



# Senegal Fisheries Applied Political Economy Analysis

April 2017

## Applied Political Economy Analysis Background

USAID/Senegal and USAID/Washington staff from Biodiversity, Feed the Future (FTF), Global Climate Change (GCC) and Democracy, Human Rights and Governance (DRG) joined together to undertake an applied Political Economy Analysis (PEA) in Senegal in October 2016. While progress has been made in the sector, the applied PEA sought to better understand why unsustainable fishing persists, despite evidence that many of the fisheries are on the brink of collapse from overfishing. The applied PEA contributed to the understanding of the problem and the strategic approaches to address the problem

This report contains the initial findings from the applied PEA. Additional applied PEA work will be needed to better understand the industrial fishing and processing contexts, map actors and their interests and influence, and explore other issues as they arise or change. It is envisioned that the Mission team will continue to utilize the applied PEA methodology and way of thinking to remain abreast of changes in situations, as well as advise the implementation of the current project, COMFISH Plus.

## Introduction

Senegal is hailed as a “model for democracy” in West Africa.<sup>1</sup> With a population of 15.3 million, the country has benefited from three peaceful democratic transitions and relatively strong economic growth in recent years.<sup>2</sup> Historically, Senegal has had a strong central government with a powerful presidency that relied heavily on patronage politics to govern. Since winning the competitive election in 2012, President Macky Sall has ushered in decentralization and other positive reforms and reinvigorated the citizenry to demand more accountability and better governance.<sup>3</sup> In March 2016, Senegal held a referendum to reduce the length of the presidential term from seven to five years, create a new consultative assembly, allow an independent candidate status for all elections, establish an official status for the opposition leader, embark on land and natural resources management reform, and establish the right to a

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<sup>1</sup> BBC, *Senegal's President-elect Macky Sall hails 'new era,'* March 26, 2012, <http://www.bbc.com/news/world-africa-17508098>, accessed November 7, 2016.

<sup>2</sup> Country Overview, World Bank, <http://www.worldbank.org/en/country/senegal/overview>, accessed November 11, 2016.

<sup>3</sup> USAID Democracy, Human Rights and Governance Assessment of Senegal, January 2013.

healthy environment. Senegal appears as a rather centralized state as pertains to checks and balances. A special social and political feature of the country lies in the importance of Muslim brotherhoods and traditional circles in decision-making but also for a majority of Senegalese people who follow to them and who revere their leaders.

With an all-time high growth rate of 6.5 percent in 2015, a growth rate of 6.8% in 2017 and predicted 7% growth rate in 2018, Senegal is the second fastest growing economy in West Africa. Growth is strongest in the primary sector, especially extractives, fishing, and agriculture. Industry also is important, but services, particularly the growing transportation and communications sectors, represent more than half of the total GDP.<sup>4</sup> The Sall Administration has focused on implementing the Plan Senegal Emergent, which strives to make Senegal an emerging market economy by 2035 by focusing on: “(1) higher and sustainable growth in the range of seven to eight percent, based on foreign direct investment (FDI), export-driven structural transformation and widening the circle of opportunity to provide space for [small and medium-sized enterprises]; (2) human development and social protection; and (3) improved governance, peace, and security.”<sup>5</sup>

Fishing is an important economic activity that provides food and livelihoods for many Senegalese and their neighbors. One in six Senegalese work in the fisheries sector.<sup>6</sup> Overfishing has affected 50 percent of fish stocks in western Africa<sup>7</sup> and greatly diminished the fish stocks in Senegal. This trend is similar to the state of global fisheries where more than 30 percent of assessed fish stocks are overexploited and another 60 percent are harvested at their maximum sustainable yield.<sup>8</sup> The decline of this resource threatens the economic livelihoods and food security of millions of people in Senegal and surrounding countries. Local artisanal fishing accounts for 80 percent of the reported catch and an estimated 60 percent of all fish caught. From 1999 to 2011, the industrial illegal, unreported and unregulated fishing (IUUF) catch was estimated at 2.6 million tons, worth US \$300 million per year. The increase in IUUF is somewhat correlated with the decrease in the number of foreign industrial vessels authorized to fish in Senegal, many of which then sought legal status in neighboring countries but continue to enter Senegalese waters to fish illegally.<sup>9</sup> Moreover, Senegalese-flagged vessels owned by joint-venture companies reportedly engage in fraudulent and illegal practices, such as falsified catch

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<sup>4</sup> World Bank, <http://www.worldbank.org/en/country/senegal/overview>, accessed November 15, 2016.

<sup>5</sup> World Finance, *IMF: Senegal emerging economy status 'achievable,'* <http://www.worldfinance.com/home/imf-interview-senegal-emerging-economy-status-achievable>, accessed November 7, 2016.

<sup>6</sup> Greenpeace, *The Plunder of a nation's birthright*, 2012, page 22, <http://www.greenpeace.org/africa/Global/africa/publications/oceans/ThePlunderOfANationsBirthright.pdf>, accessed November 7, 2016.

<sup>7</sup> Overseas Development Institute, *Western Africa's Missing Fish: The impact of illegal, unreported and unregulated fishing and under-reporting catches by foreign fleets*, page 10, published 2016, accessed November 17, 2016.

<sup>8</sup> FAO, *The State of World Fisheries and Aquaculture: Contributing to food security and nutrition for all*, page 38, <http://www.fao.org/3/a-i5555e.pdf>, published 2016, accessed November 17, 2016.

<sup>9</sup> Belhabib, Dyhia, et al, *Beyond the unseen: a first collaborative model towards estimating illegal, unreported, and unregulated catches off Senegal*, Working Paper #2014-05, University of British Columbia Fisheries Centre, [http://publications.oceans.ubc.ca/webfm\\_send/340](http://publications.oceans.ubc.ca/webfm_send/340), accessed November 7, 2016.

## Senegal Fisheries Sector Applied Political Economy Analysis

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documentation, illegal fish landing, unloading at sea, use of flags of convenience, unlawful accumulation of licenses, failure to embark observers, and dodging fines when caught.<sup>10</sup>

The GOS has expressed commitment to sustainably managing fisheries and increasing enforcement efforts to stop IUUF. The GOS passed an updated Fishing Code and Fisheries and Aquaculture Sector Policy and Development Letter to improve overall management of the sector and increase fines for both artisanal and industrial IUUF. It also is working with the World Bank to freeze the already large artisanal fleet by registering licensed pirogues in a more permanent manner (plaques as opposed to painted identification), equipping registered boats with Automatic Identification System (AIS) chips, and banning the construction of new pirogues. Even with limited state resources for surveillance, the GOS has increased human resources dedicated to enforcement, initiated the ratification process for the Food and Agricultural Organization-led Port States Measures Agreement (PSMA) to increase international coordination to detect IUUF, and punished industrial and artisanal IUUF in some cases.

By close of 2016, USAID/Senegal extended its current fisheries project, COMFISH, implemented by the University of Rhode Island, until 2018. In the first five years, the project focused on increasing the capacity of GOS institutions and Local Artisanal Fishery Councils (CLPA) to improve sustainable fisheries management. COMFISH Plus pursued efforts to build on the enabling conditions for sustainable management of fishing resources, namely:

- Strong constituencies for implementing reforms to address the overfishing, excess capacity and IUU fishing issues;
- Institutional capacities sufficient to implement policy reform and plans of action;
- Government commitment to the policies, management reforms and sectoral strengthening through delegation of authorities and allocation of financial resources; and
- Adoption of shared goals that address societal, environmental and climatic conditions against which efforts can be measured.<sup>11</sup>

This PEA was scoped broadly to better understand why unsustainable fishing continues in Senegal and tested some of assumptions of the drivers of change in the status of fisheries. The PEA also uncovered several questions that merit further investigation that this initial, brief applied PEA does not address, particularly related to industrial fishing and processing and joint-venture company licensing and operations.

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<sup>10</sup> Mediaproduct, Voices from African Artisanal Fishers, January 2016, [http://www.naturskyddsforeningen.se/sites/default/files/dokument-media/voices\\_from\\_africa\\_eng\\_1.pdf](http://www.naturskyddsforeningen.se/sites/default/files/dokument-media/voices_from_africa_eng_1.pdf), accessed January 6, 2017.

<sup>11</sup> COMFISH Plus Program Description. For the sake of simplicity, this document sometimes uses “COMFISH” to refer to both the original and follow-on projects.

## Methodology

After several remote meetings on the applied PEA, the applied PEA team first came together in Dakar, Senegal in October 2016. The team consisted of two USAID/Senegal representatives, three USAID/Senegal field staff, four USAID/Washington representatives, and one PEA consultant. COMFISH Plus representatives also accompanied the team at times and assisted with scheduling interviews.

The team started with a three-day PEA workshop, during which the team began to analyze the political economy factors that affect sustainable fisheries management in Senegal using the USAID applied PEA methodology.<sup>12</sup> Following the workshop, the team conducted interviews in Dakar, Rufisque, Cayar, Saint-Louis, and the Saloum Delta area from October 20-28. The team divided into smaller groups and fluent Wolof or French speakers led each interview.

The interviews included a variety of government, civil society, community and private sector stakeholders engaged in the fisheries sector. Although many were connected to COMFISH, the team also interviewed unrelated stakeholders. While most were individual interviews, there were some group interviews when appropriate or unavoidable.

This list included:

- Several CLPA members;
- Fishers and wholesalers not currently participating in CLPAs;
- Women's cooperatives and processing/harvesting organizations;
- FENAGIE, a federation of producers and fishers;
- Fish for Life, a non-governmental organization;
- Local and national officials, Department of Marine Fisheries (DPM)
- Local and national officials, Department of Fisheries Surveillance and Protection (DPSP);
- APIX, a local authority from the Investment Promotion Agency (APIX);
- A national authority from the Department of Marine Protected Areas;
- Local-level central government representatives (prefects);
- Local branch of the Agricultural Credit Bank;
- Researchers with the Oceanographic Research Center (CRODT);
- A World Bank representative;
- Japanese Development Cooperation Agency (JICA) representatives;
- European Commission representatives;
- A USAID employee who formerly worked with APIX;
- The U.S. Embassy Dakar Economic Officer; and
- Representatives from the U.S. Embassy Dakar Office of Security Cooperation.

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<sup>12</sup> USAID Applied Political Economy Analysis Field Guide, February 1, 2016, <https://usaidlearninglab.org/library/applied-political-economy-analysis-field-guide>, accessed November 7, 2016.

This report also includes information gathered after the initial PEA interviews. It is to be updated as needed, as the situation evolves and new information comes to light.

## Findings

The purpose of the PEA was to better understand why unsustainable artisanal and industrial fishing continues in Senegal. Because of time limitations and other factors, the applied PEA team was not able to interview many individuals with knowledge of the industrial fishing and processing aspects. Therefore, our questions, findings and recommendations primarily focus on artisanal fishing. Further research is required to better understand political economy factors that contribute to unsustainable industrial fishing and industrial processing in Senegal.

**Fast cash and cultural norms reinforce open access:** Fishing is considered an honorable profession and plays an important role in the culture, economy and food security in Senegal and neighboring countries. Traditionally, Senegalese, regardless of where they live, feel they have the right to fish. The research did not capture the ethnic or social distinctions regarding who traditionally fishes, but the team learned that if survival is the main concern, many Senegalese will try their luck at sea, which is enabled by the traditional open access regime. This traditional acceptance of new fishers, a sense that fish are a shared natural resource, and the current legal regime make it hard for communities to bar new entrants and perpetuate the depletion of resources under an open access regime.

Fish also mean “fast cash” for many Senegalese. Families depend on this income for food, as well as school fees, medical treatment and other expenses. Furthermore, even with decreasing fish stocks, fishing can yield profits in a very short time period; fish are often caught and sold for cash the same day. Additionally, the barrier to entry is low as compared to other sectors, such as farming. Whereas fishing earns money relatively easily and quickly with little up-front investment, farming requires land, inputs and a much longer return time on the initial investment. Seasonal farmers, unemployed youth, itinerant fishers from nearby countries and many others seek to capitalize on this fast, easy cash from fishing. Although new entrants often are blamed for some of the sector’s problems, including accidents and use of destructive fishing gear, communities struggle to deny them their right to fish and earn a livelihood.

Fishing may be an important cultural and economic activity, but it does not receive the same level of political attention as agriculture and other key sectors. With declining fish stocks making fishing more difficult, there is increasing demand for political attention for not only sustainable fisheries management, but also alternative livelihoods for fisheries stakeholders and potential new entrants. For example, the Cayar CLPA seemed to acknowledge that fishing was a dying industry and requested USAID support to develop alternative livelihoods particularly for youth. A CLPA member in Saint-Louis also encouraged more support to agricultural programs, particularly irrigation investments. In the Saloum Delta area, alternative livelihoods came up in

connection with farmers who fish part time and boat carpenters, who have less work as a result of the pirogue freeze.

**The dire state of fisheries does not receive adequate attention:** Despite significant depletion of fish stocks, there is no overt public outcry that Senegal's ocean fisheries are in danger of ecological collapse. This is likely due to the fact that fisheries are facing different levels of threats. In the center and north, fishers now have to travel to Mauritania, Morocco, or the Casamance to fish; while in the south, artisanal fishers are still able to catch fish relatively near to their homes. Itinerant fishers from The Gambia and Guinea fish in the Saloum Delta area. Additionally, the fact that people continue to benefit and profit from the fisheries sector and certain fish stocks appear to be plentiful, which is in itself, a sign of overfishing, diminishes the urgency of changing practices in spite of other stocks becoming scarce.

In artisanal fishing communities, boat and fishing gear owners tend to be older while the crew workforce that goes to sea are younger. There is no lack of new entrants, who are especially apt to seek positions on bigger boats equipped with encircling gillnets, which catch many fish often indiscriminately depending on the net gauge size, to earn fast cash with next to no entry cost. Additionally, interviewees explained that some fishers felt they should fish what they can now because the resource is declining. This situation, exacerbated by competition with industrial fishing, is leading to a virtual race to the bottom to see who can get the remaining fish first, by whatever means.

In Saint-Louis, the team witnessed what Senegal's future fisheries might look like – a fishing community without fish to catch in its local waters. Yet, despite the presence of very few fish in its artisanal zone, fishing was still the main economic activity as fishers move along the coast from Morocco to southern Senegal. As a result of this local scarcity, the GOS has to negotiate annual fishing agreements with Mauritania to grant licenses for a quota of Senegalese fishers to operate in Mauritania. There are sometimes delays in the agreement negotiations. Those fishers who are not granted license to fish in Mauritania have limited options, such as working as paid laborers for Mauritanian investors. More recently, Mauritania's decision that only Mauritanian nationals can fish in the country's waters by law puts an additional constraint on the already dire situation of Saint-Louis fishermen.

**Fisheries stakeholders are an important political constituency:** Politicians respect the fishing constituency because of their sheer numbers, the sector's economic and food security importance and the cultural significance of fishing in Senegal. During interviews, fisher folks and surveillance staff complained about a pattern in Senegal where voters, family members, friends, fellow members of brotherhoods and different circles use the power and influence of politicians close to them to help them avoid penalties or stave off prosecution.

As it happens quite everywhere, high visibility infrastructure projects are often given priority to low visibility projects to support sustainable fisheries. A famous slogan that supports that view resides in the Wolof saying "*Weddi, gis bokku ci*" (one cannot deny what meets the eye). As one

interviewee mentioned “not all people in politics are development practitioners”; thus, they may favor support to projects that win votes in the short term.

Another issue lies with subsidies to the fisheries constituency, such as free engines and tax-exempt gasoline. These subsidies mirror agricultural subsidies and cannot be taken away without political costs, despite their negative impact. Even so, some interviewees criticized the subsidies, particularly the engines because the GOS distributed them without prior consultation, assessing the actual needs of fishers or collecting the old motors. Artisanal fishers and women processors/harvesters have at times influenced GOS (*e.g.*, the current large investment program in the rehabilitation and construction of modern processing units, landing docks, and efforts to strengthen the cold chain), but competing interests within the artisanal sector and their limited power relative to other stakeholders reduces the effectiveness of their engagement.

**Fishers and women processors/harvesters lack organization:** Direct fisheries stakeholders currently have potential but underutilized political capital that could be strengthened through increased organization. COMFISH supports CLPAs to organize artisanal fishers, wholesalers and processors at the local level to develop collaborative fisheries management plans for priority fish stocks, and to improve voluntary participatory surveillance. However, CLPAs lack resources and other support promised by the GOS to be fully effective in promoting sustainable fishing in accordance with the law.

While the team learned COMFISH made progress to unite CLPAs throughout Senegal, they have not reached the point of being able to take collective action to engage government and otherwise act on their issues of concern. While not necessarily representative of all of Senegal’s CLPAs, CLPA members in Cayar and Saloum Delta expressed the need for a network of CLPAs to engage in regional and national-level policy and decision-making. A CLPA network could be especially valuable for regions with shared fisheries resources, like the Saloum Delta Region. However, a CLPA member expressed concerns about leadership selection of such a network to ensure equal representation of communities’ interests.

COMFISH has supported a federation of CLPAs, which might also provide a forum to negotiate such trans-CLPA boundary issues. COMFISH also has promoted the concept of Sustainable Management Unit (SMU) for a given species stock within a distribution area. COMFISH is supporting an intra-CLPA agreement within a SMU followed by the development of fisheries management plans. The success of such interventions depends on capitalizing on incentives for CLPAs to work together to improve sustainable fisheries management.

More specific to women fisheries stakeholders, women members of two CLPAs in Saloum Delta spoke of the struggle to get sufficient attention paid to the concerns of women processors and harvesters within the existing CLPA structure. Structural factors limit female representativeness in the CLPA managing board (*Instance de Coordination et de Conseil* - ICC). People adhere to CLPAs on the basis of their belonging to a given *College*. *Colleges* are defined based on trade (all

wholesalers in a given CLPA area of jurisdiction will form a College, and so will retailers, and so will processors and others practicing the same occupation). Fishers who go out to sea will form different colleges on the basis of the fishing gear they employ (line, encircling gear, gillnet, etc.). Each college elects two representatives to the ICC. Many female trades have been grouped in the single college of “women processors.” To increase female representation on the ICC, there needs to be a breakdown of this college into various sub-groups corresponding to different trades in which women engage, which requires a ministerial amendment to the Executive Order governing the composition of colleges. COMFISH has long supported women fishers to write the Fisheries Minister requesting the amendment and other support, but there has been no change yet.

### **Fisheries stakeholders prioritize their own interests over sustainable fisheries management:**

In the absence of collective action towards more sustainable management, fisheries stakeholders will continue to pursue their private interests as long as they can. One example is the freeze of the monofilament net ban in the Fishing Code. Fishers advocated to lift the freeze because they claim the nets are no worse than small-gauge nets or other gear and do not destroy habitats. Furthermore, small-scale fishers tend to use the nets, and the law was seen as unfairly targeting them. One fisher also saw the ban as a product of activists, with the implication that the activists did not understand the nets’ real environmental impact and the plight of the fishers who use them. According to one interviewee, the current Minister is working to replace monofilament nets with cotton nets, possibly by working with local businesses, which will also benefit the local economy. Such an approach may be better received by affected fishers than banning the use of monofilament nets entirely.

Fisheries stakeholders are reticent to limit fishing and use more sustainable practices without some guarantee that others also will follow suit, both in neighboring communities and countries and at the industrial level. Even wholesalers and Dakar-based boat owners are more focused on profit than sustainable fisheries management than the communities that experience depleted stocks most directly. As compared to itinerant foreign fishers, Senegalese fisheries stakeholders have more incentives to preserve their diminishing resources by shifting to less destructive and more sustainable fishing methods and gears. Foreign fishers have less sustainable fishing incentives, but often affect market prices and compete directly with Senegalese fishers, forcing Senegalese to also use less sustainable practices to stay competitive. The regional agreement promoting free trade and movement of people makes it difficult to deter foreign fishers.

**Information, resources and power asymmetry skew the marketplace:** Among artisanal fishers, processors and wholesalers, there seems to be a large degree of asymmetry of information regarding the market value of fish in different parts of the country at different times of the year. Additionally, many artisanal fishers lack access to adequate ice, and the perishability of their products limits their negotiating position. These factors allow *mareyeurs* or wholesalers to take advantage of artisanal fishers and processors. In some cases, *mareyeurs* do not pay the fishers until after the fish are sold. Moreover, interviewees indicated that some *mareyeurs* are



backed by wealthy, politically connected business people and decision-makers, which increases their power.

For these reasons and others, *mareyeurs* were mentioned continually in the interviews as important players in artisanal and industrial fishing. While interviewers heard some *mareyeurs* discriminate based on the quality of the fish, others indicated *mareyeurs* would take whatever fish were available to sell it to a fish meal or fish oil processing plant that may not discriminate based on the quality of the fish. There are instances in which buyers enforce certain standards, though, such as one poultry feed processing unit in the Saloum Delta that a *mareyeur* reported rejects juveniles.

In addition to *mareyeurs*, boat owners are powerful but sometimes overlooked actors in the sector. Boat owners serve as the “nucleus” for the crew and often are older, wealthier, and better-connected business people. Like *mareyeurs*, they also have more access to resources and finances because they have capital to leverage. In the Saloum Delta, boat owners interviewed were former fishers who saved sufficient money to purchase a few boats, which serve as a “retirement plan.” Lack of understanding about the age of owners undermined the effectiveness of a World Bank-funded boat buy-out program that incorrectly targeted younger owners. A hidden aspect of boat ownership is that women also own boats operated by their husbands. Given the husband is the family breadwinner by Islamic Law, female boat owners are usually reluctant to disclose that fact or boast about it. Such a behavior would be considered more respectful towards the husband and the family’s privacy.

**Women have less power in the CLPA and marketplace:** Women can be champions for sustainable fisheries management, as demonstrated by their willingness to demand high quality fish for processing in Cayar. For primarily cultural reasons, women typically process fish and harvest and process oysters and clams. Due to that limited role and the ICC election process based on colleges, women are underrepresented on CLPAs, although their participation and leadership in CLPAs are increasing.

Although the women’s cooperatives visited in Cayar and Saloum Delta appeared to be successful, women processors at times lacked adequate access to financing and market information. This makes them entirely reliant and vulnerable to exploitation by *mareyeurs*, foreign wholesalers in particular. One women’s cooperative in Saloum Delta shared that they received negotiation skills training from extension programs and felt that they are able to sell their products at fair prices. However, members of the women oyster cooperative in the same area have no information on the price their product is sold in Dakar and their dedicated distributor charges them 80 percent of their total sales as distributions costs. In one case, foreign wholesalers gave women no choice other than using scales they tampered with, making women incur losses on every kilo of processed fish.

Women’s access to market information may be facilitated by mobile phone technology, as it is being used for agricultural products. In some cases, women also are branching beyond the role

of processor. Of note, one women's group in Saloum Delta reported that they owned two boats, which they rented out to fishers and then processed the fish caught from the boats. They reported that they were able to sell fish at a local and nearby regional market but used a *mareyeur*, at times, to sell in more distant markets. In spite of this access to fish and markets, the group noted that fish stocks are declining and expressed an interest in acquiring an additional boat to compensate for lower fish yields.

**Policy implementation is key, but difficulties in government coordination and resources make it challenging:** The Fishing Code and Policy Letter gave increased authority to the Directorate of Marine Fisheries (DPM) to regulate the fisheries sector, banned gear and practices associated with unsustainable overfishing (small gauge nets, monofilament nets, etc.), and increased IUUF fines to provide a greater deterrence. The problem lies in implementation, which may be partly attributable to the structure and culture of government. Centralization means that ministers often need the approval of the President in sensitive sectors like fisheries. Policy implementation also is impacted by the inability of (and the lack of incentives for) different ministry departments to work together. Every time the division of responsibilities appears unclear, it undermines incentives to take action.

Limited state resources also constrain implementation. Enforcement requires everyday surveillance, human resources, and supplies, whether that is a pirogue and gasoline at the local level or sophisticated equipment for the Navy to detect IUUF further offshore. There is optimism that the GOS is investing more in enforcement, including some new surveillance equipment for the Navy. Even with sparse enforcement, some interviewees shared that the industrial IUUF primarily occurred at night, which might be an indication that even limited enforcement efforts are in some way deterring the more obvious IUUF during the day. Nonetheless, more resources, and aerial capacity in particular, for enforcement and surveillance are necessary for it to have a true deterrent effect on IUUF.

At the community level, some interviewees requested more support from the GOS to increase enforcement. One interviewee stated that it is difficult for a neighbor to penalize another neighbor for breaking the law, especially when there is a perception that artisanal IUUF occurs, in part, because families are trying to eke out a living. It also is difficult to resolve disputes between communities, such as those observed in the Saloum Delta where fish were being caught at the mouth of the delta during spawning season, which interfered with upstream migration, curbed reproduction, and harmed vulnerable communities. In those situations, communities welcomed a stronger role for the State in management and enforcement.

**Other GOS priorities compete with sustainable fisheries management:** Sustainably managing fisheries and fostering economic growth are both GOS priorities that conflict at times. On the one hand, the GOS wants to promote more jobs in the fisheries sector and more FDI in the form of processing plants that generate more added value along the value chain, yet both jobs and FDI may drive increased, unsustainable fishing. For example, GOS still encourages domestic and foreign investors to invest in Senegal's fisheries industry. APIX, the GOS investment arm, finds

investors for the fisheries sector, and one interviewee predicted that the GOS was unlikely to change that policy because the fishing sector is too important to the economy.

While the law gives DPM the ability to approve all fish processing plants, the recent proliferation of plants seen by many to fuel unsustainable fishing, is perhaps a result of these competing policy priorities. One interviewee predicted that licensing more plants was an effort to bring jobs from industrial fishing on land, as many of the larger boats currently process fish on board. The same interviewee said that it is likely other GOS entities, perhaps less concerned with sustainable fisheries, contribute to the plant licensing decisions. Follow-on PEA should seek to further investigate the dynamics involved with industrial processing plants.

The team also heard that fishing vessels can be associated with other crimes, including child labor, drug trafficking and other illegal activities. While those crimes may require a different law enforcement approach, national security and human rights concerns, if verified, could incentivize a stronger GOS response, as well as attract more international and public attention to the issues.

**Political interference affects implementation and data usage:** Positively, political competition is high in Senegal. Interviewees pointed to heightened voters' awareness that their choices matter to people competing for political power, thus, voters tend to exert pressure on politicians to be accessible and responsive. While political competition creates an environment ripe for advocacy and accountability, it also can spur political rent-seeking behavior focused on immediate individual interests, sometimes to the detriment of longer term, collective interest in ecologically sustainable, climate-resilient fisheries. For example, a DPSP official lamented that, even if he did try to enforce the law, offenders would contact their politicians, who would then attempt to undermine his authority and block the action. While the interference complicated his job, that particular official was able to overcome the political pressure and apply the law in many cases, demonstrating how law enforcement champions can be effective even in the face of political interference.

The team also heard that politics sometimes interfered with decision-making based on data. For example, the Oceanographic Research Center (CRODT) shared that fish stock and other data have been ignored by decision-makers. Even so, there was at least one example in which GOS based management decisions on monitoring data for deep water shrimp and octopus as part of a European Union initiative that funded the science to inform management decisions. Transparency measures around the basis for management could be expected to enhance the use of science in decision-making.

The National Marine Fisheries Consulting Committee (CNCMP) is tasked with providing unbiased recommendations to the President for fisheries decision-making, with participants from diverse departments and research entities within the government. Interviewees complained that their recommendations are not always taken into account. For instance, a political leader decided to build a fish processing plant in a politically connected inland village

against the Committee recommendations. Committee participants reported that GOS does not make the Committee recommendations publicly available, even though they are legally mandated to do so.

**Transparency and accountability:** Interviewed stakeholders raised the following concerns:

- The lack of transparency (including corruption) in management of the industrial fishing vessels, including number of licenses, which entity could issue licenses, quotas, species, and seasonal fishing restrictions.
- The lack of transparency in decision-making and granting of new licenses for processing plants, especially foreign owned plants, and regulation of the plants.

Other donors affirmed the lack of transparency in many industrial processes to the PEA team. Some researchers we interviewed also expressed frustration that recommendations from the National Consulting Committee were not made public and that DPM decision-making was sometimes opaque.

At the local level, inadequate transparency and accountability were apparent in several ways:

- Interference with law enforcement, enabled by opaque processes and a lack of accountability for both politicians and law enforcement personnel;
- Lack of transparency and accountability in fisheries decision making, such as the decision to distribute motors without prior consultation with targeted beneficiaries;
- Unclear accountability for issues that transcend the jurisdiction of a single CLPA; for example, nets blocked the mouth of the Saloum Delta, yet it was unclear who should have held fishers accountable to not engage in such an unsustainable practice.
- Little engagement by non-governmental organizations serving a watchdog or accountability function related to resource sustainability in management.

Additionally, while work is underway to improve the availability and application of science as the basis for local fisheries management, stakeholders interviewed during the PEA did not identify monitoring information or other fisheries information as the basis for their decision-making. This observation may reflect the limited scope of the PEA or it may reflect a need for continued work to generate and share relevant data in ways that local actors are able to use it as the basis for evidence-based decisions about a range of management options.

**Marine protected areas need more investment:** Marine Protected Areas (MPA) have been designated by the GOS in collaboration with communities along the Senegalese coast to promote sustainable fisheries. This includes national MPAs and locally designated MPAs. The number of MPAs has increased dramatically and more communities want to form community-designated MPAs to preserve their fisheries. Some interviewees advocated that MPAs should receive more resources because they enable fish stocks to replenish. Community members surveil MPAs for IUUF, but they must either notify law enforcement authorities (DPSP, the Navy, and the *Gendarmerie*) or have their representatives on their boat to arrest offenders. The

national MPAs have financial and technical support from international NGOs, but it appears insufficient for proper surveillance and enforcement.

## Programming Recommendations

The purpose of the PEA process was to provide new perspectives on the drivers of unsustainable fisheries and ideas to incentivize more sustainable policies and practices. This section summarizes general programming approach recommendations as well as recommendations specific to Strategic Approaches to addressing issues at stake.

### A. Overall Recommendations

This research and report is only the first step in what should be an iterative process that encourages both USAID and the implementer to regularly monitor the political economy of Senegal's fisheries sector and adjust its programming to seize opportunities to support local champions and disincentivize transgressors of sustainable fisheries. Some general recommendations on the approach include:

**Revisit this applied PEA and ask new questions:** This applied PEA only skimmed the surface in the short time available, and the process can and should be continued to deepen the understanding of and expand these findings, which undoubtedly will change in the near future. Mapping the political players and influences at the national and local levels would be a useful product from additional PEA work. A possible starting point for the map is to place the stakeholders on a grid that represents support for reform (from “spoiler” to “champion”) on horizontal axis and level of influence (low to high) on the vertical axis.

Moreover, PEA is a process that should lead to more effective programming by Thinking and Working Politically<sup>13</sup>, an approach that requires iterative PEAs and flexible programming to support local actors while understanding the local system in which programs are operating. Lastly, many more questions could be asked through applied PEA to better understand the local

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<sup>13</sup> *Thinking and Working Politically* (TWP) refers to an approach to solving a development problem that lies with the necessary process through which agents defend, contest and change institutions, and through which the necessary political impetus for change is built and sustained. TWP starts with willingness to integrate a political lens. It is a new way donors can strategically support the process of institutional and behavioral change through a political process of contestation. They do so by enlisting domestic support base that is influential enough to generate momentum and overcome the resistance of those benefiting from the status quo, supporting local political processes of contestation and bargaining among interest groups, facilitating local problem-solving and collaboration among wide-ranging interest groups. TWP is driven by 3 core principles:

- Strong political analysis, insight and understanding with a relentless focus on power dynamics, interests, incentives, and institutions.
- Detailed appreciation of and response to the local context working with and through stakeholders, conveners and power-brokers, facilitating coalitions of different interests.
- Flexibility and adaptability in program design and implementation with a focus on a series of small experimental or incremental bets, monitoring results, periodically engaging in “review and reflection”, understanding and factoring in own agency's political economy.

context and how to tailor COMFISH Plus through its extension period to be more effective.

Some initial ideas include:

- Why has there been a recent proliferation of fish processing plants?
- What are the incentives for the GOS, especially DPM, to prioritize sustainable fisheries management?
- What are the incentives for *mareyeurs* to demand fish consistent with sustainable fisheries management?
- (After the pirogue ban goes into effect for some time) Why did the pirogue ban work or not work to freeze the artisanal fleet?

**Be flexible and take ‘small bets’:** Thinking and Working Politically requires flexible programming that allows implementers to be flexible, test multiple theories of change, and see what works. There is no way to understand everything from the outset, particularly in a complex environment such as fisheries in Senegal. Thus, it is important to prioritize learning and flexibility in programming. Taking ‘small bets’ helps identify where one can get traction. The Annex contains some possible ‘small bets’ USAID could test under COMFISH moving further ahead.

PEA and other tools can be used to monitor progress and incorporate feedback loops into programming to assess whether a particular approach is working. To take this kind of approach, it is recommended to use results-based management and, if possible, incorporate managing adaptively into the implementing mechanism. For example, providing implementers with a longer period of time to conduct assessments and carefully develop a work plan and then updating the work plan regularly may systematize and create the space for adaptation and learning.

**Explore changing incentives:** Applied PEA attempts to better understand incentives for reform versus maintaining the status quo, among other things. In turn, that understanding can help programming identify and attempt to change incentives to achieve a given result. For example, while the PEA team found fishers are most concerned with their own interests, a small bet might work with CLPAs on ways to increase shared willingness to advance sustainability and mutual trust within CLPAs and between CLPAs. While the PEA team would need more information about the targeted actors, a media campaign linking sustainable fisheries management with community wellbeing or even a national sense of identity and pride might galvanize action. Another way to change incentives might be to use conditionality, by for example, leveraging habitat restoration for a commitment from a community to establish and maintain a community MPA.

**Test sequenced programming:** Whereas some projects may focus on many activities simultaneously, applied PEA can help to develop a sequenced approach to programming that is more strategic and targeted while closely monitoring progress towards results. For example, knowing that fishers are more concerned with their own interests, it would seem that those interests first would have to be aligned with the collective interest in sustainable fisheries

management before increasing their advocacy skills to avoid undermining sustainable fisheries management. Therefore, it might be appropriate to test a media or other community awareness campaign or other activity first to see if fishers truly become more interested in sustainable management before launching into broader advocacy efforts. Alternatively, there could be an effort to identify issues already aligned with the interests of fishers and sustainable fisheries management, such as reduced industrial IUUF.

**Form a local project advisory council:** To ensure the project foster local ownership and sustainability, USAID may consider forming a local advisory council with diverse stakeholders (e.g., civil society, academia, media, GOS, CLPAs) in the sector to guide the project and help to track progress towards desired results. Although it may draw on members of CLPAs and other existing local councils, this council would focus solely on the project to make sure it is grounded in local realities with local actors in the lead. Provided the right people are selected who are truly representative and in touch with the local context, such a council can serve as a platform for diverse thought leaders to work together to figure out how best to address the problem of unsustainable fishing.<sup>14</sup>

## B. Recommendations on the Strategic Approaches

***Strategic Approach 1: Increase advocacy by constituents for transparent and accountable decision making***

**Identify existing or new opportunities for collective action on sustainable fisheries management:** Multi-stakeholder coalitions often are more effective than if individuals or single-issue civil society groups advocate alone. Interviewed subjects already know that fisheries stakeholders are an important constituency for politicians. The freeze on the monofilament ban, the distribution of new motors and “modernization” funds prior to elections, the funds given to CLPAs to open bank accounts, and politicians’ interventions are illustrative of politicians’ desire to win the votes of fisheries stakeholders. Thus, bringing those stakeholders together may maximize that political capital.

Collective impact requires stakeholders to come together to advance a common agenda using a shared measurement system, mutually reinforcing activities, and continuous communication. Collective impact also may require a backbone support organization with dedicated staff to support the effort.<sup>15</sup> USAID and its implementing partner will need to pay close attention to

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<sup>14</sup> The System-wide Collaborative, Action for Livelihoods and Environment (SCALE+) is one methodology that uses project advisory councils to promote systems change through programming. More information on the SCALE+ approach is available at: <http://scaleplus.fhi360.org/think.html>.

<sup>15</sup> More information on collective impact is available at: Kania, John and Mark Kramer, Collective Impact, Stanford Social Innovation Review, Winter 2011, [https://ssir.org/articles/entry/collective\\_impact](https://ssir.org/articles/entry/collective_impact), accessed November 28, 2016.

salient issues, such as industrial IUUF or overfishing and alternative livelihoods that could be leveraged to bring people together to advocate for a policy change or government action and start to lay the foundation for collective impact.

CLPAs can serve as one forum for collective action in a given community, but bringing in more stakeholders and reaching across CLPAs would increase the efficacy and power of collective action. The formal CLPA network might be a long-term plan, but a coalition focused on a particular issue, such as industrial IUUF, a stronger legal status for CLPAs or priority stock management, might be a more organic and powerful way to bring stakeholders together. Additionally, depending on the traction the concept receives under COMFISH, the National Council of CLPAs and/or Sustainable Management Units have the potential to bring stakeholders together to address shared issues.

Issue-based collective action is a proven advocacy method. One interview in Saint-Louis revealed that collective action worked to temporarily close a Chinese-owned fish processing plant allegedly polluting air and water. The community first tried to write to politicians on an individual basis, but that failed. While they received support from the Environmental Regulatory Agency (DEEC) and the *Gendarmerie*, that did not yield enough pressure from enforcement. Then, after they learned of a diplomatic intervention from China to pressure the GOS, they tried to counter it by using internet and social media to highlight the situation. Even though the interviewee acknowledged that the plant likely perpetuated unsustainable fishing practices by accepting all types of fish, it was the air and water pollution that truly united the community to take action and eventually led the GOS to respond to constituent concerns.

**Attempt to align constituents' interests with sustainable fisheries management:** The team found that fisheries actors, like most people, focus on their own interests, which may or may not align with sustainable fisheries management. Even in the effective advocacy example in Saint-Louis cited above, pollution, not sustainable fisheries management, motivated the community to take action. It may be important to understand constituent interests and help them focus more on sustainable fisheries management before starting to build their advocacy capacity.

In communities less focused on sustainable fisheries management, USAID can build their awareness of the problem and its implications through education or media campaigns. Such campaigns would have to be tailored to each audience to be effective, but they could link sustainable management more explicitly to livelihoods, culture, and other issues that matter to people. Engaging community leaders, such as the *Marabout*, also might increase attention to the problem and spur greater community and politician action.

**Increase demand for and access to information:** Transparency often requires a two-sided approach. On the one side, constituents must demand access to information, whether by using established legal means to request access or advocating for increased access to information. On the other side, GOS must respond to constituents demand and make the relevant processes



and decision-making transparent, including welcoming community participation in decision-making and publishing reports as the law requires. Therefore, to increase transparency in decision-making, it is recommended to work both with constituents to increase their demand for transparency and the GOS to respond to that increased demand.

**Transparency is not enough:** To have the desired effect of making processes and decisions not just more transparent but also accountable, constituents must be able analyze the information, engage effectively in the processes, and be organized and strategic. In committees that invite stakeholder participation, participants should engage strategically to represent broader stakeholder and community interests in sustainability. Additionally, media, civil society organizations, business associations, and even the National Assembly might be able to promote accountability by monitoring licensing, enforcement and other national-level decisions related to fisheries management. Such monitoring can then be used to further inform stakeholders and shape GOS engagement. Accountability mechanisms also can be incorporated into internal DPM, DPSP, and other GOS entities and their processes to provide checks and balances on decisions to ensure they adhere to the law and advance sustainable fisheries management.

For example, USAID could help DPSP to publish information on the number of fines imposed for IUUF and simultaneously partner with civil society to collect and track the information. Such an approach could be useful to understand when and where fines are being paid, which might reveal how consistently the law is applied and identify places where enforcement is weaker. Increasing DPSP communication and cooperation with civil society coupled with increased civil society oversight capacity is more likely to increase accountability in enforcement and perhaps even increase demand for more consistent enforcement. In addition to working with GOS, it is important that civil society has the capacity to access, recover, interpret and use the information provided.

**Media is an important ally:** The example of advocacy regarding the Saint-Louis processing plant exemplifies the importance of media to reach constituents and the GOS. Media can be a key ally to attract attention to issues and can be used for campaigns targeting constituent or GOS action. Therefore, USAID should not only consider continued engagement with the media to increase awareness about the state of the fisheries sector, but also should continue to support increasing the capacity of CLPA, civil society organizations and others to develop communications strategies and work closely with the media to achieve their objectives.

***Strategic Approach 2: Strengthen policies, processes, and coordination for ecologically sustainable, climate-resilient fisheries and value chain development***

**Assess windows of opportunity for reform:** Prior to deciding which policies, processes and coordination to strengthen, USAID and/or the implementer should use PEA to determine where there is sufficient political support for reform, from whom and why. A deeper understanding of the context and potential windows of opportunity for reform will help USAID to tailor assistance to make it the “best fit” for the context and more likely to succeed. For example, the

team heard that DPM might be interested in replacing monofilament nets with less environmentally destructive cotton nets, which might be a window of opportunity to help DPM better support both fishers and sustainable fisheries management. The team also heard that DPSP might benefit from becoming an agency with a dedicated budget that does not go through the Treasury. While the World Bank pirogue buy-back program encountered challenges, such an effort implemented well, targeted at the right boat owners, could help reduce the size of the artisanal fleet. An applied PEA could be used to better understand whether these reforms are desirable, which are likely to get traction, who would and would not benefit, and whether USAID support would strengthen the process.

**Enhance strategic planning and budgeting capacity:** GOS resource problems were shared time and again during interviews. These problems are undoubtedly due in part to scarce funding and competing priorities.. However, increasing the capacity of government bodies to plan and budget strategically would help harmonize policies that diminish the effects of competing priorities and help to ensure the resources they receive are used more efficiently. That type of internal capacity also can increase budget transparency and avoid some of the less strategic one-off investments, like the free motor distribution. In particular, public consultations can make the planning and budgeting processes richer and legitimize the final approach.

For DPM in particular, planning and budgeting assistance could help to identify the highest priority issues affecting fisheries that require the most resources. It also could help make DPM policies more consistent with sustainable fisheries management as described in the Policy Letter. For example, the proliferation of industrial processing plants should be further investigated to understand the drivers, as well as DPM's policy approach to approving plant licenses and the plan to regulate the plants to ensure they operate in a way that supports sustainable fisheries management. Last but not least, such assistance could help DPM develop the capacity to start leading donor efforts by requiring that donors align with its strategic plan, thereby creating a more coherent and consistent approach to advancing sustainable fisheries management in Senegal.

If there is adequate capacity and political will within GOS, another option might be providing certain GOS entities, such as DPSP, with the opportunities and status that allow them to raise revenues. For example, one interviewee suggested that DPSP should become a more financially autonomous agency that can institute quotas, levying fees, etc. rather than a Directorate dependent upon the Fisheries Ministry.

***Strategic Approach 3: Increase knowledge and information for decision-making, accountability and transparency***

**Seek politically relevant data:** The USAID-funded IUUF report had an impact on the GOS and fisheries sector actors because it identified revenue being needlessly lost, quantified the scale of the problem, and indirectly called attention to a more effective GOS response to the problem. It resonated with decision-makers, and it seems it will result in increased surveillance

and other measures to curb the problem. That report is a great example of politically relevant data.

Understanding what kind of information has that effect is key to the success of this Strategic Approach, which requires knowledge of local actors and what drives their decisions, for which applied PEA might be a useful tool. For example, whereas fish stock data of a given species might have less political weight, it could be given more weight by explaining how many Senegalese depend on the species, how many make a living off of it in some way, and where those individuals are located. As the PEA team found in the applied PEA, votes count in Senegal, and fisheries stakeholders are an important political constituency, so linking data to voters could be an easy way to make data more actionable for politicians.

Given that politically relevant data is much more likely to garner attention and action, this recommendation not only pertains to USAID, but also to its local partners. For example, civil society organizations that understand how to gather and report politically relevant data will be much more effective advocates. Even CRODT could be more effective if their scientific data could be presented in a way that resonated more with decision-makers and other stakeholders.

**Make data publicly available:** During many interviews, the team heard that some data exists, but may not be readily available to the public. Even if data can be requested, civil society and others may not know what kind of information exists or where such data is located. If legal and politically feasible, publishing more data in a reader friendly format for public consumption and directing the public to available data could greatly help promote transparency and accountability in fisheries sector management. For example, helping CRODT create and populate a website, with a plan and resources dedicated to continuing its usage in the future could go a long way to establishing a policy and culture of making data public, raising awareness of existing data, and easing access to data and information. A national marine open data policy could provide guidance and accountability for ensuring data is made public. Developing interesting ways to share the data via radio also may help to increase awareness and interest of local fisher communities. Having data-based feedback on fish stock levels is essential for informing fisheries management at the local level. A key priority for COMFISH Plus should be developing ways for CLPAs to receive meaningful analysis of monitoring data through CRODT, a local or international organization, university, or some other entity that communities trust.

***Strategic Approach 4: Strengthen capacity for decentralized governance and co-management for ecologically sustainable climate-resilient fisheries***

**Support effective networks:** COMFISH already has begun to build a CLPA network and should consider linking it to MPAs to build politically powerful local coalitions focused on sustainable fisheries management. There also might be opportunities to engage cultural and religious community groups and continue to foster women's engagement in co-management activities, building on the work of COMFISH, to fortify the effort and broaden ownership of fisheries

management. Among other things, USAID could enhance the ability of stakeholders to identify entry points, potential champions and spoilers, and areas of aligned interest to build effective networks to advance ecologically sustainable climate-resilient fisheries.

**Explore marine tenure:** Globally, there is increasing evidence that secure marine tenure, as compared to open access, is a strong support for sustainable fisheries management. It is difficult to ask communities to make short-term sacrifices to achieve sustainability when they are not assured of receiving the long-term benefits from more sustainable and profitable fisheries. While CLPAs are able to exercise a variety of authorities in areas under their jurisdiction (*e.g.*, establish small MPAs, set gear restrictions), they do not currently have secure marine tenure, in that they cannot exclude others outside the community from extracting their resources. USAID could investigate how this critical gap in the authority of CLPAs can be addressed to provide local communities with enhanced security and incentives to engage in effective fisheries management. One way of achieving this would be by granting CLPAs access rights beyond the prevailing management rights.

**Tailor the CLPA/MPA model and approach to the community:** Cayar is consistently touted as a strong CLPA, and it would be good to understand more why the model has been more effective there than in other communities and explore whether some factors could be replicated to create similarly strong CLPAs and MPAs in other locations. That said, CLPAs and MPAs should be tailored to accommodate different realities and incentives for community members to participate. In Saint-Louis, for example, fishing is seasonal, so the CLPA needs to persuade fishers to register in their communities, not in the place they fish most of the year. In the Saloum Delta, shared resources demand better connected CLPAs. Even the difference between urban and rural or large and small communities might change the incentive structure and effectiveness of CLPAs and MPAs.

While CLPAs have a fairly defined structure, USAID also could help CLPAs to organize around other issues of shared importance within a community. If appropriate, USAID also could explore incentives to strengthen CLPAs and MPAs, such as helping to recreate fish habitats to restore fish stocks after communities commit to preserving the resources and increasing enforcement against IUUF. USAID also could explore how to partner with community-based organizations, local or international organizations, the research community, etc. to bring needed support to the CLPAs, such as more data to monitor their fish stocks.

**Approach CLPAs and women's cooperatives/groups with a gender lens.** While women were considered potential leaders in sustainable fisheries management, they tend to be underrepresented on CLPAs. USAID should continue to explore alternative ways to structure CLPAs to promote more gender balance and ensure that women's issues are adequately represented, as COMFISH already has started under its Gender Strategy. For example, USAID could explore new ways to press the Fisheries Minister to amend the Executive Order on the composition of colleges for the ICC.

Beyond the structure, USAID also could support CLPAs to improve gender balance and access to the marketplace. For example, the applied PEA found that price and information asymmetry in the marketplace tends to have particularly negative effects for women. Women equipped with skills to determine and set prices, however, had more power to ask for fair prices. CLPAs and communication technology, like SMS notifications, could be used to increase transparency in the marketplace by posting prices and increase the skills of women and other stakeholders along the value chain.

As a parallel strategy, USAID should continue to build the capacity and networking of women's cooperatives and related groups. A number of women's groups in Saloum Delta and Cayar were impressive both in their level of organization and the economic impact in the community. However, these groups are not connected and, as outlined above, have poor access to pricing information and markets. There may also be opportunities for women's groups to come together to provide extension services to provide sustainable support to other women's groups.

### ***Strategic Approach 5: Increase incentives and disincentive for ecologically sustainable, climate-resilient fisheries***

**Find manageable ways to increase law enforcement:** Law enforcement is complicated and challenging to deploy in a way that truly deters unwanted behavior, like IUUF. There may be small ways to make a difference, such as helping communities communicate and engage the GOS to increase enforcement. Even the presence of a DPSP or DPM official can galvanize communities to increase participatory surveillance efforts, particularly when they come with basic surveillance equipment like a pirogue or gasoline. Additionally, it may be valuable to work with the GOS to allow fines to remain at the local level (without going to the Central Treasury and returning), which could incentivize more enforcement.

**Use community and cultural norms to fortify enforcement:** Regardless of the strength of law enforcement in a given community, communities can choose to enforce measures intended to advance sustainable fisheries management. For example, CLPA members said sometimes it was sufficient to shame a family for engaging in IUUF to deter the behavior. This also might involve *Marabouts* or others to start to attract attention to the problem of IUUF and strengthen community-owned responses to tackle it.

### ***Strategic Approach 6: Strengthen inclusive value chain development that supports ecologically sustainable, climate-resilient fisheries***

**Look at incentives along the value chain:** Increasing value along the value chain can help actors to earn more money from less fish, but value chain development activities should be cautious not to incentivize increased unsustainable fishing. It is recommended to undertake an applied PEA to better understand current incentives in the value chain that could be aligned with

sustainable fisheries management and how to capitalize on those incentives through programming. Any intervention would have to be careful to avoid backlash by shifting power along the value chain.

Many interviewees mentioned cold storage as an important tool to develop the fish value chain. Another option might be more efficient landing sites designed to reduce post-harvest loss, which is already part of a large ongoing DPM program. Access to cold storage or improved landing sites could be leveraged to better control fishing and incentivize decreasing the total amount of fish caught and/or rejecting damaged or juvenile fish associated with IUUF. For example, access to credit for cold storage facilities could be made contingent on only purchasing fish of a given size. DPM, lending banks and others already are interested in investing in these interventions. It is vital that these ideas be carefully researched and structured to ensure investments are well-informed and deployed to strengthen the value chain while promoting sustainable fisheries management. Another way to strengthen the value chain is to help to upgrade women-led artisanal processing centers based on the Cayar model, which also aligns with DPM priorities and actions.

**Publish pricing information:** A system to publish pricing information may correct some of the price and information asymmetry in the marketplace, although it would have to be sensitive to shifting powers and possible spoilers. For example, one GOS official recommended using a SMS system to broadcast prices. Preferably, such a system should be owned and managed by local actors to promote its sustainability and local ownership and credibility. There is an existing SMS system that broadcasts weather conditions to fisher communities that could be potentially tapped. This recommendation does not require a technological solution, though; it could be as easy as helping CLPAs to post pricing information close to landing sites. There is also a local start up (MLOUMA) providing price information by SMS to farmers that could be potentially tapped for fisheries and systems and solutions developed by MANOBI for the fisheries sector that could be utilized and leveraged.

## Conclusion

This report primarily draws on six days of interviews and three days of analysis using a PEA lens. It identified some of the drivers of unsustainable fishing and incentives and disincentives for reform within GOS, communities, and the market. Additional PEA research could help shed light on industrial fishing and processing, the interests and influence of the multiplicity of fishing stakeholders, and more.

## Annex: Possible “Small Bets” for COMFISH Plus

The following are some proposed “small bets” – small investments to test for effectiveness in advancing results – that can be undertaken in the short term. If successful, these illustrative activities can strengthen artisanal fisheries reforms supported by donors, start to apply the Applied PEA findings and recommendations, and inform the further interventions in the sector.

***Intermediate Result 1: Institutional and stakeholder capacity strengthened at all levels to implement an ecosystem based, collaborative management approach towards sustainable fisheries, taking into account climate change impacts in the fisheries sector.***

**Start laying the foundation for collective impact:** The PEA emphasized the importance of collective action to unite fisheries stakeholders and enhance their political capital. This process could start by bringing CLPAs and other stakeholders together to discuss shared issues of importance, such as industrial IUUF, and plan who and how to engage to address those issues. While interventions can link actors together and assist with coordination, communication, planning and developing a shared measurement system, it will be important for local stakeholders to own and lead the process for it to be sustainable. Additionally, working with a local partner, such as FENAGIE, *Acteurs Emergents*, or REFEPAS (the federation of women in fisheries) to start to build its capacity as a backbone organization for the coalition will support the long-term sustainability of the initiative from the beginning.

**Assist CLPAs to develop advocacy strategies:** Engaging GOS and others is an important role for CLPAs, but they need to make sure they use their political capital strategically and focus on the sustainable fisheries management. Work with CLPAs could help them develop advocacy strategies to think who to engage when and to what end. The strategies could focus just on GOS or also on the *Marabout* or other cultural and community leaders that might be able to fortify community collective action for sustainable fisheries management. The strategy development process also can be an opportunity to bring CLPA members together to discuss their priorities and how to measure their progress. To test what works before scaling up the effort, interventions could focus on a couple different CLPAs, such as Cayar and Saint-Louis, to test what kind of advocacy works best for them in their communities and develop a methodology for strategy development that could be deployed in more CLPAs in the future.

**Plan for media engagement:** The media already has called attention to fisheries issues and can be used more. Media and communications training could help CLPAs and other sustainable fisheries champions engage the media more and better to raise public and GOS awareness of the problems confronting the fisheries sector and start to apply pressure for action. To complement CLPA advocacy strategies, CLPAs also could develop and implement media and communications strategies to help them think strategically about when and how media engagement might

**Deploy a media campaign:** Stakeholders could use a media campaign in a given community to increase attention about a given issue and then assess whether the campaign helps to align the community's interests with the goal at hand and motivate the community to take action. Such a campaign could educate fishers on certain practices or focus further up the value chain and educate wholesalers or even consumers on the importance of not buying juvenile or damaged fish likely the product of IUUF. The campaign also could emphasize that fisheries are disappearing rapidly and connect sustainable fishing with cultural values, food security and livelihoods now and for future generations. Interventions might consider working with a local partner or even DPM to develop a campaign that appeals to the targeted community and is not seen as a donor-driven initiative. Depending on the success of the campaign, it could be scaled up or altered to increase its impact either under the current or follow-on project.

**Increase external monitoring and support for GOS fisheries actions:** CLPAs, media, civil society organizations, business associations and/or other non-state actors can serve as watchdogs to monitor licensing, enforcement and other fisheries-related decisions and actions. They can also help strengthen science and management capacities at the local level. To help them do so, it is necessary to train interested, strategically selected actors and provide them with tools to step into these roles. For industrial IUUF enforcement, for example, a watchdog institution could track the number of cases and fines collected and then publish the information to increase public awareness and eventually accountability. Local-level watchdogs could do something similar for artisanal IUUF. In fact, as local-level information often is less politically charged, such monitoring could start at the local level, and once proven and trusted by stakeholders, be applied to the national level. Such groups also can work with CLPAs to enhance and apply monitoring data to management decisions.

**Connect data and politics:** If decision-makers are more inclined to use politically relevant data, it is important to provide technical assistance to CRODT, DPM and other data collectors to help them make the political connections. In some cases, this might require a mini PEA to better understand what data would particularly resonate with decision-makers and then tests to see what kind of information best captures attention and leads to action. Any project-produced data or reports also should strive to be politically relevant.

***Intermediate Result 2: Governance strategies, policies and best practices identified, tested and applied to build ecosystem resilience to threats to biodiversity conservation and climate risk.***

**Respond to windows of opportunity, such as the DPM plan to replace monofilament nets:** To the extent possible, following local counterparts' lead and helping GOS implement its own policies or actions will increase effectiveness and legitimacy of interventions. For example, we heard that DPM may replace monofilament nets with cotton nets. DPM might need assistance



to ensure the nets have an appropriate gauge and that the replacement process is conducted well to remove the monofilament nets from the market and educate fishers on the harm they cause, among other things.

Interventions also could investigate whether political will exists to:

- Increase DPM's and/or DPSP's strategic budgeting capacity to use their limited resources more strategically and start to map funds with activities needed to manage the sector holistically;
- Help DPM and DPSP prioritize activities/resources based on impact, moving towards a focus on sustainable fisheries management through more surveillance equipment or access to services/goods, such as landing sites and women-led, small-scale processing centers, contingent upon stakeholders using sustainable practices;
- Explore the opportunity (and possible consequences) to make DPSP a more autonomous agency with the ability to raise revenues;
- Levy quotas to raise GOS revenue and limit incentives for overfishing;
- Assist DPM to develop a process and criteria for issuing industrial processing plants to avoid driving unsustainable fishing;
- Explore options to strengthen marine tenure;
- Support the Fisheries Transparency Initiative (FiTI) effort to publish industrial licenses or otherwise create systems to start to publish fishing licenses, fines and other fisheries information to increase transparency in the sector;<sup>16</sup>
- Reduce the number of pirogues, in collaboration with the World Bank's follow on to the West Africa Fisheries Regional Program (WAFRP).

**Bring non-state actors to the table:** The Policy Letter states that “the participation of stakeholders in the preparation of short-term operational programs, implementation, monitoring and evaluation” is a core value that guides implementation (2.3(ii)). The DPM could develop processes and systems to involve communities and consult with them in accordance with the law. While dependent on political will, this activity could, for example, create internal DPM guidance on when to consult with communities and how, along with some kind of accountability mechanism to increase the likelihood that the guidance translates into action. It could be something as easy as creating a checklist before issuing industrial processing plant licenses to require local consultation that then is required to be approved by superiors and published. Local actors can advocate on their own for their place at the table as the law requires.

***Intermediate Result 3: Enhanced social and economic benefits to artisanal fishing communities provide incentives to a continued sustainable fisheries agenda.***

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<sup>16</sup> Fisheries Transparency Initiative, *Senegal makes first steps to apply FiTI commitments of Senegalese President*, June 22, 2016, <http://fisheriestransparency.org/senegal-makes-first-steps-to-apply-commitments-of-senegalese-president>, accessed February 17, 2017.

**Strengthen women in the marketplace:** Interventions can test ways to empower women in the marketplace by, for example, increasing their representation on CLPAs, strengthening women's cooperatives, and continuing and strengthening women's empowerment and gender equality investments. One small bet would be to train key women's groups or cooperatives on the market and how to price goods and get them to consumers.

**Publish pricing information:** The PEA recommends creating a system to publish pricing information, either using technology like SMS or simply posting the information in a public place. Diverse actions could start to investigate how best to publish this information and start to work with CLPAs and other stakeholders to establish the demand for greater transparency in the marketplace, as it is likely that wholesalers and others may resist the reform. An alternative would be to pilot different approaches to see what works best.