

## G-FISH: A SYSTEMS APPROACH TO SUSTAINABLE FISHERIES USING VALUE CHAIN ENGAGEMENT AND IMPROVED SOCIAL COHESION

The Global FISH (Fisheries for Improved Sustainable Harvest) Alliance, or G-FISH, was a five-year, USAID-funded cooperative agreement to promote sustainable fisheries practices using a “systems approach.” Demonstration of the approach—together with a better understanding of its strengths and challenges—was central to USAID’s goal. The project was accountable for measurable conservation-related goals and used indicators and evaluated progress specifically related to improved stakeholder relationships and increased social capital surrounding responsible management of fisheries.

The majority of development efforts aim to improve or reform systems that are complex and often seem intractable. Virtually all development projects adhere to the principle that local problems require locally-driven solutions. Nevertheless, most are driven by a technical assistance agenda designed and delivered by external experts. However, the usual reform model does not engage with the whole array of actors, institutions, and forces. The Global FISH Alliance promotes sustainable fisheries practices through the application of a system-wide approach that balances economic, environmental, governmental, and social components essential to enhancing livelihoods and biodiversity.<sup>1</sup>

### *Social Capital & Social Cohesion*

*Social capital* refers to the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions. Increasing evidence shows that *social cohesion* is critical for societies to prosper economically and for development to be sustainable. Social capital is not just the sum of the institutions which underpin a society – it is the glue that holds them together. - WB

G-FISH demonstration projects took place in **Cambodia, Honduras, and Mozambique** between 2009 and 2013, for periods of two to four years. USAID’s goal for these programs was to implement ecosystem-based approaches<sup>2</sup> to fisheries reform through strategic partnership with private industry, governments, donor organizations, philanthropic institutions, civil society, communities, and fishers. Resilient and sustainable fisheries - and the livelihoods, communities and economies they support – depend upon healthy and biodiverse ecosystems.

G-FISH was also committed to an extensive learning agenda to promote greater awareness and understanding of fisheries issues in the developing world — reaching out to country stakeholders but also to national governments, donors, and the broader international development community.

<sup>1</sup> G-FISH was supported by the Office of Forestry and Biodiversity in the Bureau of Economic Growth, Education and Environment with biodiversity funding.

<sup>2</sup> Ecosystem-based management is an environmental management approach that recognizes the full array of interactions within an ecosystem, including humans, rather than considering single issues, species, or ecosystem services in isolation (Christensen et al. 1996, McLeod et al. 2005)

Among its key achievements:

- G-FISH ensured that nearly 330,000 hectares of biologically diverse ocean and fresh water were better managed—from ecological, economic, and social perspectives. Using social network analysis to measure impact in the field, G-FISH demonstrated the importance of social cohesion to improved fisheries conservation and management.
- G-FISH carried out knowledge management activities (research studies, in-person and online courses, international fora, and received coverage by the *NY Times* and *SeafoodSource.com*) to promote greater awareness and understanding of developing country fisheries issues. For example, G-FISH initiated new ecosystem-based fisheries management Fisheries Leadership Institute that is now self-financing at the University of Rhode Island (URI) and in person and on-line training for USAID staff on fisheries management.
- The value of USAID's investment was more than doubled through cost share and leverage with other organizations.
- G-FISH inspired our major private sector partner, Darden Restaurants, to expand and continue its leadership role in promoting sustainable fisheries in Central America.
- G-FISH was one of four forestry and biodiversity programs highlighted by USAID in its FY2013 submission to Congress.



## FISHERY SYSTEMS—LOCAL AND COMPLEX

### OPPORTUNITIES

Fish export and trade is a major source of income for developing countries, representing close to 50 percent of global fish exports, and annual net revenues exceeding US \$25 billion. Moreover, small-scale near-shore fisheries represent 96 percent of all fishers worldwide and approximately 60 percent of all catch. Local food security is strengthened through the nutritional contribution of fish to the family diet.

According to the Food and Agriculture Organization:<sup>3</sup>

- Capture fisheries and aquaculture supplied the world with about 148 million tons of fish in 2010 (with a total value of US\$217.5 billion), of which about 128 million tons was utilized as food for people. Fish is a major source of protein for more than 2.6 billion people in the developing world.

<sup>3</sup> United Nations Food and Agriculture Organization. *The State of World Fisheries and Aquaculture*. 2012.

- Fisheries and aquaculture provided income for an estimated 54.8 million people engaged in the primary sector of fish production in 2010, of which an estimated 7 million were occasional fishers and fish farmers. Fisheries and aquaculture also provide 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. These jobs are estimated to support the livelihoods of 660–820 million people (employees as well as dependents), or about 10–12 percent of the world’s population.

Studies have shown<sup>4</sup> that *sustainable fisheries*—managed to preserve the integrity of marine life and the health of the ecosystem in freshwater and coastal communities—can improve livelihoods in these communities and provide a strong competitive advantage for the national economy.

#### Global FISH Alliance Members

Conservation International  
 Darden Restaurants, Inc.  
 Environmental Defense Fund  
 FHI 360  
 National Fisheries Institute  
 Seafood Choices Alliance  
 Sustainable Fisheries Partnership  
 The Nature Conservancy  
 University of Rhode Island Coastal  
 Resources Center  
 U.S. Agency for International  
 Development  
 Wildlife Conservation Society  
 WorldFish Center  
 World Wildlife Fund

## CHALLENGES

The fishing industry is one of the most neglected by governments in developing countries and is subject to abuses in the form of over-fishing, unrestricted access, destructive fishing practices, poor management, and under-funding. Inadequate security, enforcement, and access agreements have led to billions in lost revenue for sub-Saharan Africa fisheries, in particular. Women, indigenous peoples, and ethnic minorities in coastal communities are actively involved in near shore capture fisheries enterprises and these under-represented and often marginalized people in society are particularly vulnerable to adverse social and economic effects of the industry.<sup>5</sup>

The reforms necessary in the fishing industry are often critical to both protecting the delicate ecosystems and viability of marine life in coastal areas, and to protecting the livelihoods, health, and welfare of local populations. To be successful, these reforms must go forward in tandem.

## ALLIANCE SUPPORT AND THE SCALE APPROACH

The Alliance included 13 partners at the global level with the combined expertise to support the needs of fishery system reform. Ranging from nonprofits, to universities, to private industry, they brought deep experience in fisheries management, marine conservation, biodiversity and coastal

<sup>4</sup> Sunken Billions: The Economic Justification for Fisheries Reform, World Bank the Food and Agriculture Organization, 2008.

<sup>5</sup> Fisheries Opportunities Assessment. Coastal Resources Assessment Center, University of Rhode Island, and Florida International University. Dec 2006, [http://www.crc.uri.edu/download/Fish\\_Opp\\_Assess\\_Final\\_012607\\_508.pdf](http://www.crc.uri.edu/download/Fish_Opp_Assess_Final_012607_508.pdf)

adaptation to climate change, economic development and ecotourism, alternative livelihoods, and the processes of system change.

Unlike the usual USAID project, however, Alliance members did not join with preconceived ideas of a “level of effort” in the project, but rather with a commitment to collaborate when and where needed.

The commonality in all three sites was facilitation by FHI 360 of an overall process for engaging stakeholders in joint decision-making and action to support system-wide reform. The SCALE <sup>6</sup> methodology (System-wide Collaborative Action for Livelihoods and the Environment) has been refined by FHI 360 over the last 15 years. It involves first **mapping the system** (a participatory exercise to understand the value chain and identify key elements/groups and opinion leaders) as well as identifying a local Working Group; **defining common ground** to reach consensus on goals (through an all-stakeholder forum known as Whole System in the Room<sup>7</sup>); **committing to specific short- and long-term actions** (by individual groups, in support of the goals); **supporting technical needs and social change strategies** (by Alliance members, to meet gaps stakeholders identify together); and **catalyzing connections** (by encouraging collaboration and improved communication throughout the program).



Figure 1: WSR Cambodia

Through this process, stakeholders within the system take ownership of their “program.” A local, cross-sector Advisory Committee is formed at the beginning and provides leadership and ensures accountability. Through one-on-one meetings with key stakeholders during the first month of the project, the project identifies leaders willing to represent their stakeholder group on the committee. One representative of each stakeholder group is necessary to form this committee. The project convenes the group of representatives on a weekly basis. This Advisory Committee makes all decisions about the content of the WSR: the topic/theme for the event, the stakeholder groups, the individual representatives who will participate, the location, and the timing. The WSR workshop is a tool to include the social system related to an issue in a change process that they own and shape. It provides a forum where representatives of diverse stakeholder groups can: 1) Develop a common vision about the issue; 2) Analyze the current reality and decide what needs to change; 3) Generate ideas about how and what to change; and 4) Commit to short-term (three months) and long-term (three years) implementation plans towards the common vision. The WSR principles set the stage for a different kind of event because the whole system participates -- a cross-section including people with “authority”, “resources”, “expertise”, “information”, and need. That means more diversity and less hierarchy than is usual in a working meeting, and a chance for each person to be heard and form strong relationships with others.

<sup>6</sup> Intro to SCALE: <http://rmportal.net/library/content/usaids-scale-collection>

<sup>7</sup> The WSR methodology was developed by AED adapting Future Search.

### THREE DEMONSTRATION PROJECTS

USAID selected demonstration sites on three different continents representing quite different systems: an export fishery (in Honduras), fresh water subsistence fishery (in Cambodia), and artisanal fishery (in Mozambique). The sites are all extraordinary in terms of their biodiversity. Marginalized populations, including indigenous ethnic groups, also play important roles in all three fishery systems.

G-FISH worked with USAID to create a results framework that would describe expected pathways for achieving the program's strategic objective of *improved management and conservation of fisheries*. G-FISH tracked indicators for three outcomes:

- Increased social capital and demand for sustainable and responsible management
- Ecosystem-based approaches applied
- Social and economic incentives for conservation increased

Agreement between the donor and program implementers to include the first outcome (*changes in social capital*) "of measurable importance" changed the tenor of the development effort. Designing indicators for, and measuring changes in, social capital was a unique achievement under G-FISH.

#### CAMBODIA

The Tonle Sap is the largest freshwater lake in Southeast Asia and supplies up to 70 percent of the Cambodian population's protein intake. The lake is home to floating villages and provides subsistence living to poor fisher families of both Khmer and Vietnamese origin. The Tonle Sap is threatened by overfishing, increased commercial activities bringing pollutants into the lake, and export demands that compromise fisheries conservation. During the dry season the lake shrinks, and destruction of the flooded forest areas for rice cultivation is reducing spawning grounds. Poor sanitation by residents of floating villages is also undermining the Lake's environmental health. G-FISH was active in Cambodia working on the Tonle Sap Lake from 2011 to 2013.

The initial request to work in Cambodia came from G-FISH Alliance member, WorldFish Center, in partnership with the government of Germany (GIZ) and Adelphi Consulting in carrying out a program to strengthen aquatic resources

The Mekong region is a biodiversity hotspot, whose magnitude is still being revealed. For example, in the last decade more than 279 new species of fish have been discovered in this basin (WWF 2009). According to the WorldFish Center, the Mekong River is second in the world for its freshwater fish diversity. 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. The lake's biodiversity underpins the livelihoods of much of the population that lives in the five provinces abutting the lake (about 2.9 million people, or one quarter of the country's total population). It is a major source of protein for Cambodia's population as a whole.



governance.<sup>8</sup> New management structures were badly needed in light of a decision by the Fisheries Administration (FiA) to transfer responsibility for conservation areas to communities. These groups have struggled to patrol and manage areas that are poorly marked, while themselves lacking training, resources, and enforcement capability.

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## BUILDING SOCIAL COHESION AND AWARENESS

G-FISH worked to build trust between the communities around the lake and the government, adopting the role of a neutral mediator and facilitator of joint activities. Engagement of civil society in Cambodia can be challenging in view of the country's history. Early attempts to improve communication between groups were difficult. But by the end of the program, G-FISH staff was respected for its role in this process.

Ten stakeholder groups were represented at the initial WSR in 2011, including commune leaders, researchers, members of the private sector, NGOs, women's groups, the Coalition of Cambodia Fishers (CCF), FiA, government enforcement agencies, and the media. The retreat culminated in agreement on five goals supported by newly formed Task Forces.

The Task Forces decided to focus work in the Phat Sunday Commune of Kampong Thom Province in order to create a model for cooperation that might be replicated later around the lake. As G-FISH began working with the floating villages of Path Sanday, a working group of fishers, community leaders, local NGO extension agents, and government officials was formed to mobilize community members and build support.



Figure 2: Tonle Sap Lake

Communities had little understanding of their responsibility for fisheries management or their role in conservation—requiring extensive awareness-raising. In collaboration with FiA, the CCF, and the Task Forces, G-FISH helped launch a Speakers Series, monthly newsletters, and a radio program to share information with communities on the conservation of flooded forest areas and legal fishing methods.

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## PROMOTING CONSERVATION AND ENVIRONMENTAL PROTECTION

During G-FISH, 340 hectares on the Tonle Sap became better managed through patrolling activities, demarcation of protected areas with concrete poles and signage, and replanting of flooded forests (flooded vegetation and terrestrial plants important as fish food<sup>9</sup>).

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<sup>8</sup> The full name of the multi-country program is “Strengthening Aquatic Resources Governance: Institutional innovation to build livelihood security and reduce conflict in the Lake Victoria, Lake Kariba, and Tonle Sap/Lower Mekong Ecoregions” (STARGO).

<sup>9</sup> Ian G. Baird, FISHES AND FORESTS: THE IMPORTANCE OF SEASONALLY FLOODED RIVERINE HABITAT FOR MEKONG RIVER FISH FEEDING, *AT. HRSR. BULL. SIAM SOC.* 55(1): 121-148, 2007

In the Phat Sanday Commune, G-FISH identified the Fisheries Action Coalition Team (FACT), a local conservation organization, to strengthen management by Community Fisheries (CFi) and community base organizations (CBO). FACT coordinated with government officials, local authorities, environmental officers, and members of the fishing community to raise awareness of laws and regulations and built the capacity of local community groups in resource preservation. FACT also successfully mobilized the first ever replanting effort in Path Sanday. Over 11,000 seedlings were nurtured and replanted by local students, fishers, and members of local authorities and government agencies. Literally everyone lent a hand—from monks to security guards and community members. FACT also erected 12 educational sign posts and 18 concrete poles around the conservation area. Fishers and authorities self-reported that flooded forest and illegal fishing activities reduced remarkably (estimated 70%) in the Phat Sanday commune.

*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

G-FISH helped introduce a new joint government/community patrolling model. CFi's committee members, fishers, and patrol group members began working together on regular patrols over fishing domains and conservation areas in Kampong Thom Commune in 2013. Over the course of just three months, government officials, together with communities, were able to conduct repeated patrols over 32 defined areas. In just two months, patrol teams recorded 94 illegal fishing activities and issued warnings and destroyed illegal fishing gear. During that time, they also found evidence of three flooded forest fires and two localized deforestation efforts in flooded forest areas.

## MOZAMBIQUE

Pemba Bay is part of the Quirimbas Archipelago, which consists of 32 coral islands stretching from Pemba (the capital of Cabo Delgado Province) to the Rovuma River—which forms the natural frontier between Tanzania and Mozambique. It occupies a total combined area of 7,500 square km and stretches over 110 km of coastline.

While the area is one of the most biologically diverse coastal areas remaining in southern Africa, it is not well-managed and over-exploitation of coastal and marine resources is the most direct threat to biodiversity. Open access and non-selective and illegal fishing techniques are key threats. Pemba Bay is also suffering from increased pollution and salinity due to human activity, including destructive agricultural practices

Mozambique is a country rich in natural resources, including marine resources found along its 2,700 km coastline. Mozambique possesses both inland and coastal sites of high biodiversity importance. Fisheries are a key element of maintaining biodiversity and an essential natural resource for ensuring food security, reducing poverty, and promoting proper nutrition in the country. The majority of Mozambicans are food insecure. Fish provides 21.6 percent of the average animal protein for the population.

and unsound coastal development in connection with from recently discovered natural gas reserves. G-FISH was active in Pemba Bay from April 2011 to September 2013.

As in Cambodia, local communities were mistrustful of their own government at the start of the project and also had mixed experiences with programs supported by the U.S. government. Prior to G-FISH, members of the Community Council of Fisheries (CCPs) from the three jurisdictions around Pemba Bay did not talk to each other.

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#### BUILDING SOCIAL COHESION AND AWARENESS



Figure 3: Fisher Pemba, Mozambique

G-FISH invested significant resources in capacity building and developing community trust—not only with local authorities but among CCPs.

Participants representing eight stakeholder groups—government, fishermen, community leaders, researchers, middlemen, NGOs/associations, the private sector, and the media—joined a Whole System in the Room retreat in June of 2011 and agreed to eight common goals. However, the strongest commitment emerging from the event, and eventually the driving engine of the project, was that of a newly formed Conservation Committee consisting of community, government, and CCP members. It became known locally as *Iniciativa Local para o Desenvolvimento da Pesca Sustentavel na Baia de Pemba*, or just *Iniciativa Local*.

Early in the process many of the members focused on airing grievances or making demands, while later meetings evolved into efforts to define consensus actions and needs for capacity building. Over time, the number of women participating in meetings doubled due to program efforts to expand representation. Members would travel up to eight hours to attend a meeting.

G-FISH responded by supplying over 2,000 person hours of capacity building for the CCPs. The program also worked to educate communities around the Pemba on fisheries rules and regulations and the role of the community and CCPs in co-management and governance of associations.

In September of 2013 prompted by the close of the project, the Conservation Committee registered *Iniciativa Local* as an association and will continue to provide community leadership despite receiving no external funding—a testament to increased social capital in the fisheries system. Currently there is no other local or international organization dedicated to fisheries management in the Pemba region.

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#### PROMOTING CONSERVATION AND ENVIRONMENTAL PROTECTION



Given the size and biodiversity of the Pemba area, G-FISH engaged Wildlife Conservation Society (WCS) to conduct ecological surveys to lay the ground for scientifically sound decision making. These were carried out in 2012 and also in 2013. Some sites showed signs of degradation (low coral cover, high erect algal cover, abundance of sea urchins, or low fish biomass.) Because of the scoping exercises, WCS was in position to support receptive communities to begin putting fishing restrictions in place. WCS also provided sample by-laws for CCPs to “activate” the structure of governance. *Iniciativa Local* began working regularly with Gimpia CCP to facilitate a pilot protected area. Following some initial skepticism, the CCP selected a site adjacent to the Londo tourism lodge—approximately 18.7 square km of coastal reef.

WCS provided technical assistance in developing a management plan based on the scoping research, the CCP’s objectives, and discussions with representative of the community near the proposed conservation zone. The CCP of Gimpia declared a conservation area based on G-FISH efforts. A secondary objective was to strengthen the management capacity of the Gimpia CCP. Five key management programs were detailed in their agreed-on plan: fisheries management, biodiversity protection, surveillance and enforcement, stakeholder engagement, and community welfare programs. WCS researchers published results and lessons from their work with G-FISH in Pemba in the *African Journal of Marine Science*.<sup>10</sup>

## HONDURAS

Fishing is the main economic activity on the north coast of Honduras. Fishing for spiny lobster has threatened marine biodiversity due to overfishing, destructive fishing practices associated with dive fishing, the impact of lobster traps on reefs, and the removal of egg-bearing females and juveniles as well as critical fish habitats.

As the U.S. market demand for lobster continues, industrialization of this fishery has become more intense. Scuba-dive fishing threatens healthy lobster stocks and biodiversity, including important fish habitats. This form of fishing is also extremely dangerous for the divers, who dive deeper, longer, and more frequently as stocks decrease—causing injuries, disabilities, and death. More than 5,000 lobster divers work in this fishery and approximately 2,000 have been injured; hundreds have died from decompression sickness due to unsafe practices. Most of these divers belong to indigenous populations from the Miskito Coast—an area of dense rainforests, few roads, and poor communication with the rest of the country.

G-FISH started work in Honduras in 2009 and continued for four years, making it the longest running demonstration site. Managing Alliance partner Darden Restaurants, Inc. worked with the Spiny Lobster Initiative from its inception and it was part of a commitment it made as part of the Clinton Global Initiative.

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<sup>10</sup> McClanahan, T.R., Cinner, J. & Abunge, C. (2013) Identifying management preferences, institutional organizational rules and attributes, and their capacity to improve fisheries management in Pemba, Mozambique. *African Journal of Marine Science*, **35**, 47-56.

For G-FISH, a major challenge was to stimulate collaboration between communities and the private sector (including commercial trap and dive boats). Participation by government was also crucial because of the low priority given to fisheries and outdated national and regional policies.

The Spiny Lobster Initiative (or SLI) engaged a total of 123 organizations as part of the fisheries system in Honduras. The Whole System in the Room retreat in June of 2009 identified 11 common goals, ranging from expansion of the market, to integrated development in the Moskitia, to compliance with a regulatory framework, and protection of marine resources through management tools. A Working Group representing stakeholders along the entire value chain met regularly for more than four years to provide ownership of the process.

Better awareness and education across multiple audiences underpinned all 11 of the agreed-on goals. G-FISH supported a broad dissemination plan including:

- More than 25 thematic workshops with more than 1,400 participants from different sectors to bring greater attention to conservation and safety issues
- An exchange visit to Belize for Miskito divers and their Governor where they were able to best practices regarding artisanal fisheries and local management in lobster diving
- A social marketing campaign to promote awareness among consumers, including a video<sup>11</sup> and poster with the message that a responsible buyer and consumer knows the source of their seafood

Indigenous Miskito communities were among the most active partners in the G-FISH initiative. In 2011, leaders from the Active and Handicap Miskito Divers Association joined the Working Group, and they have continued to negotiate for better labor and diving practices as well as alternative livelihoods.

In order to understand the changes in social capital and social cohesion that took place during these years, G-FISH commissioned the University of California-Davis to conduct social network

The Mesoamerican Reef is unique in the Western Hemisphere, not only for its size, but because of its array of reef types and corals. It hosts more than 65 species of stony coral and more than 500 species of fish. In Honduras, most spiny lobsters come from the Miskito Coast, or La Moskitia, the most impoverished region in one of the poorest countries in the Western Hemisphere. However, high demand, poor resource management, and the collection of immature lobsters have led to overfishing.

Poor labor practices have led to disabilities and deaths among the divers—mostly poor indigenous Miskito Indians. There are currently over 1,000 disabled divers and over 10 deaths per year, according to a recent assessment by the Center for Marine Ecology, a Honduran-based organization. Labor laws are weak and there is no accountability placed on vessel owners and boat captains for scuba diving-related injuries.

<sup>11</sup> See the video at: <http://www.youtube.com/watch?v=-5291u2CJG4>

analysis (SNA) using survey data collected by the SLI. The report, found substantial evidence that the network of social relationships was breaking down sector-based “silos” and had become less hierarchical—making long-term collaborative action to reform fisheries more feasible and more likely.

#### PROMOTING CONSERVATION AND ENVIRONMENTAL PROTECTION

SLI worked to ensure 311,000 hectares were under improved management as a result of the project. Since its inception, the G-FISH initiative in Honduras has been promoting passage of an updated fisheries law (the current law is more than 50 years old), which now is out of committee and pending debate in the Congress. It contains indigenous rights-use language and promotes ecosystem-based management of fisheries. Over the course of nearly five years, SLI facilitated the development of at least 25 policies and agreements.



Figure 4: Dive boat in Honduras

G-FISH SLI and partners worked to establish a marine territory for the exclusive use of artisanal fishing for Honduran indigenous Miskito population. In an effort to establish an ecosystem-based approach to management of fisheries and empower marginalized groups, SLI has been working with the Center for Marine Ecology and the Nature Conservancy to establish an indigenous rights-based artisanal fishing zone, combined with designated no-take zones in the Miskito Cays. The reserve will be 15,400 km<sup>2</sup>, approximately 1.5 million hectares, and within this area, it is proposed that 20 percent be declared as no take zones.

The program will work specifically on building the ability of fisher 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.



Figure 5: Spiny lobster diver

As part of the Clinton Global Initiative, Darden Restaurants requested that G-FISH assist with an assessment of opportunities for fisheries improvement projects in Honduras. Based on this assessment, the National Fish and Wildlife Foundation developed a new fund for fisheries reform with current funds from Darden and the Walton Family Foundation.

By project end the G-FISH and SLI had leveraged approximately \$200,000 from private sector partners. They succeeded in putting issues related to the industrial scuba dive fishery front and center in Honduras, which also led to meetings with the US Ambassador to Honduras to prioritize the issue in the U.S. government’s agenda.

## KNOWLEDGE MANAGEMENT

A central objective of G-FISH was to advance global knowledge about community-driven methodologies for sustainable fisheries management. The three country demonstration projects contributed directly to this objective. G-FISH was also committed to an extensive learning agenda to promote greater awareness and understanding of fisheries issues in the developing world—reaching out to country stakeholders but also to national governments, donors, and the broader international development community.

The primary goal of knowledge sharing by and among the Alliance members was to build program quality and improve scalability, thus *improving the state of the practice*. The secondary goal was to share *collective learning from implementation* and maintain a regular flow of information to partners and the wider fisheries community about better management practices. This two-part agenda led to a stream of strategically-driven activities and products.



Figure 6: Students in Pemba, Mozambique

## COLLABORATION WITH ACADEMIC INSTITUTIONS

As part of its effort to support capacity building for fisheries management globally, G-FISH developed courses at the Summer Institute on Sustainable Fisheries Leadership hosted at the University of Rhode Island (URI) Coastal Resources Center (CRC) supported a *Leadership in Fishery Management Summer Institute* in 2010. Participants attended from 12 countries and, during the three-week course, developed an ecosystem-based fisheries management plan to implement in their own countries. Since then, it has become part of a regular URI course offering.

To provide USAID staff and others with information to promote fisheries programs, G-FISH developed a one-day training course introducing fisheries issues and their importance to development objectives such as food security, economic growth, poverty reduction, governance, and biodiversity conservation. The course includes information on the SCALE approach. From the in-person course, an on-line, introductory fisheries management course was developed with assistance from URI.<sup>12</sup>

## FISHERIES MATERIALS

### *Awareness Videos*

<sup>12</sup> The course can be found on the USAID NRM portal at <http://lms.rmportal.net/course/view.php?id=46>.



The *Know Your Source* social marketing campaign featuring Honduras promoted awareness of seafood sustainability amongst buyers and consumers about issues surrounding their lobster purchases. The Know Your Source website had 655 visits per month from 25 different countries.

G-FISH developed a short *Fisheries Matter.* video to inform USAID and the general public about the complex nature of fisheries and their importance to food security, nutrition, economic development, livelihoods, and the environment, and the importance of conserving biodiversity to healthy and productive fisheries.<sup>13</sup>

### *Engaging the Private Sector for Sustainable Seafood: Insights and Lessons Learned*

G-FISH developed a seafood industry engagement document for USAID staff on how to engage private companies in the seafood industry in dialogue and how to build public-private partnerships that promote sustainable fisheries. It includes best practices with seafood industry stakeholders to drive responsible practices in the marketplace.

### *Fish and Food Security Fact Sheets and Newsletter*

G-FISH compiled eight fact sheets about the importance of fish and fisheries in food security, economic development, and livelihoods in Ethiopia, Ghana, Kenya, Malawi, Mozambique, Senegal, and Uganda.<sup>14</sup>

Starting in 2010, G-FISH disseminated a quarterly newsletter, *G-FISH Tales*, for Alliance partners and friends about program activities.

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## INTERNATIONAL CONFERENCES

In 2012, G-FISH participated in three panel discussions at the Seafood Summit in Hong Kong highlighting work in the demonstration sites. In 2013, G-FISH was invited to present on the Spiny Lobster Initiative at the International Conservation Congress. G-FISH attended the annual International Boston Seafood Show and the World Oceans' Summit hosted by the Economist.

## CONCLUSION

In its relatively short life, G-FISH maintained a sharp focus on long-term goals and the processes necessary to achieve them. The Alliance used new indicators (and more traditional tools to measure adoption of ecosystem-based approaches) to assess changes in stakeholder engagement and social capital—which is critical for bringing about improvements in local systems for fisheries management.

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<sup>13</sup> Video can be seen here: <http://www.youtube.com/watch?v=Z0anMZtyBgw>

<sup>14</sup> <http://www.globalfishalliance.org/resources.html>

G-FISH also worked with fisheries experts to analyze overall impact and reflect on lessons learned from the program. This effort was led by Dr. Patrick Christie, a fisheries expert from the University of Washington. The assessment concluded that the project approach was ambitious and fundamentally sound, that significant progress had been made in each country context, and that continued investment was warranted:

*'...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.'*



Figure 7: Miskito Coast, Honduras

The assessment also noted that stakeholders in the three complex and very different local fishery systems had moved from relationships typified by mistrust, tension, and poor communication, to new ways of working.

*"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. "*

FHI 360 gained invaluable experience about the technical implementation and facilitation skills essential to improving collaborative fishery management programs, as well as the sensitive balance that must be struck among overall investments in planning, communication, and action at multiple levels to support improved and sustainable fisheries management.

For more information, see [www.globalfishalliance.org](http://www.globalfishalliance.org).