban will eventually be implemented. "Compared to other workshops I have attended, and I have attended a lot in Honduras, I feel there is more participation, active discussion and different perspectives shown throughout this workshop/symposium than any of the others. I fly in just for these symposiums." (International NGO informant, May 2013)

There have been some challenges and there may have been some strategic errors in some participant's opinion. Some informants at the May 2013 meeting felt that having the ban as a central item of discussion throughout the process may have caused more harm than good for overall collaboration in fisheries management. In particular, the government and the lobster fishing industry have felt criticized in the process and polarization between and among sectors appears in some cases to have either been exacerbated or become more visible to stakeholders.

> "It (the SLI) has been about criticizing the government. Pressure, pressure on the government. That should not be. On the contrary, people should work with the government to solve the problem but not to criticize the government and allow those criticisms to go outside our borders. So that's where we disagree." (Honduran government informant, May 2013)

But, difficult dialogues such as these, facilitated by skilled and relatively neutral individuals, are essential to develop balanced policies (Christie et al. 2000). That key parties, even those who have felt scrutinized and challenged, have remained engaged in the G-FISH process may be indicative of their underlying respect for the approach.

The fact that no realistic economic alternatives were created during the four years that SLI was in Honduras, and that there has not been an increase in financial investment in the Moskitia to complement the more process oriented goals of SLI, was a point of frustration for many informants during May 2013 interviews. While informants recognized that creating economic alternatives was not the focus of the SLI, there was also recognition that this is an important complement to most participatory planning processes. Some felt that the process would have been more widely accepted and more effective if tangible alternatives been a focus.

> "The initiative came to give a focus, a view, nothing more. And with that approach one has to be seen as presenting solutions to this situation. Possible solutions that can be given… not projects based on consultancies. A project where funds can be applied directly in the community ... They [the SLI] could have done theory and practice at the same time ... We understand

that sometimes support will not only be just theoretical. Support should also be practical." (Lobster industry informant, May 2013)

Mozambique

In Pemba Bay, fisheries management could benefit from a comprehensive and integrated approach that involves increased coordination and collaboration of the principle stakeholders. The Global FISH Alliance aimed to improve fisheries management and biodiversity conservation through better coordination. The G-FISH Pemba Bay Initiative had three major, inter-related objectives:

1. To increase social capital and demand for sustainable management
2. To promote ecosystem-based approaches to fishery management
3. To establish and promote social and economic incentives

In 2011, G-FISH began a pilot project with two staff members in Pemba financed through the USAID/Washington Office in response to a USAID Mozambique Mission's request for a SCALE demonstration in Pemba Bay. In late April, the Global FISH Alliance sent a team to Mozambique to map the context of the Pemba Bay fisheries and form a Working Group tasked with planning for a three day Whole-System-in-the-Room (WSR) retreat. In late July 2011, G-FISH brought together a wide array of Pemba fisheries stakeholders including 69 participants from eight stakeholder groups with representatives from the government, fishers, community leaders, researchers, middlemen, the media, NGOs/Associations, and the private sector. The goal of this gathering was to help stakeholders identify common goals for the Pemba fisheries systems, and assisting them in achieving these goals through strategic communications, capacity building, and technical interventions. The common goals identified by local stakeholders, and that G-FISH addressed over the life of the project were:

- Improve Conservation and Management of Marine Resources;
- Improve Communications for Collaboration and Coordination;
- Increase Training and Capacity in Best Practices;
- Promote Alternatives to Fishing Activities;
- Improve Monitoring and Regulations;
- Create More Research Initiatives in the Fisheries Sector;
- Increase Investment in Infrastructure; and
- Encourage More Associations.

The effort took place within a rapidly changing, post-war context. Fisheries co-management was legalized but resources for implementation are limited and government institutions are predictably weak.

> "…we are lacking correct gears, transportation that take us to open sea… difficulty to implement closed areas…In reality, there has been a change in the leading process within the co-management of the resource, for instance, associations are motivated to improve their works, just lacking financial support." (Ingonane Leader, July 2013)

Since its inception in late 2011, G-FISH has established itself as a visible, locally-led initiative that seeks to improve the status and management of the Pemba Bay fishery. Through application of its SCALE approach, G-FISH has obtained a commitment for sustained participation from key stakeholders, specifically the government fishery entities and the community and Community Council of Fisheries (CCP) leaders, and has developed a base level of trust and understanding among its partners.

The G-FISH initiative in Pemba is referred to as the *Iniciativa Local para o Desenvolvimento da Pesca Sustentável na Baia de Pemba*, or the *Iniciativa Local* (or IL). It is guided by the Conservation Committee, composed of community leaders, fishers, CCP leaders, government fishery officials, and private sector and media representatives. The committee, which meets twice a month, is the forum for coordinating and facilitating the implementation of a common fishery agenda, strengthening the knowledge base of program stakeholders regarding the status of the fishery and the role of CCPs in fishery management, and motivating stakeholders to engage in collaborative actions.

The program's interrelated activities address the primary threats to biodiversity and barriers to conservation existing within the fishery. Specifically, G-FISH emphasized awareness raising and collaborative action to address confusion about existing fisheries regulations and responsibilities for enforcement, concern over the potential impacts of increased oil and gas development around Pemba Bay, lack of awareness about the state of the local fishery, need for local ownership of the fishery and increased involvement in promoting better management practices and trust between CCPs, community leaders and government fishery entities. Some quotes from local informants are particularly clear indications of growing awareness about critical environmental and fisheries issues. ""We, at Wathiana, are starting to understand why we shouldn´t buy juvenile fish. Those who are not aware, will continue doing it!" (Women's organization representative, Pemba, July 2013). G-FISH field workers have sensed a growing awareness about critical fisheries and environmental issues and a growing sense that collaboration is a viable option to improve environmental and socio-economic conditions.

> 'The goal from the beginning was to change perceptions... A tangible outcome is that there's a growing perception of the importance of the sea. Our goal was to change the perception of the sea. So that they would have better livelihoods. They feel that they've learned a lot. Now they feel able to work

> with others that they didn't do before.' (Paraphrasing of G-FISH employee. August 2013)

In order to raise awareness, promote local ownership, and improve compliance in the Pemba fishery, G-FISH communication efforts in Pemba included monthly newsletters, radio programming, development of print materials, working in schools, and town-hall meetings. In addition to public communication initiatives, G-FISH increased the scientific basis for fishery management by partnering with the Wildlife Conservation Society (WCS) and reaching out to Mozambican fisheries entities and academic institutions.

In 2012, WCS conducted a "Perceptions and Management Options" study that documented resource-user perceptions of management options through a social survey. The survey found that there was general support for fisheries restrictions, including graduated sanctions for violations of fishing regulations, and a positive view of the process to define alternative management regimes. The study concluded that G-FISH had created an environment and process that was conducive for fisheries co-management. In the fall of 2012, WCS researchers returned to Pemba to share different fishery management options and the costs and benefits of these options, along with relevant experiences from other research sites. WCS' study resulted in a number of broad-scale recommendations that the CCPs can use to craft co-management plans that respond to their particular situations. Engagement with WCS continued throughout 2013 to conduct ecological surveys and rapid assessments of coral reef health and fish diversity and biomass to define areas most in need of protection. The community of Gímpia took advantage of WCS expertise and asked for assistance with the establishment of a closed-area. The involvement of WCS is important in that WCS provides technical expertise, but also a new and relatively objective perspective on the context and process.

> 'WCS did a management preferences survey – asked people what they like or don't like on management, looked at Ostrom design principles [for common property systems]. First report was that. Questions about preferences and institutional design. The Mozambique Constitution supports local management, but the government is weak. New laws are good, but naïve. There are no local funds and experience… What's needed is a focus on compliance and enforcement. Basic sentiment by the government that they can decentralize and leave communities to themselves is naïve and not effective for resource management.' (Paraphrasing of Tim McClanahan, WCS senior scientist, August, 2013)

WCS' research in conjunction with G-FISH capacity building is laying the ground for strengthening the CCP's structure and for the establishment of scientifically sound closed-

areas in the community of Gímpia and beyond. Like with Honduras, G-FISH in Mozambique has brought together people and institutions that rarely interact, at least partly due to unequal influence, wealth and social position.

> 'The government sees themselves as being exposed. They are exposing themselves. They are sometimes forced to make a commitment to something. People point their finger to the government. Sometimes it's uncomfortable. They aren't use to this. People tend to blame the government. The community is looking for a solution, so that's positive.' (Paraphrasing of G-FISH employee, August 2013).

Sometimes the relations between communities in Pemba are strained and some community leaders feel as though their communities have lost fishery resources.

> 'Gímpia use to have fish, now doesn't. They want to change the situation. Ruela is dominant and didn't feel the need to meet with Gímpia. Gímpia 'tricked' Ruela into having a meeting… Gímpia trying to create management area where they have exclusive fishing rights. Ruela wants to maintain the status quo. Ruela fishers use destructive gears. The government is not managing the situation well.' (Paraphrasing of NGO informant, August 2013).

The empowerment of marginalized communities is a major success, especially in a relatively short time frame.

> 'One can point to Gímpia as a success. They are really about to take important actions. They serve as an example. They still need someone to help lead them. Gímpia is the poorest community…. They recently came with letters for the government requesting change. Also came to WWF in Pemba to ask for how they can improve enforcement. They did this on their own. They did their own homework. *They* were the ones. They are very brave and courageous… Meetings are at 10 AM. They travel by sailboat to meetings. They wake up at 2 or 3 AM to travel 7 hours. They are the most consistent at the meetings. ' (Paraphrasing of G-FISH employee, August 2013).

There are various key outcomes of the efforts in Mozambique. G-FISH has dramatically improved the level of trust and understanding among its key partners. There appear to be nascent collaborations built on growing trust between community groups. "The IL managed to bring together the CCPs of Bandar, Gímpia and Ruela!" (CCP Ruela President, July 2013). The later part of the program was dedicated to improving the capacity of the CCPs to act as an effective advocate for the management of the fisheries interests of their

respective communities, to increase the level of support given by the Mozambican fishery offices to the CCPs, to implement a pilot management initiative and to develop a set of shared commitments that will allow the IL to continue to serve as a coordinating mechanism for fishery stakeholders at the conclusion of G-FISH funding in September 2013. Some key program accomplishments include:

- Convening regular community-developed and led Conservation Committee meetings;
- Strengthening the capacity of fishers, CCP heads, and community leaders and building trust to work directly with government agencies on fisheries reforms and the development of viable fishery co-management strategies.
- Launching a strategic communications campaign including radio programming focused on fisheries;
- Engaging the Directors of Fisheries and the Mayor of Pemba in active dialogue;
- Engaging the Wildlife Conservation Society (WCS) to conduct a perceptions survey and rapid ecological assessment of fish stocks and to recommend fisheries reforms for improved management with the community;
- Laying the groundwork for the establishment of the Gímpia Community Conservation Area and the development of a co-management plan.

Gímpia community leaders consider a closed community fishing area important for the management of their resources, particularly because they feel a decline in income from fishing and want to reverse this scenario. Two community meetings were held where the creation of a closed area was approved unanimously. With the support of the Iniciativa Local and WCS, they have declared a closed area in July 2013 and are seeking technical support to develop a plan for managing the area. The specific areas or zones have not been officially demarcated and publicized with local resource users.

The Gímpia Community Fisheries Council (CCP) has jurisdiction over an area delineated from the mouth of river Mwiriti to Londo, along the shoreline, to 2 km out to sea (Figure 5). The national maritime fishing law specifically gives the Gímpia CCP a mandate to set fisheries management interventions that are not in contravention of national laws including gear restrictions and closures. Following a period of consultation with communities of the adjacent villages in the area, tourism lodges and relevant national institutions, the Gímpia CCP made the decision to undertake zoning of their fishing grounds for the purpose of improving management. The main objective of the zoning is to implement gear restrictions within an area, referred to as the "Gímpia Community Area of Conservation" (Figure 6), to promote the recovery of the coral reef and as a breeding ground for coral reef fish and other species within the zoned area.

Figure 5. Pemba bay showing the areas of jurisdiction of the three community fisheries councils (CCPs) of Gímpia, Bandar and Ruela.

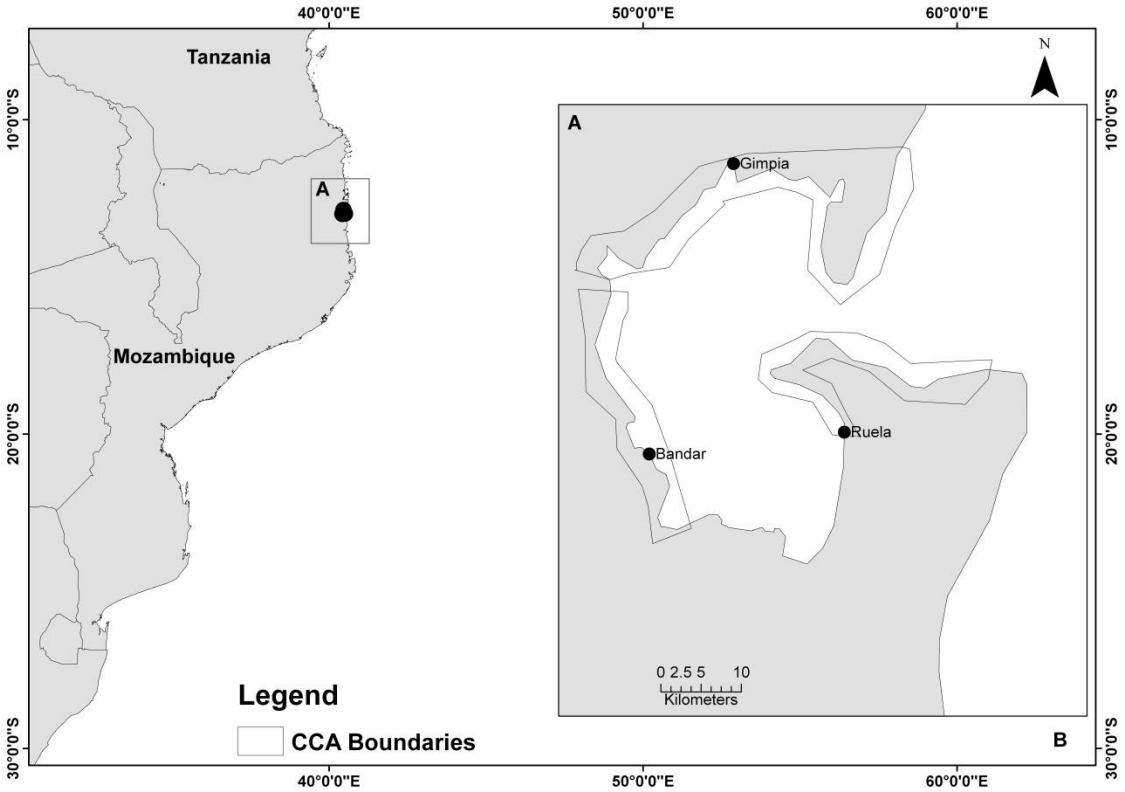
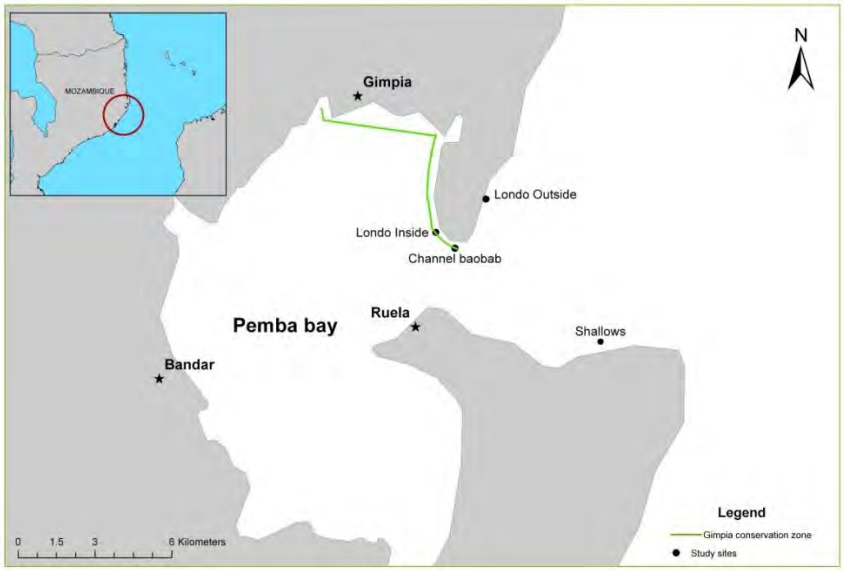


Figure 6. Map showing the location of the Zona Comunitária de Conservação de Gímpia.



Building trust and promoting dialogue among stakeholders has been one important achievement of the G-FISH program in Pemba. Prior to G-FISH intervention in Pemba, the CCPs did not engage or even communicate with each other. Through regular Conservation Committee meetings, which include key community and government stakeholders, as well as other activities, such as exchange visits to Qurimbas National Park, G-FISH has managed to build trust among CCPs and between CCPs and the government to promote open dialogue around conservation and the management of fisheries. As a result, the level of trust and understanding among key partners has dramatically improved.

Furthermore, the program was dedicated to improving the capacity of the CCPs to act as an effective advocate for the management of the fisheries interests of their respective communities. One of the most noticeable aspects of the Conservation Committee meetings facilitated by the IL is that members have adopted a new attitude toward problem solving, and they are being more proactive as they realize they can catalyze change. Some examples of their initiatives are:

- With the support of the IL and WCS, Gímpia community leaders are gathering technical information to develop the process for managing the community conservation area. They wrote a draft management plan for this area and shared the plan with relevant government agencies and neighboring CCPs.
- CCP Ruela held its first Annual General Meeting. While this is within the mandate of the CCPs, annual general meetings with the community had never occurred before G-FISH.
- Designed a joint-monitoring plan, delivered to the Provincial Fisheries Directorate (DPP) and awaiting approval.
- Contemplating a new General Assembly to hold an election for executive positions.

An encouraging sign for sustainability beyond the current program is that members of the Conservation Committee are actively looking into formalizing the IL as a registered local organization to maintain the momentum achieved and continue their advocacy work beyond the G-FISH project.

Technical assistance was another important achievement of the program to provide stakeholders accurate data in order to make informed decisions about fisheries management. Through a partnership with the Wildlife Conservation Society, G-FISH conducted research on perceptions of fisheries management tools and local acceptability, as well as rapid ecological assessments that will complete data available locally and serve as a baseline for the Conservation Area of Gímpia. This information is critical to measure the effect of measures taken and to observe change. In addition, sample by-laws and co-

management plans have been provide to the communities to use as guidelines and adapt to local context and their specific needs.

The most promising result in Mozambique is the number of collaborative actions that continue to generate momentum for the program and increased the likelihood that additional areas will come under improved management. The number of meetings and other joint stakeholder events in the first six-month of the 2013 fiscal year was nearly double the number for all of the previous years. In addition, the representation of females in these meetings had increased from 16% to 35% owing to program efforts to expand representation and involvement of communities.

> "There were several factors that have helped me in my communication. Because (initially) I didn´t know some of the members. I met them at IL and, from then onwards, I knew who they were and where to go if I needed to share ideas, experiences, to learn how to do things… All because of IL." (Gímpia leader, July 2013)

Like in other G-FISH context, there are some concerns about whether the process will continue after G-FISH is phased out. 'They still need someone to help lead them. The leaders are nervous. They are thinking of creating a formal association. Then they can possibly access government funds.' (Paraphrasing of G-FISH employee, August 2013)

And, like in Honduras, while most participants appreciated the G-FISH and SCALE process, some participants had expectations of direct, tangible benefits.

> "I think the project should continue, in the future, but moving away from capacity building/training to practical actions that would encourage people to implement the acquired knowledge… It lacked the practice side because IL didn´t have financial means to promote the replacement of harmful fishing gears with those considered good for the environment!" (CCP Ruela President, July 2013)

The long term engagement of WCS in Pemba is tenuous and conditioned. While there may be other donor-supported programs or large-scale development programs on the horizon, WCS, like all NGOs, depends on grants to generate opportunities. At the present time, WCS does not have funding secured to continue in Pemba beyond G-FISH. Another NGO, RARE, is likely to work in Pemba and continue the fisheries management effort.

Cambodia

In March 2012, the Royal Government of Cambodia decided to reform the fisheries sector by abolishing all private fishing lots in the country. Although officially the fishing lots have been transferred to community fisheries and conservation zones, lack of resources and low capacity of enforcement means that assistance is needed to ensure that fisheries resources are properly managed and local people are empowered to participate in resource management and conservation.

In response to threats to biodiversity and barriers to conservation, G-FISH started a two-year program to: 1) provide a forum for sharing information on the importance of productive and biologically diverse fisheries to food security in Cambodia; 2) engage key stakeholders to jointly assess the governance obstacles and opportunities for sustainable development of fisheries livelihoods on the Tonle Sap; and 3) facilitate communication and networking among local stakeholders to achieve common goals in support of this aim.

G-FISH implemented solutions based on the plans developed by the Task Forces developed at the Whole System in the Room (WSR) with five common goals in four main categories.

- Enrichment of Livelihoods:
    - Improvement of community livelihoods through proper natural resource management
- Capacity Building:
    - Effective and efficient communications on Tonle Sap resource management
- Good Governance
    - Improvement of collaboration among stakeholders
    - Effective compliance with fisheries laws
- Increase in fisheries resources (i.e. increase productivity)
    - Conservation of flooded forests and promotion of sanctuaries for future generations to have food to eat

The voluntary Task Forces formed to address the common goals agreed to tackle discrete activities or work in focus areas to achieve the common goals. After discussing with the Task Forces, G-FISH reduced the six Task Forces to three:

- Tonle Sap Livelihoods Task Force
- Tonle Sap Resource Conservation Task Force
- Tonle Sap Fisheries Communication Task Force

Since its inception, G-FISH in Cambodia has accomplished a great deal in a relatively short time. Program activities specifically mentioned during interviews included:

- Partnered on Conservation Activities: G-FISH partnered with local partner FACT (Fisheries Action Coalition Team) to implement conservation activities in the Phat Sanday commune. Local communities participated in replanting 11,000 flooded forest seedlings on nine hectares of degraded areas in three different conservation areas.

- Fisherwomen and men were active in monitoring the fishery resources management's issues in the commune with local authorities. Patrols with community and government officials were supported financially by G-FISH. Thirty-two patrols were organized and reported on by local community organizations over the course of two months. As result, local fishermen and local authorities self-reported that flooded forest and illegal fishing activities have reduced remarkably in the commune. A clear and reliable system to measure compliance with environmental or fisheries laws (and other behavior change) has not yet been established, and would be a logical next step.
- Enhanced communication and collaboration: G-FISH and partners have facilitated 25 meetings and involved 48 participants in three Task Forces.These meetings took place in Phnom Penh, Battambang, Kampong Thom, and floating villages on the Tonle Sap. G-FISH successfully facilitated a series of meetings between the Cambodian Fisheries Administration (FiA) and the Cambodia Coalition of Fishers (CCF, a fishermen's organization) who in past the only communicated with each other in a hostile manner. G-FISH's role as a neutral convening partner opened up future collaboration efforts to support fisheries on the Tonle Sap.
- Community and government collaboration: In addition to facilitating improved communication overall, G-FISH has worked with the FiA to enhance collaboration with communities including development of joint proposals to work together.
- Created linkages with technical organizations such as WorldFish Center.
- Collected relevant information from all fisheries stakeholders and develop a monthly newsletter (1450 copies distributed, 42 articles written), both in English and Khmer, that was shared electronically and in print among all stakeholders nationally.
- Developed a speaker's series to raise awareness in the community about sustainable fisheries and fishery laws with experts from WorldFish Center, FACT, government and other institutions.
- Delivered 15 radio programs that served as a source of information for stakeholders on fisheries reform, flooded forests, patrolling, governance and other relevant topics.

Interview results highlighted considerable progress in collaborative planning, institutional capacity, and inter-institutional coordination.

Communication:

Communication and relations between NGOs, like FACT, and government agencies has clearly improved.

> "G-FISH helped FACT and fishery communities to have good communications with FiA. Before, communications between FACT and fishery communities with FiA was

not good but once G-FISH provided opportunities for these groups to connect with each other at taskforce meetings we starting to have good communications with FiA." (Mr. Om Savath, Executive Director (FACT))

"G-FISH have helped me to establish good communications with the FiA. Before I did not know how to negotiate with the FiA, and how to explain issues in a way that allowed FiA to understand community problems and my concerns. I remembered one time Patrick Papania took me to meet with Dr. Nao Thouk to help build our relationship. Over time this relationship has become closer and I am able to take community members to meet with him directly to ask for his assistance with illegal fisheries." (Mr. Long So Cheth, CFi Leader)

"People who work on the same issues were able to effectively network through the G-FISH program. Information was shared among network members in taskforce meetings. At the recent livelihoods taskforce meeting we shared about how to solve fisheries problems when we meet obstacles. This is much easier when we know each other clearly and have learned from each other. For example, I learned from Mr. Moeurk Mee (Live and Learn) about creating ecotourism opportunities. I dream of creating ecotourism opportunities in my community. Network members [WSR and taskforce members] actively participated in G-FISH activities even when G-FISH could not provide funding support to all members; this indicated that the G-FISH program is beneficial for them." (Ms.Lov Samnan, Director-PFD)

The dissemination of vital information is appreciated as an important outcome of G-FISH. G-FISH has been inventive in its multi-pronged approach.

"One accomplishment of the G-FISH program has been the information sharing of fisheries information to others at all levels, as it has enhanced people's participation and strengthened the fishery community's voice. So, what I see as the most outstanding G-FISH accomplishment is information sharing, network establishing, and the radio program. G-FISH have been able to clearly communicate with the fishery communities, in a way that they have been able understand—the value and purpose of the G-FISH project and how it contributes to their community. The taskforce meetings allowed government officials the opportunity to speak openly, and they do speak at these meetings which is beneficial, however they do still remain vague. Civil society and community taskforce members were able to report descriptively at taskforce meetings… G-FISH takes up-to-date information that FiA release, or current issues that the community may have, and they try to disseminate this information to the appropriate parties as quickly and effectively as they can." (Mr. Mam Kosalm Program Analysis, WorldFish Center)

"Community members would listen to the G-FISH Sustainable Fisheries Radio Program then talk about, and share information they heard on the program with other members of the community who did not listen to the radio

> program. Topics discussed in the radio program were also discussed in the savings group meetings and with family who live nearby. Communities have said that the radio program is important for them as it helped them to understand the bad impacts of cutting down flooded forest areas." (Ms. Vy Vanndy, Coordinator - Women's Saving's Group)
>
> "I found the speaker series to be quite unique as it broadened community knowledge of fishery resources and made my community's problems better known to more people…" (Ms. An Socheath, Women's Group - Koh Chiveang)
>
> "G-FISH provided opportunities for community to raise their voices/problems to the government through study tour [media trip] which brought media out to visit the Tonle Sap Lake communities so they could see what the real situation is on the lake and then report on it. G-FISH provided me and the communities I work with an opportunity to make comments and direct questions to expert speakers on the Sustainable Fisheries Radio Program which was beneficial in disseminating information about fisheries to the wider community." (Mr. Hor Sam Arth, Coordinator community fisheries)

Participatory and collaborative planning:

The SCALE process, focused on expanding social capital and participatory planning, raised awareness amongst technical institutions that will remain in the area beyond G-FISH.

> "G-FISH didn't just allow institutions to make comments but made them "owners" of a problem and encouraged them to find ways to fix them on their own. What I have learned from G-FISH is the value of working at the grass root level. For example WorldFish has been actively working with communities for several years, in the beginning we did not work with the grass root level but with partners. Seeing how effective G-FISH were by working directly at the grass root level encouraged WorldFish to start to take this approach which was very effective… WorldFish have their own program mandate and goals but WorldFish are interested in incorporating some parts of G-FISH's work into the WorldFish program called Aquatic Agricultural Systems which WorldFish have just completed a pre study visit on around Tonle Sap Lake and will be starting this year." (Mr. Mam Kosal, Program Analysis, WorldFish Center)

The creation of collaborative institutional relations and community participation is most apparent in the G-FISH fisheries enforcement campaign. Various informants from a wide variety of backgrounds expressed interest and appreciation in this effort.

> "G-FISH set up taskforce groups to follow up and report about illegal fishing activities within their communities to G-FISH as well as to other related parties. This helped to reduce illegal fishing activities as well as improving resource conservation.
>
> G-FISH provided opportunities to communities who observed illegal fishing activities; they were able to ask for intervention from related parties by calling to the radio program or calling a G-FISH number." (Mr. Ouk Sameth, Director PNKA)
>
> "I found the patrolling to be very effective in protecting illegal fishery activities. I would suggest that G-FISH support patrolling more and suggest that G-FISH continue their work." (Ms. Pen Sopheap, Former Fishing Lot Owner)
>
> "The best thing is the patrolling support. G-FISH supported me and my communities to crack down on 14 illegal fisheries cases. FiA was able to destroy illegal fishing gear during these crack down activities. I have set up a meeting plan with commune council to encourage government officers to crack down illegal fisheries more effectively." (Mr. Som Sovann, FiA Officer)

While this enforcement campaign was successful, the issue of ongoing graft remains.

> "G-FISH contributed to reducing illegal fishing activities by calling expert fishery officers to come to taskforce meetings. Unfortunately, G-FISH can't stop illegal fishing activities because some local authorities take bribes from fishers who commit illegal activities. We have to have police who will not do this to join patrolling activities." (Mr. Lach Suong, Economic Police)

Sustaining the process:

As with other G-FISH sites, there are concerns among constituents about the continuation of important activities. Sustaining the enforcement effort may be challenging given the financial role that FHI360 has played in renting boats and compensating enforcers with per diem. But, the model is scalable and transferable. Other institutions and FiA will hopefully be inspired to find ways to continue this effort.

> "As I said the G-FISH project was too short so if G-FISH want to accomplish sustainable fisheries G-FISH should extend their project for a longer term and help to find employment opportunities for community members besides fishing." (Mr. Om Savath, Executive Director (FACT))

While these concerns exist, the same informant also highlighted that technical skills and interest has been transferred during G-FISH.

> "Communities will remember what G-FISH provided and will continue to apply the skills they learned after G-FISH ends. Communities will continue to

> do G-FISH activities because they have taken ownership of the work that they have done through the G-FISH program. Some community members dedicated their boat for patrolling activities even though G-FISH only provided per diem and gasoline." (Mr. Om Savath, Executive Director (FACT))

Other NGOs expressed an appreciation for the network of institutions created through G-FISH.

> "Live and Learn will still continue to help communities by finding new partners and I will also continue these activities because G-FISH has provided a good framework and I will still be working with the communities and with the other taskforce members. I will maintain communication with other network members and try to use the information shared by our group as much as possible to help communities once G-FISH ends." (Mr. Moeurk Mee, Program Manager-Live and Learn)

The creation of human and institutional capacity will likely be the most significant legacy of G-FISH.

> "I do not know (about) other network members like me but I believe my capacity was enhanced after I joined G-FISH activities. I am able to implement activities to prevent some illegal fishery activities in my communities from knowledge which I gained from the G-FISH program. Although G-FISH were not able to provide me with funding support, the information which G-FISH disseminated through the network allowed me to better understand fishery issues." (Mr. Heng Chamroeurn, Commune Chief - Kampong Chhnang)

The creation of collaborations between institutions that will remain in-place after G-FISH may also sustain the progress made to date.

> "G-FISH has a good relationship with their networks and other NGOs, I saw many NGOs (FACT, IUCN and CI) who came to the G-FISH workshop in Banteay Mean Chey. This was important because it allowed me to build relationships with those NGOs for further work in the future." (Mr. Heng Sokrith, Conservation International Officer)

The relation between the key government agency, FiA, and fishing communities has been deepened.

> "G-FISH invited expert officers from FiA to share information and answer caller's questions on the Sustainable Fisheries Radio Program which meant that G-FISH helped to enhance communities' knowledge of fisheries issues, management, and regulations… FiA had a greater understanding of the real communities' situation after I sent my officers to visit Tonle Sap Lake when G-FISH invited them. Of all of the NGOs I have to work with G-FISH has been the best..." (H.E. Dr. Nao Thouk, Director General – Fisheries Administration)

Like in Honduras, government agencies have been made more accountable to local community members through the SCALE process.

> "Community people have been able to raise their concerns directly with local authorities.. This started to happen once we got involved with G-FISH. The benefit of this has been that local authorities have started to involve communities in their work and the commune development plan." (Mr. Soung Sophat, Program officer-FACT)

Ultimately, though, it is the engagement and inspiration of local communities to change their relations with natural resources that will result in sustained improvements in environmental conditions.

> "Communities themselves are now becoming real resource protectors as the G-FISH program has increased their awareness, knowledge, and appreciation for natural resources." (Mr. Eng Kim Chour, fisher)

As discussed below, the enabling environment for behavior change has been created.

Conclusions and reflections on progress in all countries

The final section of the case study employs evaluative questions posed by FHI leadership. These conclusions are based on information drawn primarily from FHI reports, key informant interviews conducted by in all project sites, and a social network analysis (Lubell and Robbins 2013).

1. What are the effective, efficient and sustainable mechanisms that promote an adoption of innovation (technology, practices, behaviors) and diffusion of new technologies/approaches in fisheries management?

    a. Is SCALE and its application to fisheries issues in three sites the main innovation delivered by G-FISH?

The SCALE process is a well formulated participatory planning process. Similar processes have been used in natural resource management, and in the Central American region (e.g., Christie et al, 2000 – CAMPLab program in the Nicaraguan Atlantic coast in the 1990s). While participatory planning leading to co-management is not unique to G-FISH, it is relatively unique in the three G-FISH project contexts. The SCALE process represents a logical, step-wise, and comprehensive approach, that allows participants to shape action agendas to meet their needs. The G-FISH participants, through interviews, expressed a deep appreciation for this process in all contexts. They appreciated learning, collaborating, creating linkages with one another and with policy making agencies. They held the FHI 360 staff in high esteem and appreciated their sincerity, integrity and hardworking nature. In short, there is widespread appreciation for the SCALE process.

These conclusions, based on numerous interviews, agree with a distinct social network analysis conducted over the lifetime of the G-FISH in Honduras. The conclusions of the SNA study highlight the reduction of hierarchy within the social network created by the Spiny Lobster Initiative (SLI).

> "The bottom line of this analysis is that while there is limited evidence of increasing intensity of collaboration among spiny lobster fishery stakeholders, there is substantial evidence of a redistribution of social relationships in ways that make the network less hierarchical, increase the representation of marginal groups, and break out of sector-based "silos". While there is no consensus on how different changes in network structure are related to overall levels of cooperation or sustainability, there are plenty of theoretical arguments that suggest the types of changes observed in the SLI network are supportive of cooperation. This hypothesis is further corroborated by stakeholders' largely positive perceptions of the effectiveness of the Spiny Lobster Initiative for achieving short-term process goals such as information and trust. However, there is a more moderate view of how well the SLI has achieved some of the longer-term substantive goals suggesting that much of the short-term changes have been in process, relationships, and information. Fully-achieving some of the longer term goals will likely require sustained cooperation among stakeholders. The following bullets summarize the findings:
>
> - The overall network structure in terms of density and number of ties has remained fairly stable over time.
>
> - Within the overall groups, there is a slight trend towards decreased average path length coupled with decreased subgroup formation. This is consistent with more boundary spanning within the network. Communication relationships have experienced more increases in intensity, while collaboration relationships have experienced a decreased tendency to form subgroups.

- There is fairly clear evidence that the distribution of ties is becoming more equitable across sectors. By Wave 3 [the third sampling done on the final year of the SLI], there is no single sector type that dominates the center of the network.

- Throughout the process, the most central sectors are government direct, divers/crew, and donors/cooperants. A number of specific organizations have experienced changes in centrality over time, and more field knowledge is necessary to better interpret these changes.

- The network is becoming less hierarchical and centralized over time over time, with more connections going from core actors to peripheral actors over time instead of being concentrated mostly within a small set of core actors.

- More bridging social capital is being created over time as indicated as more external ties between sectors. The creation of more external ties is especially strong among divers/crew, processors/exporters, government direct, and environment stakeholders.

- Stakeholders have a mostly positive perception of how well the Spiny Lobster Initiative has increased cooperation, trust, representation, and information availability. The most positive change was for information availability, with the least for interest representation.

- Stakeholders have a mostly positive but more moderate view of how well the Spiny Lobster Initiative has achieved a number of long-term goals. Education/awareness, regional integration, and use of conservation management tools receive the highest scores on goal achievement. Market expansion, integration of La Moskita, and interdisciplinary management receive some of the lowest scores.

The rest of this report will provide more detailed information about these basic findings. Note that we think the most important message of the analysis is the breaking down of silos and subgroups, and the decrease in hierarchy."

(Lubell and Robbins:2-3, 2013)

The key informant interviews provide narrative that explain how the SCALE process engaged multiple, historically marginalized social groups such as Miskito divers or Mozambican fishers. They also demonstrate that fishery government agencies were made more accountable to a variety of constituencies, thus reducing hierarchy in policy processes. Informants in all three countries express gratitude to G-FISH for creating linkages between social groups and institutions that had historically had little interaction,

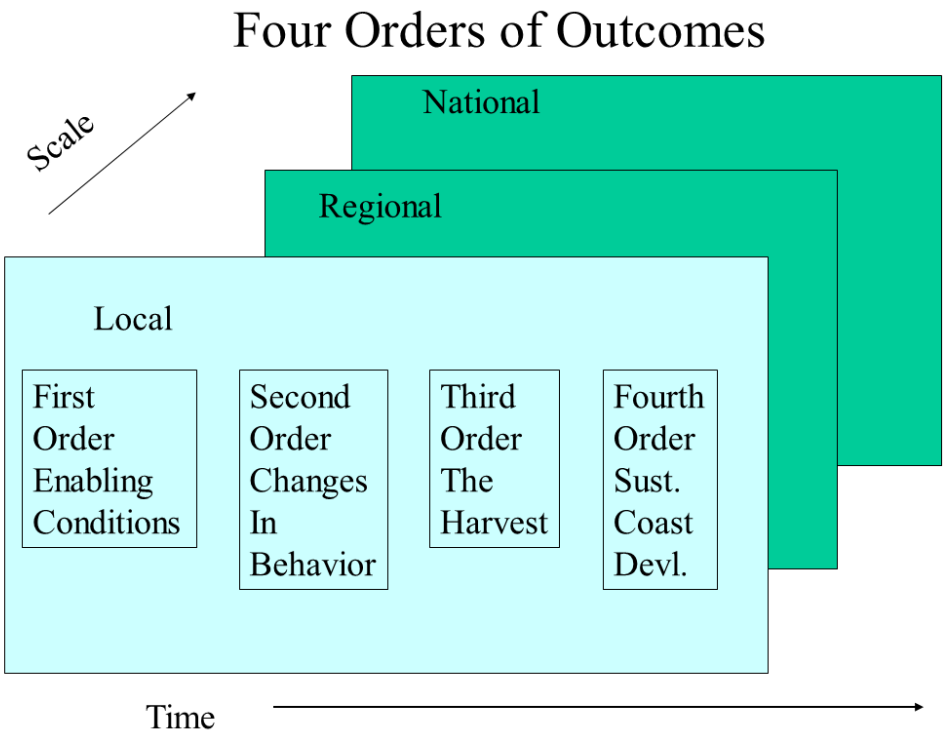
although individually influenced the management and sustainability of the fishery. The SNA emphasized the success within the SLI of participatory planning processes, but also highlights that action taking, in the forms of market expansion and interdisciplinary management, received low goal-achievement scores.

The link of the SCALE process to fisheries *management*, that includes action taking and policy development, is less clear than to the creation of a highly participatory process. The G-FISH process has resulted in modest tangible fisheries management outcomes in the traditional sense. For example, there were no formally adopted or implemented fisheries management plans, closures of unsustainable fisheries (e.g., the dive fishery for spiny lobster), or creation of MPAs that can be clearly and definitively linked to G-FISH. In the case of the Moskito MPA or the Gimpia zoned area, the policies are in their formative stages.

There are likely many reasons for this outcome, including the intent of the G-FISH program to focus on education, communication and collaborative planning. These activities can provide the context in which improved fisheries management is possible by raising the awareness of stakeholders and policy makers about the status of fish stocks and environments, the consequences of inaction, and the possibility of change. The engagement of a broad network of stakeholders (as vividly demonstrated by the social network analysis and interviews) through regular meetings and other community organizing techniques is the foundational process for co-management (Pomeroy and Rivera-Guieb 2005). But, while the context was made ripe for change, there are few clear indications that substantive change in fishing effort, fisheries production, habitat protection, or other common metrics of sustainable fisheries were made as a direct result of G-FISH. Relatedly, interview informants frequently expressed both appreciation for the SCALE process while also expressing a desire for more tangible improvements in their economic state.

Olsen and Christie (2000) present a framework, developed at the University of Rhode Island Coastal Resources Center, that describes the stages of progress in creating more sustainable coastal societies through programs such as G-FISH and other donor-supported projects (Figure 7). The relatively short term nature of G-FISH has meant that, in most instances, the focus has been on creating 'enabling conditions' that, ultimately, may lead to changes in behavior and the 'harvest' of more sustainable societies. However, the constraints of the project's 2-4 year timelines made sustained progress with demonstrable outputs difficult.

Figure 7. Orders of outcomes from coastal planning processes.



While examples of tangible fisheries management policy changes are limited, these investments in capacity building and participatory planning are essential and worth undertaking. The alternative of focusing mainly on outputs is also not preferable. The creation of stakeholder buy-in, leadership creation, and awareness are essential to long-term improved fisheries management.

Perhaps, ultimately, a balance must be struck between good process and tangible output. The G-FISH process seems to have created excellent process that has created the enabling conditions that, hopefully, will lead to behavior change. The challenge ahead is to determine the means by which to capitalize on these initial and valuable investments.

b. What is the contribution of SCALE to policy innovations such as the Miskito Cay MPA or spiny lobster diving ban in Honduras, creation of community-level fisheries management bodies in Mozambique, ecosystem restoration in Cambodia?

The contribution of SCALE to tangible fisheries or environmental management is evident, but it is unclear whether there is a *unique* linkage between SCALE and outputs. In some cases, the hoped-for outputs never materialized. Based on the information provided by G-FISH and interviews, the contribution of G-FISH to the Miskito Cay MPA is mainly that of fostering engagement of NGO and government entities. Notably, the declaration of the MPA was not highlighted as a major success by Honduras interview informants, although the May 2013 meeting did not focus on this topic.

The Spiny Lobster Initiative in Honduras is the most developed G-FISH initiative and came closest to major, successful policy reform. As discussed earlier, this was foiled by a variety of conditions, including lack of economic alternatives, low political will, and weak government leadership. G-FISH provided a useful forum to discuss reform, but ultimately this opportunity was lost. It is possible that the SLI-created momentum will continue and that reform will be implemented.

The strengthening of historically weak community fisheries bodies in Mozambique is significant and has the potential to lead to important fisheries policy reform and action. For example, the activation of the Gímpia Community Fisheries Council (CCP) is evident in interview narratives. The members are taking important actions that could result in the successful implementation of a zoned area that protects their historic fishing grounds from unsustainable fishing practices that, reportedly, are mainly undertaken by Ruela fishers. The increased interactions between CCPs and between CCPs and government agencies are significant. Some of those interactions have challenged the status quo relationships been more influential, developed communities such as Ruela and more marginalized communities of Gímpia. With support from WCS, Gímpia appears on the cusp of significant, and positive, action. Unfortunately, some uncertainty surrounds the long-term engagement of WCS in the area and the implementation of the zoned area.

G-FISH supported reforestation and fishery law enforcement efforts in Cambodia, but the long term benefits and sustainability of these efforts is unclear given their recent implementation. It is also unclear to what degree enforcement has resulted in increased rule compliance.

2. What types of interventions (policy and regulatory reform; institutional strengthening; market development; public-private partnerships, etc.) have attracted the different sectors' investment?

    a. How did the SCALE process help define a program agenda which resonated with various sectors?

SCALE and the WSR meetings, especially, created a clear agenda. Interview results suggest that participants felt vested in the agenda which they led. The means by which priorities

were set is described in G-FISH reports as mainly stakeholder-led. But, given their focus on sustainability fisheries, it's likely that FHI 360 personnel influenced the priorities and plans for implementation. In other words, G-FISH played the role of an activity facilitator of a participatory planning process. The interview results clearly demonstrated that a focus on fisheries reform resonated with many constituencies in all three contexts.

b. What are tangible examples of commitment to interventions/change by various sectors?

The most tangible examples of commitment are the sustained engagement of actors in regular meetings and in a process through which they receive no direct and obvious economic benefit. The network of individuals and institutions has become less hierarchical in Honduras. Miskito divers have used the forum to raise awareness about their plight and the consequences of the industry. Government agencies have been made more accountable for their decisions in all contexts.

In all contexts, community leaders have been inspired to become involved in policy discussions. Community members have taken part in reforestation, patrolling, and other tangible activities.

The progress in all contexts has had relatively little time to develop and may be difficult to sustain without the continuation of funding and FHI 360's presence.

c. How well has G-FISH's value chain effort in Honduras functioned? Has the engagement of North American corporations encouraged EBFM policies in Honduras?

The engagement of Darden Restaurants in the G-FISH process is a notable development. There are few examples of influential, private sector entities engaged for years in a fisheries planning process. The interviews with Darden representatives clearly show their interest and appreciation for G-FISH and SCALE. The demonstrated change in sourcing and pricing product in a manner that benefits poor fishers or realization of EBFM policies is less clear. The following metrics of tropical EBFM—developed by practitioners and scientists through examination of Caribbean, Philippine and Southwest African EBFM programs and standard EBM protocols—have been established to varying degrees in G-FISH sites (Christie et al 2007).

Figure 8. EBFM process and outcome metrics.

EBFM Process criteria
Transparent and participatory planning process (e.g., community groups formed and consulted, community groups influence project and management plan development and implementation) • SCALE process has established these processes
Social and natural science generated information influencing planning (e.g., baseline and ongoing monitoring, planning mechanism in place to incorporate information): • G-FISH staff are not trained to collect and analyze such information. Collection and analysis of these data was not considered within the G-FISH staff responsibilities. • Some scientific information has been brought into the planning process, mainly through the contracting of advisors • FHI 360 uses consistent program monitoring and evaluation protocols
Local knowledge of resources and patterns of resource use influencing planning: • Through technical working groups, local fisher knowledge is utilized in G-FISH • Local knowledge and opinion strongly influences the prioritization of project activities • There are limited examples of enforceable natural resource management policies that based on local knowledge in G-FISH sites
Ecological knowledge of some form utilized in planning (e.g., management areas represent ecological boundaries, knowledge of fish stock status/trophic interactions, linkages between fish populations/habitats influencing management policy): • The definition of projects sites (e.g., the Tonle Sap Lake, Pemba Bay) has been influenced by ecological boundaries. • Ecological limits has influenced policy directives pursued by G-FISH.
Monitoring information used adaptively (mechanisms in place to encourage or require use of scientific and local knowledge to alter resource management policy): • Such information has been presented in the context of regular Whole System in the Room meetings, which have raised interest and awareness of fisheries sustainability • Local communities in Mozambique and Cambodia have been supported by G-

FISH to monitor environmentally damaging behaviors and seek mechanisms to improve environmental governance (e.g., through the declaration of Gímpia management plan or improved enforcement of Cambodian fisheries regulations)
Education program in place to encourage policy makers and resources to adopt EBFM: • Regular presentations, newsletters, radio shows are the hallmark of G-FISH and widely appreciated
EBFM Output Criteria
Increased fish biomass in and near management areas (use of systematic measures of fish biomass increase as indicator of project success): • This criterion has not yet been attained.
Reference points for catch per unit effort are established at a precautionary level: • This criterion has not yet been attained.
Threatened species and habitats are protected: • This criterion has not yet been attained.
Habitat and biodiversity protection with establishment of no-take MPA networks (use of systematic measures of habitat and biodiversity protection as indicator of project success): • Some progress has been made to establish protected areas such as the Miskito Cay MPA and the Gímpia zoned area.
Critical habitat protected from pollution, coastal development and other externalities: • This criterion has not yet been attained. Some reforestation in Cambodia addresses this criterion.

The application of the above EBFM criteria makes it clear that G-FISH has been focused on process and establishing enabling conditions for EBFM. This outcome is predictable given the relatively short timeline of GFISH.

3. What are the environmental management approaches that successfully address long-term natural resources conservation and management objectives while effectively increasing productivity and profitability?

    a. What actions taken in each G-FISH site have a high likelihood of increasing fisheries or ecosystem resilience?

The policy actions taken by G-FISH were modest, but significant. Participatory planning processes tend to be slow. G-FISH provided essential support for the declaration of protected areas in Honduras and Mozambique. Marine tenure rights of Miskito and Mozambique fishers are now in the process of being codified. The development of specific rules for each MPA is in progress and, if well implemented, will likely result in improved fisheries benefit to small-scale fishers. G-FISH provided important support for these policy directives, most notably providing a process through which government agencies, NGOs and community groups could discuss and reach consensus on these MPAs.

G-FISH's support for decentralized, co- management in all contexts has the potential to increase social ecological resilience. Coastal fishing communities are on the front lines of rapid change and their buy-in into regulations is essential in contexts with weak enforcement capacity. Given the challenges of each site and the slow pace of change, processes as established by G-FISH may take decades to reach a point of clear, tangible outcomes. In the Philippines, Eastern Africa and Latin America, consistent investment and commitment over decades has resulted in such positive change (Olsen and Christie 2000).

    b. To what degree can EBFM policies be directly linked to G-FISH efforts?

The creation of EBFM policies and improved environmental or socio-economic conditions are not yet apparent in each context. In Honduras and Mozambique, significant steps have been taken to establish new MPAs or areas zoned for small-scale fisheries in addition to a new fisheries law creating conditions for best management practices. Considerable progress has been made in projects sites to create enabling conditions through the establishment of consistent dialogue between various constituencies and technical inputs.

4. What types of engagements are most effective in promoting EBFM in developing country contexts?

    a. How has G-FISH balanced the social and ecological goals of EBFM?

G-FISH has adopted a balanced approach considering both ecological limits and boundaries, while also considering important social and governance dynamics such as poverty, institutional weakness, and marginalized social groups. The G-FISH staff seem

particularly well prepared in understanding of the contexts of each site. Since G-FISH field staff members are from local project contexts, they have valuable insights into local dynamics and opportunities. They are balanced in their assessments, not overemphasizing conservation policies over local economic needs. The staff has limited technical expertise in fisheries or marine conservation frameworks and tools used in USAID EBFM programs in East Africa or Southeast Asia. Some G-FISH partners have commented that this is a staffing decision had implications for what G-FISH could accomplish and sustain. Rather than including technical fisheries personnel on staff, FHI 360 chose to draw in external experts. This allowed G-FISH to occupy a relatively neutral and inclusive stance. Technocratic development or resource management programs are not generally inclusive of local knowledge and can stifle local ownership (Christie et al. 2000). Balancing participatory process with technical know-how is a delicate process. If deemed useful to have some on-staff technical expertise, fisheries technical capacity could be developed over time with new personnel or professional skills development. Such technical staff would not need to lead planning exercises as long as commitment to inclusive participatory planning was retained in project decision making.

The dissemination of the SCALE process through well regarded institutions (such as WorldFish Center) will potentially improve the overall adoption of EBFM principles in the tropics. The SCALE process could provide a useful complement to the technically-drive EBFM process that is more common.

Future directions:

The G-FISH and SCALE process are relatively unique in the realm of tropical fisheries management. This program has extended a well-tested participatory planning method to fisheries in three complex and challenging contexts. The results, predictably, are mixed but generally positive. The above analysis identifies contextual and procedural factors that have influenced progress toward G-FISH and general EBFM goals. This process and method clearly has made progress that warrants continuation. The following section suggests possible directions and investments for consideration.

Continuation in current sites:

Interviews captured a consistent sentiment that stakeholders in G-FISH from various sectors and institutions see benefit from a continuation of G-FISH and SCALE in all sites. Even institutions that were challenged by the process, for example government agencies, expressed an appreciation for G-FISH and openness to its continuation. The community-

level participants consistently expressed a desire for continuation, and expressed a concern that forward progress may be difficult to continue without ongoing engagement by FHI and G-FISH. This is a common scenario with donor-supported programs (Christie 2005) and is not necessarily a weakness of the G-FISH or SCALE approach. This program, more than most, has emphasized leadership development, participatory planning, and the creation of an action agenda that is generated by local individuals who will remain in place beyond G-FISH. The full SCALE process, with large and expensive Whole System in the Room meetings and media campaigns, will almost certainly not continue in its current form after donor support is phased out, but other aspects and institutions will remain. For example, the CCP groups in Mozambique are legally mandated and have the potential to receive government support and additional financial support from other projects and private sector initiatives. WorldFish is including aspects of SCALE in their programs. FHI 360 has been created linkages and plans with various NGOs and government institutions in each context to increase the likelihood of continued progress.

The ideal scenario is for G-FISH and FHI 360 to remain engaged in these contexts to allow for the maturation of these efforts. In particular, extension is warranted in Honduras, where major policy reform in the spiny lobster fisheries is possible, and in Pemba, Mozambique (especially Gímpia) where creation of a protected area is possible and requires continued support.

This analysis suggests that G-FISH and SCALE excelled in process, but did actualize many EBFM outputs given it current mandate, funding levels, and timeline (Figure 8). Interview informants consistently expressed an interest in tangible progress toward meeting the economic development and livelihoods needs of poor participants. This outcome is predictable given the scale of investment, short time horizons, and challenging contexts. The original scoping for G-FISH did not emphasize livelihood development—possibly a program design flaw since conservation efforts are usually paired with livelihood develop to encourage transitions from unsustainable fisheries. Also, raised awareness and robust collaborative planning are defined by the SCALE process as meaningful outcomes that complement traditional fisheries management outcomes and metrics. G-FISH and FHI 360 appropriately resisted the expectation that it provide direct economic assistance or stipends for G-FISH participants. Such policies are short sighted and create dependencies and expectations that are difficult to manage. However, some procedural adjustments may have improved the likelihood of progress, however measured, and are worth considering as SCALE is used in these and other fisheries contexts. Fisheries management benefits from timely and strategic technical inputs (Armada et al 2007; Olsen and Christie 2000). The appropriate balance between participatory process and technical input is difficult to determine and is context specific. With G-FISH, WCS was engaged to provide periodic technical assistance, but their engagement was episodic and its continuation is uncertain.

The economic recession and reduction in funding streams for conservation may have discourages WCS and other partners from engaging without financial support from FHI 360. The G-FISH field staff, while dedicated and skilled, do not have deep fisheries management expertise. This should be rectified so that FHI 360 does not need to be fully dependent on external institutions such as WCS which may or may not share their institutional priorities. Effective fisheries management programs have expertise in at least participatory planning, fisheries management, and information management (Armada et al. 2009). The 'networked' design of G-FISH that draws in various technical partners is potent, but may also create some programmatic instability since FHI 360 and other institutions may not share the same vision, incentive structures, and long -term goals.

Including livelihoods development, in concert with participatory EBFM planning, may allow constituents to consider a wider range of policy options that may result in economic dislocation. This is clearly the sentiment among a wide array of informants in Honduras were Miskito divers , government agency, and NGO informants felt that Honduras was not ready for a ban on lobster diving because such a ban would result in immediate and damaging economic dislocation of poor divers (in a context in which the drug trade is prominent). Providing for or creating a process that mitigates all economic dislocation from a dive ban is unrealistic. But, the current lack of alternatives has likely contributed to an unwillingness to implement a ban.

Given the complexities and challenges of each G-FISH site, FHI 360may want to consider focusing on fewer sites globally and within site. Priorities should be Honduras, then Mozambique, then Cambodia based on strategic opportunities and traction. There are high transaction costs working globally in distinct contexts and limited resources should be focused.

Lastly, an emphasis on continuation of staffing in each site is important. Progress in contexts like the Philippines has, to large degree, been possible because of the long-term engagement of talented and dedicated Filipino staff over decades of effort. Consecutive USAID programs has created a cadre of program staff with expertise in participatory planning, education and outreach, fisheries monitoring and management, livelihood development and project management.

References cited:

Armada, N., A.T. White, and P. Christie. 2009. Managing fisheries resources in Danajon Bank, Bohol, Philippines: An ecosystem-based approach. *Coastal Management* 37: 275-299.

Baran E. 2010. Mekong fisheries and mainstream dams: Fisheries sections. In: ICEM, Mekong River Commission Strategic Environmental Assessment of hydropower on the Mekong mainstream. Hanoi: International Centre for Environmental Management. Online: http://www.worldfishcenter.org/resource_centre/WF_2736.pdf

Baran, E., P. Starr and Y. Kura. 2007. Influence of Built Structures on Tonle Sap Fisheries. Phnom Penh: Cambodia National Mekong Committee and WorldFish Center.

Box 2013. Reference to be provided by FHI 360.

Christie, P., D.L. Fluharty, A.T. White, R.L. Eisma-Osorio, W. Jatulan 2007. Assessing the feasibility of ecosystem-based fisheries management in tropical contexts. *Marine Policy* 31:239-250.

Christie, P. 2005. Is integrated coastal management sustainable? *Ocean and Coastal Management* 48:208-232.

Christie, P., D. Bradford, R. Garth, B. Gonzalez, M. Hostetler, O. Morales, R. Rigby, B. Simmons, E. Tinkam, G. Vega, R. Vernooy and N. White. 2000. "Taking Care of What We Have": Participatory Natural Resource Management on the Atlantic Coast of Nicaragua. Managua and Ottawa: University of Central America Center for Research and Documentation of the Atlantic Coast and the International Development Research Centre. 169 pp.

Christie, P. and A.T. White. 1997. Trends in development of coastal area management in tropical countries: From central to community orientation. Invited *article* for the 25th anniversary edition of *Coastal Management* 25:155-181.

Lubell, M. and M. Robbins. 2013. Social Network Analysis of Honduran Spiny Lobster Initiative, Final Report to FHI 360. University of California at Davis Center for Environmental Policy and Behavior.

Olsen, S.B. and P. Christie. 2000. What are we learning from tropical coastal management experiences? *Coastal Management* 28:5-18.

Pomeroy, R. S., and R. Rivera-Guieb, 2005. Fishery co-management: a practical handbook. Ottawa: International Development Research Centre.

Ratner, B.D., G. Halpern, and K. Mam. 2011 (forthcoming). Catalyzing collective action to address natural resource conflict: Lessons from Cambodia's Tonle Sap Lake. Collective Action and Property Rights Working Paper Series. Washington, DC: International Food Policy Research Institute.

So, S., B.D. Ratner, K. Mam, and S. Kim. 2010. Conflict and Collective Action in Tonle Sap Fisheries. Phnom Penh: Cambodia Development Resource Institute.

Final Report to G-FISH by Patrick Christie, Ph.D., University of Washington

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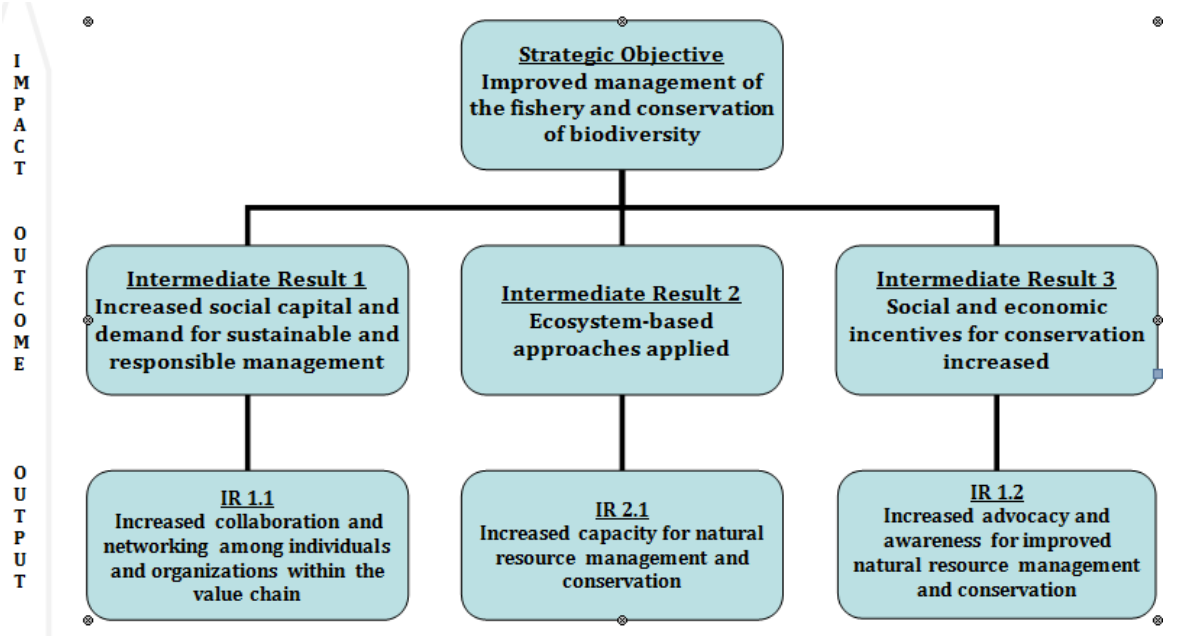
October, 2013

This final report is intended to provide a candid, information-based review of the G-FISH project. The review begins with an overview of G-FISH goals and approaches. In order to base G-FISH within broader USAID and fisheries management international standards, the analysis presents the conclusions of an international assessment that informed USAID fisheries investments. It also links G-FISH to accepted (and peer reviewed) metrics for ecosystem-based fisheries management (EBFM). In conclusion, it makes a few overarching recommendations to FHI 360 for future similar projects.

Background: Goals and approaches of G-FISH

The G-FISH project, that uses the SCALE process, intends to foster improved management of fisheries and conservation of biodiversity in three distinct contexts. The general approach (Figure 1) to reach this overarching objective includes adoption of ecosystem-based fisheries management, increasing individual and institutional capacity, and raising awareness about fishery conditions and the benefits of improved management. The project design is logical and innovative. In a field that tends to be very technical in its approach, G-FISH is focused on applying participatory methods of planning and education—an approach that I appreciate and support. The project aspired to apply EBFM approaches, a relatively novel approach that intends to improve fisheries sustainability by scaling interventions to ecosystem levels and increasing the appreciation of ecosystem function and impacts of fisheries on ecosystems (Christie et al. 2007).

Figure 1. G-FISH results framework.



The re-engagement of USAID in fisheries management is a welcomed development after its absence from this sector, outside the Philippines, for decades. USAID in the 1980s supported a number of innovative fisheries programs. By the 2000s, USAID had decided to direct its financial resources toward integrated coastal management. Programs in Ecuador, Eastern Africa, Philippines, Indonesia and Sri Lanka were supported (Olsen 2003). By 2006, USAID commissioned a report to consider opportunities to re-invest in fisheries in tropical regions (Christie, Pomeroy et al. 2006). G-FISH program represents the first step toward re-investment of USAID into fisheries management in contexts other than the Philippines.

In order to place G-FISH within the broader context of USAID's fisheries investments, it's informative to review what the team of experts recommended. G-FISH's design aligns well with the overarching challenges facing small-scale fisheries in developing countries.

"USAID is strategically positioned to promote more sustainable fisheries management. The Agency can assist in addressing the key issues plaguing small-scale fisheries in developing countries, which are:

- weak governance including a lack of defined and enforced property and use rights,
- excess fishing capacity,
- illegal fishing,
- endemic poverty, and
- impacts of globalization of fisheries trade. " (Christie and Pomeroy et al. 2006: 68)

The assessment highlights the chronic governance challenges which exist in most tropical, developing country contexts. "A variety of responses, including social and economic development, regulations, and resource development and management, have been applied to the problems faced in fishing communities in developing countries. The results have been highly variable. Implementing even simple recommendations has been difficult due to institutional weakness, poor understanding, and the lack of political will. Experience shows repeatedly that the best results are obtained by a diversified program that addresses several root problems simultaneously. These can be characterized as a set of good practices.

- Achieving sustained progress requires engaging the men and women of fishing communities in a dialogue about the future they envision, the steps needed to get there, and the lessons that are learned along the way. It requires engaging a much broader array of actors across government, civil society, and the private sector to build understanding of the reforms needed and the commitment to undertake them.
- Policies and actions must address the root causes of vulnerability, insecurity and instability. This requires understanding the means by which households adapt to reduce their risks, the incentives that drive the decisions of resource users, and the sources of their vulnerability to stresses and shocks.
- Community institutions must be strengthened and approaches must be cross-cutting and integrative.
- A multi-sectoral approach is required—one that links social development, economic development, empowerment and co-management." (Christie and Pomeroy et al. 2006:70-71)

In summary, the report highlights governance and reduction of excess fishing capacity. G-FISH's design emphasizes improved governance. "USAID emphasis should be in two primary areas:

- Strengthening governance capacity for small-scale fisheries, and
- Reducing excess fishing capacity

With respect to strengthening governance, USAID should champion the imperative of placing small-scale fisheries management into the context of integrated approaches, including ecosystem-based management. This needs to be done carefully, however, as in

the developing country context it involves increasing complexity of management arrangements in countries where capacity is typically weak and where participatory planning processes are fundamental to encouraging commitment to change. Emerging experience from the Philippines will likely provide insights in adapting this approach in other developing country contexts. Capacity-building of resource managers, users and governance institutions will be important. While intervention needs to be tailored to the local context, co-management approaches and spatial management techniques such as marine reserves and zoning should be emphasized. It should be noted, however, that the problems of small-scale fisheries cannot be solved from a sector-based approach alone. Many of the solutions must also come from outside the fisheries sector. Therefore, an integrated approach must also include addressing political and economic marginalization as well as community and economic development including livelihoods… A multifaceted approach is required, especially one that integrates resource management with a livelihoods approach. Resource management should involve strategies that include access control and defined property or user rights, including the adoption of marine tenure regimes and localized territorial use rights. Basic fisheries management techniques such as gear restrictions and fishing effort reduction should also be implemented (Christie and Pomeroy et al. 2006:68-69).

To improve governance capacity and reduce excess fishing capacity, the assessment team recommended that USAID and the programs it finances:

- Build the capacity of USAID Mission staff and Regional Bureaus in sustainable capture fisheries through USAID/EGAT-led workshops that support priority setting and strategic planning by USAID Missions and bureaus.
- Promote public-private sector alliances
- Disseminate lessons learned and establish regional learning networks
- Provide leadership and advocacy

(Christie and Pomeroy et al. 2006:72-74).

G-FISH and SCALE are well aligned with these recommendations.

G-FISH also was active in priority geographies and fisheries. The assessment's national-level recommendations specifically highlight the importance of the Central American lobster fishery.

"Honduras and Nicaragua: Promote fair and sustainable international trade of lobster and conch fishery resources through private-public sector alliances.

Mozambique: Improve fisheries governance through co-management including assistance with the development of coastal zonation schemes and marine protected areas." (Christie and Pomeroy et al 2006: 6)

The global assessment did not recommend any investments in Cambodia (although it did recommend actions in other Asian countries).

The program recommendations for Honduras seem closely related to G-FISH's goals.

"Action 16. Honduras and Nicaragua: Promote fair and sustainable international trade of lobster and conch fishery resources through private-public sector alliances

Goal: Achieve sustainable harvests of valuable and overexploited marine species of spiny lobster and conch in Honduras and Nicaragua through fishery certification.

Rationale: This is a high-value, small-scale fishery with, in the case of the lobster, almost all the production targeted for the U.S. market. The fishery has relatively clear lines of trade (unlike most small-scale, multi-species fisheries) primarily to U.S. markets.

Strategy: Develop a sustainable harvest certification program for Caribbean spiny lobster (*Panulirus argus*) and queen conch (*Strombus gigas*). This requires creating review and certification protocols for the various steps in the international trade chain. Certification will require the involvement of law enforcement agencies, especially to address cross-border poaching and harvesting of juveniles. Potential partners include the USAID Global Development Alliance, the USAID regional office in Central America, USAID Missions in Nicaragua and Honduras, the Marine Stewardship Council, U.S. State Department, Millennium Challenge Corporation, Global Environment Fund, World Bank, NGOs and appropriate private sector partners that dominate the market chain. Lessons can be drawn from the MSC Certification of the Baja California spiny lobster (*Panulirus interruptus*). This program should be linked to ongoing efforts to protect the Meso-American Barrier Reef and past efforts to support the Miskito Keys protected area in Nicaragua by USAID and other donors. Lessons should also be drawn from prior work funded by USAID on market chain analysis for the Caribbean spiny lobster by the Programa Ambiental Regional para Centroamérica (PROARCA).

Efforts to improve economic development and sustainable harvesting of these organisms should be linked to the Dominican Republic-Central American Free Trade Agreement (DR-CAFTA), which is important to USAID Missions in the region. For example, improved phyto-sanitation methods should be applied to lobster. Attention to diver safety and alternative or supplemental livelihood training is an important aspect of this fishery's reform. Since little of the money earned by young male lobster divers returns to their homes and communities,

there are an increasing number of destitute female-headed households. Hence, assistance should include alternative livelihood development for these women and funding and training for such activities as marketing and processing of agroforestry products, bark cloth design and marketing, cooked food sales, tailoring, fishing, etc. " (Christie, Pomeroy et al. 2006: 83-84).

This global assessment was commissioned by Barbara Best of USAID who is also the main supporter within USAID for the G-FISH program. The launch and design of G-FISH is clearly related to and in agreement with the investment recommendations made in Christie and Pomeroy et al. (2006).

This final report, and the related case study for FHI360 (Christie 2013), represent an assessment of progress made by G-FISH toward some of the key goals set out for USAID in the 2006 opportunities assessment. The analysis also considers accepted frameworks developed to assess progress toward improved tropical coastal management and fisheries management. Olsen and Christie (2000) present a framework, developed at the University of Rhode Island Coastal Resources Center, that describes the stages of progress in creating more sustainable coastal societies through programs such as G-FISH and other donor-supported projects (Figure 2). Christie et al. (2007) presented metrics for tropical EBFM—developed by practitioners and scientists through examination of Caribbean, Philippine and Southwest African EBFM programs (Figure 3).

The G-FISH case study (Christie 2013) drew primarily from program monitoring and evaluation data, an externally conducted social network analysis (Lubell and Robbins 2013), and 52 semi-structured interviews. Semi-structured interviews varied by context, but generally focused on G-FISH accomplishments, challenges, influential contextual variables, impact of G-FISH on fisheries management, involvement of marginalized people through G-FISH, and the possibilities of sustaining G-FISH initiated efforts. Twenty-six interviews were conducted in Cambodia by an external consultant. Seven interviews were conducted in Mozambique by a G-FISH employee. Fifteen interviews were conducted in Honduras by Chelsea Combest-Friedman (who is not a G-FISH employee). Patrick Christie interviewed G-FISH four staff members. Interviews were coded considering the strengths, weakness, opportunities and threats (SWOT) in each context. The results of drawn from these interviews underpin the conclusions presented in this final report, but illustrative interview quotes are not presented here (but are in the case study, Christie 2013).

The conclusions of the social network analysis and the case study were in general agreement—most notably that the SCALE process had provided a means to broaden involvement in defining problems, examining causes and testing modes to improve fisheries co-management. Both the case study and social network emphasize that the G-FISH program is a valuable start in a process that will required long-term and ambitious

programs. "This hypothesis is further corroborated by stakeholders' largely positive perceptions of the effectiveness of the Spiny Lobster Initiative for achieving short-term process goals such as information and trust. However, there is a more moderate view of how well the SLI has achieved some of the longer-term substantive goals suggesting that much of the short-term changes have been in process, relationships, and information. Fully-achieving some of the longer term goals will likely require sustained cooperation among stakeholders." (Lubell and Robbins 2013:2)

Since the case study was intended to assess progress toward EBFM rather than the creation of (important) social networks, Christie (2013) concluded "The relatively short term nature of G-FISH has meant that, in most instances, the focus has been on creating 'enabling conditions' that, ultimately, may lead to changes in behavior and the 'harvest' of more sustainable societies. However, the constraints of the project's 2-4 year timelines made sustained progress with demonstrable outputs difficult." This conclusion was reached by assessing general progress toward EBFM metrics in all three countries (Figure 3).

Figure 2. Orders of outcomes from coastal planning processes.

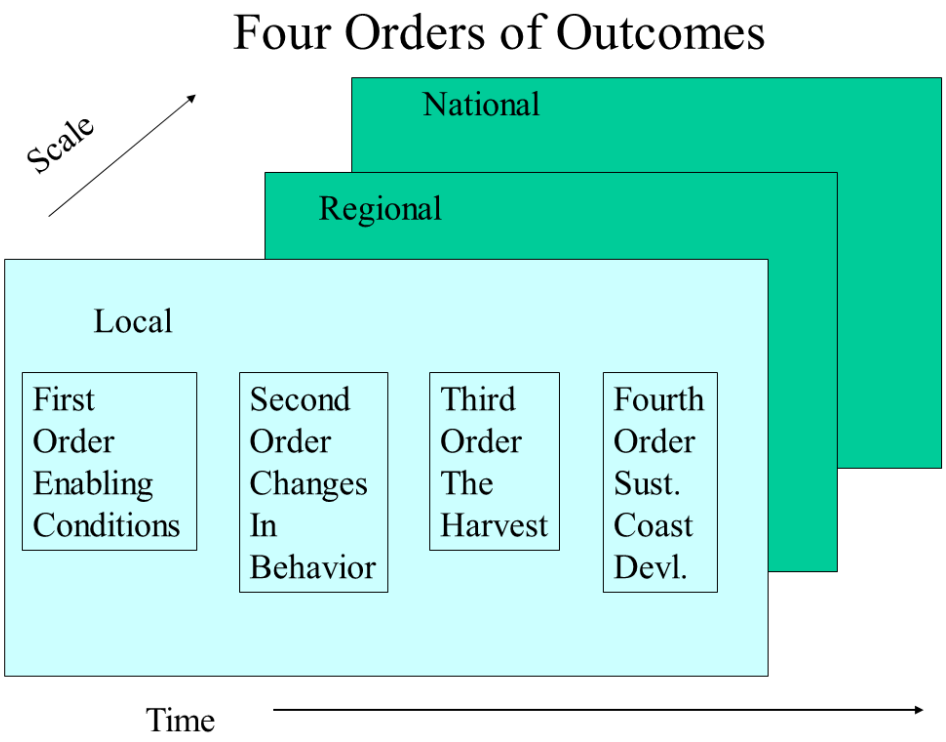


Figure 3. EBFM process and outcome metrics.

EBFM Process criteria
Transparent and participatory planning process (e.g., community groups formed and consulted, community groups influence project and management plan development and implementation) • SCALE process has established these processes
Social and natural science generated information influencing planning (e.g., baseline and ongoing monitoring, planning mechanism in place to incorporate information): • G-FISH staff are not trained to collect and analyze such information • Some scientific information has been brought into the planning process, mainly through the contracting of advisors • FHI 360 uses consistent program monitoring and evaluation protocols
Local knowledge of resources and patterns of resource use influencing planning: • Through technical working groups, local fisher knowledge is utilized in G-FISH • Local knowledge and opinion strongly influences the prioritization of project activities • There are limited examples of enforceable natural resource management policies that based on local knowledge in G-FISH sites
Ecological knowledge of some form utilized in planning (e.g., management areas represent ecological boundaries, knowledge of fish stock status/trophic interactions, linkages between fish populations/habitats influencing management policy): • The definition of projects sites (e.g., the Tonle Sap Lake, Pemba Bay) has been influenced by ecological boundaries. • Ecological limits has influenced policy directives pursued by G-FISH.
Monitoring information used adaptively (mechanisms in place to encourage or require use of scientific and local knowledge to alter resource management policy): • Such information has been presented in the context of regular Whole System in the Room meetings, which have raised interest and awareness of fisheries sustainability • Local communities in Mozambique and Cambodia have been supported by G-FISH to monitor environmentally damaging behaviors and seek mechanisms to improve environmental governance (e.g., through the declaration of Gímpia management plan or improved enforcement of Cambodian fisheries regulations)
Education program in place to encourage policy makers and resources to adopt EBFM: • Regular presentations, newsletters, radio shows are the hallmark of G-FISH and

widely appreciated
EBFM Output Criteria
Increased fish biomass in and near management areas (use of systematic measures of fish biomass increase as indicator of project success): • This criterion has not yet been attained.
Reference points for catch per unit effort are established at a precautionary level: • This criterion has not yet been attained.
Threatened species and habitats are protected: • This criterion has not yet been attained.
Habitat and biodiversity protection with establishment of no-take MPA networks (use of systematic measures of habitat and biodiversity protection as indicator of project success): • Some progress has been made to establish protected areas such as the Miskito Cay MPA and the Gímpia zoned area.
Critical habitat protected from pollution, coastal development and other externalities: • This criterion has not yet been attained. Some reforestation in Cambodia addresses this criterion.

The application of the above EBFM criteria makes it clear that G-FISH has focused on improving the decision making process by engaging relevant stakeholders and policy makers (what has been broadly referred to as co-management) and establishing enabling conditions for EBFM. The process has resulted in progress toward these goals. The tangible fisheries management outcomes of this process, beyond awareness raising and collaborative planning, are less apparent. The conclusion to be drawn from this finding is not a negative one. Rather, the more appropriate conclusion is that subsequent effort is needed in order to ensure that forward progress is not lost. The following discussion provides some recommendations for future actions that may build from the important efforts undertaken through G-FISH.

Principal Recommendations:

These recommendations consider project monitoring and evaluation information, interviews of project participants and staff in each context, and discussions with FHI 360 project leadership. This report will focus on overarching program design, management and

staffing decisions as these are aspects which FHI 360 has some degree of control over. It does not focus on specific project activity because the case study (Christie 2013) already provides this site-level information.

Continuation of investment in collaborative planning and awareness raising:

The participants in the G-FISH process, from a variety of institutions and perspectives, were appreciative of G-FISH and the SCALE process. The focus on awareness raising through multiple methods was appreciated, although its effectiveness was not measured through pre and post assessments. For example, there were no measurements of environmental awareness or fisheries awareness pre and post G-FISH.

The collaborative planning was novel and also appreciated by project participants. The novelty of co-management, multi-constituent dialogue and participatory policy making in these three countries is notable and its success is a testament to the potential of the SCALE process. Even institutions, such as government agencies, that may have been the target of raised expectations and criticism, came to appreciate the SCALE process. Historically marginalized social groups, including women, poor and indigenous people, especially appreciated the SCALE process that included them and provided a platform for their concerns. The social network analysis confirmed this outcome. Interviews with FHI360 staff rightfully emphasized the importance and value of developing collaborative planning mechanism. In short, the systematic and thoughtful implementation of SCALE was effective in creating important dialogue that warrants continuation.

Moving from collaborative planning to action:

Informants in Honduras and Mozambique, while appreciative of the collaborative planning process, also mentioned the importance of tangible action in the realms of fisheries and livelihoods. Whether G-FISH was unable, chose not to, or didn't have time and resources to invest in more action taking is difficult to discern as an outsider to the project's management. USAID may have set boundaries on what was allowed within G-FISH and disallowed investment in income generation projects. Also, project longevity, especially in Mozambique and Cambodia, and funding levels may have been insufficient to allow for the evolution of ambitious action plans. Regardless of funding levels, it seems important (and responsive to client expectations) that a balance be struck between investment in planning, communication, and action.

My ten-year experience in participatory action research in Nicaragua (Christie et al. 2000) impressed upon me that planning without tangible action in a manner that meets

immediate economic and environmental necessities leads to some degree of dissatisfaction and eventual disengagement. In retrospect, it became apparent that that Nicarguan program focused too much on action research, participatory planning and co-management process, and not enough on action taking.

Current USAID investments in coastal and fisheries management in the Philippines seem to have struck a productive balance between participatory planning, monitoring and evaluation, technical assistance, and action taking (Armada et al 2007). While these programs have had more funding per year than G-FISH, the balancing of process versus action is important regardless of the funding level.

Interviews demonstrated the clear appreciation for the illegal fishing enforcement campaign. This is a clear example of visible and tangible action. It also moved sites toward measurable EBFM outcome goals such as "Threatened species and habitats are protected". It's unclear, yet, whether these enforcement programs have result in habitat protection.

Similarly, important steps have been taken toward establishing MPAs in Honduras and Gimpia, but clear delineation and protect of these areas is not yet in place. Interviews in Honduras did not emphasize the new MPA there. Interviews in Mozambique suggest that G-FISH participants from Gimpia are highly motivated to implement their zoning scheme.

This conclusion suggests that FHI360 may want to consider rebalancing its application of SCALE in the field. It also suggests that realistic timelines are needed. The attainment of EBFM using MPAs and standard fisheries management strategies in complex and large areas requires extended periods of time. The Coastal Resource Management Project and and FISH project in the Philippines were approximately 5-7 year programs.

Developing and broadening field staff capacity:

Comparative research has shown that the capacity of project staff is a strong predictor of successful fisheries and MPA management (Christie et al. 2009). G-FISH benefitted from the strong facilitation skills of FHI 360 staff. Their abilities to manage complex discussions among diverse constituencies are impressive. The participants in G-FISH consistently praised the G-FISH personnel's commitment and acumen.

Natural resource management in developing countries is multi-faceted, requiring a approach that balances conservation, economic development, capacity development and many other dynamics. Creating a staff that consists of committed individuals with complementary and relevant skill sets is fundamental to success. The field staff in Honduras and Mozambique worked with G-FISH throughout the program. There was staff turn-over in the Cambodia site. Such turn-over can pose a challenge to developing field staff

capacity. While this author does not have enough information to assess staffing decisions or reasons for staff turn-over, the implications for staff changes in Cambodia emerged during discussions as having impacted progress in the Cambodia project efforts.

The lead field staff members in Honduras and Mozambique were from each country. In Cambodia, the staff was a mixture of Cambodian and expatriate staff. While only based on relatively brief interviews, I was impressed with the G-FISH field staff's knowledge of local social dynamics and commitment to engaging in the complex and sometimes frustrating social change process required by programs like G-FISH.

In my experience, the formation of a dynamic and committed staff team—that involves national and expatriate staff with their complementary skills and perspectives—is essential to success. USAID fisheries programs in the Philippines are renowned for their talented and committed staff. Notably, the creating of such effective staff requires more time than G-FISH had during its relatively short duration. Perhaps such a multidisciplinary staff would have been possible in Honduras, where G-FISH existed for the longest time period.

The balance of process facilitation with technical skill sets within the field staff should be revisited. The case study stated the following: "The G-FISH staff seem particularly well prepared in understanding of the contexts of each site. Since G-FISH field staff members are from local project contexts, they have valuable insights into local dynamics and opportunities. They are balanced in their assessments, not overemphasizing conservation policies over local economic needs. The staff has limited technical expertise in fisheries or marine conservation frameworks and tools used in USAID EBFM programs in East Africa or Southeast Asia. Some G-FISH partners have commented that this is a staffing decision that had implications for what G-FISH could accomplish and sustain. Rather than including technical fisheries personnel on staff, FHI 360 chose to draw in external experts. This allowed G-FISH to occupy a relatively neutral and inclusive stance. Technocratic development or resource management programs are not generally inclusive of local knowledge and can stifle local ownership (Christie et al. 2000). Balancing participatory process with technical know-how is a delicate process. If deemed useful to have some on-staff technical expertise, fisheries technical capacity could be developed over time with new personnel or professional skills development. Such technical staff would not need to lead planning exercises as long as commitment to inclusive participatory planning was retained in project decision making." (Christie 2013:49-50)

While not the focus of this G-FISH assessment, discussion with G-FISH staff and leadership provided some insights into staff training. Jimmy in Honduras has some scientific training. Isabel in Mozambique came to G-FISH after being involved in eco-tourism ventures but does not have fisheries training. Jeanette has formal training and experience in general natural resource management and has lived in Cambodia for an extended period. I am

unaware of the other Cambodian staff member's training and experience. In summary, my impression is that G-FISH field and Washington DC staff members are expert in participatory planning process facilitation. That is important, and in line with FHI 360's strategic decision to staff G-FISH with individuals with a particular skill set. The relative absence of complementary technical skills in fisheries and coastal management was apparent. This statement is not intended as a criticism of the staff or FHI 360. Fisheries science is a relatively specialized field. As stated by Jennifer Barker, the G-FISH project lead, the awarding of the G-FISH contract to FHI 360, an organization known for the SCALE process rather than fisheries management, was intentional. FHI 360 came to these contexts with a new perspective and with less institutional commitment to typical fisheries management approaches that tend to be heavily dependent on technical knowledge.

As stated in the case study, over-reliance on technical knowledge can create dependencies on scientists and erode broad participation by important constituents that are not scientific in their approach (Christie 2011). Scientists in conservation programs frequently come with particular environmentalist and bio-centric worldviews that do not resonate with local constituents and tend to downplay the economic development needs of local constituents in favor of biodiversity conservation (Christie 2011). But, FHI 360 leadership should reflect on whether the relative lack of fisheries management technical skills within its field staff prevents it from meeting particular project goals. Most notably, increased 'in-house' technical skill within field staff may allow for more rapid progress to tangible EBFM outcomes such as establishment of fisheries management plans, fishing effort control, establishment of protected areas, and ecosystem restoration. This technical knowledge and staffing need not erode the effective participatory planning process. Rather it can catalyze action taking that is emerges from participatory planning and inspires greater commitment (Christie et al. 2000).

The engagement of technical staff from international organizations such as Wildlife Conservation Society and WorldFish Center is a logical strategy, but may be unstable in that these organizations may not share the vision of FHI 360 and may be engaging in contract work only so far as this engagement aligns with their institutional goals and financial needs. As articulated by WCS staff, their organization's involvement in Pemba is tenuous, largely since it is dependent on ongoing financing.

Another notable staffing decision in G-FISH is the relatively small field staff, with project leadership located in Washington DC. This may be a logical and efficient organizational strategy considering the distribution of project sites around the global and the report requirements of USAID. Whatever the rationale, this staffing model is unusual in my experience. The distribution of personnel, and associated grant resources, in this manner may translate into an under-resourcing of field operations.

Program design and resources:

It's clear that G-FISH leadership felt that financial resources available and the timeline set were inadequate to realize significant progress toward fisheries reform in all three contexts. Without detailed information on budgets and costs, it is difficult for me to assess the validity of this these conclusions. It is clear, however, that working simultaneously in three very different and challenging contexts with a limited staff is very ambitious, and possibly unrealistic. One well documented USAID program in fisheries, project FISH in the Philippines, seems to have had significantly more financial resources, material resources, technical capacity and staffing. According to FHI 360 leadership, the lack of USAID mission investment in G-FISH limited its abilities to reach many goals.

The successful design of any development or environmental management project (or any research project in my experience) requires that activities are scaled to reach intended goals within the challenges of context, time and funding limits, and human capacity. The art of effective project design requires that a program is designed to 'fit within' known constraints. The three contexts of G-FISH are all quite challenging (Christie 2013). For example, the Central American lobster fishery is widely considered to be one of the most difficult fisheries to reform (akin to the aquarium fish trade). It's a lucrative, exploitative, and complex international system. The human capacity for fisheries management in all three contexts is quite limited. Unlike in some developing countries (e.g., the Philippines or Indonesia), there is severely limited fisheries technical capacity in each context.

While important progress was made through G-FISH, it may have been too ambitious given the resources available and the contexts. The management of a program in three demanding contexts, with a central office in Washington DC and relatively small staffs in each site, seems to have overwhelmed FHI 360's capacity. A more limited geographic scale may have resulted in more tangible progress in a particular fishery.

It's hoped that USAID's investment's in these contexts continues and that the efforts started by G-FISH are continued. Experience (and interviews) strongly suggests that the momentum of each process may be lost unless USAID, or other institutions, continue supporting planning process with at least some conflict resolution, technical and planning support (Christie 2005; Christie et al. 2009). Ideally, national institutions will adopt these issues. But in each context it is the national institutions themselves in need of reform of co-management and EBFM are the goal.

Measuring progress:

FHI 360's system of monitoring and evaluation (M and E) and internal learning should be reviewed. As an external technical advisor, I found the M and E data to be of limited use in drawing conclusions about outcomes from the G-FISH project. While knowing how many meetings or communication events took place is essential for reporting to USAID, it's of little value when trying to assess progress to improved fisheries management. The M and E data was presented to me as information that I could use to draw evaluative lessons from each context. This is not possible. That information provides little more than proof of what staff did with their time and resources. It is not a good measure of progress because it is not clearly linked to outcomes such as changes in human behavior or improved environmental conditions. It is also not particularly useful to compare activities across sites because the staff activities are predictably unique to context and fisheries.

FHI 360 has engaged an social network analysis expert, Mark Lubell, and this has resulted in important understandings of how human communication and collaboration patterns have evolved over time in Honduras. Similarly, it engaged Tim McClanahan and Josh Cinner to assess the capacity for fisheries reform in Mozambique that suggest that Pemba and Gimpia have potential for co-management.

FHI 360 engaged me to assess progress across sites. Resources were made available to hire an interview specialist, Chelsea Combest-Friedman, in Honduras. Her interviews provided a rapid, but robust, assessment of project participants' perceptions of progress and future needs. FHI 360 staff conducted related interviews in Mozambique and an external consultant was hired Cambodia. Project financial limitations prevented the contracting of external interview specialists in these contexts. As a result, G-FISH field staff added interviews to already busy schedules. I tried to guide them, but was only able to do so remotely. The case study, and this final report, would have benefitted from a more consistent application of interview methods. The data would have been higher quality and more comparable. Interview results would have been more nuanced and detailed. It's understandable that staff-led interviews are distinct from a specialist's interviews. When drawing comparisons, it's essential that methods and data quality are consistent across sites.

While I am not advocating for a radical re-prioritization of financial resources toward evaluation, I do believe designing a more robust system to consistently collect assessment data that measures both process and outcomes of SCALE applications would be valuable. It likely will reduce bias if these data collection and analysis processes are led by individuals formally trained in such assessments and who not embedded within the project staff structure.

Conclusion:

The above positions G-FISH within a broader context and provides specific recommendations for improving such projects. While it is intended, upon invitation of G-FISH leadership, to provide a frank assessment, it is not intended to critique G-FISH. The project approach is fundamentally sound. Significant progress was made in each context. G-FISH was an ambitious, perhaps overly ambitious, attempt to initiate participatory fisheries management in three contexts. Any institution would be challenged to reach the goals laid out by G-FISH. The recommendations made to move toward action taking or staff technical training should be made in a way so as not to undermine FHI 360's commitment to SCALE and participatory planning.

This report's most important conclusion is that it will not serve the interests of USAID, and more importantly, the people and fisheries of these contexts if efforts are abruptly terminated in these contexts. This may result in a reversal of any progress made to date. It appears that some project efforts may be carried forward by other institutions and donors, but an assessment of this process is beyond the scope of this final report and it's unclear what organizations will continue the momentum. Given the general decline in small-scale fisheries in developing countries, it's important that USAID remain engaged in fisheries management throughout the world.

References:

Armada, N., A.T. White, and P. Christie. 2009. Managing fisheries resources in Danajon Bank, Bohol, Philippines: An ecosystem-based approach. Coastal Management 37: 275-299.

Christie, P. 2013. G-FISH project case study. Report to FHI 360.

Christie, P. 2011. Creating space for interdisciplinary marine and coastal research: Five dilemmas and suggested resolutions. Environmental Conservation 38 (2): 172–186.

Christie, P., R.B. Pollnac, E.G. Oracion, A. Sabonsolin, R. Diaz, D. Pietri. 2009. Back to basics: An empirical study demonstrating the importance of local-level dynamics for the success of tropical marine ecosystem-based management. Coastal Management 37: 349-373.

Christie, P., D.L. Fluharty, A.T. White, R.L. Eisma-Osorio, W. Jatulan 2007. Assessing the feasibility of ecosystem-based fisheries management in tropical contexts. Marine Policy 31:239-250.

Christie, P. 2005. Is integrated coastal management sustainable? Ocean and Coastal Management 48:208-232.

Christie, P., D. Bradford, R. Garth, B. Gonzalez, M. Hostetler, O. Morales, R. Rigby, B. Simmons, E. Tinkam, G. Vega, R. Vernooy and N. White. 2000. "Taking Care of What We Have": Participatory Natural Resource Management on the Atlantic Coast of Nicaragua. Managua and Ottawa: University of Central America Center for Research and Documentation of the Atlantic Coast and the International Development Research Centre. 169 pp.

Christie, P. R.S. Pomeroy, et al. 2006. Fisheries Opportunities Assessment. Report to the United States Agency for International Development global programs. http://www.crc.uri.edu/download/Fish_Opp_Assess_Final_012607_508.pdf

Lubell, M. and M. Robbins. 2013. Social Network Analysis of Honduran Spiny Lobster Initiative, Final Report to FHI 360. University of California at Davis Center for Environmental Policy and Behavior.

Olsen, Stephen Boyle (editor). 2003. Crafting Coastal Governance in a Changing World. University of Rhode Island: Coastal Resources Center. Available at: http://www.crc.uri.edu/download/Crafting_Coastal_Governance.pdf

Annex 8.

Social Network Analysis of Honduran Spiny Lobster Initiative

Final Report

August 15, 2013

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1. Summary

This report details the social network analysis (SNA) of survey data collected by the Spiny Lobster Initiative (SLI) over the course of several years in Honduras. The data were collected at four events: a Whole System in the Room event in June 2009, the First Spiny Lobster Symposium in May 2010, The Global Fish Alliance (GFISH) Network Census in Winter 2011, and The Fourth Spiny Lobster Symposium in May 2013. The goal of the following analysis is to explore the dynamics of the network structure and key actors over the course of the SLI.

There are two ways to think about the possible changes associated with a collaborative process such as Whole System in the Room and other events associated with the Global Fish Alliance, such as the Spiny Lobster Symposiums. First, there could be a change in the intensity of the overall levels of collaboration, for example an increase in the total number of realized collaborative relationships out of the possible ties that could be made. While this is perhaps the most intuitive expectation, it should be remembered that creating and maintaining social relationships is costly and requires investments in resources. Hence an increase in social connectivity is only expected if the benefits of additional ties outweigh the costs of creating and maintaining them.

A second way that networks may evolve is to change the distribution of ties across individual stakeholders, or sectors/groups of stakeholders. In this case, the total number of ties might remain the same but the distribution of ties changes across the network. For example, ties that might have just gone to a government agency could change to another stakeholder sector. In GFISH Honduras, some of the targets were to increase the involvement of artisanal fishing groups and diving boats/crew, which means reshaping some relationships. One way to think of this is creating "bridging" social capital among groups and actors that were not previously connected.

The **bottom line of this analysis** is that while there is limited evidence of increasing intensity of collaboration among spiny lobster fishery stakeholders, there is substantial evidence of a redistribution of social relationships in ways that make the network less hierarchical, increase the representation of marginal groups, and break out of sector-based "silos". While there is no consensus on how different changes in network structure are related to overall levels of cooperation or sustainability, there are plenty of theoretical arguments that suggest the types of changes observed in the SLI network are supportive of cooperation. This hypothesis is further corroborated by stakeholders' largely positive perceptions of the effectiveness of the Spiny Lobster Initiative for achieving short-term process goals such as information and trust. However, there is a more moderate view of how well the SLI has achieved some of the longer-term substantive goals suggesting that much of the short-term changes have been in process, relationships, and information. Fully-achieving some of the longer term goals will likely require sustained cooperation among stakeholders. The following bullets summarize the findings:

- The overall network structure in terms of density and number of ties has remained fairly stable over time.

- Within the overall groups, there is a slight trend towards decreased average path length coupled with decreased subgroup formation. This is consistent with more boundary spanning within the network. Communication relationships have experienced more increases in intensity, while collaboration relationships have experienced a decreased tendency to form subgroups.

- There is fairly clear evidence that the distribution of ties is becoming more equitable across sectors. By Wave 3, there is no single sector type that dominates the center of the network.

- Throughout the process, the most central sectors are government direct, divers/crew, and donors/cooperants. A number of specific organizations have experienced changes in centrality over time, and more field knowledge is necessary to better interpret these changes.

- The network is becoming less hierarchical and centralized over time over time, with more connections going from core actors to peripheral actors over time instead of being concentrated mostly within a small set of core actors.

- More bridging social capital is being created over time as indicated as more external ties between sectors. The creation of more external ties is especially strong among divers/crew, processors/exporters, government direct, and environment stakeholders.

- Stakeholders have a mostly positive perception of how well the Spiny Lobster Initiative has increased cooperation, trust, representation, and information availability. The most positive change was for information availability, with the least for interest representation.

- Stakeholders have a mostly positive but more moderate view of how well the Spiny Lobster Initiative has achieved a number of long-term goals. Education/awareness, regional integration, and use of conservation management tools receive the highest scores on goal achievement. Market expansion, integration of La Moskita, and interdisciplinary management receive some of the lowest scores.

The rest of this report will provide more detailed information about these basic findings. Note that we think the most important message of the analysis is the breaking down of silos and subgroups, and the decrease in hierarchy. We have placed an asterisk (*) in the headings of tables and figures that we think would be best for inclusion in your full report.

2. Methodology

2.1 Administering the Survey

The data used in the following SNA analyses was collected using the same survey instrument each of the four events. In cases where more than one representative from a given organization filled out a survey, only the survey from the most senior representative was included in the sample. Table 1 below shows the total number of candidate contacts given on the survey, the total number of survey respondents, and the total network size (respondents and those receiving connections from respondents) during each wave of data collection. As will be explained later, we analyzed three levels of networks: a "full" network where all actors involved in a relationship at a given time were included, a "core" network that included only actors involved in a social relationship during all three periods, and a "respondent core" network including only actors who responded to the survey in all three times. The network become more dense at each level of "coreness".

Table 1. Summary of Network Size and Respondents

	Date	Event	Appearing on Survey	Respondents	Full Network Size	Core Network	Respondents Core
Wave 1	June 2009	Time 1: WSR	68	44	123	90	15
	May 2010	Time 2: Spiny Lobster Symposium	119	48			
Wave 2	Winter 2011	Time 3: GFISH Network Census	73	38	114	90	15
Wave 3	May 2013	Time 4: Spiny Lobster Symposium IV	113	55	119	90	15

Survey respondents rated a list of stakeholders according to the following three questions:

I. How would you describe the relationship between YOUR ORGANIZATION and the other organizations? *(This is the Relationship question; 1-5 response scale)*

LEAVE BLANK. We have not heard of this organization

1. We have heard this name but we don't have a relationship
2. We occasionally have contact and exchange information
3. We frequently have contact and exchange information
4. Sometimes we work together on activities or projects.
5. We have a contract or memorandum of understanding

II. How frequently do you have contact or communicate with this organization?*(This is the Communication question; 1-4 response scale)*

LEAVE BLANK. We don't have contact or communicate with this organization (coded 0)

1. We communicate occasionally - once or twice a year
2. With some frequency - multiple times a year
3. Regularly - monthly
4. Very frequently - weekly or more

III. If your organization needs information or advice, would you feel comfortable contacting this organization? *(This is the Contact question; {Yes, No, I don't know}, responses coded {1,0,0})*

Question III was omitted from the foregoing analysis due to low response rate.

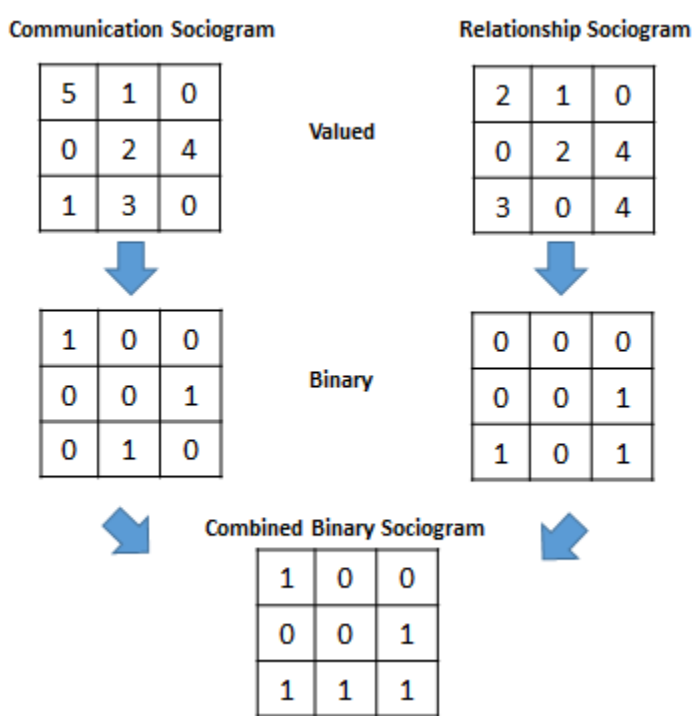
2.2 Constructing the Sociograms

For each time point, the response data took the form of square matrices with each column and row corresponding an organization appearing on the survey at that time point. Such matrices are known as *sociograms*. We took the valued data (ranging from 1-5 from the relationship question and 1-4 on the contact question) and converted it to dichotomous data using the rules depicted in Table 2.

Table 2. Scheme for dichotomizing valued data

Dichotomization of Data		
	Original Response	New Coding
Relationship question responses	0,1,2	0
	3,4	1
Communication question responses	0,1,2	0
	3,4,5	1

Figure 1. Constructing the combined binary sociogram



2.3 List of networks used for

analyses

Full/aggregated network: Composed of all the organizations present in a network at a given time. The response data is dichotomized and combined across the two questions. This is a combined, binary sociogram.

Core/aggregated network: Composed of the 90 core organizations. The response data is dichotomized and combined across the two questions. This is a combined, binary sociogram.

Respondents/aggregated core: Composed of the 15 organizations that filled out a survey during all waves of data collection. This is a combined, binary sociogram.

Full communication network: Composed of all the organizations present in a network at a given time. Takes responses to the communication question only.

Core communication network: Composed of the 90 core organizations. Takes responses to the communication question only.

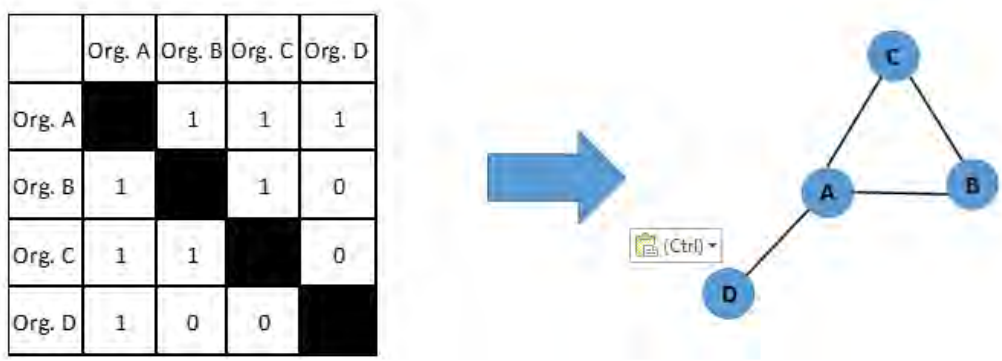
Full relationship type network: Composed of all the organizations present in a network at a given time. Takes responses to the relationship question only.

Core relationship type network: Composed of the 90 core organizations. Takes responses to the relationship question only.

2.4 Constructing the Network Diagram

Figure 2 depicts the conversion of a sociogram to a corresponding network diagram. Two organization nodes are linked together if at least one of the organizations nominated the other organization on the question used for the given matrix

Figure 2. Converting sociogram to network diagram



3. Network Visualization

Figures 3-5 show the full network graphs for each of the three data collection waves. The nodes are scaled by in-degree centrality, with the more central nodes appearing larger. The node color corresponds to the sector in which that organization operates as categorized by Jimmy Andino of the Spiny Lobster Initiative. A given pair of organizations is linked if either one filled out a survey and responded with a binarized value greater than zero when prompted with the other organization's name. For example, if organization X responded to the survey and mentioned organization Y, then there would be a link between X and Y even if organization Y did not fill out the survey. The node size is scaled by in-degree centrality, so larger in-degree centrality values correspond to larger nodes. In-degree centrality in this case is proportional to the number of times an organization is mentioned by other organizations; a reputational measure.

As mentioned earlier, the clearest changes are in the distribution of ties across sectors and the network becoming less hierarchical. There was not much of an increase in the overall density of ties, which would be more visible. But the network diagrams still give an idea of what types of actors are at the center of the network over time.

Figures 6-8 show the respondent core networks at each of the three data collection waves, using the same sector-based coding scheme as the full network graphs.

Figure 3. Wave 1 Full/Aggregated Network

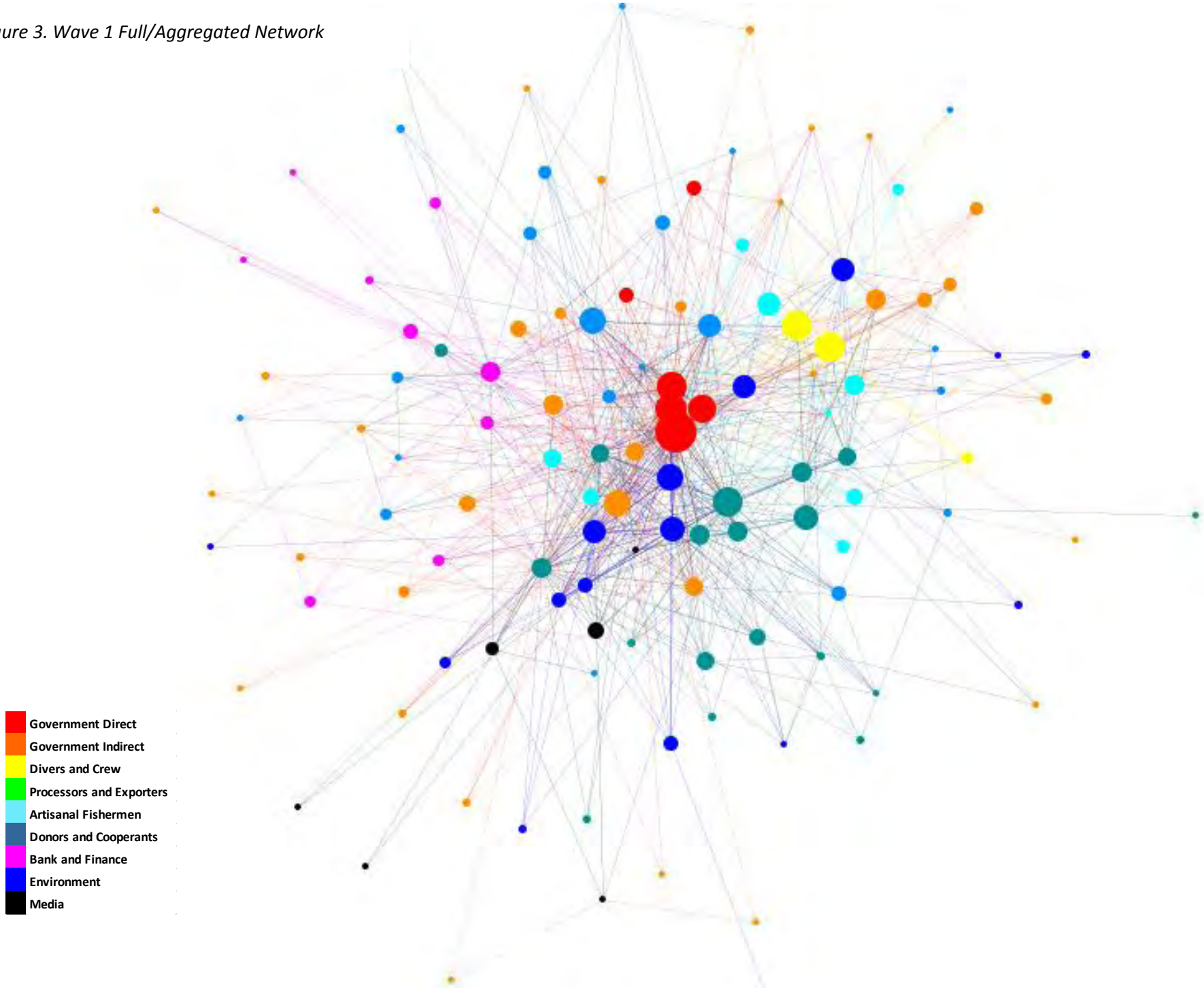


Figure 4. Wave 2 Full/Aggregated Network

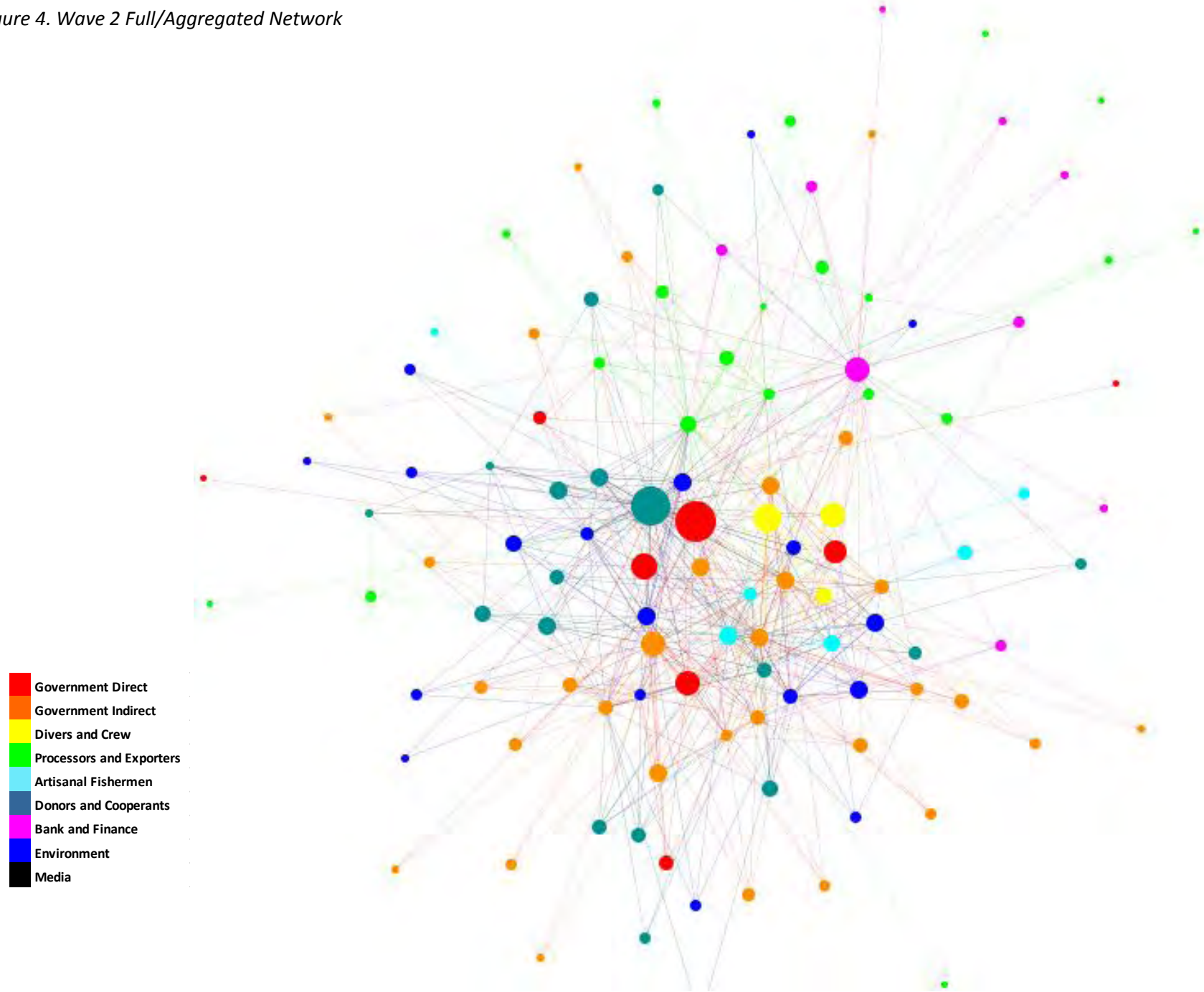


Figure 5. Wave 3 Full/Aggregated Network

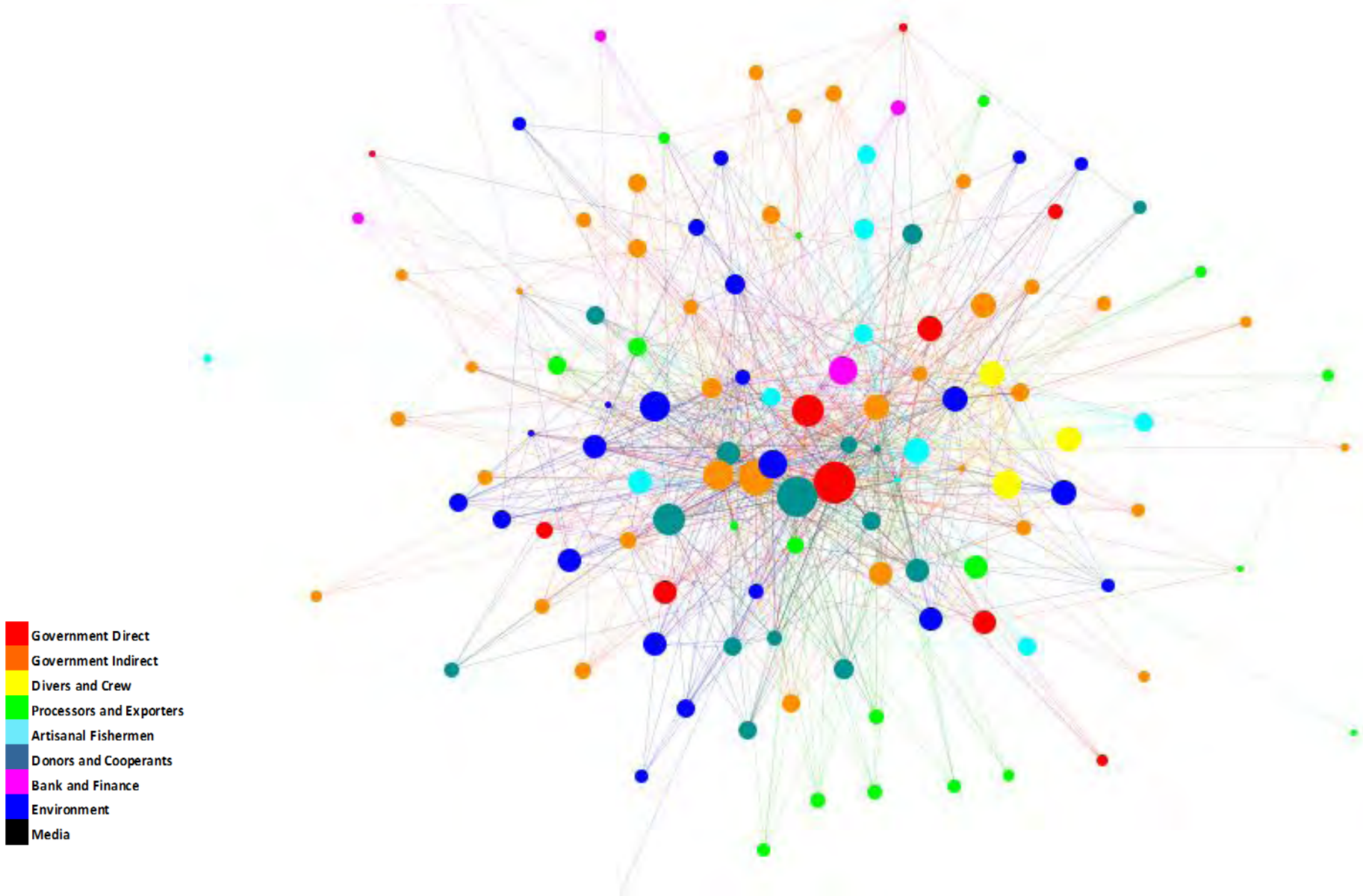


Figure 6. Wave 1 Respondent Core Network

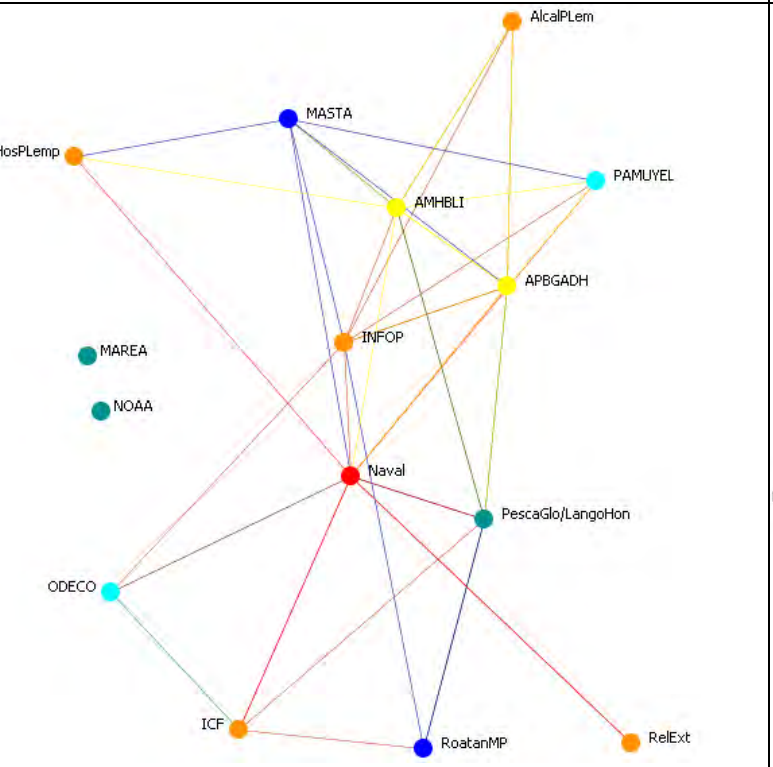


Figure 8. Wave 3 Respondent Core Network

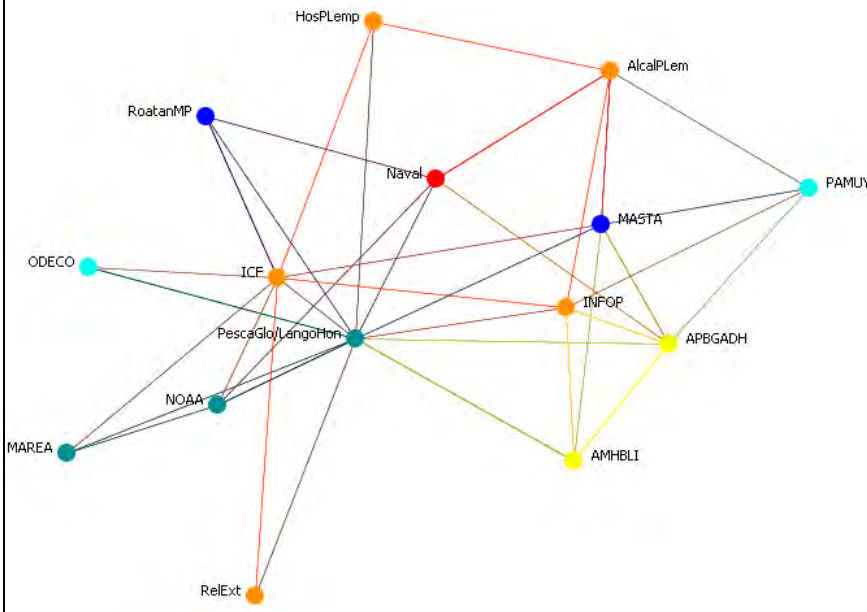
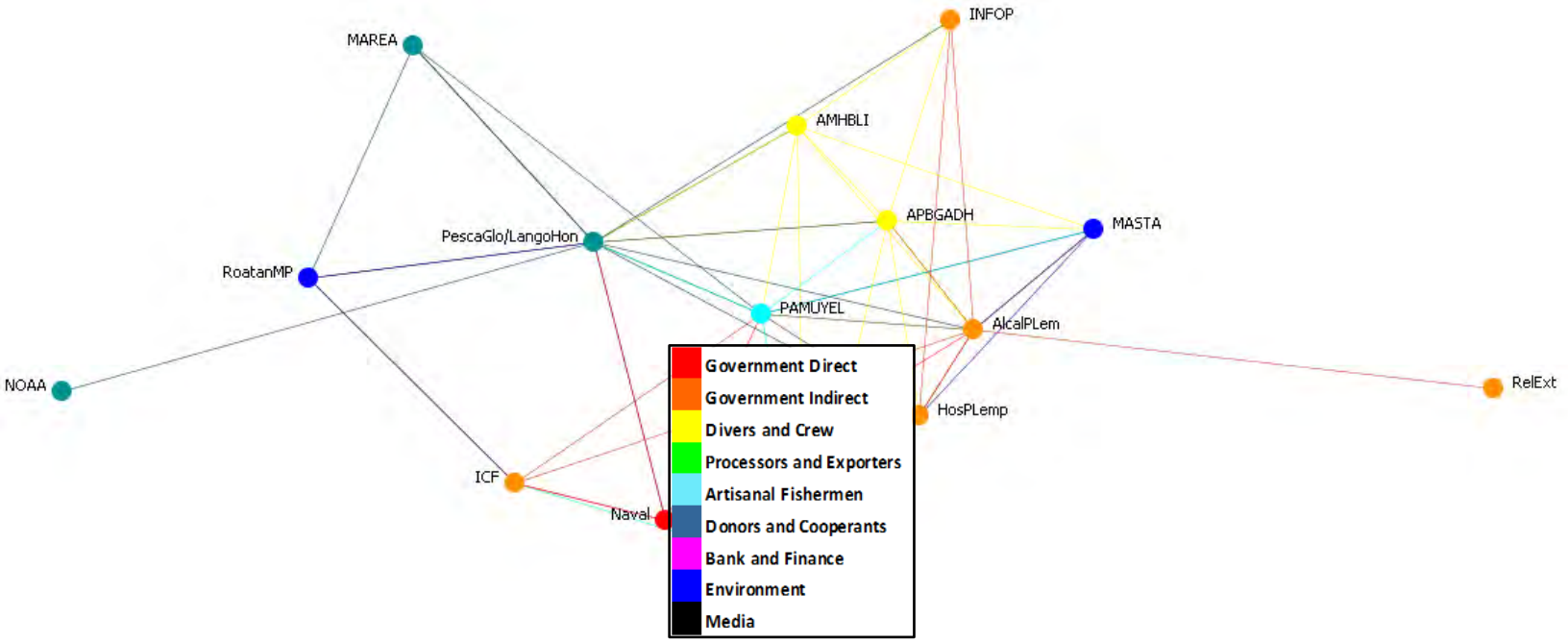


Figure 7. Wave 2 Respondent Core Network



4. Comparison of Network Level Measures

4.1 Definition of Measures

- **Density** is the ratio of observed ties to all possible ties. Binary network density ranges from 0 to 1. For a valued network where ties have a range of values, it is the total of all values divided by the number of possible ties. Density is identical to the average tie value and the maximum density equals the maximum tie value. High-density scores reflect more ties, which is generally interpreted as a more connected network.

- **Reciprocity** is a measurement of the proportion of adjacent nodes that have edges going both ways. An adjacent dyad means there is at least a single, one-way connection between two nodes. Reciprocity is the defined similarly for a valued network; a relationship is reciprocal if both edges are greater than zero. For example, if the Global Fish Alliance indicates a communication score of "3" for USAID, and USAID indicates communication scores of "2" for Global Fish Alliance, then it still counts as a reciprocal tie. So the reciprocity score should be identical for valued and binary networks. Reciprocity is one of the key relationships supporting the evolution of cooperation in a community.

- **Transitivity** captures the basic notion of “a friend of yours is a friend of mine”, which is sometimes described as “closure” in a network. A certain level of transitivity allows for reputational effects such that groups of people can self-monitor cooperation, and thus a general increase in transitivity is expected if cooperation is low to start with.

- **Clustering Coefficient** calculates the average density of ties between nodes directly adjacent (local neighborhood) to a focal node (ego), excluding the ties to the node itself. Clustering coefficients are usually higher for networks with high density. A high clustering coefficient relative to overall density indicates the network is clustering into subgroups. It is not entirely clear from a theoretical perspective whether clustering increases the success of SCALE projects because is it possible for clustering to create fragmentation. SCALE may want to reduce fragmentation, but not necessarily at the cost of eroding cooperation in local network neighborhoods.

- **Average distance** calculates the average shortest path length between each pair of nodes in the network.

- **In-degree centrality** is the number of connections received and relates to the popularity of an actor. Because this type of centrality is reputation-based and the most robust in the current context in which relatively few actors have filled out the survey.

- **Out-degree centrality** is the number of connections sent to others and relates more to the expansiveness of an actor.

- **Total degree centrality** is a combination of in-and out-degree centrality and shows the total extent to which an actor is connected to others in the network.

3.2 Overall Network-Level Measures Over Time

Table 3 below shows the network-level measures at each wave of data collection for the full, core, and respondent core networks. The central finding from the overall network statistics is that the basic level of connectivity is not changing very much over time in these networks. This is particularly obvious for the measures of density, average distance, and average degree. For all three levels of the network, these measures show no dramatic trends. The average distance is slightly decreasing, which suggests a slight increase in connectivity. Reciprocity does generally decline, which is consistent with a general tendency to reorganize ties rather than strengthen commitments to previous relationships.

The most important trend in the overall network is a general decline in the transitivity and clustering coefficient, with the pattern being most clear for transitivity. Both of these statistics are associated with the tendency of the network to form cohesive subgroups. Networks that form cohesive subgroups are more likely to fragment into competing interests. By reducing that tendency, there is more integration across subgroups or in the case of SLI the different sectors of stakeholders.

Another clear pattern in the data is the increase in connectivity across different levels of the network. The full network has the least amount of connectivity, with an increase for the core network, and a very high level of connectivity for the respondent network. This is not surprising because people who continually show up to the meetings or fill out the survey each time are exhibiting a higher level of participation. While this increasing connectivity across different levels of the network is not itself indicative of change over time, the basic trends in the other network statistics are apparent across all levels of the network.

Our interpretation of this overall pattern of a stable intensity of interaction coupled with changes in subgroup formation is that new entrants are playing an important role in the evolution of the network. We know substantively that many actors are entering and leaving this network over time. Some people come early on and then do not come again; other people show up for the first time at later meetings after they hear about the project from others. Hence, actors in the core network who are constantly involved with the process are being exposed to new actors as they enter, and lose opportunities to interact with actors who leave. The core network actors are constantly evaluating the benefits of maintaining versus dissolving ties that are formed in earlier periods. As they dissolve less useful ties, they look for opportunities to collaborate with new entrants into the network. Hence the core is slowly declining in reciprocity, while the overall full networks are seeing some increase in connectivity and decrease in subgroup formation due to opportunistic connections with new entrants.

Table 3. Network level measures for aggregated networks across all three waves.									
	FULL			**CORE**			**RESPONDENT CORE**		
	Wave 1	Wave 2	Wave 3	Wave 1	Wave 2	Wave3	Wave 1	Wave 2	Wave3
Density	0.058	0.045	0.069	0.087	0.066	0.078	0.231	0.271	0.222
Reciprocity	0.161	0.127	0.078	0.203	0.144	0.094	0.424	0.326	0.216
Transitivity	0.380	0.356	0.335	0.417	0.375	0.345	0.453	0.477	0.256
Clustering Coefficient	0.344	0.336	0.283	0.329	0.360	0.344	0.347	0.386	0.344
Average Distance	2.392	2.182	2.072	2.168	2.114	2.068	1.826	2.011	2.013
Average In-degree	8.563	5.310	8.260	7.844	5.900	7.033	3.467	3.800	3.333
Average Out-degree	8.563	5.310	8.260	7.844	5.900	7.033	3.467	3.800	3.333
Average Total	16.900	10.620	16.520	15.489	11.800	13.870	6.600	7.600	6.333

In light of the findings from the full/aggregated network, it is important to see if these basic trends are occurring in the two separate types of relations. Hence, we repeat the above analysis focusing separately on the communication and relationship type question, for the full and core networks. We do not include the respondent network here because the results are similar. The results are shown in Tables 4 and 5.

Although it is not dramatic, there is some suggestion of an interesting difference between the communication network and the relationship network. The communication network appears to be experiencing a greater increase in the intensity of network connections. For example, the density of the full communication network is highest in Wave 3 while the average distance is the lowest in Wave 3. The relationship network, on the other hand, exhibits no evidence at all of an increase in the intensity of collaboration. One interpretation of this is that because communication is relatively cheap, it is easier to increase the intensity in comparison to more expensive collaborative relationships.

On the other hand, the decrease in transitivity and clustering is more dramatic in the relationship network, and less dramatic in the communication network. This suggests that a lot of the reduction in subgroup formation is concentrated in new relationships being built across sectors, rather than an overall increase in the levels of collaboration relationships. An intriguing hypothesis from these patterns is that the balance between creating new social relationships versus redistributing resources committed to existing relationships depends on the costs of establishing a particular type of tie. Communication is relatively cheap and it is easier to increase communication intensity without dissolving other ties. Relationships are relatively costly and thus more constrained by resource scarcity, and thus it is difficult to increase the overall intensity of relationships and thus more of an incentive to strategically dissolve less beneficial ties and replace them with more beneficial relationships. As mentioned earlier, new entrants to the network over time might be one source of opportunities for creating more beneficial collaborative relationships.

Table 4. Network-level measures by question across all waves for the full network.

	Full Network					
	Communication			Relationship		
	Wave 1	Wave 2	Wave3	Wave 1	Wave 2	Wave 3
Density	0.040	0.024	0.047	0.058	0.043	0.054
Reciprocity	0.152	0.101	0.058	0.161	0.123	0.053
Transitivity	0.377	0.334	0.300	0.380	0.340	0.291
Clustering Coefficient	0.273	0.181	0.287	0.344	0.325	0.218
Average Distance	2.542	2.735	2.368	2.274	2.198	2.314
Average In Degree	5.087	2.900	5.642	7.333	5.100	6.475
Average Out Degree	5.087	2.900	5.642	7.333	5.100	6.475
Average Total	10.008	5.800	11.125	14.476	10.200	12.808

Table 5. Network-level measures by question across all waves for the core network.

One possibility is that while the number of network connections over time do not increase, the strength of the existing relationships increases. The dichotomized networks reported earlier can possibly hide the intensification of relationships. To test this possibility, we examined the valued response networks for both the communication and relationship questions. Table 6 shows the average response values to the two questions across the three waves. For each question, the average value is calculated by summing all of the non-zero responses to the question across all survey respondents and dividing by the number of responses. There is no evidence of intensification of relationships over time, with average response values for communication staying relatively constant, but levels of relationships actually dropping over time. Waves 1.1 and 1.2 correspond to the WSR and First Spiny Lobster Initiative, respectively.

Table 6. Average response values by question across waves

	Core Network					
	Communication			Relationship		
	Wave 1	Wave 2	Wave3	Wave 1	Wave 2	Wave 3
Density	0.058	0.034	0.048	0.083	0.056	0.061
Reciprocity	0.183	0.088	0.050	0.187	0.116	0.066
Transitivity	0.401	0.375	0.301	0.407	0.359	0.294
Clustering Coefficient	0.298	0.189	0.307	0.317	0.293	0.269
Average Distance	2.429	2.963	2.776	2.184	2.277	2.375
Average In Degree	5.200	3.011	4.356	7.478	5.022	5.522
Average Out Degree	5.200	3.011	4.356	7.478	5.022	5.522
Average Total	10.400	6.022	8.533	14.760	10.044	10.865

	Wave 1.1	Wave 1.2	Wave 2	Wave 3
Average Value on Communication Question	2.080	2.064	1.840	2.078
Average Value on Relationship Question	2.005	1.860	1.101	1.195

5. Centrality Analysis

5.1 Most central actors in each wave

Tables 7 and 8 below show the ten most central (in-degree centrality) actors in each wave in the full/aggregated network and the core/aggregated network, respectively. The most central actors hold relatively constant over time. They mostly consist of stakeholders from the Donors and Cooperants, Government Direct, and Divers and Crew sectors. PescaGlo/LangoHon has a central position in the network as the primary convener of the process. DIGEPESC is important as the fisheries agency. We urge you to ask Jimmy Andino and other people with field experience to provide more insight on the specific roles of these individual actors. This will be important for your full report, as well as helping our team develop a better substantive understanding of full range of stakeholders.

Table 7. Most central actors in each wave in the full/aggregated network.

WAVE 1				WAVE 2				WAVE 3			
Rank	Organization	Value	Links	Rank	Organization	Value	Links	Rank	Organization	Value	Links
1	DIGEPESC	0.278	35	1	DIGEPESC	0.218	26	1	DIGEPESC	0.225	27
2	PecaGlo/LangoHon	0.206	26	2	PecaGlo/LangoHon	0.21	25	2	PecaGlo/LangoHon	0.217	26
3	AMHBLI	0.198	25	3	APBGADH	0.134	16	3	ICF	0.183	22
4	Naval	0.198	25	4	SAG	0.126	15	4	Naval	0.167	20
5	SAG	0.198	25	5	AMHBLI	0.118	14	5	USAIDHon	0.167	20
6	APBGADH	0.19	24	6	ICF	0.118	14	6	FunCAYO	0.15	18
7	MarMerca	0.175	22	7	BancAtla	0.109	13	7	SERNA	0.15	18
8	DIBIO	0.159	20	8	Naval	0.109	13	8	AMHBLI	0.142	17
9	WWF	0.159	20	9	MarMerca	0.101	12	9	BancAtla	0.142	17
10	Apesca	0.151	19	10	AlcalPLem	0.084	10	10	CME	0.142	17

Table 8. Most central actors in each wave in the combined core/aggregated network.

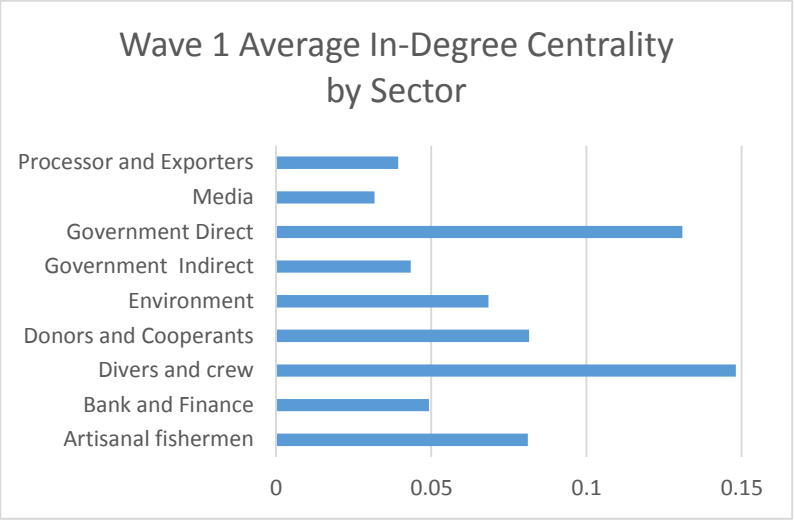
WAVE 1				WAVE 2				WAVE 3			
Rank	Organization	Value	Links	Rank	Organization	Value	Links	Rank	Organization	Value	Links
1	DIGEPESC	0.356	32	1	DIGEPESC	0.27	24	1	PescaGlo/LangoHon	0.244	22
2	Naval	0.267	24	2	PescaGlo/LangoHon	0.27	24	2	DIGEPESC	0.2	18
3	SAG	0.267	24	3	APBGADH	0.157	14	3	ICF	0.178	16
4	PescaGlo/LangoHon	0.256	23	4	AMHBLI	0.146	13	4	Naval	0.178	16
5	AMHBLI	0.244	22	5	ICF	0.146	13	5	AMHBLI	0.167	15
6	MarMerca	0.244	22	6	SAG	0.146	13	6	USAIDHon	0.156	14
7	APBGADH	0.233	21	7	BancAtla	0.135	12	7	APBGADH	0.144	13
8	Apesca	0.222	20	8	Naval	0.124	11	8	BancAtla	0.144	13
9	DIBIO	0.211	19	9	AlcalPLem	0.112	10	9	ApesGDio	0.133	12
10	TNC	0.2	18	10	Dakni	0.112	10	10	Asesor	0.133	12

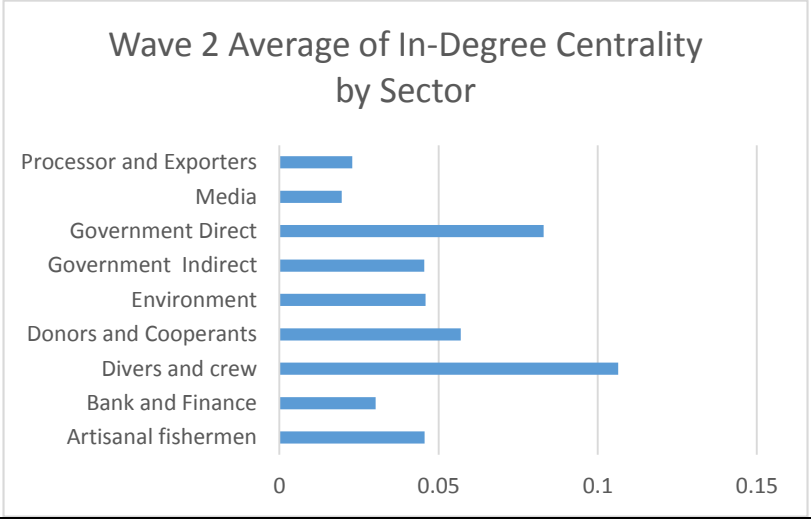
5.2 In-degree Centrality by Sector

Figure 9 shows how the average in-degree centrality for each sector changes across the three waves of data collection. In Wave 1, the two sectors with the highest average centrality scores are clearly the Divers and Crew sector and the Government Direct sector. Wave 2 shows basically the same pattern, with reduced centrality across the board. Interestingly, in Wave 3, the Divers and Crew and Government Direct sectors remain the most central, but overall the scores for each sector are more even, with the low-centrality groups showing increased centrality. This pattern is consistent with the reduced tendency to form subgroups, with some of the underrepresented sectors forming more bridging ties over time.

Figure 10 shows the change in average in-degree centrality by sector over time. While it is hard to see any specific dramatic trend, especially because Wave 2 has lower centrality for everybody, the aspect of the graph to look at is how close the lines are together at each time. Consistent with Figure 6, in Waves 1 and 2, Government Direct and Divers and Crew are much higher than the other sectors. But by Wave 3, all of the groups are much closer together again suggesting a break down in the subgroup formation and hierarchical aspects of the network.

Figure 9. Average In-degree centrality scores by sector for full/aggregate network





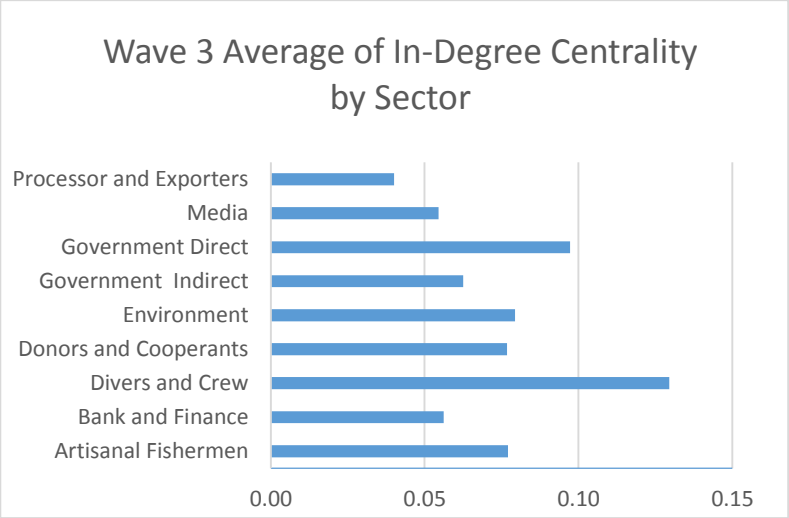
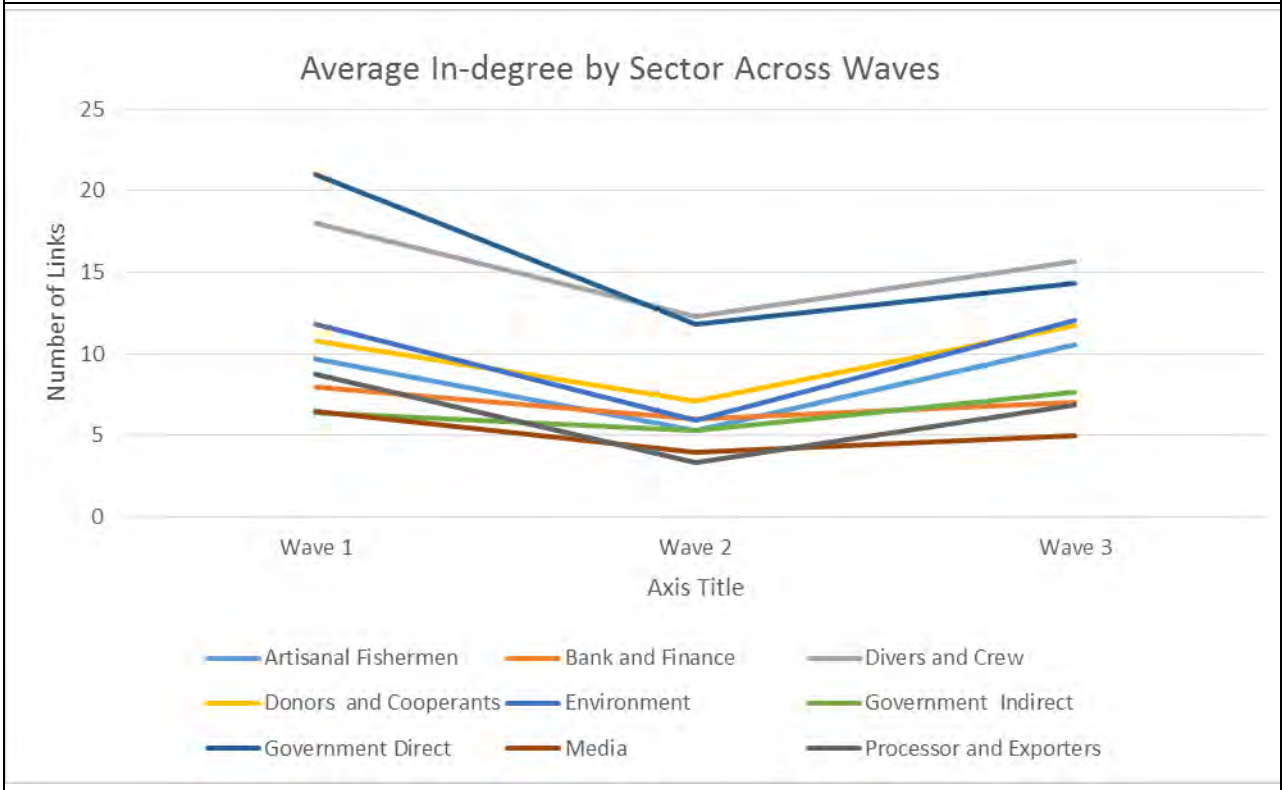


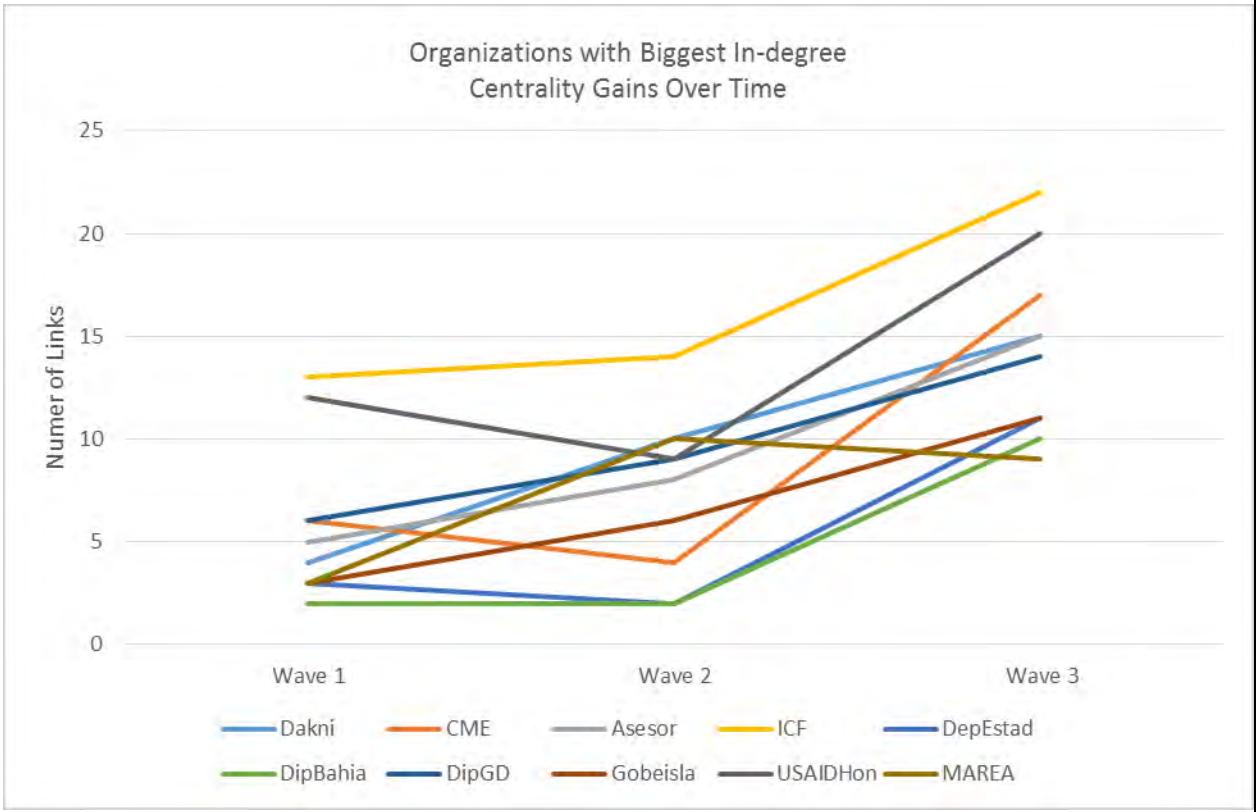
Figure 10. Change in average unscaled in-degree (number of links received) of organizations in each sector in the core/aggregate network.



5.3 In-degree Centrality Increase by Organization

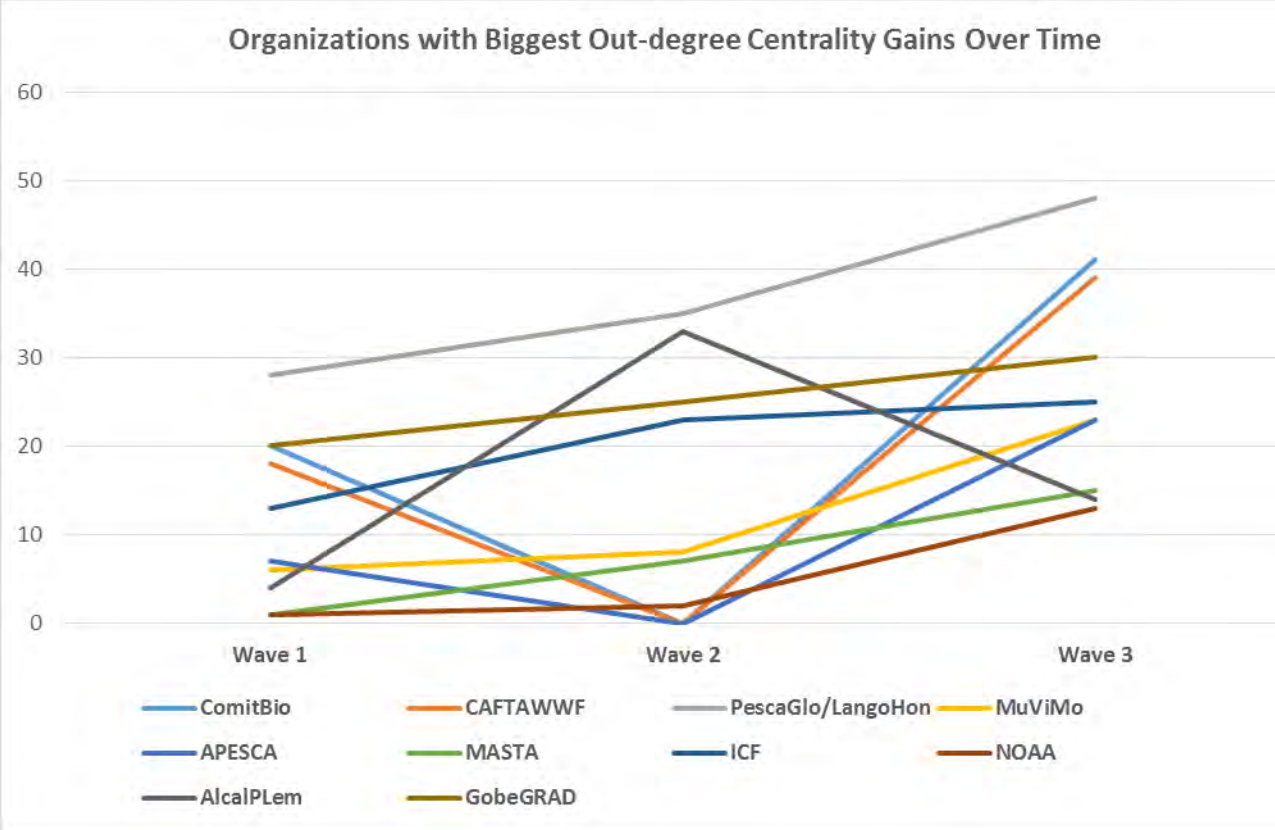
Figures 11 and 12 display the organizations with the biggest centrality gains over time, both for in-degree centrality (nominations received) and out-degree centrality (number of connections mentioned). We again urge you to consult Jimmy Andino and other field analysts to provide more substantive interpretation of the role of each of these individual organizations.

Figure 11. Organizations in the core/aggregate network with the most increase in in-degree centrality from the first to the third wave.



Legend	
Dakni	Dakni Tak Aslika (Organización de Organizaciones)
CME	Utila Center for Marine Ecology/Centro de Estudios Marinos (CME)
Asesor	Asesor AMHBLI - APBGAD
ICF	Instituto de Conservación Forestal / Departamento Áreas Protegidas
DepEstad	Departamento de Estado EEUA
DipBahia	Diputado de Islas de la Bahía
DipGD	Diputado de Gracias a Dios
Gobeisla	Gobernador Islas de la Bahía
USAIDHon	USAID Honduras
MAREA	Programa de Manejo de Recursos Acuáticos Y Alternativas Econ.

Figure 12. Organizations in the core/aggregate network with the most increase in out-degree centrality from the first to the third wave.



Legend	
ComitBio	Comité Interinstitucional de Biodiversidad
Apesca	Asociación de Pesca del Caribe
AlcalPlemp	Alcalde Municipal de Puerto Lempira
CAFTAWWF	USAID Proyecto CAFTA WWF
MASTA	Organización Miskito MASTA
GobeGRAD	Gobernacion de Gracias a Dios
PescaGlo/LangoHon	Spiny Lobster Initiative
Gobeisla	Gobernador Islas de la Bahia
USAIDHon	USAID Honduras
MAREA	Programa de Manejo de Recursos Acuaticos Y Alternativas Economicas

6. Core Periphery Analysis

Given the more even distribution of network relationship types across categories, one possible process that may be occurring is the decentralization of the network. In other words, network ties are becoming more evenly distributed across the network rather than concentrated on a few core actors. To test this possibility, we conducted a core-periphery analysis that calculates the correlation between the observed networks and an idealized network structure that fits a perfect core-periphery structure. A perfect core-periphery structure is a very highly centralized network where all social relationships occur between the core actors and the peripheral actors are left out. If the correlation between the actual observed network and the hypothetical perfect core-periphery structure is high, then the observed network is more centralized around a core group of actors. Table 9 shows a clear, across-the-board decline in the core-periphery structure of the network. This suggests the network is becoming less hierarchical over time.

**Table 9: Correlations with Idealized Core-Periphery Structure*

	Wave 1	Wave 2	Wave 3
Aggregated Network			
Full	.552	.507	.454
Core	.589	.511	.492
Respondent Core	.694	.504	.452
Communication Network			
Full	.499	.433	.422
Core	.523	.476	.445
Respondent Core	.483	.478	.478
Relationship Network			
Full	.547	.496	.400
Core	.572	.496	.476
Respondent Core	.720	.441	.378

7. Silo Analysis and Bridging Social Capital

Fragmentation across subgroups and stakeholder types is one of the most frequent criticisms of local environmental policies. When stakeholders only maintain relationships within their own subgroups or "silos", they are more likely to form competing factions who distrust one another and fight over resources rather than find ways to cooperate for future benefits. A major goal of collaborative policy is to build social relationships that cross subgroup boundaries, which has been called "bridging" social capital in contrast to the "bonding" social capital that keeps subgroups inwardly cohesive.

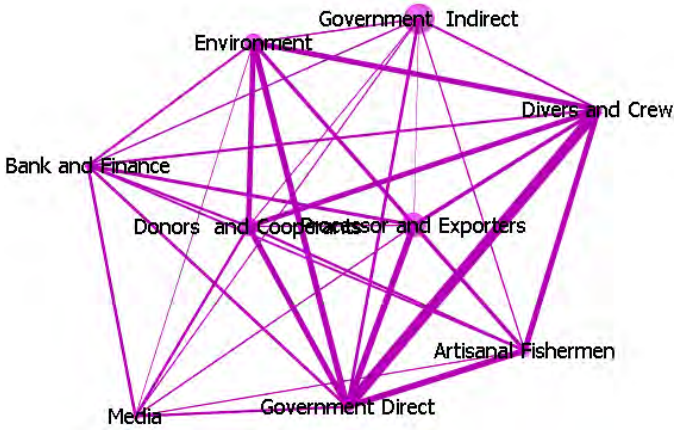
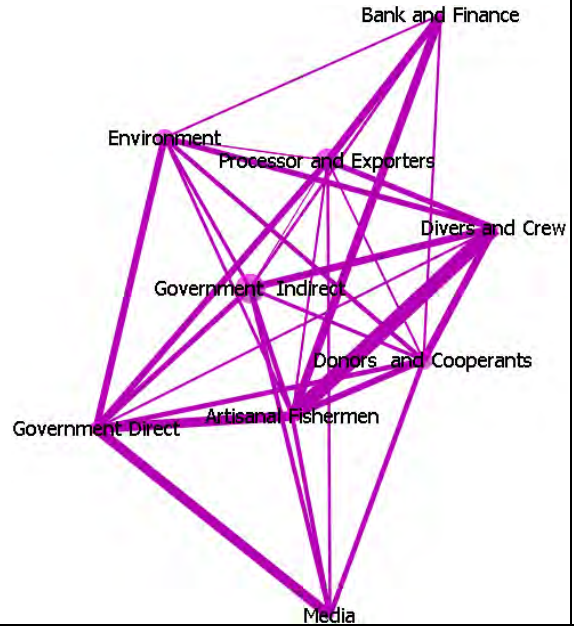
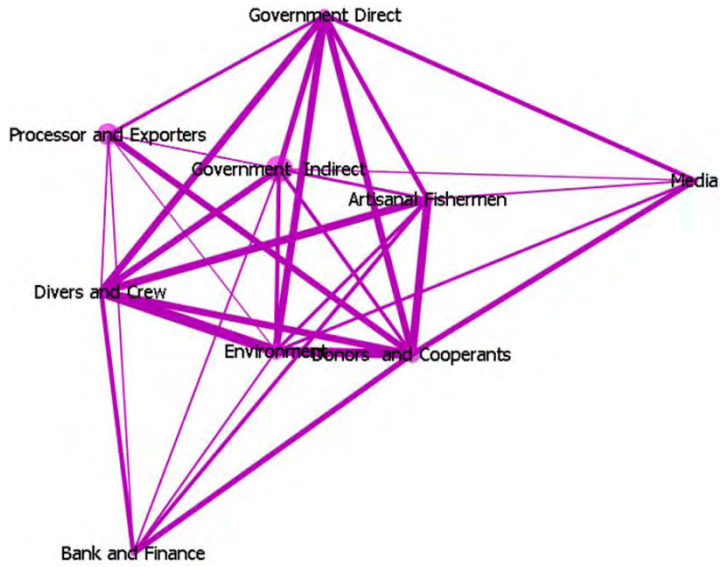
To analyze the incidence of external and internal ties, we calculated the E/I index for each subgroup, which measures the ratio of internal to external ties. The E/I index measures the degree to which different sectors are siloed off and isolated from the others. An E/I index score of -1 for a sector indicates that the organizations within that sector have links only to organizations outside that sector. Conversely, an E/I index score of positive 1 indicates that organizations within that sector are only connected to organizations within the sector. The formula for the index is, where I=internal ties and E=external ties:

$$SI_d = \frac{(I - E)}{(E + I)}$$

Table 10 displays the results of the analysis, which focuses on the full/aggregate networks. Four sectors—Media, Processors/Exporters, Environment, and Government Direct show an increasing externalization of their contacts. This suggests that these sectors are the ones most responsible for the breaking down of the subgroups. The Donors and Cooperants sector remains essentially unchanged, while the Government Indirect and Artisanal Fishermen sectors show some increasing internalization of their ties. However, the Bank/Finance and Media sectors have very few observations so it is difficult to make a strong statement about their changing relationships. One way to interpret an increase in internal ties is better within-sector cohesion. For example, there are many indirect government actors involved in the SLI who previously were not communicating very well despite engaging in relevant policy activities. Hence some increased cohesiveness among these actors could be beneficial. A similar point could be made for artisanal fishermen, who may have become better organized among themselves in order to provide a more unified voice for disadvantaged communities within the SLI process.

Figures 13-15 provides a visualization of the connection between each of the different sectors, where thicker lines represent more intense connections between sectors. Although it is not easy to see visually, the thick lines are concentrated among a smaller set of sectors in Wave 1, for example between divers/crew and government direct. As more relationships build across sectors, the concentration of relationships is spread among more of the sectors. In Wave 2 for example, both Government Indirect and Artisan Fishermen have stronger relationships with Government Direct and with Divers and Crew. By Wave 3, the distribution of cross-sectoral relationships appears much more evenly distributed. Again, all of this is consistent with the distribution of ties in the network becoming less fragmented, less confined to subgroups, and less hierarchical. Instead, the network is undergoing a redistribution of collaborative relationships to form more bridging social capital and flatter, more egalitarian structure.

Table 10. E/I Index scores for full/aggregate networks				
	Wave 1	Wave 2	Wave 3	Trend
Bank and Finance	-0.805	-0.719	-1	Small N
Media	-0.81	-0.941	-1	Small N
Processor and Exporters	-0.606	-0.63	-0.709	More external
Environment	-0.721	-0.729	-0.798	More external
Government Direct	-0.864	-0.928	-0.916	More external
Divers and Crew	-0.876	-0.897	-0.909	More external
Donors and Cooperants	-0.681	-0.721	-0.664	Unclear
Government Indirect	-0.687	-0.523	-0.601	More internal
Artisanal fishermen	-0.917	-0.888	-0.792	More internal

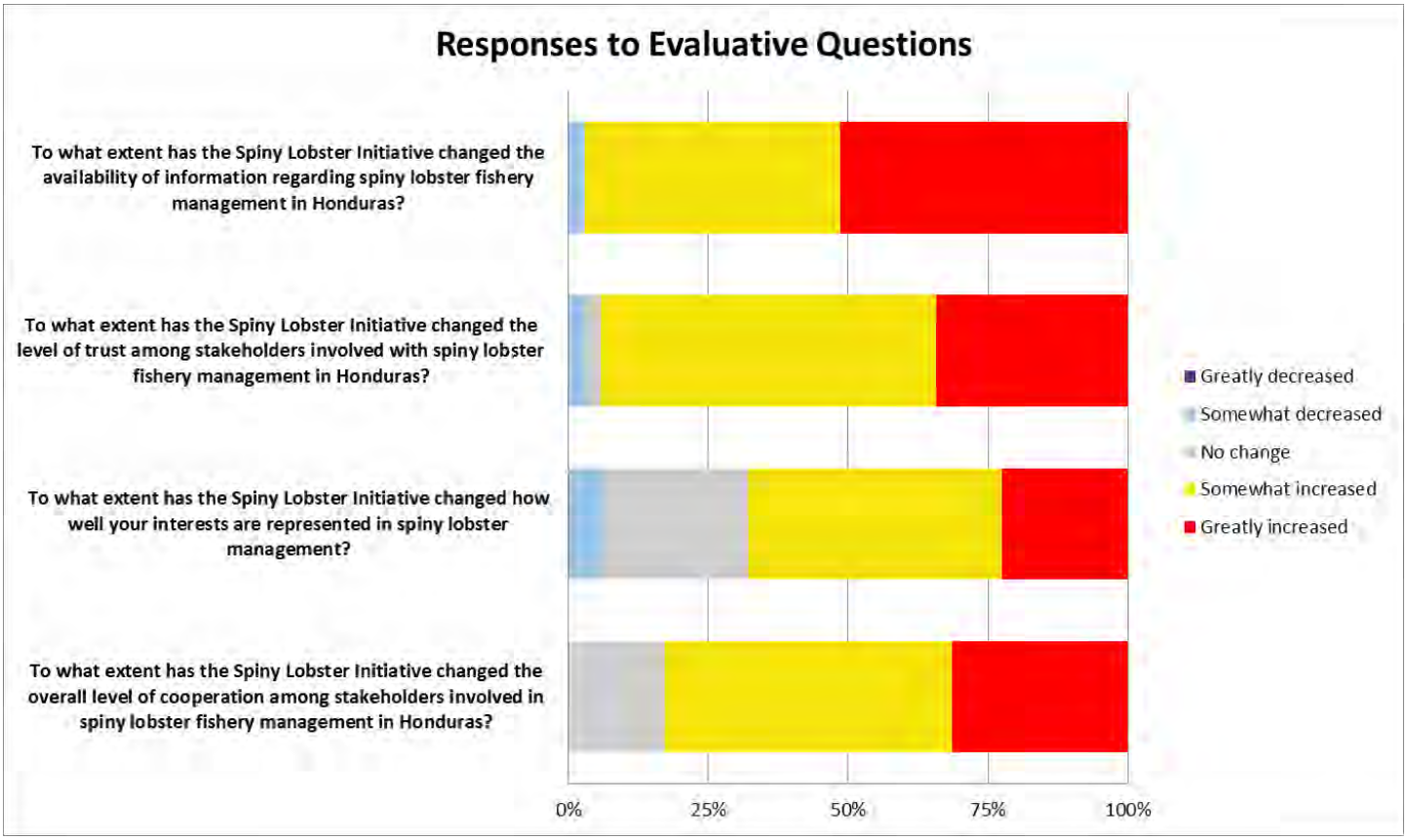
Figure 13. Wave 1 full/aggregate network diagram of sector-level connections	*Figure 14. Wave 2 full/aggregate network diagram of sector-level connections*	*Figure 15. Wave 3 full/aggregate network diagram of sector-level connections*
		

8. Qualitative Survey Results

8.1 Spiny Lobster Initiative Evaluative Questions

Figure 16 shows responses to questions evaluating the effectiveness of the Spiny Lobster Initiative along several dimenstions. Participants responded very positively to these items, with availability of information being the thing most affected by the initiative. The least positive response was on the extent to which the stakeholders felt their own interests had been represented, but the average response on this item was still positive. In general, these questions suggest that the observed changes in the network are correlated with positive changes in short-term attitudes. It is fair to call these "process" changes more than outcomes or outputs. Note that we did check to see if these results varied across sectors, and found no meaninful differences. This is partly because some sectors were represented by very few respondents.

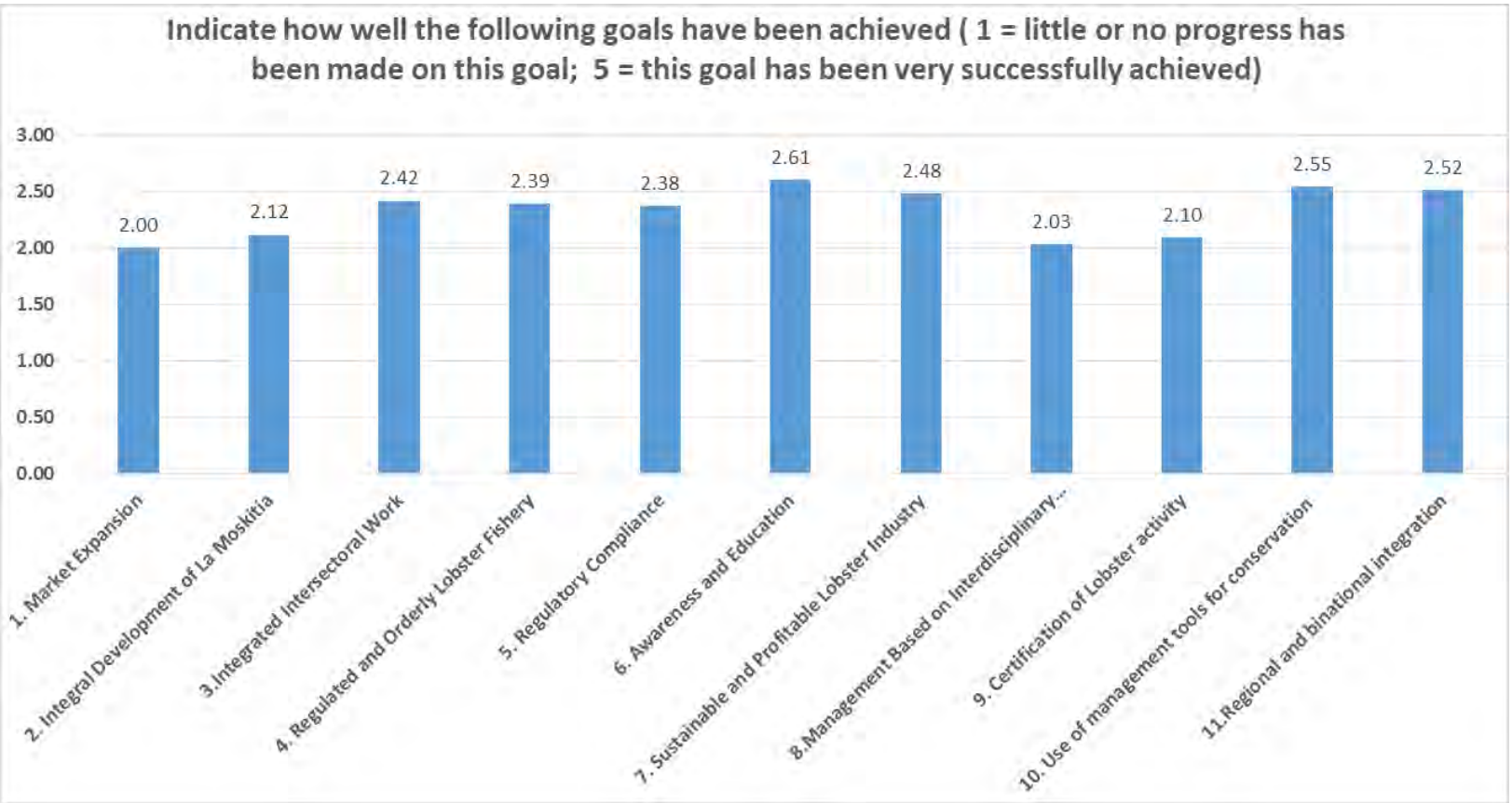
Figure 16. Breakdown of responses to evaluative questions



8.2 Common Ground Goals Evaluative Questions

The survey asked respondents to evaluate how well a range of goals have been achieved, where the goals were developed by the SLI planning process. On average, respondents indicated that the 11 Common Ground Goals have been achieved to a moderate degree. Figure 17 shows that the average responses all fall into the range of 2.0-2.61 out of 5. The highest goal achievement was for awareness and education, while the lowest was for market expansion. Many of these are the more long-term goals of the SLI rather than the shorter-term process goals in the above section. It will take longer and more sustained cooperation among SLI stakeholder to achieve these goals. Unfortunately, while the network has shown some increased capacity for cross-stakeholder interaction, we cannot definitely say how long such interaction will continue once the SLI funding disappears. There is no magic bullet to solve this "exit strategy" problem that faces all development projects. It could be that the cross-stakeholder bridging social capital will endure when funding goes away. But another possibility is that the previous patterns of fragmentation and conflict will reappear. The SLI has moved things in a positive direction, but it is hard to know whether the direction will be self-sustaining once SLI's foot is off the gas pedal.

Figure 17. Average response scores for questions evaluating the degree to which the Common Ground Goals have been achieved.



Annex 9.

FOURTH ANNUAL TECHNICAL SYMPOSIUM OF THE SPINY LOBSTER FISHERY IN HONDURAS REPORT

"Transitioning to a Reform of Fisheries"

May 15-16, 2013
CREIDA, La Ceiba, Honduras

Prepared by:
Jimmy Andino / Chief of Party – Spiny Lobster Initiative Honduras
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Executive Summary

The Global FISH Alliance, through the Spiny Lobster Initiative in Honduras, held the Fourth Annual Spiny Lobster Symposium entitled "*Transitioning to a Reform of Fisheries,*" on May 15 and 16, 2013 at the Regional Centre for Environmental Documentation and Interpretation (CREDIA) in La Ceiba, Honduras. This technical symposium was held to strengthen networks and collaboration among key stakeholders working in the lobster fishery of Honduras. The agenda consisted of variety of presentations and panel discussions, as well as breakout sessions focused on current issues for industry in managing the fishery and addressing technical gaps in information. Other technical sessions focused on fisheries management, conservation of coastal marine resources, data collection, and climate change adaptation.

For the fourth consecutive year, the symposium offered a unique opportunity for a technical gathering of diverse stakeholders representing the whole lobster fishery system. The symposium brought together 154 participants representing organizations in the environmental, civil, and private sectors, as well as government. All of the participants represent important links in the value chain of the lobster fishery at both national and regional levels, including representatives from the United States, El Salvador, and the Bahamas. The objectives of the symposium were to: 1) Strengthen technical fisheries expertise and improve local and national capacity for management; 2) Promote application of current regulations across Central America regarding the transition of the fishery; and 3) Ensure good fishing practices for the growth, regulation, and monitoring of a safe and sustainable fishery.

The symposium provided a forum to discuss the transition away from dive lobster fishing and Central American regional ban on diving for lobster prior to the opening of the season on July 1, 2013. Different members of the fishery system expressed interest in coming together and continuing to act collectively to achieve an environmentally sustainable, economically profitable, and safe lobster fishery for all. Highlights from the Fourth Spiny Lobster Symposium include:

- **Broad representation of key sectors:** 154 participants representing all the sectors involved in the lobster fishery, including twenty-nine Honduran government officials representing ten ministries and members of governmental agencies that make up the Intergovernmental Commission for the Prevention and Treatment of the Problem of Dive Fishing (CIAPEB). Governors, mayors, and vice mayors from Gracias a Dios (La Moskitia) and the Governor of Atlantida were also present. Diver associations and the lobster industry were well represented with the participation of 49 members, including 32 members of the industry (owners and captains of dive and trap boats), plus four seafood processing plants from La Ceiba and the Bay Islands, and key buyers like Darden Restaurants, Inc. from the U.S.
- **Constructive debate on fisheries:** DIGEPESCA representatives discussed several key issues related to the lobster fishery including: 1) Expressing the need for follow-up with the Congressional Review Committee on the adoption of the new fisheries law in Honduras, which is expected to be approved in the near future; and 2) Honduras Ministry of Agriculture and Fisheries (SAG/DIGEPESCA) expressed political will to present an action plan for transition of the dive fishery with an extension of diving in 2013, in preparation for the permanent ban of the activity. This plan will be presented by the Minister of SAG at the next OSPESCA meeting of Central American Fisheries Ministers in June in Costa Rica.
- **Participation of media:** The media covered the event interviewing participants and attending a press conference with Miskito representatives, members of the industry, and governmental authorities.
- **Widening of technical knowledge:** Technical sessions created a platform for dialogue, information exchange, and learning opportunities on various topics supporting reform of the lobster fishery.
- **Better stakeholder dialogue:** The symposium generated space for consultation, dialogue, and negotiations among all the participants in the lobster fishing industry creating traction for further partnership to develop joint strategies.

BACKGROUND

In early 2009, the Global FISH Alliance, through the Spiny Lobster Initiative, began investigating, mapping the context, and catalyzing coalitions among stakeholders involved in the lobster fishery in Honduras and Nicaragua. In both countries, stakeholders demonstrated enthusiasm and commitment to join this effort to help maintain the health of the fisheries sector. Working groups were formed in each country, and they recognized the time was of the essence to gather "the whole system" that constitutes the spiny lobster fishery.

Whole System in the Room (WSR): To this end, capitalizing on the energy of this newly developed social network, the members of the Spiny Lobster Initiative came together for the first Whole System in the Room (WSR) event, which took place June 3-5, 2009 in Honduras. This event set the vision for a *"sustainable, profitable, and safe spiny lobster fishery"* in Honduras.

Among remarkable results from this workshop, the identification of **11 common goals** for the social network system of the spiny lobster fishery was established:

1. Market Expansion
2. Comprehensive Development of La Moskitia
3. Integrated cross-sectoral working relationships
4. Well-regulated and orderly lobster fishery
5. Certification of lobster fishing activities
6. Lobster fishery management based on interdisciplinary research
7. Sustainable and profitable lobster industry (implementation of best practices)
8. Awareness and education
9. Regulatory compliance
10. Conservation and protection of marine resources through effective management tools
11. Binational and regional cooperation

Previous Symposiums

The first technical spiny lobster symposium happened on June 19, 2010, in La Ceiba, Honduras with the following objectives: 1) Improve cross-sectorial knowledge and level of commitment towards the implementation of the law and best practices of the spiny lobster fishery, 2) Promote an Ecosystem Approach to Fisheries (EBFM) right-based management (RBM) and mechanisms that drive the market (MDM).

The second Symposium took placed in La Ceiba, as well, June 1-3, 2011, entitled "*Strengthening the lobster fishery through better management, governance, and healthier environment*." This symposium responded to technical needs including the management of the lobster fishery based on interdisciplinary research.

The third symposium was held on May 29-30, 2012 under the premises of *"Transitioning to a reform of fisheries,"* looking at the first steps of the transition of the spiny lobster fishery under existing legislation regulating the fishery.

FOURTH SPINY LOBSTER SYMPOSIUM 2013

The Fourth Spiny Lobster Symposium happened on May 15-16, 2013, at CREIDA, La Ceiba with a continued focus on the transition away from dive lobster fishing and reforming the fishery. The emphasis was on discussing and harmonizing actions taken by the different stakeholders to achieve a path towards the consolidation of the various steps needed to reform fisheries in Honduras, especially the spiny lobster fishery.

OBJECTIVES

- Share knowledge on actions relating to the transition of the lobster diving fishery in Honduras.
- Raise awareness among stakeholders implementing activities and strategies for managing the spiny lobster fishery.
- Facilitate the reform process of the entire system with a focus on the leadership role of the government in updating the legal framework for a new fishery law in Honduras.

PARTICIPANTS

1. **National and Government Regional:** Six governmental agencies in charge of managing fisheries and maritime sectors at the national and regional levels in Central America and the Caribbean.
2. **Private Sector:** Processors, exporters, boat captains, boat owners, fishers, commercial fishing enterprises, and U.S. businesses.
3. **Civil Society:** Active and disabled divers associations from La Moskitia, fisher associations from the Garifuna Coast and the Bay Islands.
4. **Academic:** Representatives from universities who work in researching fisheries management.
5. **Environmental Sector:** Organizations involved in protected areas and /or natural resources management.
6. **Agencies and organizations of national and international cooperation**
7. **Media:** regional and national levels.

There were a total of **154 participants** representing all sectors, distributed as follow:

Academia	Civil	Private	Government	Environmental	Cooperation	Media
17	21	49	29	20	16	2

A detailed participant list can be found in **Annex 1.**

EVENT DESCRIPTION

The symposium was a two-day event with presentations of general interest in a plenary session the first day and more technical sessions on the second day, where participants chose which sessions to attend. Divers, regional authorities from La Moskitia, the Intergovernmental Commission, and representatives of the industry all made presentations including:

1. Current status of the draft Fisheries Act Honduras 2013 *Government of Honduras* (*SAG – DIGEPESCA*)
2. Progress on the action plan for the transition and close of the dive lobster fishery for 2013 *SAG - DIGEPESCA*
3. Strategies and alternatives for transitioning away from dive lobster fishing in Honduras. *Intergovernmental Commission for Diver Protection in Honduras (CIAPEB).*

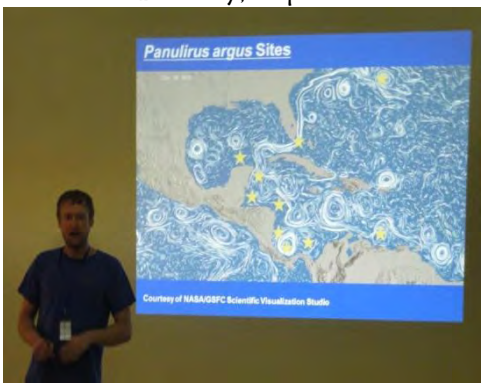
During the session, the SAG-DIGEPESCA representative announced that when the regional fisheries Ministers meet at the next OSPESCA meeting, they will discuss a final two-year extension of the lobster diving ban. Currently, the ban is scheduled to go into effect in July 1, 2013.

Technical Sessions

The symposium had a technical focus and attendees were free to participate in any of the different sessions based on their interest. The sessions offered were the following:

1. **Economic alternatives and market approaches**
   This session focused on best fishing practices and access rights as economic alternatives to end diving, the progress of the Fisheries Improvement Project (FIP) in Honduras, current efforts in the Honduran spiny lobster value chain, and a traceability system for the industrial lobster fleet.

2. **Seeking sustainability for lobster fishing**
   This session was organized by private sector members for entrepreneurs, boat owners, processors, and exporters. Some of the topics discussed in this session were the experience of seeking certification for the lobster trap fishery in the Bahamas, NOAA's presentation on the CITES treaty, responsible seafood sourcing, maritime borders and fishing areas on the north coast of Honduras - Jamaica and Nicaragua cases, and industry's efforts in the diving transition.



3. **Use of information for the conservation and management of fisheries**
   Discussion in this session focused on information use and collection of scientific data for decision-making in the management of fisheries. Some of the highlighted topics were progress in the responsible restaurants seafood campaigns; mechanisms for co-management of National Marine Park of the Bay Islands (BINMP); access rights for marine areas such as Cayos Cochinos; results from the Fishery Management Plan in the Karataska Lagoon System; and mainstreaming climate change adaptation in marine protected areas.

4. **Initiative for responsible fishing areas with access rights in Honduras**
   This session focused on the importance of connectivity of the lobster population in the Western Caribbean, use of no-fishing areas and rights management, the submerged wood project in La Moskitia, and conflict resolution: learning about the advances of shrimp artisanal fisheries.

Roundtable Discussions

Roundtable discussions at the symposium provided a space for exchanging information and points of view between panelists and attendees and for addressing outstanding issues regarding the sustainability of the fishery.

1. **Alliances for the development and implementation of an economic alternatives portfolio**
   USAID MAREA program coordinated this discussion with representatives from organizations such as UNDP/Moskitia Project and Active Divers and Artisanal Fisher Associations (PAMUPEL) of La Moskitia. Attendees discussed a participatory approach to the development of a portfolio of alternatives livelihoods activities, including an ongoing and a possible future portfolio in La Moskitia.

2. **Private Sector: Key factors to improve lobster fishing and other alternative sea products**
   Participants in this roundtable included representatives of Industrial Fishing Association (APICAH) and the Central American Economic Integration Bank (BCIE), through the CAMBio project, Darden Restaurants and Wahoo Seafood. Topics discussed included the identification of the critical points for the commercialization of lobster, access to CAMBio funds for entrepreneurs in sustainable fisheries, and how to improve the industry role in incorporating best management practices in the activity.

For a complete technical agenda of IV Lobster Symposium, please refer to **Annex 2.**

Sectoral Meetings

Industry

This Fourth Symposium offered a forum for representatives of the Honduran lobster industry, including processing plants managers, boat owners and captains, and divers to meet and discuss guidelines and strategies within the context of the transition of the lobster diving fishery. They came up with parameters displaying a unified view of the industry on the issue of the transition away from diving and its reform.

Key issues discussed during this session:

1. The constant uncertainty of industry on how to handle the issue of conversion of the dive fishing fleet and especially concerns about the management of fishing quotas and licenses. Industry representatives mentioned that the oversized industrial fishing fleet continues to be an issue, which is further complicated by less productive fishing areas.
2. From the market angle, there is a need to explore new opportunities in other markets, and to facilitate exchanges for the Honduran industry to achieve information or certification to export to the European market to gain more value for the lobster in other forms (e.g. whole lobster).
3. Industry representatives noted the lack of guidance and clarity regarding alternatives for the private boat owners and plants within the portfolio of economic alternatives.
4. Maritime borders and fishing areas in Honduras and the last declarations of the International Court of Justice in The Hague concerns the industry; these concerns were shared with the Honduran Foreign Ministry representative to make it clear that in the upcoming negotiations with Jamaica, the government needs to be extremely cautious, especially when it comes to the "Rosalinda Bank". Industry mentioned that losing this important fishing bank could mean the imminent closure of industrial fishing in Honduras.

5. With regard to border issues, the representative of the Honduran Foreign Ministry explained that, it is possible to lose spaces in the EEZs (exclusive economic zones) in negotiations when there are so many borders; however, a country cannot claim additional area outside the 200 miles as this goes against the agreements signed by Honduras and the Convention on the Law of the Sea of which Honduras is a signatory.
6. International trade and responsible fish product consumption were identified with special emphasis on species under the CITES convention, such as the *Strombus gigas* conch and it was noted that exploratory fisheries such as sea cucumber should avoid using tanks since several divers have already been injured between 2012 and 2013.

Commitments from industry:

1. The industry is charged with ensuring compliance with occupational best practices based on a working procedure manual: check equipment, dive log, incident recording, etc.
2. Work with national authorities and regional government to enforce regulatory provisions established and work together to achieve a reduction of the fleet, licensing, and for a better management of fisheries in Honduras.

Meeting between lobster fishing industry representatives and OSPESCA's Executive Director, Mr. Mario González Recinos:

Mr. Mario González Recinos, OSPESCA Executive Director expressed interest in meeting with representatives from the dive lobster fishing from La Moskitia and the industry to discuss certain aspects of the transition and the proposal for the ban in 2013 under the regional regulation. After the meeting, attendees expressed interest in establishing common ground and building a strategy that would facilitate the transition to the close of the activity. They agreed to a regionally focused meeting on May 31 in San Salvador in OSPESCA regional offices. This session will address these issues from a regional perspective and create a strategy. In the case of Honduras, active divers representatives and dive and trap industry will attend.

Miskito Representatives Meeting

Two groups represented La Moskitia fishing communities, the Honduras Miskito Association of Disabled Divers (AMHBLI) and Active Divers Association (APBGADH) had a meeting during the symposium and they made the following commitments and agreements:

1. Hold a meeting in June 2013 in La Moskitia between representatives of the Association of Disabled Divers, the Active Divers Association (ABPGADH), SEDINAFROH and departmental authorities for clarification on lobster diving status in Honduras.
2. Define the declaration of the maritime platform in the Miskito Cays of Honduras.

Common Goals and Next Steps Session

As part of the implementation of the common goals of the lobster fishery developed at the Whole System in the Room (WSR) event in 2009 and to jointly confirm the validity of these goals, a session with all participants was held to allow people to discuss the progress made towards the goals. Key points from this session were:

1. In market expansion, although there is some progress, there is a need for more enforcement and additional efforts to achieve better commercial value for the artisanal lobster fishery.
2. Comprehensive development of La Moskitia at every level is required: economic, social and cultural. Additional management is needed with greater presence of government agencies in La Moskitia.

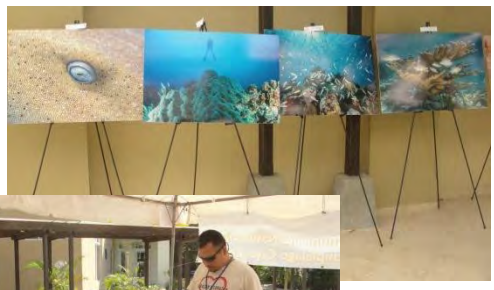
3. There is more knowledge of lobster habitat and ecology, and increased visibility and participation between the sectors, especially between the Miskitos and industry.
4. While there is a breakthrough in communication between some stakeholders, there is still a need for more cohesion between parties, willingness to take action, and more transparency in the process.

COMMITMENTS AND NEXT STEPS

1. **Scientific expedition to the Miskito Cays of Honduras**: The Centre for Marine Ecology (CME) conducted a ten-day expedition with 16 scientists to the Miskito Cays of Honduran to collect important biological data from this area in early May. The information collected will be used to analyze the status of marine biodiversity of this area in order to determine the use of fishing grounds and encourage sustainable fisheries. CME in coordination with authorities and local stakeholders will develop a strategy for managing fisheries based on access rights.
2. **Collaboration between the industry and the government**: Representatives from the lobster fishing industry expressed willingness for dialogue and collaboration with the national government and OSPESCA regional authorities on the transition of dive lobster fishing and on patrolling and monitoring efforts during the 2013-2014 fishing season.
3. **The Commission for Fishing Transition to meet with divers associations**: The Intergovernmental Commission for the Prevention and Treatment of the Problem of Dive Fishing (CIAPEB) is responsible for supporting and implementing the national transition plan for dive lobster fishing in Honduras and is planning a series of meetings in La Moskitia starting in June with the associations for active and disabled divers.
4. **DIGEPESCA**: The Director of DIGEPESCA expressed her commitment to enforce and uphold the law pertaining to the safety of crews and divers in all current and potential fisheries. In addition, she agreed to work with other state agencies to require that all divers (lobster and other fisheries, like conch or sea cucumber) have a medical certificate and clearance to dive, giving strict instructions to boat owners and captains to abide by this provision starting next fishing season.
5. **MAREA Program**: MAREA reconfirmed its commitment to continue supporting actions aimed at providing training for the reconversion and encouraging a productive fishing sector.
6. **Meeting of the industry and lobster divers in El Salvador**: Under the support of OSPESCA, representatives of governments, industry and active divers from Honduras and Nicaragua will meet in San Salvador to discuss the transition and the ban of lobster diving from a regional perspective and how consolidate a strategy with concrete actions and commitments from all parties involved.

Exhibits and Environmental Fair

As a way to raise awareness of the natural beauty of the Honduran Miskito Cays, as well as the marine biodiversity, the Centre for Marine Ecology (CME) exhibited photographs from the region with images from a scientific expedition conducted in early May 2013. This display was intended for the enjoyment and learning of all participants.



In addition, artisanal community groups from touristic communities, members of the National Chamber of Tourism of La Ceiba (CANATURH) exhibited their crafts and promoted environmental arts for all participants to see.

Recognition

Ms. Irina Pineda, SERNA's External Cooperation Coordinator received an award from Ms. Nancy Daves, NOAA, on behalf of the delegation of the Government of Honduras who attended CITES CoP 16 Conference in Thailand last February, where the inclusion of five commercial shark species was approved in Appendix II of CITES. This provision indicates stricter international regulation for marketing of these marine species, and Honduras declared itself as a country with a shark sanctuary.

Check out news about the inclusion of these 5 species of sharks in Appendix II of CITES:
http://www.cites.org/eng/news/pr/2013/20130314_cop16.php
Related articles on the protection of sharks in Honduras:
http://www.sre.gob.hn/saladeprensa/2011/04_honduras_lider_conservar_% 20tiburones.pdf

Symposium Presentations

All lobster symposium presentations are available on the Global FISH Alliance's website. To view or download the presentations, click on this link: http://www.globalfishalliance.com/sli-resources.html

Annex 1

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IV SPINY LOBSTER SYMPOSIUM 2013

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Annex 2: Agenda

Fourth Annual Spiny Lobster Symposium: Transition and Reform of Fisheries

May 15th-16th, 2013
CREDIA Facility, La Ceiba, Honduras

WEDNESDAY - MAY 15th , 2013		
Time	**Session / Panel**	**Moderator & Panelists**
7:30AM –9:00AM	***Participants registration***	*Staff /volunteers of the Spiny Lobster Initiative*
9:00AM – 9:30AM	**Welcome & Opening** ***Multipurpose Room – Holland Room***	*Jimmy Andino (SLI)*
9:30AM – 9:35AM	***Announcement: System Network Analysis (SNA) surveys***	*Roberto Martin - G-FISH*
9:35AM- 9:45AM	**Updates: Since the last symposium**	*Jenny Barker – G-FISH Director*
9:45AM-10:30AM	**Forum: Lobster fishery transition in Honduras** • Status of the closure of 2013 lobster diving in Honduras • Status of the fishery law bill in Honduras • Presentation of transition and closing schedule of diving in Honduras: current status	*Forum Coordinator: DIGEPESCA* *René Gutiérrez, Alicia Medina & Miguel Suazo (GOH representatives)*
10:30AM – 11:00AM	**Update on dive-related injuries**	*Dr. Elmer Mejia*
11:00AM- 11:30AM	**Dive-fishing for lobster: Strategies towards reform**	*Carlos Palacios- Intergovernmental Commission for Diver Protection in Honduras (CIAPEB)* *Ministry of Labor – La Ceiba*
11:30AM- 12:45PM	**Roundtable: Partnerships for development and implementation of economic alternatives** • Identification and formulation of alternatives • Projects under execution, implementation, and potential future programs	*Moderator : Adoni Cubas* *Jose Luis Androde (UNDP Honduras)* *Hugo Galeano (PPD)* *Avetnico Waldan (DAKNI)* *Marvin Curbelo (APBGAD)* *Electerio Colomer (Grupo Pesca Kruta)* *Bernard McAul (GOAL)* *Rodolfo Álvarez (PRONEGOCIOS)*
12:45PM – 1:30PM	***Lunch***	
1:30PM – 3:45PM	**Programs focus on alternatives and market approach** • Best fishing practices and economic alternatives • Fishery Improvements Projects (FIP-Honduras) • Value chain of the spiny lobster and the traceability system in the industrial fleet • Sustainable fishing practices and fisheries	*Moderador: Steve Box* *Nora Trino (Governor Miskitio)* *Steve Box (Smithsonian Institution)* *Sergio Martínez (MAREA)* *Alicia Medina (WWF)* *Amalia Porta (WWF)*

	policies • The economy and market approach in the proposed area of artisanal fishing in the cays in the Honduran Moskitia	*Claudia Ruiz (BCIE-CAMBio)* *Jimmy Andino (SLI)*
3:45PM - 4:00PM	***Coffee break***	
4:00 – 5:00PM	**Private Sector Roundtable: Improving fishing and marketing of lobster and other sea products** • Business partnerships • Critical points for the commercialization of the lobster • Improve the role of industry - management practices	*Moderator: Adoni Cubas* *WAHOO, SEAPEARL, APICAH, USAID/MAREA, BCIE/CAMBio*
THURSDAY MAY 16th, 2013		
Time	**Technical meetings**	**Moderators & Panelists**
Session A **8:00AM – 10:00AM** **Holland Room**	**Industry seeking sustainability for the lobster fishery** • Seeking certification of the trap lobster fishery in The Bahamas • Special trade fisheries and follow the CITES treaty • Responsible seafood sourcing	*Industry Moderator : Glenda Peña* *Technical moderator : Gabriela Pineda* *Mia Isaacs- President of the Bahamas Marine Exporters Association (BMEA)* *Nancy Daves- NOAA US*
Session B **8:00AM – 10:00AM** **Spain Room**	**Use of information for the conservation and management of fisheries** • Responsible seafood campaign for consumption of seafood • Climate Change on the coast of Honduras: How can we adapt? • Co-management mechanisms Marine National Park Bay Islands (PNMIB) • Access Rights in Cayos Cochinos • No-Fishing Zones in PHMR and (PNMIB)	*Moderator: Juan Carlos Villagrán* *Andrezej Narozanski (CORAL)* *Juan Carlos Villagran(MAREA)* *Calina Zapeda/Martha McPui (RMP)* *Calina Zepeda (TNC)* *Juan Carlos Carrasco (UNDP Moskitia)*
10:00AM-10:15AM	*Coffee break*	
Session A **10:15AM - 12:15PM** **Holland Room**	**Seeking sustainability for the lobster fishery (cont.)** • Maritime borders and fishing areas on the north coast of Honduras: Jamaica and Nicaragua cases • Efforts to reduce industrial fleet • Efforts of the industry in the diving the transition • Protocol for the Bay Islands	*Moderators: Glenda Peña & Gabriela Pineda* *Miguel Tosta- Maritime borders (SRE)* *Richard Bonill (APICAH) & Steven Guillen (APESCA)* *Adoni Cubas (MAREA)* *Rosalina Martinez (ICF)*
Session B **10:15 AM - 12:15PM** **Spain Room**	**Artisanal fisheries in Miskito Cays and responsible fishing areas in Honduras** • Declaration of exclusive fishing area in the Miskito Cays • The status of the lobster population in Honduras • Best practices in artisanal fisheries - Rights Management	*Moderator: Diana Vásquez* *Diana Vásquez (CME)* *Nathan Truelove (CME)* *Javier Hurtado (CME)* *Gabriela Pineda (MAREA)/Electerio Colomer (Kruta)/ Randy Haylock (PAMUPEL)*

	• Artisanal fishery and industry discussion • Programs working on the artisanal shrimp fishing in the three miles area in the Miskito Cays	
12:15PM – 12:45PM	***Press coverage - Lobster symposium***	***Spain Room***
12:30PM – 1:30PM	***Lunch***	
1:30PM – 4:30PM **Holland Room**	**Conclusions and General Agreements Session** **The future of the fishery: Next steps** • Commitments from 2013 Symposium • Review objectives from the 2009 WSR • Discuss commitments and actions for the next fishing season • Review/identify objectives for future implementation	*Moderators: Jimmy Andino & Roberto Martin (G-FISH)*
4:30PM – 5:00PM	***Closing and Coffee Break***	*Jenny Barker (G-FISH)*

DARDEN

Red Lobster ▪ Olive Garden ▪ LongHorn Steakhouse ▪ Bahama Breeze ▪ Seasons 52 ▪ The Capital Grille ▪ Eddie V's ▪ Yard House

September 3, 2013

James Watson
Mission Director
USAID/Honduras
Avenida La Paz, P.O. Box 3453
Tegucigalpa, Honduras

Dear Mr. Watson,

Darden Restaurants, the world's largest full-service restaurant company, owns and operates more than 2,100 restaurants in the U.S. and Canada that generate $8.5 billion in annual sales. We are committed to sourcing products from fisheries that maintain high standards for environmental and social welfare. When possible, we invest in challenged fisheries where our market influence can help motivate improvements towards those ends. The Honduras spiny lobster fishery is one such fishery where Darden, in collaboration with USAID-funded efforts in the Global FISH Alliance (G-FISH), has invested significant time and resources to catalyze positive change. Needless to say, the funding provided to date by USAID has been pivotal in enhancing awareness and facilitating the dialogue necessary to improve conditions in the fishery. We want to share our strategy for supporting future improvements in the fishery and to request continued financial support from USAID to ensure the progress to date is not lost.

As you may know, the spiny lobster fishery in Honduras is worth nearly U.S. $50 million in exports to the United States annually and provides direct employment to more than 4,000 people from coastal communities. It is Honduras' most valuable wild caught fishery. Yet, despite its economic importance, national management strategies and weak fisheries governance have made the fishery unsustainable. In addition, SCUBA dive fishing is one of the principal ways that lobster is caught and threatens divers, lobster stocks, and biodiversity. As stocks decrease, fishers have to dive deeper, longer, and more frequently increasing injuries, disabilities, and mortality. Approximately 2,000 Honduran divers have been injured and at least 600 have died from decompression sickness as a result of unsafe diving practices in pursuit of spiny lobster.

Earlier this spring, Darden Restaurants urged President Sosa of Honduras to support the ban on commercial lobster scuba diving to take effect in July 2013. Unfortunately, the lobster season has opened and the deadly practice of diving for lobster continues. Since the season opened on July 1, 2013, there have been six reported deaths, 15 divers have become disabled and many other injuries attributable to lobster diving, all in just two short months. Our concern for the social and environmental health of the fishery has never been greater.

Over the past five years, Darden was a key partner of the USAID-sponsored G-FISH effort. The Alliance, led by FHI 360, prompted collaboration between foreign and U.S. government agencies as well as local and international non-governmental organizations, community groups and trade associations. Using the SCALE (System-wide Collaborative Action for Livelihoods and the Environment) approach, FHI 360 has secured commitments from stakeholders to action plans created by them; then, those stakeholders have translated ownership of the issue into local leadership structures. While the initiative made significant progress, the dive-caught fishery remains open and lacks a governance framework that will ensure both the health and safety of fishermen and the sustainability of the resource. We are greatly disappointed by the actions of the governments of Nicaragua and Honduras to seek another two-year extension for the transition away from diving for lobster. We had hoped the loss of life of current and future divers would motivate officials to fulfill their commitment.

Rather than withdraw from the fishery, Darden has decided to make critical investments to improve the environmental and social prospects in the region through market-based incentives. We are prepared to develop and invest in a Fishery Improvement Fund that would allocate funding to various civil society organizations working to address the most pressing concerns in the Honduran spiny lobster fishery.

In late September, Darden plans to announce Honduras as our second *Fishery Improvement Project* (FIP), a part of our 2011 commitment with the Clinton Global Initiative (CGI). Darden will provide up to $250,000 to the NFWF Fishery Improvement Fund for the first two years of the project. The Walton Family Foundation (WFF) will match our donation to catalyze improvements in fisheries through a fund managed by the National Fish and Wildlife Foundation (NFWF). The Honduran spiny lobster fishery will be the first beneficiary of the fund. Together, we will develop a structure for matching contributions to the fund, establish selection criteria for the projects the fund will support, and develop indicators to evaluate the effectiveness of the funded project. We also plan to solicit funds from other foundations, government entities, and companies sourcing lobster from this region.

This past summer, Darden supported a full-scale assessment of the Honduras spiny lobster fishery to shed light on where limited funding could best be invested in Honduras. FHI 360 developed the assessment with input from organizations working in the country, focusing on a pathway forward for a sustainable, safe, and profitable spiny lobster fishery in Honduras. The assessment identified several key opportunities with consensus from experts in region:

- Functional close of the SCUBA dive fishery (officially or through market forces and alternative livelihoods)
- Better management of the industrial trap fishery (access and traceability)
- Development of a sustainable artisanal fishery

To achieve this, five key objectives were identified (in no particular order):

1. Sustainable management of the trap and artisanal fisheries
2. Increased access to capital for improved system
3. Alternative livelihoods developed that reduce dependence on SCUBA diving
4. Improved biodiversity conservation for sustainable fisheries and livelihoods
5. Improved social justice and labor conditions in the fisheries industry

Once this was completed, Darden and WFF, along with guidance from NFWF and the New England Aquarium, outlined the following milestones as the focus of the fund based on what our funding could support and our interests for the two years of investment:

- Complete stock assessment and management plan for the spiny lobster fishery which includes both the trap and artisanal fisheries;
- Support the creation of a safe and sustainable exclusive-use, artisanal fishery along with market access for product and establish a data reporting program for the fishery;
- Establish and implement tools and strategies for data collection and monitoring of fishing activity, using data for management, enforcement and traceability purposes (e.g. observers, spatial data, etc.), including, but not limited to: retention of undersized or berried females, incursion into MPAs, over quota catch and poaching, closed season fishing, and management of non-target species.

We anticipate the NFWF will issue an RFP for the fund by October 31, 2013. We anticipate that projects will be selected for funding by December 31, 2013 with funds issued by February 1, 2013. The funds are meant to be "catalytic" and will not continue indefinitely. The goal is to support the initiatives that have the greatest potential for long-term impact.

As you know, the lobster fishery in Honduras is very complex, involving economic, social, governance and environmental issues that are all closely linked. Unfortunately, the depth of need exceeds $1 million annually to comprehensively address the reforms needed to build a socially and environmentally sustainable fishery. While the investments from the Fishery Improvement Fund will go far to address many of the above milestones, there are many opportunities we will not be able to support.

Additionally, we are greatly concerned about the end of the Global FISH Alliance agreement and the practical and political necessity of maintaining FHI360's presence as a coordinating entity on the ground in Honduras. The five-year grant for the Global FISH Alliance is part of a Global Development Alliance between USAID and Darden implemented by FHI 360 but it concludes on September 30, 2013. FHI360 must begin to withdraw from Honduras (e.g. re-allocating and giving notice to staff, closing bank accounts and offices, etc.) soon. FHI 360 has requested a no-cost extension through December to keep staff and offices open, but this will not support their continued work at the level that has been previously committed. Time is running short to ensure some degree of continuity and cost efficiency in continuing the successful effort that Darden and USAID have been supporting. While efforts of some civil society organizations will continue, we are concerned about the loss leadership in the region and the coordinating function from Washington, DC if the SLI comes to an end.

While we are looking for other funding support from the private and foundation sectors, support from USAID would embolden our efforts and demonstrate strong cross-sector commitment. While we understand the timing constraints associated with such a commitment, the urgency of the need in Honduras is pressing us to move as quickly as possible. We understand the US government is interested in working on these issues with the indigenous communities on the Miskito Coast, a key focus of the SLI. In fact, we recently learned the SLI work was one of four agriculture and biodiversity programs featured in USAID's annual submission to Congress for program achievements. We hope USAID will consider the

opportunity to continue this partnership through G-FISH with FHI 360 and Darden, aligned to the Fisheries Improvement Fund, to address the social and environmental concerns in the Honduran fishery.

We are prepared to commit resources to support the changes needed to close the dive fishery for spiny lobster, improve the management and sustainability of the trap fishery, and improve the long-term prospects for the Honduran fishers and their communities. We would also like USAID to remain engaged and support our efforts through continued support of G-FISH and the SLI. We look forward to further conversation about our forthcoming commitment to Honduras.

Thank you.

Sincerely,

Brandon Tidwell

Brandon Tidwell
Manager of Sustainability
Darden Restaurants

Cc: Barbara Best, USAID
Teresa Ish, Walton Family Foundation

Spiny Lobster Fishery (LAC) Call #4

April 17, 2013

The Global FISH Alliance (G-FISH) promotes sustainable fisheries and aquaculture reforms through the application of a system-wide approach that integrates governance, civil society, private sector, and environmental issues which are all essential to sustaining and improving livelihoods and biodiversity. At the 2013 Annual Meeting, G-FISH agreed to organize a monthly call for partners to update each other on activities related to the spiny lobster fishery in Latin America/Caribbean on the third Wednesday of every month at 11am EST. Partners volunteer to provide in-depth updates each month while all partners are encouraged to share updates.

Participants

Name	Organization
Diane Adams	USAID
Jimmy Andino	FHI 360/G-FISH SLI
Jenny Barker	FHI 360/G-FISH
Nadine Bartholomew	The Good Foodie
Barbara Best	USAID
Roger Bing	Darden Restaurants, Inc.
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Wendy Goyert	WWF
Diana Kramer	U.S. Department of State
Gracia Lanza	USAID
Mike Powers	Darden Restaurants, Inc.
Sergio Ramirez	MAREA
Brandon Tidwell	Darden Restaurants, Inc.
Nestor Windevoxhel	MAREA

Agenda:

- Update on the spiny lobster dive extension - Briefings on two meetings of key stakeholders in Honduras (SLI, CME, MAREA) and the U.S.
- Upcoming Spiny Lobster Symposium on May 15-16 - Agenda updates

1. ***Update on Thursday, April 11, meeting with US Ambassador***

Steve Box, Nestor Windevoxhel, Eduardo Chirino, Jimmy Andino, and Gabriela Pineda met with Ambassador Lisa Kubiske last week to discuss the need the ban on dive-caught lobster in Honduran waters and why there should not be another extension. The Ambassador asked about the difference between the transition and the closure, who will be affected, and how to address their concerns. According to Nestor and Steve, the Ambassador acknowledged the need for the closure, but did not give an official statement. Rather, she asked for more information on the closure's feasibility and what comes afterward. Steve suggested moving the decision about the closure away from just SAG and the Minister of Agriculture.

Another point of discussion was the letter sent by Darden Restaurants, Inc. to both the US Ambassador and the President of Honduras. In the letter, Darden expressed its interest that Honduras would stick to its commitments and that, as a major buyer of Honduran lobster, it was concerned with the long-term sustainability of the product and with the human impacts of diving. Darden hoped the letter would provide the letter would provide the Ambassador leverage were she to push for the closure.

USAID suggested the Ambassador now has a better understanding of the situation.

An upcoming meeting hosted by DIGIPESCA in Tegucigalpa was announced to be held on Friday, April 19. It was noted much of the information requested had already been provided at a previous MAREA meeting.

In discussing industry perceptions of the ban, Nestor said the seafood packers did not think the market would affect them. Darden responded that buyers don't always know that they are buying dive-caught lobster—that there is a need to raise awareness and that traceability is lost in the supply chain. He suggested that more buyers will react once they know some of their product is dive-caught, which could affect the reputation of Honduras and other Honduran products like shrimp and tilapia.

2. ***Update on April 9 meeting at FHI 360***

A group that included Roger Bing and Mike Powers from Darden, Steve Box, Jenny Barker, Barbara Best, Miguel Jorge, Michael Arbuckle, Nancy Daves, Diane Adams, Roberto Martin, Wendy Goyert, Nadine Bartholomew, and others met last week at FHI 360 in Washington, DC, to discuss what steps could be taken to ensure that the scheduled ban is upheld.

One idea that was discussed was whether the U.S. Lacey Act could be used to deter buying of dive-caught lobster. However, it seems unlikely that the Act could be used without Honduras wanting it to be enacted. The U.S. Dept. of Justice would not likely pursue a case without the request of the Honduran government.

One possible incentive that was discussed was the Global Partnership for Oceans and whether lobster could be chosen as an example fishery. This, too, would require participation on the part of the Honduran government. A comment was made that the Honduran government seems to be asking what others bring to the table when the question should be what is the government ready to do in terms of reforming the fishery.

USAID suggested that, given upcoming election politics, the lobster fishery might not be given much priority. He suggested that maybe it is better not to be too ambitious in our objectives, stating that the Minister of Agriculture feels pressure to offer another extension. There was discussion of an action plan with milestones.

Barbara pointed out that the Honduran government doesn't actually have to do anything if it wants to let the ban go into effect. A transition can occur without an extension.

Questions were raised as how FAO, USAID, and OPESCA would react, whichever way Honduras decides to go.

FHI 360 noted that the Honduran government isn't facing any new pressures that it wasn't facing when the date for closing the fishery was agreed upon, and now that we have momentum it seems to be the best time to move forward. Steve questioned the impact on the credibility of the government and ministers of environment of countries reneging on environmental commitments. Larger SICA discussions should be considered.

3. ***Spiny Lobster Symposium on May 15-16 - Agenda updates***

   Invitations for the symposium have gone out and many Ministers are interested in attending. Partners are encouraged to attend and invest. Given the breadth of communities present at the event, multiple viewpoints are expressed and G-FISH will continue to support collaborative solutions.

4. ***The next call will be May 8th at the same time and call-in numbers.***

Spiny Lobster Fishery (LAC) Call #5

May 8, 2013

The Global FISH Alliance (G-FISH) promotes sustainable fisheries and aquaculture reforms through the application of a system-wide approach that integrates governance, civil society, private sector, and environmental issues which are all essential to sustaining and improving livelihoods and biodiversity. At the 2013 Annual Meeting, G-FISH agreed to organize a monthly call for partners to update each other on activities related to the spiny lobster fishery in Latin America/Caribbean on the third Wednesday of every month at 11amEST. Partners are encouraged to share updates.

Participants

Name	Organization
Jenny Barker	FHI 360/G-FISH
Nadine Bartholomew	The Good Foodie
Kevin Blythe	FHI 360/G-FISH
Carlos Hasbun	USAID
Meghan Jeans	New England Aquarium
Miguel Jorge	National Geographic Society
Sergio Ramirez	MAREA
Augusto Rosales	MAREA
Brandon Tidwell	Darden Restaurants, Inc.

Agenda:

- Darden funding
- USAID/Honduras & MAREA Program assisting with transition plan
- Next week's Spiny Lobster Symposium (agenda attached)

2. Update from Brandon Tidwell – Darden Restaurants, Inc.

Brandon Tidwell attended the Clinton Global Initiative's mid-year meeting on May 6 where he discussed financing needs and opportunities for a possible fisheries improvement project (FIP) in Honduras. Darden has made a CGI commitment to work on three FIPs. The first is focused on snapper in the Gulf of Mexico. Darden would like to conduct the second in Honduras. He discussed the idea of setting up a fund with contributions from other interested parties like the Walton Foundation and National Fish and Wildlife Foundation. Darden plans follow-up meetings in the next few weeks and will share information as it becomes available.

2. ***Update from Carlos Hasbun – USAID/Honduras***

USAID had developed a letter to give to the government of Honduras regarding the upcoming regional OSPESCA dive closure to take effect on July 1, 2013. Carlos said the letter states that they do not support an extension but MAREA would fund an action plan/timeline regarding the transition of the dive fishery at OSPESCA's request. As OSPESCA is a regional organization, the action plan will be regional, focusing on both Honduras and Nicaragua. Sergio noted that two people were working on the timeline, Alicia Medina and staff from DIGIPESCA. At this point, there is no information available about the length of the timeline that will be proposed. It could be up to two years. Carlos stressed the importance of working with local fishermen on alternative livelihoods. He pointed to a shrimp capture project with a rights-based mechanism that showed signs of success. Carlos visited the coast of Nicaragua and reported progress toward the transition.

3. ***Update from Jenny Barker – FHI 360***

The Spiny Lobster Symposium is next week, May 15-16, in La Ceiba. FHI 360 and the Spiny Lobster Initiative's role is to facilitate open dialogue among the various stakeholders in order to gather answers and identify opportunities to collaborate moving forward. The first day will focus on the transition. The afternoon of the second day will be focused on revisiting goals from the "Whole System in the Room" event SLI held in 2009 to kick off the project, the legacy of SLI, and where groups want to go next with the transition and the future of fisheries in Honduras.

SLI noted that the Ministerial meeting held on the Miskito Coast did not result in the opportunity for dialogue as hoped. Although on the agenda, the divers associations were not given an opportunity to speak as promised. The topic of the dive fishery was not addressed in the meeting.

4. ***The next call will follow the Spiny Lobster Symposium in late May. The call will be at the same time and have the same call-in numbers. An e-mail message will be sent out with the exact date.***

Spiny Lobster Fishery (LAC) Call #6

June 5, 2013

The Global FISH Alliance (G-FISH) promotes sustainable fisheries and aquaculture reforms through the application of a system-wide approach that integrates governance, civil society, private sector, and environmental issues which are all essential to sustaining and improving livelihoods and biodiversity. At the 2013 Annual Meeting, G-FISH agreed to organize a monthly call for partners to update each other on activities related to the spiny lobster fishery in Latin America/Caribbean on the third Wednesday of every month at 11amEST. Partners are encouraged to share updates.

Participants

Name	Organization
Nathan Anderson	US State Department - Honduras
Jimmy Andino	FHI 360/G-FISH SLI
Jenny Barker	FHI 360/G-FISH
Barbara Best	USAID
Kevin Blythe	FHI 360/G-FISH
Steve Box	Smithsonian Institute
Ana Coelho	FHI 360/G-FISH
Nancy Daves	NOAA
Wendy Goyert	WWF
Meghan Jeans	New England Aquarium
Sergio Martínez	MAREA

Agenda:

- 2013 Spiny Lobster Symposium
- OSPESCA Industry Meeting
- Other Updates

3. Update on a Fisheries Investment Fund for Honduras
Jenny Barker, FHI 360, on behalf of Darden Restaurants, Inc.

Darden made a commitment at the Clinton Global Initiative to invest in fisheries improvement projects (FIP) including a commitment to assist in developing a fund for continued work in Honduras. Preliminary discussions have taken place with potential partners including the Walton Foundation, National Fish and Wildlife Foundation, FHI 360, and others to discuss a fisheries investment fund mechanism. More information will be shared as the strategy is further refined for an investment fund.

5. ***Briefing on the Spiny Lobster Symposium***
   Jenny Barker – FHI 360

   FHI 360 and the Spiny Lobster Initiative hosted the Fourth Annual Technical Symposium of the Spiny Lobster Fishery in La Ceiba on May 15-16. There was broad participation with 154 stakeholders from all sectors, including industry, divers, and representatives from the Honduran Government. At the event, Ms. Rene Gutierrez, Director General for Fisheries and Aquaculture (DIGEPESCA), announced that they plan to request an extension of diving from OSPESCA, the regional fisheries authority, in order to focus on transition activities and that they were working on an Action Plan for the transition. While the Action Plan has not been shared publically, some sources confided that the plan is similar to the plan developed more than a year ago and entirely dependent on government action. It lacks the level of detail and clear deadlines necessary to move things forward for a transition. The full report from the symposium will be distributed.

6. ***Briefing on the OSPESCA Industry Meeting***
   Sergio Martínez - MAREA and Jimmy Andino – Spiny Lobster Initiative

   On June 3, industry representatives from Honduras and Nicaragua met with Mario Gonzales, Director of OSPESCA, in San Salvador to discuss the transition. Mario announced this meeting at the symposium after an impromptu meeting with industry. MAREA representatives were present at the meeting and Sergio Martínez related that there was general consensus the closure of the diving cannot happen on June 30, 2013, but there was agreement to work together to make the transition happen. A two-page declaration to that effect was signed at the meeting. It is expected that the Minister of SAG in Honduras will present an action plan to OSPESCA, at the Regional Ministerial meeting in Costa Rica next week, and request an extension of the closure. Once this action plan is presented, it will be shared more broadly with stakeholders. It is unclear whether the other ministers will support an extension.

   Additional highlights from the meeting reported: (1) there was a general consensus more time was needed; (2) there was no agreement on labor rights and compensation for divers and this is still under discussion; (3) the transition needed to be gradual and two critical points were the reduction of the fleet and licensing, which depend on strong government action. As a follow-up, industry and Moskito divers scheduled to meet in La Moskitia in June.

   It was questioned whether there was diverse Honduran government representation at the OSPESCA meeting given that several government agencies favor the dive ban but only DIGEPESCA was invited and the Director did not attend.

7. ***Update from Steve Box – Smithsonian Institute***

   Data is being compiled on the status of the lobster fishery to provide concrete numbers for future efforts. By next year, data will be available for lobster and other fisheries to assess the economic impact and to inform discussion around moving people around between fisheries and alternative livelihoods. A Digital Mapping System (DMS) of La Moskitia is being completed to map out fishing grounds and other useful information to set-up artisanal fisheries.

8. ***The next call will be after the OSPESCA Ministerial Meeting in Costa Rica. The call will be at the same time and have the same call-in numbers. An e-mail will be sent with the exact date.***

Spiny Lobster Fishery (LAC) Call #7

July 17, 2013

The Global FISH Alliance (G-FISH) promotes sustainable fisheries and aquaculture reforms through the application of a system-wide approach that integrates governance, civil society, private sector, and environmental issues which are all essential to sustaining and improving livelihoods and biodiversity. At the 2013 Annual Meeting, G-FISH agreed to organize a monthly call for partners to update each other on activities related to the spiny lobster fishery in Latin America/Caribbean on the third Wednesday of every month at 11amEST. Partners are encouraged to share updates.

Participants

Name	Organization
Jimmy Andino	FHI 360/G-FISH SLI
Jenny Barker	FHI 360/G-FISH
Nadine Bartholomew	The Good Foodie
Barbara Best	USAID
Kevin Blythe	FHI 360/G-FISH
Steve Box	Smithsonian Institute
Ana Coelho	FHI 360/G-FISH
Wendy Goyert	WWF
Carlos Hasbun	USAID
Sergio Martinez	MAREA
Zulma Mendoza	MAREA
Augusto Rosales	MAREA
Brandon Tidwell	Darden Restaurants, Inc.
Nestor Windevoxhel	MAREA

Agenda:

- Opening of season and media coverage
- Updates at regional level and OPESCA and on the transition plan
- Honduras Assessment for Fisheries Investment Fund
- Labor Complaint to CAFTA
- Working Group Meeting

1. Opening of season and media coverage

The lobster fishing season opened July 1st. In the first 10 days, there have been three divers' deaths reported and at least four additional divers sent to the hyperbaric chamber. One of the deaths was

on a sea cucumber fishing boat; the other two were lobster divers. Dr. Meijia opened the doors of the hyperbaric chamber to treat the divers.

El Heraldo newspaper has been publishing a week-long series of articles on the divers, and reporters were actually in La Moskitia when the deaths occurred. The articles have identified the boats on which the deaths occurred and the owners of those boats. Reporters met with AMLI and the disabled divers association. CME and SLI have contributed information to the reporters. The series started by discussing problems facing the fishery and will conclude with a discussion of possible solutions. Below are links to several of the articles (Google Chrome can translate from Spanish to English):

1. http://www.elheraldo.hn/Secciones-Principales/Al-Frente/Buzos-langosteros-de-La-Mosquitia-desafian-a-la-muerte-para-sobrevivir
2. http://www.elheraldo.hn/Secciones-Principales/Al-Frente/La-pesca-se-ha-llevado-decenas-de-almas
3. http://www.elheraldo.hn/Secciones-Principales/Al-Frente/El-atlantico-y-sus-cayos-Cementerio-de-buzos#panel1-2
4. http://www.elheraldo.hn/Secciones-Principales/Al-Frente/Honduras-Condenados-a-la-miseria-buzos-lisiados-en-La-Mosquitia
5. http://www.elheraldo.hn/Secciones-Principales/Al-Frente/Honduras-Gobierno-incumple-cierre-de-pesca-de-langosta
6. http://www.elheraldo.hn/Secciones-Principales/Al-Frente/Si-van-a-cerrar-esta-bien-pero-que-nos-den-empleo

The newspaper coverage has generated much interest in the situation of the divers, but there has yet to be any official government response. CIAPEB, the Intergovernmental Commission is working on an official statement. The head of APBGADH (Disabled Divers Association) is going to Tegucigalpa to meet with SAG (Agriculture) Minister. El Heraldo plans to send reporters to accompany him. Also, APBGADH is planning a press conference to be held in Tegucigalpa. Adoni Cubas of MAREA is traveling to Puerto Lempira to talk to stakeholders about reactions and how to move forward on these issues.

Update

At the SLI Working Group meeting, AMHBLI (Active Divers Association), APBGADH, and the Governor agreed to do a joint press conference in Tegucigalpa:

Date: Tuesday, July 30th
City: Tegucigalpa
Place: United Nations Development Program (UNDP) Conference Room
Delegations/Reps: AMHBLI, APBGADH, MASTA and Governor

Statements:
1. AMHBLI: About fatalities and injuries in Miskito divers and the complaint with the Inter-American Commission of Human Rights.

2. APBGDAH: Support the transition activities to convert divers to more sustainable activities and to move away from diving and support the declaration of an area for artisanal fisheries in La Mosquitia with indigenous rights.

2. Updates at regional level and OPESCA and on the transition plan

Uncertainty remains over the legality of this year's lobster season. The director of DIGIPESCA issued a letter to the Dive Boat Association (APICAH) on June 28 stating that the closed season was finished. This was actually the second letter issued to them from DIGIPESCA. An earlier letter was also sent in March (see attached). The industry proceeded to get licenses approved for the boats the last few days of June and began fishing July 1. However, there has been no official request for an extension to OPESCA and no official statement by the ministers about the proposed transition or a timeline. Carlos Hasbun from USAID had not received comments regarding the timeline that OPESCA drafted and intends to meet with them to express concerns regarding the vagueness of the timeline and to inquire about how they can support OSPESCA to make it more precise. He does not understand why the industry is not getting clear guidelines. The industry is feeling insecure and frustrated because they are unclear how long their licenses will be valid.

3. Honduras Assessment for Fisheries Investment Fund

FHI 360 is proceeding with an assessment of the current fisheries landscape, which includes a discussion of livelihoods and traceability issues, for the purpose of developing a fisheries investment fund. FHI 360 and Darden have had productive conversations with National Fish and Wildlife Fund (NFWF), who will host the fund, and the Walton Foundation, Schmidt Foundation, and others. There will be a meeting in Baltimore next Tuesday for further discussions. Darden is hoping to begin a series of fisheries improvement projects globally with Honduras being the pilot project. NFWF was chosen to administer the fund because of their experience with and ability to receive funds from both government and private sources. The assessment will help Darden and other potential contributors understand who are the critical players, what are they already doing, what kind of funding is available and needed.

<u>Update</u>

The Honduras Assessment and Opportunities Report was completed and discussed at the meeting in Baltimore. Partners are finalizing the overall milestones for the investment fund so interested parties can contribute. More announcements will be made in September regarding the fund with the goal of issuing the first grants in early 2014.

4. Labor complaint to CAFTA

Barbara Best (USAID) is exploring whether a complaint (not a law suit) on labor conditions could be issued under the Central American Free Trade Agreement (CAFTA). She is interested to see which groups may want to be part of the complaint. Currently, she is looking into what kind of

documentation would be necessary and what the process would be. Adoni Cubas is in Puerto Lempira to talk with the different organizations on the possibility of participating on this complaint.

Regarding labor issues, MAREA is working on developing labor manuals and codes of conduct specific to fisheries, which they will use for training purposes in Honduras and Nicaragua. They have established the terms of reference and a consultant is already working visiting sites in Nicaragua to meet with stakeholders. The target is to train 500 involved in labor issues in both countries.

5. SLI Working Group meeting

SLI is hosting a Working Group meeting on Friday after the boats come back from their first trip. All 26 members, including those from the APICAH, will be there. Jimmy said they will discuss investment opportunities among other topics.

Update

If you would like information on the meeting, please contact Jimmy Andino at jandino@fhi360.org.

Spiny Lobster Fishery (LAC) Call #8

August 14, 2013

The Global FISH Alliance (G-FISH) promotes sustainable fisheries and aquaculture reforms through the application of a system-wide approach that integrates governance, civil society, private sector, and environmental issues which are all essential to sustaining and improving livelihoods and biodiversity. At the 2013 Annual Meeting, G-FISH agreed to organize a monthly call for partners to update each other on activities related to the spiny lobster fishery in Latin America/Caribbean on the third Wednesday of every month at 11amEST. Partners are encouraged to share updates.

Participants

Name	Organization
Jenny Barker	FHI 360/G-FISH
Kevin Blythe	FHI 360/G-FISH
Steve Box	Smithsonian Institute
Ana Coelho	FHI 360/G-FISH
Carlos Hasbun	USAID
Wendy Goyert	WWF
Teresa Ish	Walton Family Foundation
Sergio Martinez	MAREA
Augusto Rosales	MAREA
Brandon Tidwell	Darden Restaurants, Inc.

Agenda:

- Honduran National Fisheries Law
- Network of MPAs and Exclusive Rights Use Declaration
- OSPESCA Transition Plan
- Other Topics

Jenny Barker, from the Global FISH Alliance, opened the call by reporting that representatives from Miskito Disabled Divers Association held a press conference at SEDINAFROH (Ministry of Indigenous and Afro-Honduran Affairs) in Tegucigalpa on August 7th, 2013. Their message was well received and covered by national media, including eight different outlets of TV and newspaper. Their message to the government was about speedily and amicably resolving of a pending suit (since 2004) in the Commission on Human Rights (IACHR), and in establishing an exclusive use area in the Miskito Cays to generate alternatives and reduce the harmful diving activity.

Update on Honduran National Fisheries Law

The proposed Honduran National Fisheries Law has been endorsed by the necessary governmental authorities and is being sent to the national Congress for debate and approval, hopefully by

September. This law will set the framework for the creation of indigenous exclusive rights use areas for artisanal fishermen.

At the event on August 13 in Tegucigalpa, the SAG Minister acknowledged all the past efforts on this bill trying to update and revise the fishery and aquaculture law from 1959. The Minister said that the law represents the most innovative and modern fishery law in Central American containing fisheries management and responsible practices at many levels. This law provides the legal platform to implement strong fisheries and aquaculture reform in Honduras. The members of the Fishery Commission from the National Congress signed their endorsement to the final bill version for the new Honduran fishery and aquaculture law and expressed their commitment to advocate from inside in the chamber to discuss the bill and get it approved in short term (by September 2013). The copy of the latest version of the law is available and will be distributed. According to the USAID, this law provides priority rights to indigenous and Afro-Hondurans on the access to fisheries in their surrounding waters. Also, Article 13 calls for the protection of divers, where diving is declared as of high human risk, and that the health, labor and fisheries authorities need to regulate this activity in order to ensure risk mitigation, as well as the transformation of this activity when risks cannot be mitigated. This draft mentions that Honduras will provide programs to transform the diving fishery and facilitate the rehabilitation of the social well-being of disabled fishermen. These disabled fishermen will be given priority when granting fishery-related licenses.

Network of MPAs and Exclusive Rights Use Declaration

In addition to the national law, there is support and movement of legislation to designate a large marine protected area with exclusive use rights for indigenous communities. At the last Ministers meeting held in La Moskitia, led by the President of Honduras, they agreed to hold more meetings to build consensus among parties for the protected areas relating to the declaration of the artisanal fishery. The meeting was planned for this Thursday, August 14th in Tegucigalpa, however MASTA and APESCA industry representatives were unable to attend the meeting, so the meeting had been postpone.

Update on Transition Plan

In early August, OSPESCA announced that the transition timeline/plan for the lobster fishery was approved by all of the regional ministers in Panama. While the plan has been approved, it has not been made available to the public. SLI is being asked by industry and communities for the terms of the transition plan and are still seeking information and a copy of the approved transition plan so we can work to fulfill the terms of the plan.

Carlos Hasbun stated that USAID provided technical support and feedback on the plan; however, it was late in the process and it's unclear whether that feedback was incorporated in the plan. Steve Box commented that details of the plan should be in the OSPESCA Ministerial meeting minutes on the website when those are made available.

Other updates

G-FISH reported that sadly there had been additional deaths from diving and that so far six deaths had been reported since July 1st and ten divers were being treated in the decompression chamber by Dr. Meijia. However, Dr. Meijia plans on closing the chamber soon due to lack of funds.

Additionally, it appeared that OPESCA had awarded both Nicaragua and Honduras awards for the management of their fisheries. Steve Box commented that these awards had been issued a long time ago and that they couldn't be taken away given recent developments. Carlos Hasbun further explained that one month ago, FAO awarded the Margarita Lizárraga Medal to OSPESCA in El Salvador. OSPESCA, a Regional Fishery Body, was selected in recognition of its significant contribution to sustainable fisheries in the Central American and considered a model intergovernmental organization, emulated in other regions for the catalytic effect of its achievements. Nevertheless, recent development show the limited governance OSPESCA has and undermines OPESCA, as a strong regional governance system.

Sergio Martinez reported that MAREA is supporting Honduras and Nicaragua in drafting a Code of Conduct for the Labor Standard Manual. They have been discussing with Department of State and Barbara Best at USAID whether to draft a complaint regarding labor conditions to CAFTA. MAREA is trying to gather support from State and USAID, as well as local NGOs and looking for alternatives to process a complaint.

Brandon Tidwell from Darden Restaurants, Inc. confirmed that the Fisheries Investment Fund was moving forward. Following the comprehensive assessment provided by FHI 360, they decided to invest $300,000 for a two-year period and will announce this investment at the Clinton Global Initiative meeting in September. The Walton Family Foundation has agreed to match those funds making the fund $300,000 annually for two years. They will continue to seek additional partners and funds. They have shared this information with USAID Mission in Honduras and are in discussions about continued engagement. Teresa Ish stated that this commitment has not yet been publicized, and that the announcement will be made at the Clinton Global Initiative Annual Meeting in September. Furthermore, after the announcement, request for proposals for the work to be done are planned to go out some time later this year with the hopes to issue funds in early calendar 2014.

Steve Box from the Smithsonian Institute announced that they had finished all the mapping efforts for the seascapes and fishing grounds and will release these maps soon. This will help the Fisheries Department improve management. Last month, he distributed a document about the Honduran lobster trap and dive fishery with the data he has gathered over the years. The paper will be published soon. Lastly, they have just started a program with NOAA on the conch fisheries in La Moskitia.

In closing, Jenny Barker thanked everyone who participated in these calls and reminded everyone that G-FISH will end in late September; so there may be one more call between now and then. She invited everyone to the Close Out event on September 26th in Washington, DC, and said that there will be a separate in-country event in Honduras. She asked if anyone is interested in continuing these calls to keep each other updated on these issues to let her know.

Spiny Lobster Fishery (LAC) Call #9

September 19, 2013

The Global FISH Alliance (G-FISH) promotes sustainable fisheries and aquaculture reforms through the application of a system-wide approach that integrates governance, civil society, private sector, and environmental issues which are all essential to sustaining and improving livelihoods and biodiversity. At the 2013 Annual Meeting, G-FISH agreed to organize a monthly call for partners to update each other on activities related to the spiny lobster fishery in Latin America/Caribbean on the third Wednesday of every month at 11amEST. Partners are encouraged to share updates.

Participants

Name	Organization
Jimmy Andino	FHI 360/SLI
Jenny Barker	FHI 360/G-FISH
Steve Box	Smithsonian Institute
Ana Coelho	FHI 360/G-FISH
Wendy Goyert	WWF
Nadine Bartholomew	The Good Foodie
Meghan Jeans	New England Aquarium

Agenda:

- Update from DIGEPESCA and Transition Plan
- Update on divers deaths and injuries
- G-FISH Program Ending and Transition
- Darden's commitment for future investment

Jenny Barker, from the Global FISH Alliance, opened the call by reporting that the DIGEPESCA's Director of Fisheries has left and no replacement has been named but there is an Interim Director. This is especially important because the transition plan presented to OSPESCA to extend diving still has not been made publically available. Jimmy from SLI has reached out to OPESCA, through Honduras Regional Representative, but was not able to secure a copy of the agreement. ***Addendum: In early October, we received the document and it was issued with the notes.***

Sadly, additional deaths and injuries have occurred since the opening of the season in July, a total of 13 divers have died and 30 have become disabled. AMHBLI will have a meeting with Inter-American Commission in Tegucigalpa regarding ongoing Human Rights complaint. Steve Box commented that the rate of death for diving is 800/100,000, seven times more dangerous than the most dangerous fishery in US, which is the crab fishery 120/100,000, making diving the most dangerous occupation in the world. Wendy Goyert inquired about outreach to the divers about the dangers of this occupation and if there had been trainings done for dive safety. Jenny commented

that both had been done to varying degrees, but as long as there was a lack of alternatives livelihoods, diving will continue. Steve Box further commented that boat captains held a lot of the responsibility for injuries and death, some trained their divers and haven't had a single dive accident, while others are more reckless.

The hyperbaric chamber in La Ceiba officially closed as of late August. Some of the divers have been moved to Roatan in the Bay Islands; although, it is more expensive to be treated there and there is uncertainty about how the divers can afford to pay for services. This chamber is not accustomed to deal with Miskitos divers or injures of this severity from decompression; usually the chamber in Roatan deals with diving accident from recreational scuba diving. It was noted that there is a chamber in Puerto Lempira, but it was non-functional and lacked oxygen to treat diving injuries. This chamber is managed by the local government health services and is underfunded.

It was reported that Active Divers Association is electing a new board this month and they will be talking with PRONEGOCIOS to obtain an update regarding alternative livelihoods projects.

G-FISH announced that it received a no-cost extension from USAID through December for program close-out and evaluation, but there are not sufficient funds for implementing activities. G-FISH asked if anyone on the call had an interest in convening these monthly calls to keep each other informed of what was happening on the ground. Meghan Jeans thanked Jenny for convening the calls and stated that they been really valuable to have insight into what is going on the ground. If someone was interested in keeping the momentum going, perhaps New England Aquarium can bring more funding to the table. Steve Box from Smithsonian Institute volunteered to continue organizing the calls. WWF also thought the calls had been valuable and she would like to see them continue.

It was announced that Darden Restaurants Inc. had set up the Fisheries Investment Fund and they would announce at the Clinton Global Initiative. It is expected that RFPs for the fund will be released by October on the National Wildlife Foundation website.

In conclusion, G-FISH is still working with USAID to see if there is an opportunity to continue the work in Honduras and Darden has been supportive of this. Although G-FISH will be open through December, they are looking to transition their work. A final newsletter will be sent out containing details about where to access information post-program. Jimmy Andino declared that there will be a separate closing event in Honduras and they will provide packages of information for all partners that have been involved with the initiative. Jenny thanked everyone for their support and collaboration and invited everyone to come to the final G-FISH reception in Washington DC.

Spiny Lobster Fishery (LAC) Call #10

October 16, 2013

The Global FISH Alliance (G-FISH) promotes sustainable fisheries and aquaculture reforms through the application of a system-wide approach that integrates governance, civil society, private sector, and environmental issues which are all essential to sustaining and improving livelihoods and biodiversity. At the 2012 Annual Meeting, G-FISH agreed to organize a monthly call for partners to update each other on activities related to the spiny lobster fishery in Latin America/Caribbean on the third Wednesday of every month at 11am EST. Partners are encouraged to share updates.

Participants

Name	Organization
Jimmy Andino	FHI 360/SLI
Jenny Barker	FHI 360/G-FISH
Nadine Bartholomew	The Good Foodie
Kevin Blythe	FHI 360/G-FISH
Ana Coelho	FHI 360/G-FISH
Nancy Daves	NOAA
Wendy Goyert	WWF
Sergio Martinez	MAREA
Augusto Rosales	MAREA
Brandon Tidwell	Darden Restaurants
Monica Valle	MRAG Americas

Agenda:

- Update from Spiny Lobster Initiative Work Group Meeting
- Update from the Darden on the Investment Fund and Honduras
- Update from WWF on the FIP in Honduras

It was noted that this is the final call that G-FISH will sponsor and Steve Box from the Smithsonian Institution will be hosting calls moving forward.

Jimmy Andino shared updates from the Spiny Lobster Working Group Meeting that took place on October 15th in La Ceiba, Honduras. The meeting was well attended with 16 Working Group members gathered to discuss issues and share information about the spiny lobster fishery. Representatives from the private sector included industry and processors, as well as a Miskito Delegation of the Active and Handicap Divers Association, members of the government including DIGEPESCA in La Ceiba, Gabriela Pineda representing OSPESCA, as well as a representative from Marine Merchant agency. Finally, representation from non-governmental organizations included

TNC, Cayos Cochinos, CME, and the Smithsonian Institution. The major topics discussed at the meeting were:

- Dive Transition - Gabriela Pineda is the new consultant for OSPESCA in Honduras and she discussed the transition plan, timeline, and amendment. She provided Working Group members with a copy of the amendment and the regional transition plan and time line. A copy of this document (in Spanish) will be distributed. While the new transition included an action plan to close diving, no specific deadlines or end date were provided and this was a concern for those in the meeting. Additionally, the current language does not prevent a further extension, which was also highlighted. Elections are going to take place on November 24, and Working Group members decided that they are going to talk more in detail with the new administration about this issue once they take office in January. Another point of concern was that no activities have started although the plan went into effect on July 1st. The private sector stated they will move forward to transition on their own. There are 4-5 owners who are going to move forward with transitioning their boats however, they are in need to financial and technical assistance to see if there are funds available to transition into a more sustainable fishery. Industry agreed that the strongest "lever" of influence are markets, not the government.
- Fishery law - In Congress, contacts for the government stated that they feel the fishery law can still be approved in the 2013 term. The bill has been well socialized and endorsed by several members of Congress and they don't anticipate any major obstructions.
- Dive Association - The President of the Disabled Divers Association provided a public statement that there have been 15 deaths in the past three months and that 26 people have been injured (revised from 30 reported earlier as a few received successful treatment). All treatment is being done in the hyperbaric chamber on Roatán. On October 24, the Association will have a meeting in Tegucigalpa and they are going to pursue a lawsuit against the Government of Honduras due to the continuation of diving and deaths/injuries in their community.

Darden Restaurants provided an update about the Investment Fund for fisheries. Information about the fund and Honduras has been released and is generating good interest. They are still working on documentation to issue about the fund. Once finalized, RFPs will go up on the National Fish and Wildlife Foundation's (NFWF) website for 45-60 days. They hope to have RFPs up by the end of October or early November. At the present time, they have raised about 20-25% of total annual funds requested (appx. $1M) to address issues in the fishery. After proposals are submitted, an announcement will be made in March with funds available in April.

Additionally, Darden reported that they had sent a letter to the USAID Honduras Mission Director in August encouraging USAID to invest and partner with them. USAID responded stating that they want to partner and get investment at the regional level and they have been giving the green light from the regional mission to look into opportunities. USAID requested a meeting in December following the elections to explore options. The meeting has been set for December 10-12 in Roatán, Honduras and Darden and NFWF plan on attending. USAID mentioned that Darden can bring other partners to the meeting as well. As of now, few details about the meeting have been provided besides location and date but additional details will be shared.

G-FISH thanked Darden for their involvement and commitment with the Spiny Lobster Initiative and their request to USAID to continue the partnership. While future partnership with USAID is undecided, Darden is planning to move forward with their investment in Honduras with the Walton Family Foundation and NFWF. NOAA asked for NFWF to discuss with them as well. Others industry

members have noted interest in traceability and there are interesting models to coordinate with and align efforts. The NFWF fund (and FIPs in general) primarily focuses on environmental outcomes so there is a need to invest in the social and economic issues. Other efforts do not necessarily have to be done through the fund, but can also be done in parallel. USAID investment will likely be in parallel.

WWF provided an update on the lobster trap FIP in Honduras. They reported that they had created national multi-stakeholder committee, including 12 members from different sectors, to advance some of the goals of the FIP. A meeting was held in June in Tegucigalpa, though some of the processors were not able to attend. They plan to organize a second meeting in October in Roatán. The purpose of the committee is to define action plans and priorities and to monitor progress. They are currently waiting to get the schedule from DIGIPESCA for a date before the elections. Darden offered to participate in the meeting if it was around the same time they are going to be in Roatán to meet with USAID.

NOAA stated that they had contributed funds for a regional stock assessment of the spiny lobster in the Caribbean. This will be a scientific piece for the wider Caribbean that will include estimates of illegal fishing.