ALLFISH Implementation

Global Environment Facility

May 2014



ALLFISH Initiative Discussion Points

- Introduction of ICFA
- > Brief background on The Bank/GEF support of ALLFISH
- Case studies of ALLFISH-supported initiatives
- Conclusions about the unique benefits of ALLFISH

International Coalition of Fisheries Associations Membership

Coalition of fisheries associations supportive of sustainability initiatives and ensuring the harvesting sector voice is heard in international debates

> Canada France Iceland Lake Victoria Netherlands Norway Spain United Kingdom Vietnam

Denmark Japan Morocco New Zealand Peru Taiwan United States

New ICFA members since advent of ALLFISH program

NFI manages the ALLFISH project for ICFA

The Bank/GEF Support of ALLFISH Initiative Brief Background

> World Bank and ICFA entered ALLFISH partnership in 2008

- Slow to develop due to lack of alignment of purpose, but accelerated rapidly in last four years
- Funded by World Bank and Global Environment Facility
- McClurg Report (World Bank audit):

Rather, the evolution of ALLFISH has been from a planned monolithic public-private partnership into a forum where a number of particular private-public partnerships were brokered and refined. ALLFISH has proven the potential of such a forum wherein partnerships would be customized around particular fisheries development or management propositions where the private sector was the primary protagonist. Existing ALLFISH Partners may consider participation in, or association with, such a forum and such participation would flex depending on the composition of the projects under analysis.

Perhaps the most valuable output form ALLFISH has been the experience it has provided PROFISH in public-private partnership. ALLFISH provides critical insights into the design of such partnerships. ALLFISH demonstrates the fundamental differences in private and public sector approaches to problems, the design and implementation of projects.

The Bank/GEF Support of ALLFISH Initiative Projects

Knowledge

"On Water" Projects

EMS disease

Global	FPIs Sustainability standards benchmark Seafood sector analysis	RFMO training w/ISSF
Africa	Lake Victoria cross border trade	Moroccan pelagic FPI's Madagacar aquaculture Mozambique white spot disease
Americas		Amazonian white fish Baja scallops aquaculture trials
Asia		Lesser Sunda pelagics TURF demonstration Blue swimming crab

- Situation: Blue swimming crab harvest levels and crab size diminishing, threatening long term economic health of harvesters, processors and rest of supply chain
- <u>Goal</u>: Ensure longer term sustainability of blue swimming crab. Ensure economic growth in producing countries.
- <u>ALLFISH Investment</u>: Total \$170k over 3 years to develop analyze trade flows, develop business plan, and provide initial projects funding.
- Ecological Return on Investment: Importers have limited size of crab imports and established systems for berried females, both to promote reproduction. Associations advocating political reforms in fisheries management.
- Economic Return on Investment: Crabbers receiving higher price for crabs, due to larger lump. Communities more secure in long term processing jobs.
- Financial Return on Investment: More than \$2 MM in private sector resources have flowed to Council in past 4 years. Walton Family Foundation requested to fund specific additional projects. \$12:1 ROI.



NFI Crab Council has helped form 5 associations, so decisions are led from in country.



Thai Royal KKB Research Facility



Vietnam field work

Each association determines the needs most appropriate for their situation, and the NFI Crab Council funds those efforts.



Associations are urged to ensure government reform of fishery is central to efforts (Philippines (BFAR et al) formalizing Joint Administrative Order)

The Bank/GEF Support of ALLFISH Initiative Case Study: ISSF

- Situation: Uncertainty of status of global tuna stocks causing consumer confusion and threatening deselection of products, leading to negative impact on harvesters and processors
- <u>Goal</u>: Use market power and direct advocacy in support of strong science in the tuna RFMO process
- <u>ALLFISH Investment</u>: Total \$153 K over 2 years to engage skippers in developing practical solutions and to engage RFMO managers in better understanding rights based management.
- Ecological Return on Investment: Tuna skippers not wasting time and fuel on non-productive fishing grounds and hauling bycatch.
- Economic Return on Investment: Tuna skippers better able to minimize bycatch.
- Financial Return on Investment: ISSF annual budget exceeds \$2 MM in private sector fees. Numerous governments and foundations are now also supporting ISSF financially.

The Bank/GEF Support of ALLFISH Initiative Case Study: ISSF



Captains of the Spanish purse seine fleet at AZTI-Tecnalia in Sukarrieta. Six other workshops were held globally, with all focused on bycatch reduction.

The Bank/GEF Support of ALLFISH Initiative Case Study: Mexican Scallops

- Situation: Scallop harvest in decline. Lack of investment caused by wide variations in volume, resulting in fewer jobs.
- <u>Goal</u>: Shift from wild dive capture fishery and develop a scallop aquaculture production in Baja using Chinese lantern technology
- ALLFISH Investment: Initial \$110 K to test grow out possibility for bay scallops grown in Baja.
- Ecological Return on Investment: If trials successful, opportunity to rebuild and grow Baja scallop fishery. Work on zoning is planned summer 2014.
- Economic Return on Investment: Project just underway, but several large North American scallop processors now interested in potential future processing investments in area. Increasing Chinese domestic demand has created global North American market shortages, creating alternative production possibilities with shorter supply lines
- Financial Return on Investment: Project just underway, so no outside funding currently participating.

The Bank/GEF Support of ALLFISH Initiative Case Study: Mexican Scallops



Designed to help transition dive coops to cultured scallops

Noroeste Sustainable, a local NGO, is helping coordinate

Bahia Magdalena and Bahia del la Paz

Initial results expected October 2014

The Bank/GEF Support of ALLFISH Initiative Case Study: Lesser Sunda Pelagics TURF

- <u>Situation</u>: Pelagics in Lesser Sunda Indonesia were overfished due to "commons" and fisheries were losing value because of disconnected supply chain (up to 40% loss on product)
- <u>Goal</u>: Implement an Indonesian-appropriate RBM system (TURF) granting rights to fishing community. Tighten supply chain all the way to American buyers.
- <u>ALLFISH Investment</u>: \$197 K over 4 years to develop business plan, build political will, and craft TURF arrangements.
- Ecological Return on Investment: Decreased waste 40% due to modern processing. Year 1 is 2.5 MM pounds of finished products (about 10 MM meals)
- Economic Return on Investment: Eliminating aggregators increased price to fishing vessels. 4 plants planned, with 600 new employment opportunities. North American retailers seeking Lesser Sunda fish.
- Financial Return on PROFISH Investment: Private sector financing at \$2.6 MM to fund initial of 4 processing plants in region. \$13:1 ROI

The Bank/GEF Support of ALLFISH Initiative Case Study: Lesser Sunda Pelagics TURF

Price of landed fish at processing plant



The Bank/GEF Support of ALLFISH Initiative Case Study: Lesser Sunda Pelagics TURF

	From Unregulated Fishery Not Serving Community Interests	To Long-Term Asset Creation and Stewardship
<u>Efficiency</u> E-Payments to Fishermen	 50% of value of harvest lost Open access harvest Inefficient supply chain practices by collectors and aggregators Unreliable, inconsistent catch data 	 90% value capture Community Based Fisheries Management Local processing infrastructure development Real time, science based, catch reporting for data poor stock assessment
Livelihood 150 Workers per miniplant 45000 fishing families	 Opaque, delayed payments to fishermen (little power) Aggregators provide predatory loans to fishers at high interest Unregulated vessels and gear type Wealth extraction No safety at sea 	 Export pricing transparency, EFT /24 hour pay, and direct access to market information Banking office at each mini plant will provide MFI/SME loans with full transparency Regulated vessel and gear type through licensing and community enforcement Community wealth development through fishing revenue capture and alternative livelihoods Fishermen will be provided with a hand held VMS tracking system and weather alert
Conservation Reliable data collection Community based reinforcement	 Lack of biomass data Unreliable information and no sustainability incentives Dated/lack of knowledge results for unsustainable capture Aggregators lack chain of custody and traceability information 	 Biomass stock assessment Establishment of maximum sustainable yields and effort control Continuing community education on sustainable practices and economic incentives On site stock data collection/real time stock data dissemination / full traceability/streamline supply chain

The Bank/GEF Support of ALLFISH Initiative Case Study: Lake Victoria Fisheries

- Situation: Lake Victoria fisheries is a wild Nile Perch, tilapia, and Dagaa ("Mukene"). The World Bank and EU invested heavily in a management plan for the 3 African countries.
- Goal: Carry out first border sampling of fisheries exports from Uganda, and determine effect of "Informal Cross Border Trade" on Fisheries Management Plan
- <u>ALLFISH Investment</u>: Initial \$50 K to carry out study with international and Ugandan consultants.
- Ecological Return on Investment: Better understanding of how cross border trade negatively impacts fisheries management plans, resulting in recognition of need to account for this trade
- Economic Return on Investment: Excellent view of status of fishery, insight into the negative impact of the "Informal Cross Border Trade" on fisheries management plan

The Bank/GEF Support of ALLFISH Initiative Case Study: GSSI

- Situation: Too many producers are developing certification schemes that will not meet market expectations or some certifications schemes are too expensive for developing nations
- <u>Goal</u>: Develop an independent analysis to provide credible choices for harvesters, producers, and supply chain
- <u>ALLFISH Investment</u>: Initial \$171 K to develop business plan and initial strategy.
- Ecological Return on Investment: Harvesters and processors more likely to engage with "legitimate" certification program.
- Economic Return on Investment: Developing nations less apt to develop certification schemes that the market will never reward, saving them time, money and frustration. Harvesters and farmers less under control of monopoly certification model, by creating credible choice.
- Financial Return on Investment: GIZ has committed to match industry investment. To date, industry has committed more than \$1.3 MM to GSSI. \$8:1 ROI.

The Bank/GEF Support of ALLFISH Initiative Case Study: GSSI



Market already is demanding reduced labels, yet developing nations creating new ones

The Bank/GEF Support of ALLFISH Initiative Case Study: Fishery Performance Indicators

- Situation: Too often there is singular focus on either ecological sustainability or economic sustainability
- <u>Goal</u>: Develop a simple, quick analysis mechanism to allow measurement of what characteristics enable a fishery to perform ecologically and economically
- <u>ALLFISH Investment</u>: Initial \$141 K over three years to develop and test tool. Conducted 60+ FPI analyses on wide range of fisheries (size, fish type, geographic, economically diverse, etc.)
- Ecological Return on Investment: If tool accepted, provides some indication of what industry and government managers should do to better manage stocks
- Economic Return on Investment: If tool accepted, provides some indication of what changes are need to increase economic value of the fishery or what changes financial investors might seek before investing. Vision is to engage finance community in using the tool.

The Bank/GEF Support of ALLFISH Initiative Case Study: Fishery Performance Indicators

The Fishery Performance Indicators - Outputs

• 62 components covering 11 dimensions:

- Fish Stock Health & Environmental Performance
- Harvest Performance
- Harvest Asset Performance
- Risk
- Owners, Permit Holders & Captains
- Crew
- Market Performance
- Processing & Support Industry Performance
- Post-harvest Asset Performance
- Processing Owners & Managers
- Processing Workers

The Bank/GEF Support of ALLFISH Initiative

Case Study: Fishery Performance Indicators

Fishery Performance Factors – Inputs (Enabling Wealth Creation)

Macro Factors		Environmental Performance Index (EPI)	
		Governance Indicator–Effectiveness	
		Governance Indicator–Voice & Accountability	
		Index of Economic Freedom	
		Gross Domestic Product (GDP) Per Capita	
		Proportion of Harvest Managed Under Limited Access	
		Transferability Index	
		Security Index	
	Access	Durability Index	
		Flexibility Index	
		Exclusivity Index	
Duran anta Dialata R		Proportion of Harvest Managed with Rights-based Management	
Property Rights &		Transferability Index	
Responsibility		Security Index	
	Harvest	Durability Index	
		Flexibility Index	
		Exclusivity Index	
		Participation in Harvester Organizations	
	Collective Action	Harvester Organization Influence on Fishery Management & Access	
		Harvester Organization Influence on Business & Marketing	
		Management Expenditure to Value of Harvest	
	Inputs	Management Employees to Value of Harvest	
		Management Employees per Permit Holder	
Management		Research as a Proportion of Fisheries Management Budget	
		Level of Subsidies	
	Doutionation	Days in Stakeholder Meetings	
	Participation	Industry Financial Support for Management	
		Landings Pricing System	
		Availability of Ex-vessel Price & Quantity Information	
	Markets & Market	Number of Buyers	
	Institutions	Degree of Vertical Integration	
		Level of Tariffs	
		Level of Non-tariff Barriers	
Post-harvest	Infrastructure	International Shipping Service	
		Road Quality Index	
		Technology Adoption	
		Extension Service	
		Reliability of Utilities/Electricity	
		Access to Ice & Refrigeration	

The Bank/GEF Support of ALLFISH Initiative

Case Study: Fishery Performance Indicators

Fishery Performance Indicators—Outputs

			DOMINANT
			SUSTAINABILTY
COMPONENT	DIMENSION	MEASURE	CATEGORY
Ecologically Sustainable Fisheries	Fish Stock Health & Environmental Performance	Proportion of Harvest with 3 rd Party Certification	Ecology
		Fish Stock Sustainability Index (NMFS)	Ecology
		Percentage of Stocks Overfished	Ecology
		Non-landings Mortality	Ecology
		Landings Level	Economics
	Harvest Performance	Excess Capacity	Economics
		Season Length	Economics
		Ratio of Asset Value to Gross Earnings	Economics
		Total Revenue versus Historic High	Economics
	Assot Porformanco	Asset (Permit, Quota) Value versus Historic High	Economics
	Asset Performance	Borrowing Rate Relative to Risk-free Rate	Economics
		Source of Capital	Economics
		Functionality of Harvest Capital	Economics
		Annual Total Revenue Volatility	Economics
	Risk	Annual Landings Volatility	Economics
		Intra-annual Landings Volatility	Economics
Harriagt Sactor		Annual Price Volatility	Economics
Parformanco		Intra-annual Price Volatility	Economics
Performance		Spatial Price Volatility	Economics
		Contestability & Legal Challenges	Community
	Owners, Permit Holders & Captains	Earnings Compared to National Average Earnings	Community
		Fishery Wages Compared to Non-fishery Wages	Community
		Social Standing of Boat Owners and Permit Holders	Community
		Proportion of Nonresident Employment	Community
	Crew	Earnings Compared to National Average Earnings	Community
		Fishery Wages Compared to Non-fishery Wages	Community
		Social Standing of Crew	Community
		Proportion of Nonresident Employment	Community
		Crew Experience	Community
		Age Structure of Harvesters	Community

The Bank/GEF Support of ALLFISH Initiative

Case Study: Fishery Performance Indicators

Fishery Performance Indicators—Outputs Cont.

	Market Performance	Ex-vessel Price versus Historic High	Economics
		Final Market Use	Economics
		International Trade	Economics
		Final Market Wealth	Economics
		Wholesale Price Relative to Similar Products	Economics
		Capacity of Firms to Export to the US & EU	Economics
		Ex-vessel to Wholesale Marketing Margins	Economics
	Processing & Support Industry Performance	Yield of Processed Product	Economics
		Capacity Utilization Rate	Economics
		Product Improvement	Economics
		Regional Support Businesses	Economics
		Time to Repair	Economics
		Borrowing Rate Relative to Risk-free Rate	Economics
Post Harvest Performance	Asset Performance	Source of Capital	Economics
		Age of Facilities	Economics
	Processing Owners & Managers	Earnings Compared to National Average Earnings	Community
		Manager Wages Compared to Non-fishery Wages	Community
		Social Standing of Processing Managers	Community
		Nonresident Ownership of Processing Capacity	Community
	Processing Workers	Earnings Compared to National Average Earnings	Community
		Worker Wages Compared to Non-fishery Wages	Community
		Social Standing of Processing Workers	Community
		Proportion of Nonresident Employment	Community
		Worker Experience	Community

The Bank/GEF Support of ALLFISH Initiative Case Study: Fishery Performance Indicators

While Alaska salmon is rightly highlighted as environmenttally strong and wellmanaged, it lags in economic performance.

What should change?



The Bank/GEF Support of ALLFISH Initiative Case Study: Early Mortality Syndrome

- Situation: Shrimp crops in Southeast Asia reduced by up to 30% due to EMS
- <u>Goal</u>: Identify the EMS cause, quarantine measures, mitigation steps, and long term mechanism to report animal health more readily
- ALLFISH Investment: \$125 K, reprogrammed from projects not thought to deliver as high a value. Gathered 15 leading scientist from around globe to develop field system to address issue
- Ecological Return on Investment: If EMS "cured" vannamei shrimp health improved. If long term lessons learned, aquaculture will not experience shocks each decade
- Economic Return on Investment: Shrimp farmers most immediately impacted by EMS, so solving EMS essential to farmers and tens of thousands of processors (imagine if soy or corn crops failed by 30%?)
- Financial Return on Investment: NFI has committed up to \$50,000 in matching funds. APEC Food Security Group considering endorsing project.

The Bank/GEF Support of ALLFISH Initiative Case Study: Early Mortality Syndrome



U.S. shrimp imports from Thailand fell 27% last year and dropped another 23% in January through April. Above, workers handle trays of frozen shrimp at a factory-processing line in Mahachai, Samutsakorn province, Thailand. *Bloomberg*

A Punch to the Gut

See how early mortality syndrome is affecting shrimp in Asia.



WALL STREET JOURNAL

Asia is fighting a new disease that has reduced shrimp output in Thailand as much as 40%, driving prices higher for Western restaurants and retailers.

The disease appeared in Thailand, the world's largest shrimp exporter, late last year after ravaging shrimp stocks in China in 2009 and then in Vietnam. With production plunging, shrimp prices in the U.S. have jumped 20% in recent months, according to Thailand's leading exporter.

Grocery stores and restaurant chains in the U.S. say they hope the shrimp shortage will be short-lived and manageable, though they may have to raise prices to avoid a hit to earnings.

Landry's Inc., owner of seafood chains including Bubba Gump Shrimp Co. and McCormick & Schmick's, is getting shrimp from other countries and considering making menu changes. "We may selectively raise prices," says Chief Financial Officer Rick Liem.

The United Nations says the bacterial infection, called early mortality syndrome or EMS, poses no significant threat to human health.

But the disease is deadly to shrimp; in many outbreaks, it can kill all affected crustaceans before they reach maturity and can reproduce, providing a powerful reminder about how animal diseases can threaten food security and prices.

The Bank/GEF Support of ALLFISH Initiative Conclusions

- Seafood industry not an aid or development agency
- Seafood industry" is diverse: processors, traders, value-added processors, distributors, retailers ... and Alaska harvester and Thai shrimp farmer have little in common,)
- Industry interested in solving problems in supply chain (e.g, Baja scallops)
- ALLFISH operates with small funding for each project, not desiring to "eat the whale whole" (e.g., McClurg Report comments)
- The Bank/GEF provided catalytic funding, but industry and private investment weaned itself within 1-3 years of public financing (e.g., blue swimming crab)
- Improvements in value chain yield benefits flowing to harvesters and farmers, processors and marketers (e.g. Lesser Sunda)
- ALLFISH size enables more experimentation and risk-taking (e.g., FPIs and financial community)
- ALLFISH demonstrated nimble approach when resources were better used in efforts outside original plans (e.g., EMS disease)
- ALLFISH projects have created opportunity to scale up size, investment, and influence fisheries in both capture and aquaculture projects globally

ALLFISH Implementation

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