USAID
FROM THE AMERICAN PEOPLE

Results Chains and Learning Questions For SFMP's Mid-Term Evaluation

Workshop Report by HZ Schuttenberg and GJ Torrens-Spence

SFMP
SUSTAINABLE FISHERIES MANAGEMENT PROJECT

CONTENTS

EXECUTIVE SUMMARY

This report summarizes a 4.5-day workshop held in Accra, Ghana in September 2017 to reflect on USAID's Sustainable Fisheries Management Program (SFMP) as it enters its fourth year of implementation. The main purpose of the workshop was to inform the scope of work for a planned mid-term evaluation by identifying and prioritizing learning questions.
Implementation of the workshop had the additional benefits of deepening a shared understanding of the program's theory of change among workshop participants and demonstrating the use of the *Open Standards for the Practice of Conservation* as a tool for strategic planning.

The workshop was designed to inform the learning component of a planned evaluation so that the results are useful for decisions about adaptive management of SFMP and USAID investments in the sector. To achieve this goal, the workshop convened SFMP's implementing partners, the Ghana Fisheries Commission, and USAID staff to systematically document participants' current understanding of SFMP's context and theory of change. These analyses became the basis for a collaborative process to identify and prioritize learning questions.

The workshop was facilitated by two USAID staff from Washington, D.C. and was informed by a review of program documents and a 1-day pre-meeting held in D.C. prior to the workshop.
Key elements of this background information are summarized in Section 1, recognizing the influence of SFMP's significant intellectual history on the workshop results.

The workshop began by revising a conceptual model of the program's context, called a situation model (Section 1). A situation model clarifies the specific goals of the program, identifies the key challenges or threats the program must address to achieve its goals, and presents the program's understanding of the main factors driving these threats. The goal of SFMP is to support the recovery of small pelagic fish stocks in order to enhance livelihoods, food security and women's empowerment, as well as reduce child trafficking and child labor in fisheries. To achieve these goals, Ghana as a whole must address pervasive overfishing and illegal fishing.

The proximate drivers of these threats are weak governance and a market that incentivizes exploitation over long term sustainability. This is aggravated by high market demand for fish and high demand for employment in the fishing sector, resulting from low barriers to entry, few alternative livelihoods, and cultural preferences for fishing. Ultimate drivers include political interference to benefit fishers as an important voting bloc, lack of adequate consultation and participatory decision-making with fishermen and women, lack of private sector motivation to engage in reforms, and low public and media awareness of the state of the fisheries crisis.

Analysis of the situation model highlighted potential changes in resource exploitation which should be further investigated as part of the evaluation. Anecdotal evidence suggests that Ghana has seen a rapid acceleration in the illegal harvest and transshipment of small fish by industrial trawlers. This practice, known as Saiko, involves trawlers illegally catching small demersal and pelagic fish, flash freezing them, and then illegally transshipping the frozen blocks of fish to canoes at sea. While the true level of illegal Saiko fishing is unknown, there is a perception that it competes with the small pelagic stocks harvested by the artisanal

fleets. At a minimum, this perception has a negative effect on artisanal compliance with management rules, with many artisanal fishers believing that they are unfairly competing with trawlers for a diminishing resource. For this reason, Section 4 recommends further research to clarify the true level of Saiko fishing and its impacts on the small pelagic fishery.

Workshop participants then modeled SFMP's current theory of change in a diagram called a results chain (Section 3). A results chain provides an explicit picture of the sequential outcomes a program believes will lead to the achievement of its goals. The model facilitates the program's ability to examine its assumptions, test its theory of change, and identify key results along the critical path to realizing its goals. SFMP's theory of change is primarily focused on reducing fishing effort within the artisanal fishery by enabling participatory and collaborative management to deliver fishery reforms that are socially equitable and perceived as legitimate by resource users, therefore incentivizing compliance with new management rules that can shift the small pelagic fishery from decline to recovery. Achieving this complex transition from the current, hierarchical management regime to participatory management requires the strategic development of institutional capacities, economic incentives, high-level political support, and technical advice to craft, adopt, and implement a suite of fishery reforms.

Next, workshop participants analyzed SFMP's results chain to identify key outcomes or results that are critical intermediate steps for achieving the program's ultimate goals (Section 3). This process identified 21 key results. For each key result, participants developed a draft statement describing the specific, measurable target the program aims to achieve and identified an indicator that could be used to monitor progress toward these outcomes. SFMP may wish to use these tools to guide its implementation during the remaining period of program implementation.

Finally, guided by the key results and their placement within SFMP's results chain, workshop participants developed and refined 14 questions that provide meaningful learning opportunities (Section 4). Participants prioritized these questions to recommend five for inclusion in SFMP's mid-term learning and evaluation efforts (Annex 1):

1. **Technically sound: Can Ghana's small pelagic fishery recover without action to reduce the illegal Saiko catch?** SFMP aims to promote recovery of Ghana's small pelagic fishery through improved management of the artisanal fishery. However, the true level of illegal Saiko catch is unknown, leading to real or perceived competition with artisanal fishers. This question calls for research to reveal the current level of Saiko fishing and its impact on the small pelagic fishery.

2. **Socially legitimate:** To what extent does strengthening fishing organizations and having more fisherfolk engaged in decision-making **lead to artisanal fisherfolk having a more effective voice and greater influence in national policy deliberations,** as measured by the extent to which reforms serve their interests? Why or why not?

3. **Politically supported:** To what extent and under what conditions does having opinion leaders support fishery reforms **lead to high-level policy-makers supporting fishery reforms**? Why or why not? How does this relationship change based on the specific policy reform being considered?

4. **Economically sound:** To what extent and under what conditions can different approaches for delivering economic benefits (below) **maintain or enhance fisherfolk income &/or well-being while fishery management reforms are being implemented**?
    - **Improved processing techniques** and facilities that aim to increase or optimize the value and improve the health from available harvests
    - Insurance and savings instruments
    - **Reforming the use of subsidies to support sustainability**: fuel, gear, closed season, or other
    - Additional strategies that could be developed (e.g., improvements in information, marketing, payment for ecosystem services, etc.)

5. **Responsive governance:** To what extent and under what conditions can increased budget allocations and strengthened human resources lead to the institutional and organizational changes that are most needed to **transform the Fisheries Commission into a responsive, accountable government agency** that can: a) engage in collaborative management, b) effectively enforce rules, and c) deliver relevant monitoring and analysis?

Finally, participants considered the implications of the workshop findings and developed next steps and recommendations for building on the insights they gained during the workshop (Section 5). Key next steps identified through this discussion include:

- Expanding the use of results chains in SFMP's work with the Fisheries Commission;
- Enhancing integration and communication among SFMP's work streams to increase effectiveness overall and, particularly, in stakeholder engagement; and,
- Adapting SFMP's Year 4 Work Plan to reflect key insights gained through this work.

ACRONYMS

CSO	Civil society organizations
GoG	Government of Ghana
IR	Intermediate Result
MOFAD	Ministry of Fisheries and Aquaculture Development
SFMP	Sustainable Fisheries Management Program

1. Background

The Sustainable Fisheries Management Program. The Sustainable Fisheries Management Program (SFMP) is a five-year (2014-2019), $24 million food security and biodiversity conservation activity funded by USAID/Ghana with the goal of rebuilding marine fish stocks through the adoption of responsible fishing practices. The lead implementer, the Coastal Resources Center at the University of Rhode Island (CRC-URI), works with a consortium of local partners including SNV Netherlands Development Organization, SSG-Advisors, Hen Mpoano, Friends of the Nation, the Central and Western Fish Mongers Improvement Association in Ghana/CEWEFIA, Daasgift Quality Foundation Development Action Association (DAA) and Spatial Solutions, University of Cape Coast. SFMP contributes to the Government of Ghana's fisheries development objectives, USAID's Feed the Future Initiative, and the USAID Biodiversity Policy.

The SFMP activity was designed around a theory of change proposed by USAID and modified by CRC-URI. The seven intermediate results comprising the program design are matched to the opportunities identified by USAID and CRC-URI in 2014 when the project RFA was prepared and released. During the activity's start-up phase, CRC-URI prepared a detailed road map of its understanding of both the scientific and governance status of Ghanaian fisheries, and then validated it with selected partners. Based on this model, a multi-tiered intervention strategy was developed to reduce fishing effort within the small pelagic fisheries primarily targeting the artisanal fleet.

During the first three years of activity implementation, through regular meetings with the Ministry of Fisheries and Aquaculture Development (MOFAD), the Fisheries Commission (FC), and the World Bank's West Africa Regional Fisheries Project (WARFP), CRC-URI adaptively revised its annual work plans to keep abreast of the changing context in Ghana. The activity's theory of change states that if enabling conditions, including co-management policies, are strengthened, and if improved science is applied to fisheries management decision-making, and if constituencies and political will are built to support the creation of effective management measures, then harvest control measures will be agreed upon and put in place for targeted stocks. The activity also has several cross-cutting result areas that support the goals of mainstreaming the voice women and creating public-private partnerships that can provide better safety nets for fisherfolk.

SFMP's context analysis and project design model (Figures 1 and 2) have been adaptively updated by the program team as new learning and information has become available, most recently in July 2017 with the participation of senior project staff, technical advisors and the new Fisheries Commission staff. These models were presented to USAID at the outset of the results chain exercise. By the time of this workshop (September 2017), more than three years of implementation has resulted in numerous successes on the way to the goal of rebuilding small pelagic fish stocks. Working across the seven intermediate results, SFMP partners have made notable progress in improving the enabling conditions for sustainable fisheries management.

Workshop applying the *Open Standards* to SFMP. At the request of the USAID/Ghana Mission, in September 2017 staff from USAID/Washington traveled to Ghana to support a workshop with SFPM partners. As SFMP enters its fourth year of implementation, the goal of the workshop was to inform the scope of work for a planned

evaluation by identifying and prioritizing learning questions. The workshop had the additional benefits of deepening a shared understanding of the program's theory of change among workshop participants and demonstrating the use of the *Open Standards for the Practice of Conservation*, a methodology for activity design, management and monitoring widely used in the global conservation community. The *Open Standards* methodology is compatible with the USAID Program Cycle requirements, it is recommended for biodiversity conservation programming at USAID and has been used for integrated programs as well.

Using the *Open Standards* methodology, workshop participants mapped out the development problem context in a situation model. A situation model is a type of problem analysis that clarifies the specific goals of the program, identifies the key challenges or threats the program must address to achieve its goals, and presents the program's understanding of the main factors driving these threats. The participants then articulated their theory of change in results chains, for five of the intermediate results comprising the program design. A results chain is a visual representation of the expected results and assumptions behind the strategic approaches that make up the program's theory of change. Finally, workshop participants developed and prioritized learning question for the midterm evaluation based on their situation model and results chains.

Scope of this report. This document reports on the discussion and outcomes of the September 2017 workshop, and represents a snapshot in the evolving life of the SFMP activity. This document does not provide a comprehensive retrospective on the evolution of the program's theory of change. Rather, it captures an updated, simplified perspective on the development context of Ghanaian fisheries, SFMP's work within this context, and relevant learning questions for consideration as SFMP adaptively manages implementation over the activity's final 1.5 years.

Figure 1: SFMP Context Analysis

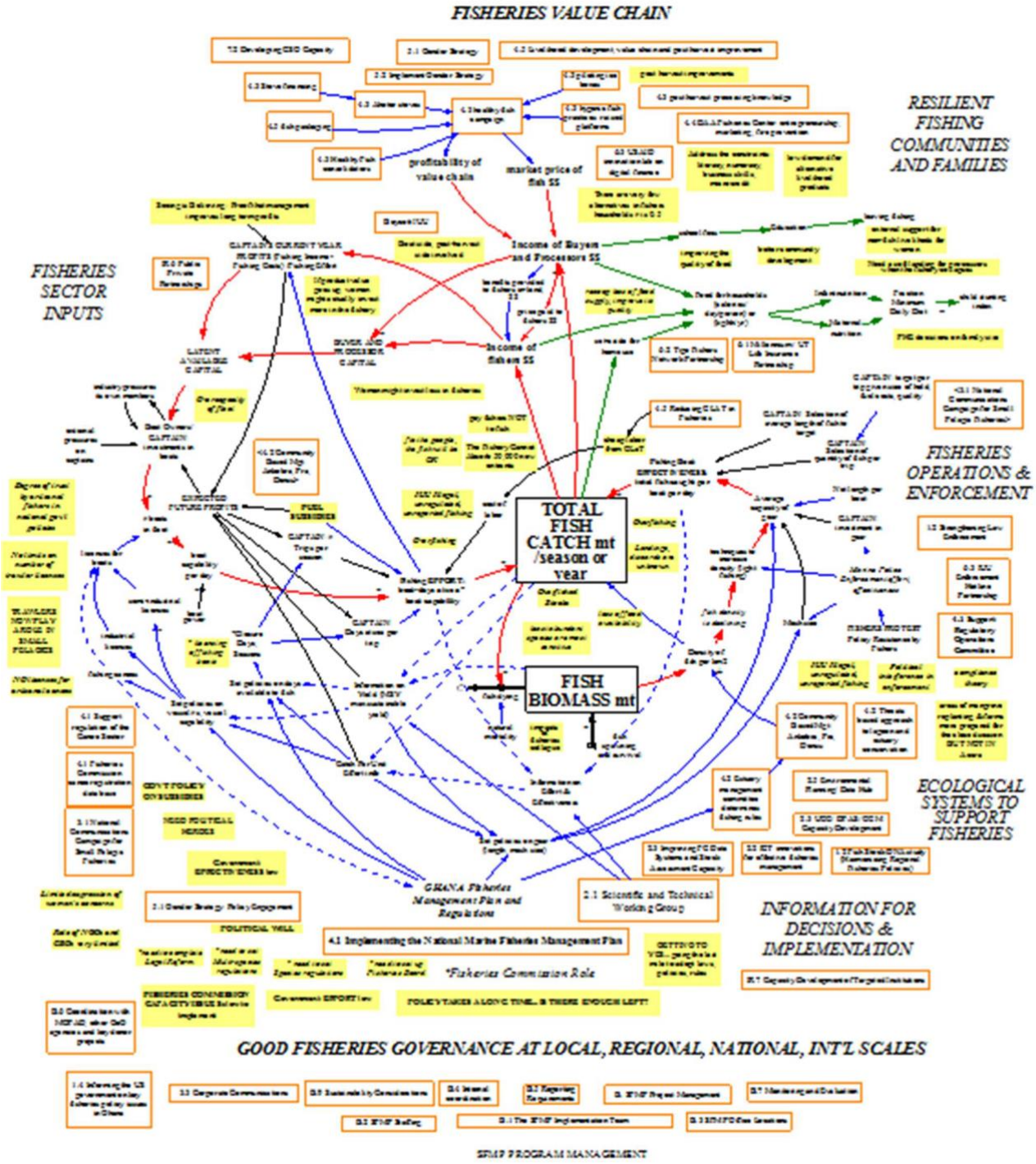
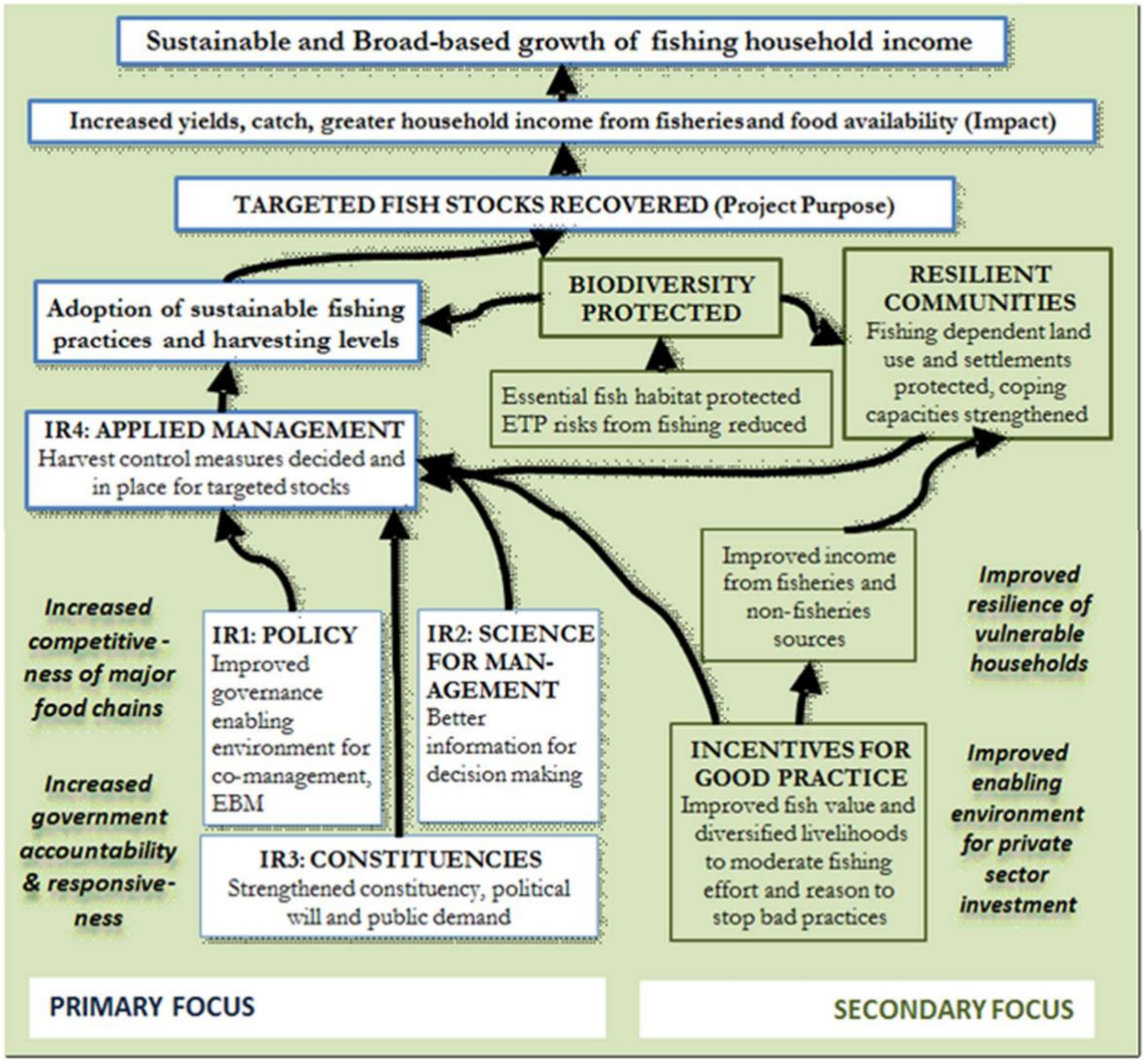


Figure 2: SFMP Project Design Model



2. Situation Model

The first stage of the *Open Standards* process was to create a situation model of the problem context (Figure 3). A situation model is a type of problem analysis that clarifies the specific goals of the program, identifies the key challenges or threats the program must address to achieve its goals, and presents the program's understanding of the main factors driving these threats.

Model overview. The goal of SFMP is to support the recovery of small pelagic fish stocks in order to enhance livelihoods, food security and women's empowerment, as well as reduce child trafficking and child labor in fisheries. To achieve these goals, Ghana as a whole must address pervasive overfishing and illegal fishing. The proximate drivers of these threats are weak governance and a market that incentivizes exploitation over long term sustainability. This is aggravated by high market demand for fish and high demand for employment in the fishing sector, resulting from low barriers to entry, few alternative livelihoods, and cultural preferences for fishing. Ultimate drivers include political interference to benefit fishers as an important voting bloc, lack of adequate consultation and participatory decision-making with fishermen and women, lack of private sector motivation to engage in reforms, and low public and media awareness of the state of the fisheries crisis. The following sections further describe key components of the situation model.

Biodiversity and human well-being focal interests. Fish are the primary source of animal protein and livelihood for many Ghanaians, particularly those living along the coast. Roughly 10% (~2.6 million) of the population is economically dependent on the fisheries sector. Average per capita annual fish and shellfish consumption in Ghana is estimated to be 27.3 kg, accounting for 60% of animal protein consumption.[1,2] Reflecting these priorities, the situation model identifies small pelagic fisheries (sardinella, mackerel, anchovy) as the primary target of the program. These fisheries contribute the most to local food security and historically provided abundant and low cost protein to the people of Ghana. Additional conservation targets are mangrove habitat, fin fish and oysters within the Densu, Pra, and Ankobra estuarine systems.

These biodiversity focal interests provide the ecosystem service of sustainable fish stocks, which support several critical human well-being focal areas, including food availability, livelihoods, women's empowerment, and reducing child labor. These focal interests in turn support additional human well-being goals, such as reducing the prevalence of stunting in children under 5 years old, improving social stability and maritime security, increasing resilience, and reducing poverty.

Threats to biodiversity and human well-being focal interests. The primary threats to the biodiversity conservation target of small pelagic fisheries identified by the program team were illegal fishing and overfishing. Secondary threats were climate change and the expansion of oil and gas industry and infrastructure into biologically significant areas. Overfishing is defined as the unsustainable harvest (either legal or illegal) of fish at a faster

[1] Republic of Ghana, National plan of action to prevent, deter, and eliminate illegal, unreported, and unregulated fishing. Available from: ftp://ftp.fao.org/fi/DOCUMENT/IPOAS/national/Ghana/NPOA_IUU.pdf. 2014.

[2] National Marine Fisheries Service. Per Capita Consumption. Available from: http://www.st.nmfs.noaa.gov/st1/fus/fus11/08_percapita2011.pdf. 2012

rate than the resource can regenerate, and can result in a biological collapse of the fishery which may take years or decades to recover. Shellfish and fin fish, also important for food security, nutrition, and livelihoods, are threatened by overfishing, destruction of mangrove habitat, marine trash, and riverine mining.

Proximate drivers of overfishing. The most direct reason for overfishing is that the level of effort and capacity in the artisanal (semi-industrial and canoe) fleets are ecologically unsustainable. Some observers wonder if trawl fishers are now also illegally targeting a portion of the small pelagic stocks, however, this claim is unsubstantiated so far. This unsustainable effort and capacity results from four factors: slow implementation of the National Fisheries Management Plan that authorizes various fishery management measures, open access by the canoe fleet, lack of compliance and enforcement of existing management measures, and market forces that incentivize exploitation instead of sustainability.

Proximate drivers of illegal fishing. Illegal fishing, in addition to being a direct threat to small pelagic fish stocks, is an additional driver of overfishing. In Ghana illegal fishing includes the use of illegal practices such as Saiko, light fishing, and the use of fine mesh nets, among other practices. Drivers of the use of these kinds of illegal practices include a general lack of enforcement of or compliance with fishing rules. The rationale for fishing regulations is often not well understood among fishermen, leading to low legitimacy of fishing regulations in the eyes of the fishers, and therefore to low compliance with these rules. Regulations are also often left unenforced because of political interference and lack of government capacity.

Underlying Drivers For Overfishing:

- **High demand for fish and employment in the fisheries sector.** Overcapacity and unsustainable fishing effort in the small pelagic fishery is driven by high demand for fish and high demand for employment in the fisheries sector, accommodated by an open access fishery. Because Ghanaians consume a high percentage of fish in their diet there is intense demand for small pelagic fish for the domestic market. Fishmongers (often women) need inputs for their businesses, and as supply decreases, they can demand higher prices for the scarce remaining fish. Demersal fish, caught primarily by industrial trawlers, are in high demand as an international export good. There is also a glut of fishing labor available. Barriers to entry in the fishing industry are low as no formal education is required. Additionally, a lack of alternative or supplemental livelihoods in many areas drives people to economic dependency on the fishing industry. Another market driver is the artificially low costs of fishing resulting from government subsidies for fuel and gear and the "blood subsidy" of cheap or free child labor. The role of child labor and trafficking in Ghana's fishing industry is complex; many children work to crew Ghana's artisanal canoe fleet, however there is insufficient data to determine to what degree this is a driver of overfishing. The high demand for employment in the fisheries sector is partially rooted in a widespread cultural preference for fishing as an occupation. For many in Ghana, fishing is an ancient way of life, a way to protect wealth, and an insurance policy in old age.

- **Weak governance.** Many of the drivers of overfishing and illegal fishing, including canoe fleet open access, fuel and gear subsidies, and some illegal take of small pelagics by the industrial trawler fleet, stem from weak governance from both state and non-state actors. Governance policies for fisheries are underdeveloped, and civil society organizations and the media are not sufficiently involved or influential in demanding or providing transparency and accountability in the fisheries sector. Because of this weak

governance, the Fisheries Commission of the Ministry of Fisheries and Aquaculture Development has inadequate influence to request budget and human resources commensurate with the scale of the problem. This results in inadequate collection of scientific data on the status of the fisheries, poor mechanisms for considering data in decision-making, and in the slow implementation of the National Fisheries Management Plan.

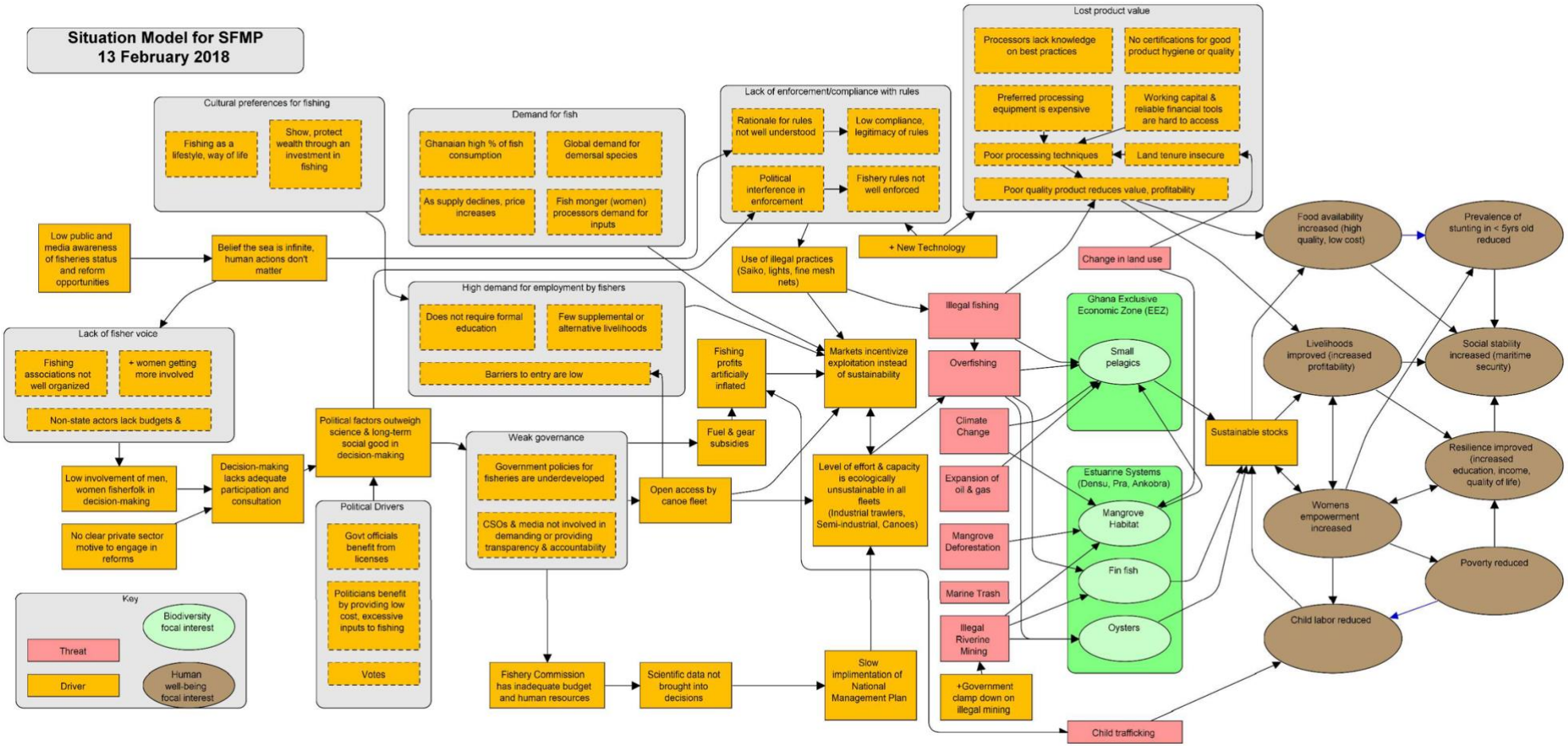
- **Low/lost product value.** Both legally and illegally caught fish are often damaged and/or small (juveniles), reducing their value or suitability for value-adding post-processing. Poor quality product also results from the application of poor processing techniques, which in turn is driven by land tenure insecurity, lack of access to working capital and reliable financial tools, and the high cost of processing equipment, making it inaccessible to low- income and under-financed fisherfolk. Many artisanal fisherfolk are migrants and have no land tenure or use rights in their adopted communities. As a result, fish landing sites are often crowded with insufficient space for landing and processing catch, leading to damaged catch and unsanitary handling and processing conditions. Aggravating this dynamic is a lack of knowledge of processing best practices among processors, and an absence of certifications to designate products achieving high hygiene and quality standards.

Shared ultimate drivers of overfishing and illegal fishing. The ultimate, or distal, causes of Ghana's unsustainable fisheries crisis include cultural and political drivers, low public awareness, and fisherfolk's lack of voice and agency in advocating for their interests. Weak government ability and interest in sustainably managing fisheries partially results from political factors outweighing science and long-term social good in decision-making.

In other words, in pursuit of short-term political and financial gains, government officials and politicians provide excessive, low cost inputs to fishing, and overlook fishing violations in an effort to cultivate fishers as a voting constituency. Government officials also often directly benefit by owning fishing vessels or processing facilities. These are powerful political forces at work, and because of low participation of small artisanal fishers in fisheries management decision-making, the interests of the few prevail over the interests of the many.

Artisanal fisherfolk, a constituency whose long-term interest would be best served by improved management, lack voice and participation in decision-making. Fishing associations and other civil society organizations are not well organized or financed, and women, who as boat owners and fish processors should be influential, have little authority in decision-making. Additionally, the private sector has no clear motivation to engage in reforms, currently benefiting from the status quo. There is low public awareness of the status of fisheries or what reform opportunities exist, and the media is not well engaged in the issue. At the root of Ghana's fisheries crisis is the old and widespread belief that the sea and its contents are an infinite resource, and that human actions cannot affect it.

Figure 3. Situation model describing SFMP's current understanding of the context for its work



3. Results chain

A results chain provides an explicit picture of the sequential outcomes a program believes will lead to the achievement of its goals. The model facilitates the program's ability to examine its assumptions, test its theory of change, and identify key results along the critical path to realizing its goals. In illustrating the full theory of change by which a program's actions will achieve its ultimate goals, results chains typically include some elements that are outside the manageable interest of the program within a 5-year funding cycle. This section presents the results chain developed for SFMP, noting that much of the program's work to date is focused on achieving outcomes shown on the left and center sections of the diagram, as would be expected for this type of program.

We developed a results chain that describes SFMP's current theory of change through three steps. First, we developed a situation model (Section 1) to clarify the specific focus of the program and the key challenges SFMP needs to address to achieve its goals. Next we developed results chains for five of SFMP'S seven work streams (called "intermediate results" or "IRs"): IR 1. Enabling conditions, IR 3. Constituencies, IR 4. Applied management, IR 5. Gender, and IR 7. Capacity building for targeted institutions (Annex 2). Results chains were not developed for IR 2. on Science and IR 6. on Partnerships based on time constraints and limited participation at the workshop by SFMP partners working on those issues. Finally, the facilitators combined the IR result chains into a draft program-level results chain which was revised and refined through a half day discussion on Day 3 of the workshop.

Model overview. The results chain developed by SFMP staff during the September workshop identifies the outcomes needed to shift Ghana's small pelagic fishery from decline to recovery (Figure 3). SFMP's theory of change is primarily focused on reducing fishing effort within the artisanal and industrial fleets by enabling participatory and collaborative management to deliver fishery reforms which are socially equitable and perceived as legitimate by resource users, therefore incentivizing compliance with new management rules that can shift the small pelagic fishery from decline to recovery. Achieving this complex transition from the current, ineffective hierarchical management regime to participatory management requires the strategic development of institutional capacities, economic incentives, high-level political support, and technical advice to craft, adopt, and implement a suite of fishery reforms. Key elements of SFMP's theory of change are:

Social legitimacy. SFMP aims to facilitate a change in Ghana's small scale pelagic fishery so that management rules are collaboratively developed and implemented, resulting in a reform to the fisheries management regime that is socially equitable, perceived as legitimate, and incentivizes compliance. The results chain illustrates this theory of change through a set of outcomes required to achieve the formal adoption of new policies and laws (left-side of the diagram) and those required to implement the new management arrangements (right-side of the diagram).

The results chain illustrates the program's hypothesis that crafting reforms which are socially equitable to the majority of fisherfolk, rather than favoring more powerful actors, will require artisanal fisherfolk to support and demand reforms and to have an effective voice in policy deliberations. To strengthen the voice of artisanal fisherfolk, SFMP believes fishing organizations must be more organized and effective and that more fisherfolk must engage in management discussions; critically, women must enter into management discussions in a way they have not previously. SMFP hypothesizes that artisanal fisherfolk will support and demand reforms when they understand the reforms, including their long-term implications, and identify the economic benefits that will result from the reforms.

SFMP hypothesizes that artisanal compliance with new management rules will be high if fisherfolk believe the reforms are legitimate and if enforcement by both government officials and community wardens is effective. They hypothesize fisherfolk will view the reforms as legitimate if industrial trawlers are regulated in a way that protects the artisanal harvest, if they are actively involved in managing their resources, and if they are experiencing social and economic benefits from the new resource rules.

Economically desirable. SFMP's results chain requires economic benefits to incentivize support and compliance with reforms and to enable fishers to survive a transition period of reduced resource extraction while fishery stocks recover. In its implementation so far, SFMP has piloted techniques for increasing the value fisherfolk can make from existing fishery resources and developed improved financial tools that empower women with better options for managing capital flows and savings. Other potential economic incentives the program has identified, include: the long-term economic benefits that reforms could offer to artisanal fishers, the potential to restructure existing fuel and gear subsidies that currently drive overexploitation of resources, and the potential to develop other government or private sector partnerships that could create needed economic systems.

Institutionally robust. Another pillar of SFMP's results chain is to strengthen the capacity of government and civil society organizations to achieve accountable, capable fisheries management. SFMP hypothesizes that strengthening the capacities of civil society organizations (CSOs) will result in these groups empowering women and men involved in fisheries, supporting fisherfolk in co-management, and enhancing the accountability and transparency of government involvement in fisheries.

Simultaneously, SFMP hypothesizes that strengthening the capacities of the Government of Ghana and the Fisheries Commission, in particular, will result in stronger implementation of fisheries reforms, co-management, and enforcement. The program's theory of change is that government capacity will be strengthened if high-level political will and more engaged constituencies create a mandate for improved fisheries management and drive increases in budget allocations for the Fisheries Commission. These factors, along with targeted efforts to strengthen human resources within the Fisheries Commission, are expected to transform the Fisheries Commission into an institution that actively responds to support innovations and sector needs.

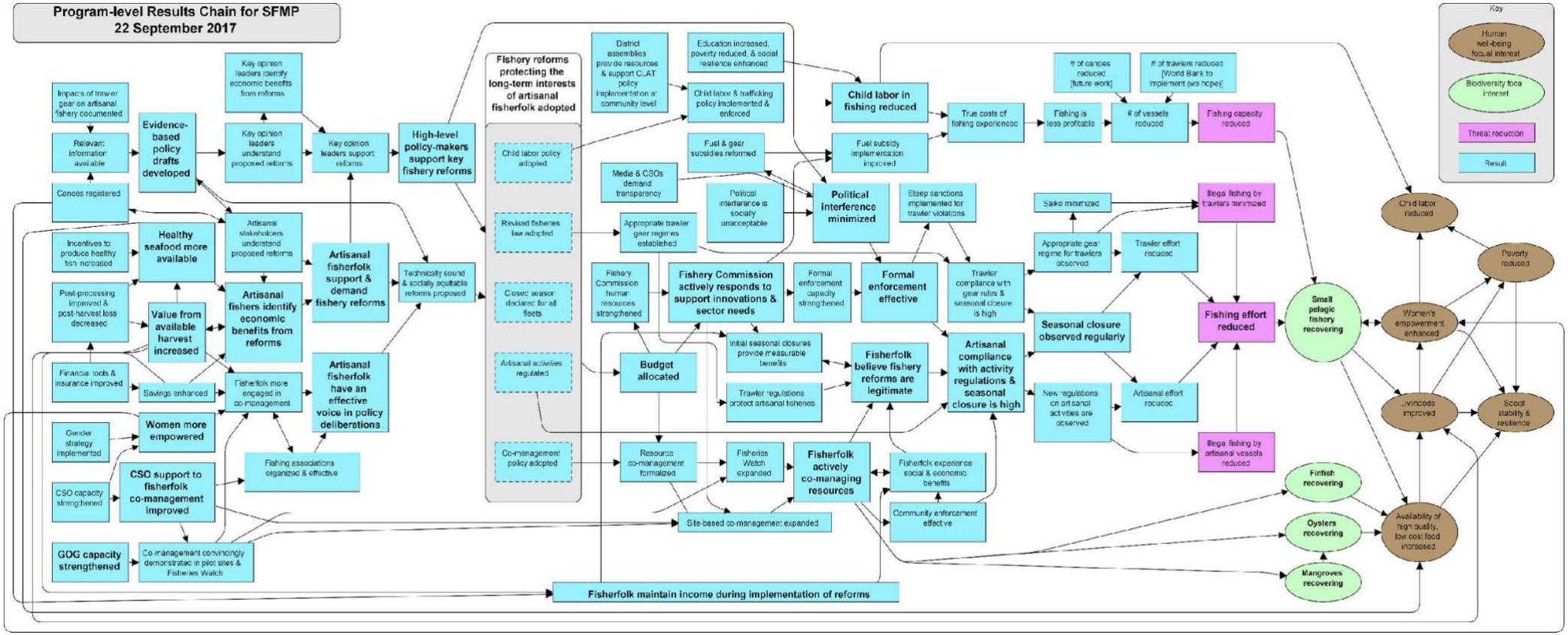
Politically supported. The results chain illustrates high-level political support as an essential enabling condition for formally adopting fishery reforms, increasing budget allocations, and minimizing interference in enforcement actions. SFMP hypothesizes that high-level policy- makers will support fishery reforms if the reforms are supported by key opinion leaders, and that key opinion leaders will support the reforms if: they understand the reforms, they identify economic benefits from the reforms, and artisanal fisherfolk support and demand the reforms.

Technically sound. Finally, the SFMP results chain identifies that fishery reforms will only achieve the desired result of protecting the long-term interests of artisanal fisherfolk if they are technically sound and based on good evidence and information.

Other direct benefits to human well-being. While the main goal of SFMP is to improve human well-being by recovering the small pelagic fishery, the program's results chain articulates a number of ways program activities contribute to human well-being directly. For example,

activities to promote women's engagement in fisheries management by improving fish processing techniques also have the direct benefit of enhancing the availability of healthy food, improving the livelihoods of fishing communities, and empowering women. Similarly, efforts to reduce child trafficking and labor in fisheries not only reduces fishing effort and capacity, it also improves the well-being of children.

Figure 4. Results chain describing the shared vision SFMP's implementing partners articulated for their program's theory of change



4. Key results

After completing the program-level results chain, the workshop participants identified those results that are considered absolutely necessary to the achievement of the final program objectives. Through discussion, 21 key results were identified (Table 1 and shown in bold in Figure 4). Each key result was then assigned to a "caretaker," a workshop participant whose work is related to the key result. The key results were divided by the facilitators into five groups of related key results, and the "caretakers" for each key result worked in those groups to develop draft outcome statements and indicators for each key result (Annex 3). These draft outcome statements and indicators could be further refined and incorporated into SFMP's strategic planning and monitoring.

Table 1. Key results identified from SFMP's program-level results chain

Constituencies and political support	
1	More women empowered
2	Artisanal fisherfolk support and demand fisheries reform
3	Artisanal fisherfolk have an effective voice in policy deliberations
4	High-level policy makers support fisheries reforms
5	Political interference minimized
6	Fisherfolk believe fisheries reforms are legitimate
Institutional	
7	CSO support to fisherfolk for co-management improved
8	Government of Ghana capacity strengthened (in data, policy, organization, outreach, enforcement)
9	Fishery Commission actively responds to support innovations and sector needs
10	Budget [for fisheries management] is allocated
Economic	
11	Economic benefits from reform identified
12	Value for available harvest increased and products made healthier (via traceability, certification and market recognition of quality)
13	Fisherfolk maintain income during implementation of reform
Fishery management reforms adopted and implemented	
14	Evidence-based policy drafts developed (to support capacity limits/reductions; new approaches such as area closures, effort and efficiency limits)
15	Fishery reforms protecting the long-term interests of artisanal fisherfolk adopted
16	Fisherfolk actively co-manage resources
17	Formal enforcement effective
Behavior change achieved	
18	Artisanal compliance with activity regulations and seasonal closures is high
19	Seasonal closure observed regularly
20	Fishing effort reduced
21	Child labor in fisheries reduced

5. Learning questions

A results chain represents a program's theory of change and is a hypothesis that can be tested with monitoring data. Each arrow in the results chain represents an assumption about the causal relationships between the results; this assumption can be framed as a learning question.

Developing learning questions for SFMP: Workshop participants interrogated the SFMP program-level results chain to identify the most important learning questions for the program. After identifying key results in the results chain (Section 3), participants worked individually to identify and draft potential learning questions. Questions were grouped near relevant key results so areas of convergent interest could be identified. The facilitators then compiled and refined these submissions into the 14 learning questions shown in Table 2 and Figure 3.

Prioritizing learning questions for the mid-term evaluation: Workshop participants prioritized 5 of the 14 learning questions for the mid-term evaluation through a voting exercise. We debated each learning question at length in plenary, with workshop participants advocating for and against the questions they felt were most important. Each participant was allocated three votes and asked to consider the following criteria as the basis for his/her prioritization:

- How critical is the question was to achieving the program's central goal?
- Will the program have experience or data that could contribute to the evaluation (i.e., is the question better suited to the mid-term or the end-of-program evaluation)?
- To what extent can the resulting analysis of the question be translated into actionable adaptive management within the last two years of SFMP's implementation?

Five questions were identified for the mid-term evaluation based on the number of votes received:

Question	Votes received
1a	**8**
4a	**8**
5b	**8**
3a	**7**
2c	**6**
1b	4
2a	4

Question	Votes received
3c	3
2b	2
3b	2
2d	1
5a	1
2e	0
2f	0

Table 2. Learning questions and associated results from results chain

	Learning question	Dependent variable	Independent variables
1. Technically sound: What reforms can best deliver ecological recovery of the small pelagic fishery?			
1a*	**Can Ghana's small pelagic fishery recover without action to reduce the illegal Saiko catch?** SFMP aims to promote recovery of Ghana's small pelagic fishery through improved management of the artisanal fishery. However, the true level of illegal Saiko catch is unknown, leading to real or perceived competition with artisanal fishers. This question calls for research to reveal the current level of Saiko fishing and its impact on the small pelagic fishery.	Status of small pelagic fishery	Illegal trawler catch of small pelagics
1b	**What activity regulations are most likely to achieve needed effort reductions in the artisanal fleet**: a seasonal closure, expansion of the fishing holidays, capping the artisanal fleet in terms of vessel number and size, or changes in gear requirements and restrictions?	Artisanal fishing effort	Seasonal closure design
			Expanded fishing holidays
			Capping vessel number, size
			Gear regulations
2. Socially legitimate: What strategies will best enable collaborative management that delivers fisheries reforms which are socially equitable, perceived as legitimate, and incentivize compliance?			
2a	To what extent and under what conditions do strengthened women's associations, improved profits from fish processing, and other women's empowerment measures **increase women's engagement in supporting fisheries management?** Why or why not?	Women's empowerment	Strength of women's associations
			Improvements in profits from fish processing
			Other measures identified in the Gender Strategy
2b	To what extent and under what conditions do different short and long-term economic benefits (see independent variables) **increase artisanal fisherfolk support for fisheries reform**? Should other/additional economic benefits be introduced?	Artisanal fisherfolk support for fisheries reform	Increased value of fishery products
			Improved opportunities for saving
			Understanding of the long-term benefits of sustainable fisheries

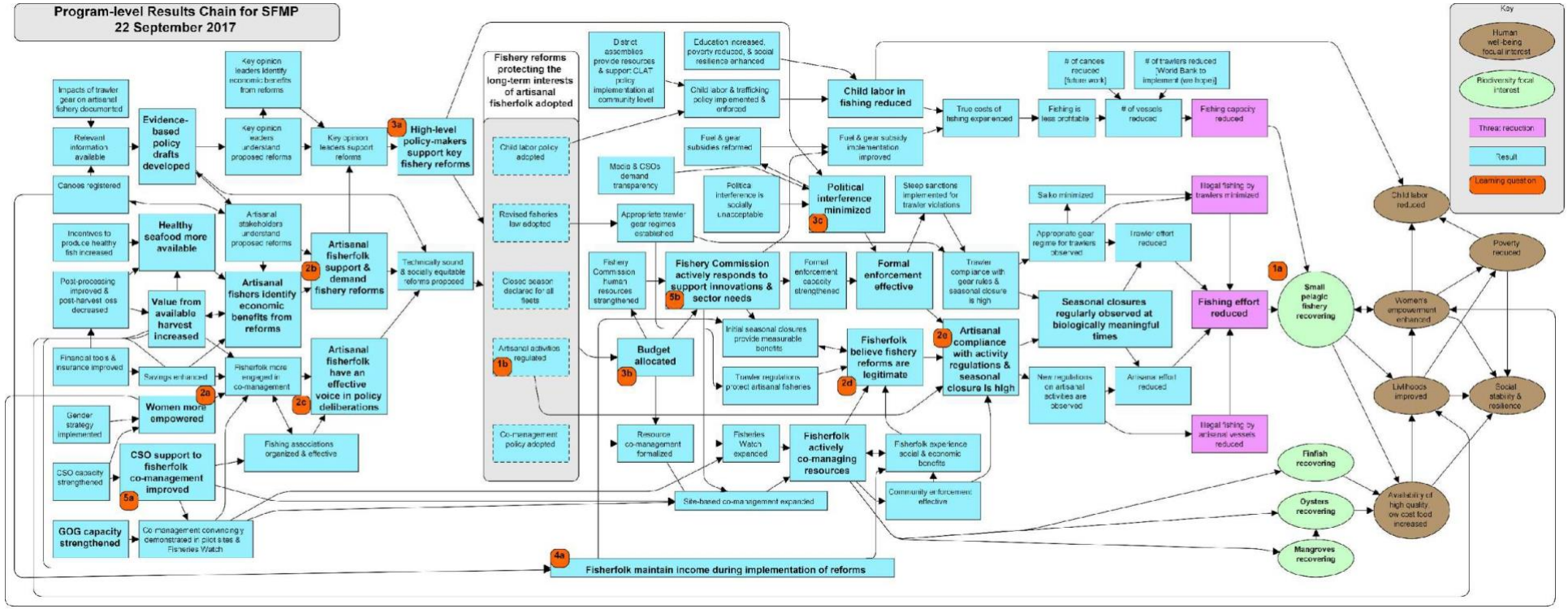
2c*	To what extent does strengthening fishing organizations and having more fisherfolk engaged in decision-making **lead to artisanal fisherfolk having a more effective voice and greater influence in national policy deliberations,** as measured by the extent to which reforms serve their interests? Why or why not?	Effectiveness of artisanal fisherfolk voice in national policy deliberations	Strength of fishery organizations
			Increased number of fisherfolk engaged in decision-making
2d	To what extent and under what conditions do different factors (see independent variables) lead to **fisherfolks perceiving fishery management reforms &/or rules as legitimate**? Why or why not?	Fisherfolk perception of the legitimacy of management reforms/rules	Fisherfolk participation in co-management (type and level)
			Fisherfolk perception of whether industrial trawlers are regulated in a way that protects artisanal livelihoods
			Fisherfolk experience of social &/or economic benefits as a result of reforms (type and magnitude)
2e	To what extent and under what conditions do different factors (see independent variables) **lead to high compliance by artisanal fishers of seasonal closures and/or activity regulations**? Why or why not?	Compliance by artisanal fishers of seasonal closures and/or activity regulations	Fisherfolk perception of the legitimacy of management reforms/rules
			Effectiveness of formal enforcement
			Effectiveness of Fishery Watch
2f	To what extent and under what conditions does **child trafficking and labor in fisheries** lead to an increase in the capacity or effort of fishing fleets? Why or why not?	Capacity and effort in small pelagic fishery	Child labor (trafficked and working with parents)

3. Politically supported: What strategies will best foster sustained high-level political support for fishery reforms and budgets?			
3a*	To what extent and under what conditions does having opinion leaders support fishery reforms **lead to high-level policy-makers supporting fishery reforms**? Why or why not? How does this relationship change based on the specific policy reform being considered?	High-level policy-maker support for fishery reforms (by proposal)	Opinion leader support for fishery reforms (by proposal)
3b	To what extent and under what conditions do different factors (see independent variables) **lead to increased budget allocations for fisheries enforcement and co-management**?	Budget allocation for fisheries enforcement and co-management (level)	High-level policy-maker support for fishery reforms
			Formal adoption of new policies, rules, or laws
			Advocacy by CSOs (quality and quantity)
			Fisherfolk demand for co-management
3c	To what extent and under what conditions do different factors (see independent variables) **minimize political interference in the implementation and enforcement of fishery reforms**? o Potential sub-question: Why types of messages and communication strategies are effective in fostering a public opinion that political interference is socially unacceptable?	Political interference in the implementation and enforcement of fishery reforms (frequency and extent)	High-level policy-maker support for fishery reforms
			Media and CSOs demand for transparency
			Public perception that political interference is socially unacceptable

4. Economically sound: What strategies can deliver economic benefits that maintain or enhance fisherfolk well-being while reforms are implemented and into the future?			
4a*	To what extent and under what conditions can different approaches for delivering economic benefits (below) **maintain or enhance fisherfolk income &/or well-being while fishery management reforms are being implemented**? o Potential sub-question: To what extent do improvements in post-harvest processing techniques/facilities reduce post-harvest losses and increase the value from available harvests? o Potential sub-question: To what extent does increased working capital and financial tools contribute to improved processing and increased value from available harvests? o Potential sub-question: To what extent does fisherfolk's active engagement in co-management benefit them socially and/or economically? Why or why not?	Fisherfolk income &/or well-being while fishery management reforms are being implemented (extent and direction of change)	Improved product value or health based on better processing techniques Provision of insurance and savings instruments Reworking fuel or gear subsidies Additional strategies that could be developed (e.g., improvements in information, marketing, payment for ecosystem services, etc.)
5. Responsive governance: What institutional and organizational changes are most needed to foster fisheries reform and co-management?			
5a	To what extent and under what conditions does **improved CSO capacity lead to improvements in co-management**? Why or why not?	Improvements in co-management	CSO capacities

5b*	To what extent and under what conditions can increased budget allocations and strengthened human resources lead to the institutional and organizational changes that are most needed to **transform the Fisheries Commission into a responsive, accountable government agency** that can: a) engage in co-management, b) effectively enforce rules, and c) deliver relevant monitoring and analysis? o Potential sub-question: How effective have SFMP capacity building strategies been in delivering these changes? Are there any ways SFMP's capacity building strategies should be adapted in the final 2 years of the program to facilitate key changes? o Potential sub-question: To what extent can capacity building efforts foster stronger co-management and enforcement by the Fisheries Commission in the absence of increased budget allocations?	Responsiveness and accountability of the Fisheries Commission in performing key tasks (a-c)	Budget allocation (level) Strength of Fisheries Commission human resources

Figure 5. Results chain for SFMP identifying 14 priority learning questions



6. Next steps

Workshop participants identified "next steps" to build on insights gained through the workshop through three reflection exercises. This work revealed four categories of action the workshop participants would like to take to strengthen the implementation of SFMP.

Reflection Exercises: The workshop reflections consisted of:

1. a facilitated exercise to explore how SFMP's seven work streams are aligned with the 21 key results identified (Table 3),
2. an open-ended discussion on next steps following the workshop, and
3. an anonymous written assessment of the workshop and next steps (Table 4).

Data collected through these exercises is displayed here; the priority "next steps" identified are discussed below.

Table 3. Intersections between SFMP works streams and key results. Working in small groups of 2-3 people, workshop participants placed a dot under each SFMP work stream they viewed as contributing to each of the 21 key results identified in the workshop; the counts below are the total number of dots placed in each box.

	Key Results	IR 1: Enabling Environment	IR 2: Applied Science	IR 3: Constituencies	IR 4: Applied Management	IR 5: Gender	IR 6: Public-Private Partnerships	IR 7: Capacity of Institutions
1	More women empowered	6	3	5	5	5	4	5
2	Artisanal fisherfolk support and demand fisheries reform	6	2	6	3	3	0	3
3	High-level policy makers support fisheries reforms	6	5	7	2	1	0	2
4	Fishery reforms protecting the long-term interest of artisanal fisherfolk adopted	5	2	4	3	1	1	1
5	Political interference minimized	6	1	5	1	1	1	4
6	Value for available harvest increased and products made healthier	1	1	1	6	3	3	3
7	Economic benefits from reform identified	4	3	5	1	3	3	1
8	Fisherfolk maintain income during implmenetioation of reform	4	0	5	3	2	3	2
9	Evidence-based policy drafts developed	5	5	4	4	3	2	2
10	Budget is allocated	4	3	3	2	2	1	4
11	Closed Season declared for all fleets	6	4	5	4	2	2	2
12	Child labor in fisheries reduced	5	0	4	5	3	2	3
13	Fisherfolk believe fisheries reforms are legitimate	4	1	5	1	0	0	0
14	Artisanal compliance with activity regulations and seasonal closures is high	6	0	0	0	0	0	0
15	Seasonal closure observed regularly	5	2	3	3	1	1	1
16	Fisheries Commission actively responds to support innovations and sector needs	6	2	3	2	0	2	5
17	GOG capacity strengthened	3	2	1	0	0	0	4
18	Formal enforcement effective	5	0	4	2	1	1	3
19	CSO support to fisherfolk for co-management improved	4	0	3	0	1	0	3
20	Fisherfolk actively co-manage resources	8	1	6	6	0	0	1
21	Fishing effort reduced	7	3	4	3	2	1	2

Table 4. Anonymous written responses to open-ended workshop reflection questions.

Similar responses are grouped and counted together.

Q1: What will you do differently as a result of this workshop?	Number of similar answers
Improve coordination and communication with partners and targeted beneficiaries.	10
Make use of outcome statements and program-specific indicators to improve learning and implementation.	6
Improve implementation of the Year 4 work plan to focus on the achievement of key results.	4
Further refine the results chains for the IRs to allow a specific focus on the key results linked to the program's goals.	3
Will have a better appreciation of the interlinkages that exist between the various Irs; will see the IRs as interlinking parts.	2
Focus on a team approach to implementation.	2
Focus more on results rather than actions.	2
Focus effort on the key drivers that directly influence the conservation targets.	2
Conciously integrate gender considerations across the project.	1
Keep current with the Open Standards methodology through refresher sessions and additional learning.	1

Q2: Next Steps: What follow-on would you like to see from this workshop? What actions would you like SFMP to take to build on the work and analysis we have done together over the last 4 days?	Number of similar answers
Revise the Year 4 work plan and budget to reflect the program-level results chain. Partner work plans revised to capture key results missing within their area of influence.	5
Ensure a stronger engagement of the Fisheries Commission towards achieving the key results.	4
Use the results chain process as a basis for SFMP partner meetings going forward.	2
Use the results chain tool to improve communication with MOFAD and CSOs, and to develop a shared vision among stakeholders on how to save the fisheries.	2
Focus on areas that need more attention to help achieve our results. For instance, working closely with trawlers, etc.	1
Organize a mid-year review of the work plan to strategically enhance it using the results chain approach.	1
Integrate the results chain approach into the overall fisheries sector planning process.	1
Use the key results identified during the workshop in designing the work plan for subsequent years of SFMP so as to build synergies with implementing partners and their collaborators.	1
Review the results chain to identify assumptions and strategize how any gaps can be filled.	1

Follow-on Actions: Through these reflections workshop participants identified four categories of action for strengthening the implementation of SFMP:

1. **Refinement of the Year-4 workplan:** A number of participants expressed regret that the workshop had not preceded the recent Year-4 work planning process. They recommended reflecting on the work plan in light of the priorities and clarifications that emerged by developing results chains. Specifically, the program and partner work plans should be reviewed with an eye toward aligning activities to achieve the key results (Section 3) needed to achieve the program's goal of recovering stocks of small pelagic fish.

2. **Engaging the Fisheries Commission in results chains:** Workshop participants noted that the scope of SFMP is necessarily limited, and that achieving the program's goals requires greater action and engagement by the Fisheries Commission. Participants identified that sharing the workshop deliverables and Open Standards process with Fisheries Commission staff could help foster a shared vision for recovering small pelagic stocks and enhance coordination. For example, participants expressed interest in sharing the results chains developed during the workshop with the Fisheries Commission, revising it collaboratively, and using it as the basis for a joint work plan focused on achieving key results. The resulting work plan would clarify roles and priorities, as well as providing a basis for identifying areas where SFMP will not work. Workshop participants also expressed interest in using the Open Standards as a planning tool for broader work in Ghanaian and West African fisheries.

   Additionally, participants identified potential challenges to sharing this approach with the Fisheries Commission, noting it would require an investment in time and resources. They recommended sharing the approach at multiple levels within the Fisheries Commission, working to gain the support of current leadership while also focusing training on up-and-coming leaders with greater uptake potential and longevity in the organization.

3. **Enhanced internal coordination and integration:** A key insight gained through the workshop was the importance of greater integration and coordination among SFMP's work streams and implementing partners. Developing results chains for the IRs allowed workshop participants to articulate the theory of change for their own work and to visualize how their work links to the overall, program-level results chain for SFMP. The reflection exercises illustrated the way workshop participants have previously been focused on their own individual pieces of work, while under-emphasizing knowledge management and coordination that could optimize program results. All of SFMP's work streams are interconnected and build towards the overall program objective of achieving sustainable fisheries.

   For example, the first reflection exercise (Table 3) revealed that cross-cutting concerns such as gender and public-private partnerships were not well integrated with the other work streams. Specifically, no participants identified public-private partnerships (IR 6) as having a role in reducing fishing effort. Similarly, participants did not identify gender (IR 5) as contributing to fisherfolk believing that fisheries reforms are legitimate. The exercise demonstrated that there are additional integration opportunities for the program to explore, and was a useful reminder of the importance of seeing beyond a narrow technical focus and cultivating a holistic vision of the program.

   The workshop continued program discussions on how to enhance knowledge management, integration, and coordination in the implementation of SFMP and acknowledged this topic requires further exploration. Workshop participants recommended using the program-level

results chain and key results at SFMP partner meetings as a way to broaden a shared vision for the program and track their collective work in achieving program goals. Another recommendation was for all SFMP partners to read the entire annual report, rather than just the sections describing their individual work.

4. **Enhanced coordination in external communication:** During the reflection exercises, workshop participants identified a particular opportunity to strengthen their impact through enhanced coordination in their communication with external groups. They recommended more integrated communications across partners, especially where they are working with the same constituencies.

Annex 1. Approaches to procuring analysis for the mid-term learning questions

Overview

USAID/Ghana intends to procure a mid-term evaluation for SFMP that focuses on both performance evaluation and learning questions, in-line with the Agency's Evaluation Policy. Key audiences for the evaluation include USAID, SFMP and its implementing partners, and the Government of Ghana. The goals of the learning questions are to:

- Evaluate key assumptions in SFMP's results chain
- Strengthen SFMP implementation in the final two years of implementation
- Enhance understanding of key issues related to reforming Ghana's small pelagic fishery and interventions that can effectively help recover this fishery

Overview of evaluation questions, methodology, and evaluator expertise

Table A.1.1 summarizes the mid-term learning questions presented in Section 4, suggests methods that could be used to answer the questions, and identifies the type of expertise required to conduct the assessments. Many of the questions require specialized analysis and expertise that are not commonly in the toolbox for USAID evaluators, thus organizing and implementing the evaluation will require a thoughtful approach to procurement.

Approaches to procurement

Several approaches could be taken to procure the analysis needed to answer SFMP's mid-term learning questions:

- Procurement of a specialized evaluation – The questions could be included in one scope of work (SOW) for a mid-term evaluation. The SOW would need to identify the specialized expertise required to answer these questions and the procurement approach would need to enable access to this type of expertise.
- Implementation through a set of studies as part of a broader learning agenda – Through coordinated discussions between USAID/Ghana, USAID/Washington, and SFMP, the questions could be broken down into a set of specialized assessments that could be implemented through a mix of procurement approaches, including:
    - Traditional evaluation approaches for assessing program impact, e.g., this approach could work for answer elements of Learning Questions 2c, 3a, and 5b;
    - Specialized analysis procured by either SFMP or USAID/Ghana, e.g., this approach could work well for answering elements of Learning Questions 1a and 4a;
    - Political Economy Analysis supported by USAID/Washington, e.g., this approach could work well for answering elements of Learning Questions 2c and 3a
    - Coordination with other donors or researchers working on closely related issues, e.g., perhaps analytical work by the World Bank or the University of British Columbia could answer elements of Learning Questions 1a or 4a.

Next Steps

After USAID/Ghana determines a procurement approach, in consultation with SFMP and USAID/Washington, USAID/Washington can provide further support in developing technical elements of the required SOW(s). USAID/Washington will coordinate with the Measuring Impacts program to assist in developing technically robust SOWs, including question framing, specification of methods, and identification of required expertise.

Table A.1.1 Required evaluator expertise and potential evaluation methods for 5 learning question identified for the SFMP midterm evaluation

	Learning question	Potential Methods	Evaluator Expertise
1. **Technically sound: What reforms can best deliver ecological recovery of the small pelagic fishery?**			
1a*	**Can Ghana's small pelagic fishery recover without action to reduce the illegal Saiko catch?** SFMP aims to promote recovery of Ghana's small pelagic fishery through improved management of the artisanal fishery. However, the true level of illegal Saiko catch is unknown, leading to real or perceived competition with artisanal fishers. This question calls for research to reveal the current level of Saiko fishing and its impact on the small pelagic fishery.	Fisheries science	• Stock Assessments • Reconstruction of illegal and unreported catch by all fleets
2. Socially legitimate: What strategies will best enable collaborative management that delivers fisheries reforms which are socially equitable, perceived as legitimate, and incentivize compliance?			
2c*	To what extent does strengthening fishing organizations and having more fisherfolk engaged in decision-making **lead to artisanal fisherfolk having a more effective voice and greater influence in national policy deliberations,** as measured by the extent to which reforms serve their interests? Why or why not?	• Qualitative evaluation • Political economy analysis	• Social science • Political science or institutional analysis • Evaluation

3. Politically supported: What strategies will best foster sustained high-level political support for fishery reforms and budgets?			
3a*	To what extent and under what conditions does having opinion leaders support fishery reforms **lead to high-level policy-makers supporting fishery reforms**? Why or why not? How does this relationship change based on the specific policy reform being considered?	• Qualitative evaluation • Political economy analysis	• Social science • Political science or institutional analysis • Evaluation
4. Economically sound: What strategies can deliver economic benefits that maintain or enhance fisherfolk well-being while reforms are implemented and into the future?			
4a*	To what extent and under what conditions can different approaches for delivering economic benefits (below) **maintain or enhance fisherfolk income &/or well-being while fishery management reforms are being implemented**? o Potential sub-question: To what extent do improvements in post-harvest processing techniques/facilities reduce post-harvest losses and increase the value from available harvests? o Potential sub-question: To what extent does increased working capital and financial tools contribute to improved processing and increased value from available harvests? o Potential sub-question: To what extent does fisherfolk's active engagement in co-management benefit them socially and/or economically? Why or why not?	• Economics analysis • Policy analysis • Mixed methods evaluation	• Economics • Fishery economics • Policy analysis • Evaluation

5. Responsive governance: What institutional and organizational changes are most needed to foster fisheries reform and co-management?

5b *	To what extent and under what conditions can increased budget allocations and strengthened human resources lead to the institutional and organizational changes that are most needed to **transform the Fisheries Commission into a responsive, accountable government agency** that can: a) engage in co-management, b) effectively enforce rules, and c) deliver relevant monitoring and analysis? ○ Potential sub-question: How effective have SFMP capacity building strategies been in delivering these changes? Are there any ways SFMP's capacity building strategies should be adapted in the final 2 years of the program to facilitate key changes? ○ Potential sub-question: To what extent can capacity building efforts foster stronger co-management and enforcement by the Fisheries Commission in the absence of increased budget allocations?	● Organizational analysis ● Mixed methods evaluation ● Institutional analysis	● Organizational assessment ● Institutional assessment ● Mixed methods evaluation

Annex 2. Results chains for intermediate results (Both)

Figure A2.1. Results chain for IRs 1 and 4: Enabling conditions and Applied Management

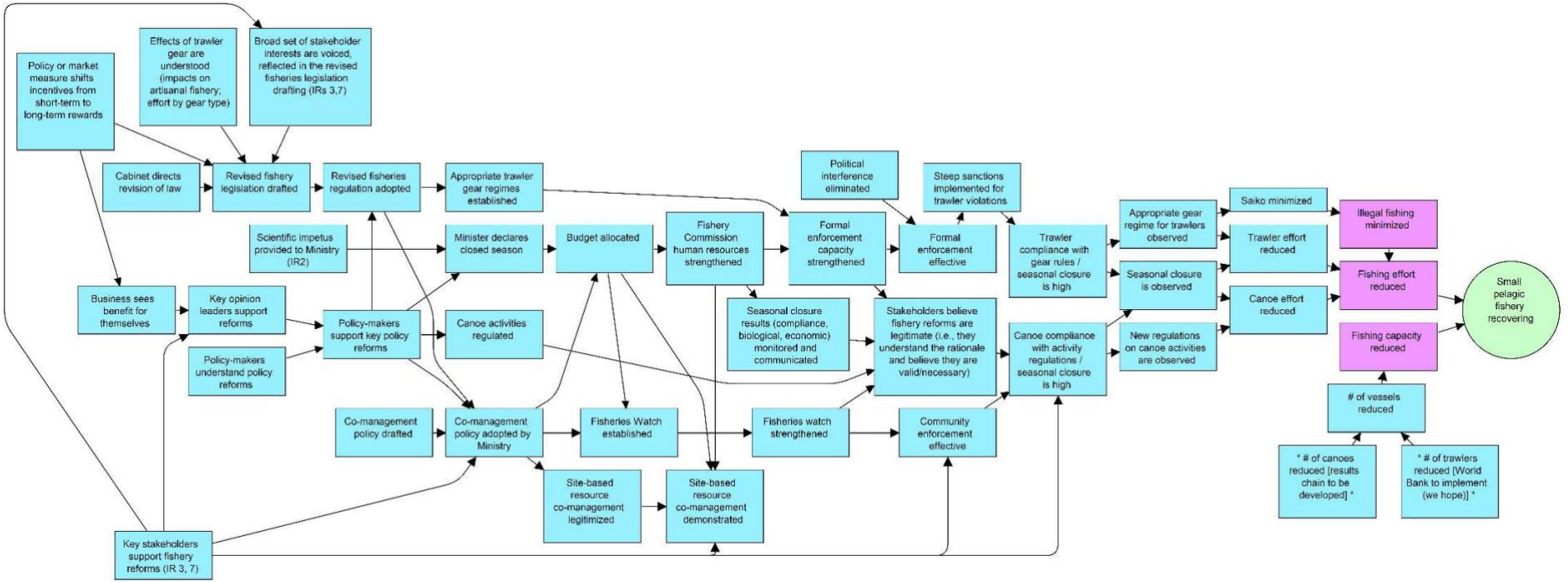


Figure A2.2. Results chain for IR 3: Constituencies

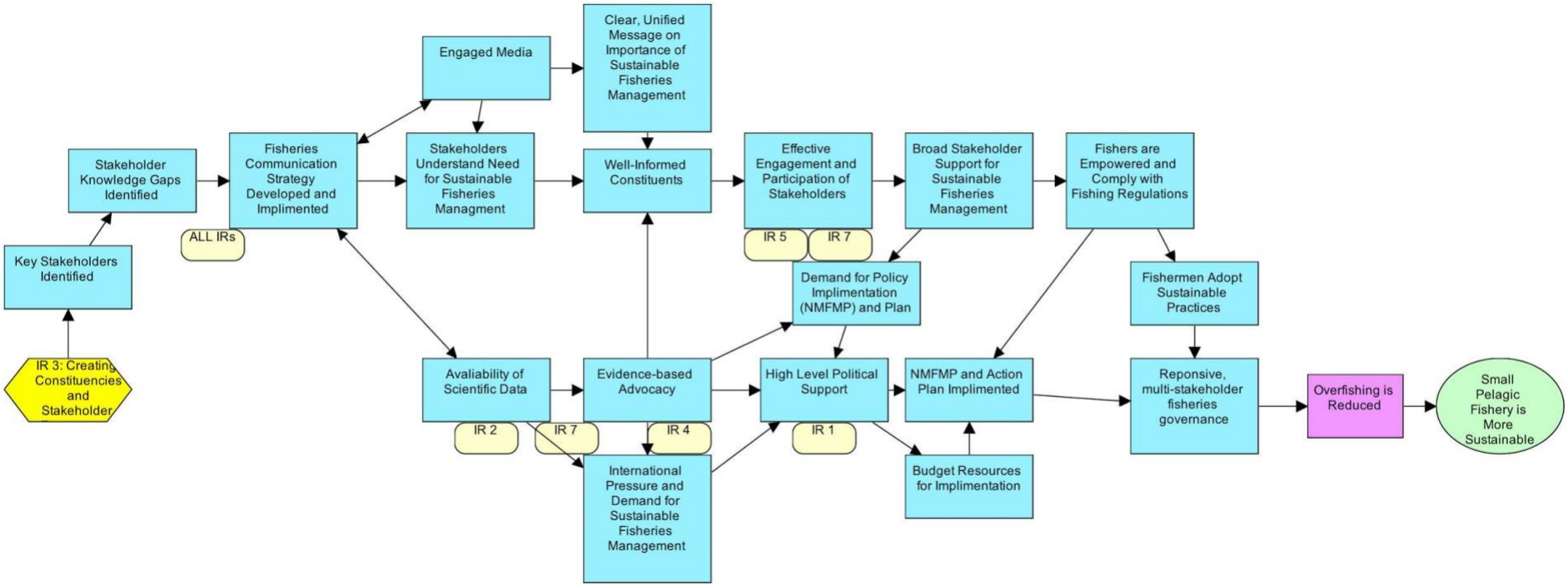


Figure A2.3. Results chain for IR 5: Gender

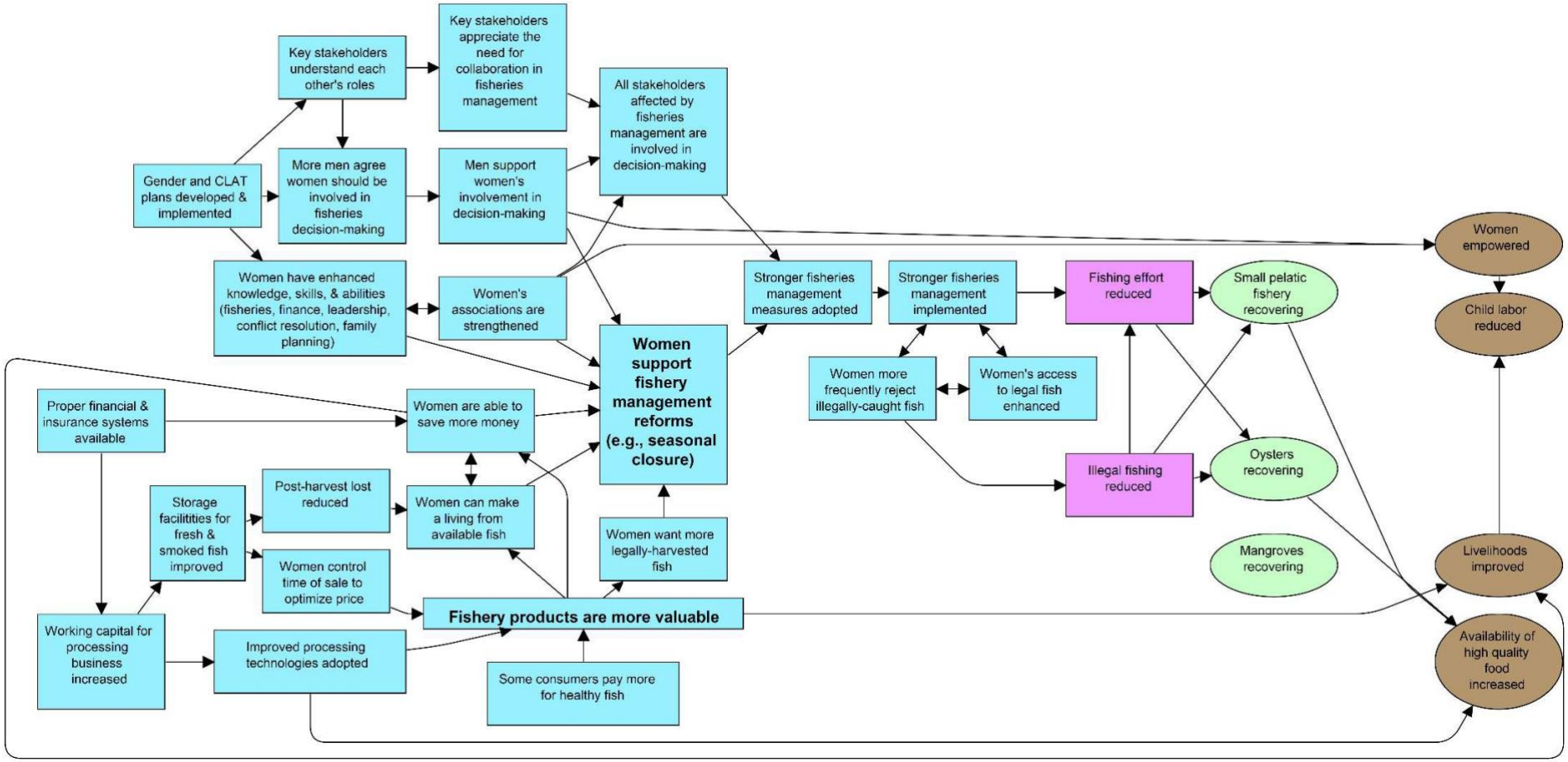
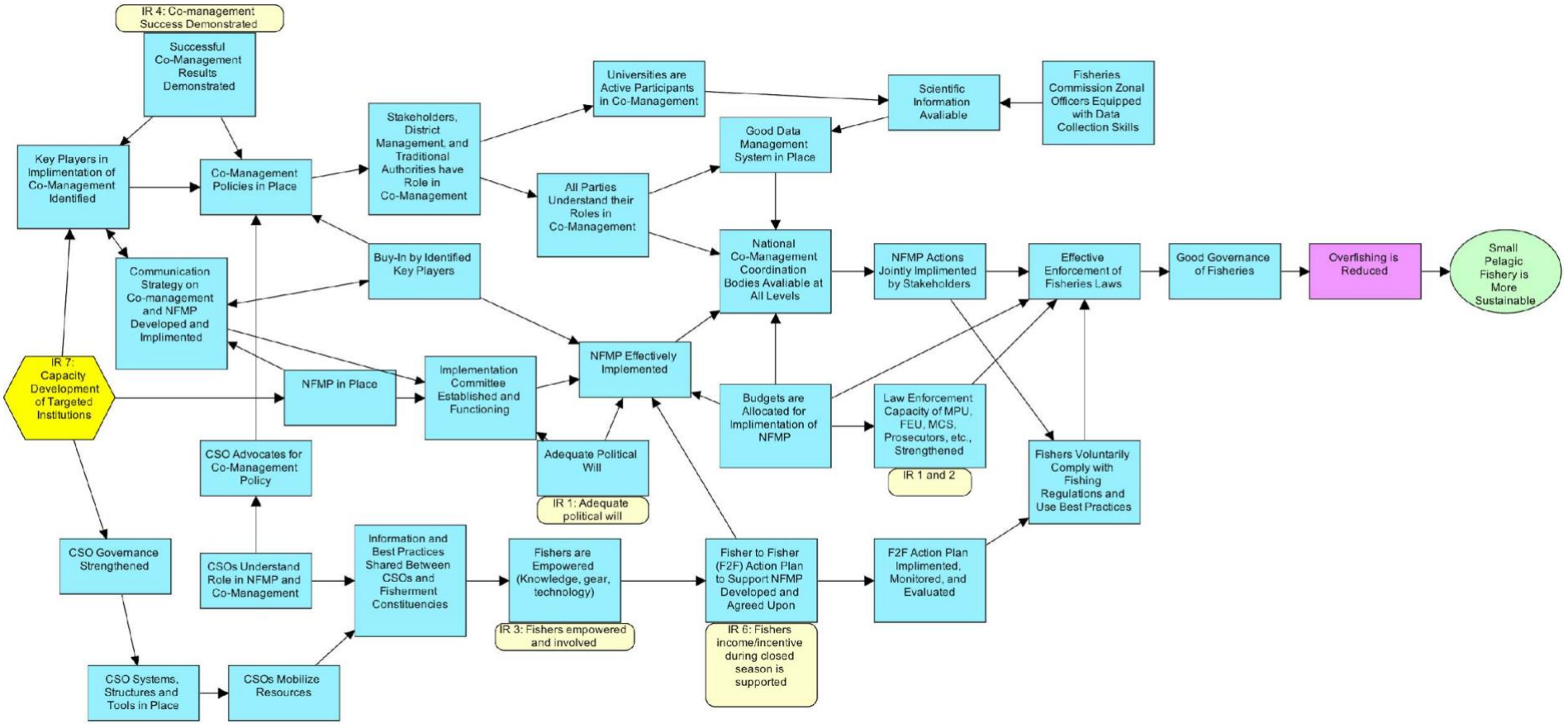


Figure A2.4. Results chain for IR 7: Capacity building for targeted institutions


IR 4: Co-management Success Demonstrated
Successful Co-Management Results Demonstrated
Key Players in Implimentation of Co-Management Identified
Co-Management Policies in Place
Stakeholders, District Management, and Traditional Authorities have Role in Co-Management
Universities are Active Participants in Co-Management
Scientific Information Avaliable
Fisheries Commission Zonal Officers Equipped with Data Collection Skills
Good Data Management System in Place
All Parties Understand their Roles in Co-Management
Buy-In by Identified Key Players
Communication Strategy on Co-management and NFMP Developed and Implimented
National Co-Management Coordination Bodies Avaliable at All Levels
NFMP Actions Jointly Implimented by Stakeholders
Effective Enforcement of Fisheries Laws
Good Governance of Fisheries
Overfishing is Reduced
Small Pelagic Fishery is More Sustainable
IR 7: Capacity Development of Targeted Institutions
NFMP in Place
Implementation Committee Established and Functioning
NFMP Effectively Implemented
Budgets are Allocated for Implimentation of NFMP
Law Enforcement Capacity of MPU, FEU, MCS, Prosecutors, etc., Strengthened
IR 1 and 2
Fishers Voluntarily Comply with Fishing Regulations and Use Best Practices
CSO Advocates for Co-Management Policy
Adequate Political Will
IR 1: Adequate political will
CSO Governance Strengthened
CSOs Understand Role in NFMP and Co-Management
Information and Best Practices Shared Between CSOs and Fisherment Constituencies
Fishers are Empowered (Knowledge, gear, technology)
IR 3: Fishers empowered and involved
Fisher to Fisher (F2F) Action Plan to Support NFMP Developed and Agreed Upon
IR 6: Fishers income/incentive during closed season is supported
F2F Action Plan Implimented, Monitored, and Evaluated
CSO Systems, Structures and Tools in Place
CSOs Mobilize Resources

Annex 3. Draft outcome statements and indicators for key results

Workshop participants identified those results that are essential to achieving the program's objectives (Section 4). Each key result was then assigned to a workshop participant, or "caretaker", and who developed an associated draft outcome statements and indicators while working in a small group (Table A3.1).

Due to limited time in the workshop, outcome statements and indicators were left at the draft stage. These exercise was intended to demonstrate the USAID best practice of using results chains to guide monitoring of program activities. This section is not an endorsement of these outcome statements and indicators; we do not recommend they be used in their current form for monitoring or setting targets. With further work, these draft outcome statements and indicators could be refined and incorporated into SFMP's strategic planning and monitoring.

An outcome statement is a formal statement that defines in specific terms what a team hopes to achieve for key results on the way to achieving the overall purpose. Outcome statements should be SMART: specific, measurable, achievable (practical), results-oriented, and time-limited. Once a good outcome statement has been developed, the indicator, or method of measuring the outcome, naturally develops from the outcome statement.

The 21 key results are listed below with the draft outcome statement and indicators proposed by the workshop participants. These custom indicators specifically tied to the key results of the program are more useful for tracking program progress than USAID's standard indicators. With this custom data, corrections can be made to the theory of change and the program's implementation.
Conveniently, most custom indicators can also be applied to the more general standard indicators, which are useful for reporting at a global scale.

Table A3.1. Outcome statements and suggested indicators for each key result identified in SFMP's results chain

Key result		Outcome statement	Suggested indicator
Constituencies and political support			
1	Women more empowered	By 2019, at least 70% of women fisheries associations in program beneficiary areas are strengthened and contributing to fisheries management reforms	% of women associations strengthened and contributing to fisheries management reforms

2	Artisanal Fisherfolk Support and Demand Fishery Reform	By Sept. 30, 2019, 60% of artisanal fisherfolk empowered to support and demand fisheries reform	% of artisanal fisherfolk empowered
3	High-level policy makers support key fishing reforms	By 2019, high-level policy makers* will support at least 80% of key fishery reforms. *High-level policy makers include the President, Minister of Fisheries, Chief Director of Fisheries Commission	% of key reforms supported by high-level policy makers
4	Artisanal fisherfolk have an effective voice in policy deliberations		
5	Political Interference Minimized	By 2019 there will be 50% reduction in political interference on the enforcement of fisheries regulations	1) % change of arrests and prosecutions made 2) % change of unapproved gear seized and burnt 3) % change in fishermen complying with fisheries regulations
6	Fisher folk believe Fishery reforms are legitimate	Illegal fishing in artisanal fleet is reduced by 80% in 2019 as compared to 2018 status as a result of legitimate fishery reforms	% of illegal fishing reduction in artisanal fleet between 2018 and 2019
Institutional			
7	CSO support to fisherfolk for co-management improved	By 2019, at least 3 SFMP partners support fisherfolk to implement co-manage models in target communities (Densu, Pra and Ankobra areas).	1) Number of SFMP partners supporting fisherfolk to implement co-management models. 2) Number of co-management models implemented with support from CSOs including SFMP partners.
8	Government of Ghana Capacity Strengthened	20 Fisheries Commission field staff training by 2018 to establish functional fisheries watch and implement co-management at the field level	# of Fisheries Commission field staff trained and are facilitating implementation of co-management at the field level
9	Fisheries Commission actively responds to support innovations and sector needs	A new Fisheries and Aquaculture Bill submitted to Parliament by the Minister of Fisheries and Aquaculture Development by December 2018	A new Fisheries and Aquaculture Bill submitted to Parliament by the Minister of Fisheries and Aquaculture Development by December 2018
		A Fisheries Co-management Policy adopted by MOFAD by December 2017	Minister of Fisheries endorses the adopted policy at a public event before the New Year 2018

		At least 10 fisheries Watch Volunteer Groups established in 10 coastal Districts in Ghana by June 2018	Number of Volunteer groups established
		At least 4 small scale and 1 large scale co-management Units and 1 large scale established by December 2018	1) Number of Small scale co-management Units established by December 2) Number of Large scale co-management Units established by December 2018
		All artisanal canoes registered by December 2017 and licensed by December 2018	1) Number of canoes registered by December 2017 2) % of Canoes registered and licensed by December 2018
		A fisheries Closed Season for all fleets implemented by August 2018	No of vessels (canoe, inshore and trawlers) arrested for closed season violations
10	Budget Allocated	If the 2017-2018 budget is allocated on time, at least 80% of the outstanding Fishery Commission projects will be completed by the end of 2018	% of outstanding projects completed by the end of 2018
		By the end of budget year 2020, 100% of fisheries related activities budgets would have been allocated	% of fisheries activities budgets allocated by the end of 2020
Economic			
11	Artisanal Fishers Identify Economic Benefits in Fisheries Reforms	By the end of the production year 2019, at least 50% of artisanal fishers will identify economic benefits in fisheries reforms	Percentage of artisanal fisherfolk, segregated by sex, who identify economic benefits in fisheries reforms by the end of production year 2019
12	Value for available harvest increased and products made healthier	70% of all harvested fish will be processed under healthy conditions by December 2018 with double profit margins	1) % of harvested fish processed with "Ahotor" oven. 2) Number of fisherfolk (segregated by sex) who have doubled their income/profits. 3) Number of health processing centers (Compliance facilities) established (segregated by male/female led)
		By September 2018, 10% of fish processors within coastal regions in Ghana should attain a Class 1 certification label towards the production and trade in healthy smoked fish for the Ghanaian market	% of fish processors that have attained the Class 1 certification label

13	Fisherfolk maintain income during implementation of reforms	By end of 2018, 50% of fisherfolk are maintaining average income of GHS 300 during closed season	Percentage of fisherfolk receiving payout from private sector insurance initiative
Fishery management reforms adopted and implemented			
14	Evidence based policy draft developed	At least 4 new policies developed and being implemented by the end of 2018	Number of new policies being implemented by the end of 2018
15	Fishery Reforms Protecting the long-term interest of artisanal fisherfolk adopted	By 2019 co-management policy, protecting the long-term interest of artisanal fisherfolk adopted	# of artisanal fishers adopting co-management policy
16	Fisherfolk Actively Co-Manage Resources	1) By 2018 all the 3 community-based fisheries management plans for Ankobra, Pro and Densu estuarine systems are endorsed and adopted by MOFAD.	# of community-based fisheries management plans adopted for the management of fisheries in the Ankobra, Era and Densu estuarine systems.
		2) Specific fisheries management actions in the Ankobra, Era and Densu Estuarine Systems Implemented by 2018	# of specific fisheries management actions implemented for Ankobra, Pro and Densu estuarine systems.
17	Formal Enforcement Effective	1) By 2019 at least 30% increase in the # of enforcement patrols at sea	1) % increase in # of enforcement patrols at sea
		2) By 2019 at least 30% increase in # of enforcement inspections along the coast in all landing sites	2) % increase in the # of enforcement inspections along the coast at all landing sites.
		3) By 2019 at least 30% increase in # of successful prosecution cases	3) % increase in the # of successful prosecution cases.
		4) By 2019 at least 50% increase in # of arrests of illegal fishers.	4) % increase in # of arrests of illegal fishers
		5) By 2019 at least 40% increase in hours of enforcement patrol at sea.	5) % increase in hours of enforcement patrol at sea.
Behavior change achieved			
18	Artisanal compliance with activity regulations and seasonal closure is high	By 2019, 60% of artisanal sector fishers comply with activity regulations and seasonal closures.	1) % of artisanal fishers who comply with regulations and seasonal closures. 2) % of reported non-compliance cases.
19	Seasonal Closures Observed Regularly	By 2019, two seasonal closures are observed by all fleet	Number of closed seasons observed

20	Child Labor in Fisheries Reduced	Child labor and trafficking reduced in fisheries by 85% in 2019 as a result of adoption of child labor and trafficking policy	% reduction in number of children engaged in child labor and trafficking in fisheries in 2019
21	Fishing Effort Reduced	By 2020, 50% of fishing efforts from industrial trawlers reduced	Percentage of industrial fleets reduced
			Percentage of fishing days reduced for artisanal and industrial
		30% of artisanal fisheries efforts reduced by the end of 2020	Percentage of hours for fishery activities reduced

Annex 4. Analysis process and timeline: description and reflections

In USAID programming, the *Open Standards* are increasingly used as a methodology for the design, start-up, management, and monitoring of activities and projects. As part of to this start- to-finish approach, USAID is sometimes retroactively developing results chains during the implementation of on-going activities. The retrospective development of results chains can be undertaken for a variety of purposes, including to: develop learning questions for evaluations, confirm strategic approaches, and/or improve monitoring and use of indicators. As the goals and contexts of these mid-implementation workshops can differ greatly from situation to situation, so the process and agenda can also vary significantly between workshops. This annex describes findings and lessons from the SFMP workshop.

The primary goal for this workshop was to develop and prioritize learning questions. Implementation of the workshop also had the additional benefits of deepening a shared understanding of the program's theory of change among workshop participants and demonstrating the use of the *Open Standards* as a tool for strategic planning and monitoring. Before traveling to Ghana the facilitators participated in a one-day workshop with USAID and CRC-URI staff in Washington D.C. The goals for this pre-workshop were to:

- Revise the draft situation model
- Draft a results chain for IR:4 Applied Management
- Review draft learning questions
- Refine agenda for Ghana workshop

The goal of conducting the pre-work of developing the drafts of the situation model and results chain for IR 4 was to make best use of the time of the participants during the workshop in Ghana. The in-country workshop took place over 4.5 days, straddling a weekend. See Table A4.1 for the workshop agenda.

The overarching goals of the workshop in Accra were to:

- Finalize the situation model
- Develop results chains for 5 strategic approaches
- Develop a program-level results chain
- Identify and prioritize learning questions
- Identify key results with associated outcome statements and indicators
- Develop recommendations for the mid-term evaluation SOW

Several best practices and lessons were identified:

Facilitation: Two facilitators were necessary to conduct a workshop of this size and within a relatively short timeframe. With numerous results chains, having two facilitators allowed breakout groups to work on different results chains during concurrent sessions. Future workshops of this sort could even consider three facilitators, which would allow more interaction with participants as they worked through the various exercises.

Timing: An improvement on timing for the Accra workshop may be to hold the workshop during a calendar week, with a day off for participants on Wednesday. A pause at the midpoint of the workshop was necessary to allow the facilitators to make final changes to the situation model and prepare an activity level results chain. During the Accra workshop this pause took place over a weekend. However, this imposed hardships for participants from outside of Accra, who were kept

away from their families over the weekend. Holding the workshop over a week, and scheduling the pause mid-week, may be better.

Innovations: The workshop employed several innovations to create a shared vision among participants and to provide participants with experience in communicating situation models and results chains. Table 3 in Section 6 displays the outcome of a "dot chart" exercise in which participants mapped their understanding of the intersection between the SFMP workstreams and the key results. Based on participant request, the workshop included a module on best practices for communicating situation models and results chains to others. This is a critical skill for workshop participants who are excited about sharing their work; in the case of SFMP, participants' communication skills were put to immediate use during the final out-brief with the USAID Deputy Mission Director.

Table A4.1: Workshop Agenda

Date	Activities
Sept. 14	• Process overview • Finalize situation model (presentation and group exercise) • Results Chain Overview and sharing draft "core" results chain IR 4: Applied Management (presentations, small group work, report out)

Sept. 15	• Develop results chains for 2 strategies (*breakout groups work concurrently, share results chains)
	  ○ IR 1: Enabling environment
	  ○ IR 3: Constituencies
	• Develop results chains for 2 strategies (*breakout groups work concurrently, share results chains)
	  ○ IR 5: Gender
	  ○ IR 7: Capacity development for targeted institutions
	• As a group, reflect on the connections between the different results chains and consider further revisions

Sept. 16 and 17 (Weekend)	• Facilitators make discussed changes to the situation model and create activity level results chain
Sept. 18	• Finalize situation model and activity-level results chain • Identify key results from results chain

	• Brainstorm learning questions • Introduce outcome statements and indicators (homework)
Sept. 19	• Review outcomes and indicators • Identify and refine mid-term questions • Reflect on implications for implementation • Discussion on best practices for presenting situation models and results chains
Sept. 20	• Presentation practice • Mission out-brief

Annex 5. Participant feedback on the Ghana workshop

*Note: all are quotes transcribed from participant submissions.

1. What did you like best about the workshop?

- The participatory method used by the facilitators of the break-out sessions.
- Very participatory and reflective.
- New knowledge in results chains and situational analysis.
- Participatory - Participants coming out with our own results chain, makes us reflect.
- Allows us to focus on where there is a shortfall and a need to work towards achieving the objectives of the project.
- The facilitation approach is commendable.
- The teamwork between the facilitators was great.
- The facilitators tried very well to ensure timeliness with the "headline" methodology.
- The facilitator's ability to ask critical and thought-provoking questions
- The results chain planning process.
- Development of the results chain exercise.
- The group work on results chains.
- The facilitators key control over the subject matter and made me to really achieve my expected expectation.
- Focusing on "results" and not activities.
- Like the participatory nature of participations by the facilitators.
- Workshop had deepened my understanding of how to develop results chains.
- Developing results chains, and reflecting on a actions that will lead to precise answers or objectives.
- The workshop was participatory which allowed everyone to share his/her experiences.
- The interactions, openness of ideas and information dissemination in stages for better understanding.

2. What suggestions do you have for improving a workshop like this one?

- Distribution of presentation materials so participants can read before coming to the workshop.
- Sub-group activities should be enhanced as it gives the chance for clarifications.
- It should always be done before developing the work plan for a particular year.
- Less powerpoint and more visualizations.
- This workshop must be repeated for the Fisheries Commission.
- The result chain planning process should always be done ahead of annual work planning.
- More time to go into results chain development.
- Try and incorporate the Fisheries Commission Directors in the workshop.
- It should extend to move days.
- Other key partners such as FC, UCC should be invited to participate.
- Should have more days.
- This should be done before the work planning session of the project. This will give directions and useful insight as to what to do.
- The workshop should have included all M&E officers.
- Involve a lot more officers from the FC and at leadership of the fleets to be part of the

discussions.

- Although the facilitation was excellent, I think there should be a future follow-up to see how lessons learned is being applied.
- A follow up on workshop activities with key persons at the FC, in order to advance communication and learning.

Annex 6. Resources for learning about situation models and results chains

- USAID's How-To Guides are available at: https://rmportal.net/biodiversityconservation-gateway/resources/projects/measuring-impact/how-to-guides-for-usaid-biodiversity-programming
- Additional resources on the Open Standards for Conservation are available at: http://cmp-openstandards.org/