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PENCOO GEJ

Collaborative Management of Sustainable Fisheries in Senegal

**Evaluation of the Legal and the
Institutional Capacity of the Local
Artisanal Fishing Counsels in
Senegal**



August, 2011

USAID/COMFISH is a 5-year Project dedicated to the collaborative management of sustainable fisheries in Senegal. It is funded by USAID and implemented by the University of Rhode Island in collaboration with the Government of Senegal and other local partners.

This publication is available electronically on the Coastal Resources Center's website at <http://www.crc.uri.edu>. For more information contact: Coastal Resources Center, University of Rhode Island, Narragansett Bay Campus, South Ferry Road, Narragansett, Rhode Island 02882, USA. Tel: (401) 874-6224; Fax: (401) 874-6920.

Citation: Caroline A. Karp (2011), Evaluation of the Legal and the Institutional Capacity of the Local Artisanal Fishing Counsels in Senegal, Coastal Resources Center, University of Rhode Island, Narragansett, RI, pp.20

Disclaimer: This report is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the authors and do not necessarily reflect the views of USAID or the United States Government. Cooperative Agreement No. 685-A-00-11-00059-00.

Cover Photo: Women cleaning fish at the beach

Credit Photo: Caroline A, Karp

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1. INTRODUCTION

This report evaluates the capacity of Senegal’s Local Artisanal Fishing Counsels (*Conseils Local de Pêche Artisanale* - CLPAs) to sustainably manage coastal fisheries and marine habitats, and offers recommendations about how to increase the capacity of the CLPAs to perform these functions in a way that contributes to economic development, alleviates poverty, increases food security and protects the marine environment¹.

The analysis starts from the URI-Coastal Resource Center’s (URI-CRC) goals for the USAID *Collaborative Management for a Sustainable Fisheries Future in Senegal* (COMFISH) project. The report then summarizes the major findings of three weeks of research regarding the institutional capacity of (some of) Senegal’s CLPAs to restore and manage Senegal’s coastal marine fisheries. Lastly, the report offers suggestions about priorities for USAID/COMFISH in terms of building the governance capacity of the CLPAs and restoring Senegal’s marine fisheries in a way that results measurable improvement in the welfare of people and communities involved in artisanal fishing.

The materials considered in this study of the legal and institutional capacity of the CLPAs include archival research; review of public laws and documents; meetings with key technical staff from COMFISH and its partner agencies; extensive discussions with Dr. Chris Mathews (COMFISH) and COMFISH partners; and field-based assessments of four CLPAs, two fish processing facilities and several fishing villages (July 26-29). Presentations at the COMFISH Workshop (July 20-22) were very helpful in understanding some background issues and priorities regarding fisheries management. S.Kande’s report to COMFISH on attitudes toward and the status of the CLPAs² was especially helpful and should be read in addition to this report. Conversations with Dr. Ibrahima Niamadio (WWF) and Mr. Saidou Kande (DPM) during the visit to the CLPAs and fishing villages (July 26-29) were invaluable.

¹ Note that the EU and COMFISH recently addressed this question as well. SEE MS&Associates, *Evaluation de l’expérience des quatre (04) Conseils Locaux de Pêche Artisanale (CLPA) pilotes*. Report to MEM and EU Devpt Bank Programme SAGPS/COM/STABEX PECHE (2009); and Kande,S. and S.Diouf. *Notes de synthese des resultats du diagnostic des CLPA, CLP et OCB*. Report to COMFISH by WWF and DPM via MEM (Jul 25, 2011).

² SEE Kande,S. and S.Diouf. Report to COMFISH (Jul 25, 2011).

ORGANIZING QUESTION:

To what extent do the Conseils Local de Pêche Artisanale (CLPAs) have adequate legal authority, institutional capacity and (human and financial) resources to effectively participated in a co-managed effort to restore and sustainably manage coastal fisheries and restore and protect biodiversity and adapt to climate change?

2. MAJOR FINDINGS

FINDING 1. Senegal pursued a deliberate strategy of decentralizing national responsibility for fisheries and natural resource management in general in response to structural adjustment conditions imposed by the World Bank, other development agencies and trading partners. Deregulation, decentralization and privatization of government functions were generally intended to “improve administration and delivery of public services, increase democracy, create wealth and empower the poor³”. The performance-based goals of the fisheries-related policies were to promote development of a market economy, commodification and export of marine resources, and increased foreign access to Senegal’s EEZ after Senegal ratified UNCLOS in 1984^{6,7}. These policies were implemented in Senegal by reducing national regulation of fisheries, seafood dealers and distributors; adoption of distorted trade agreements with the

³ Béné, C. and A. Neiland. *From participation to governance: a critical review of the concepts of governance, co-management and participation and their implementation in small-scale inland fisheries in developing countries*. WorldFish Center Studies and Reviews 29 (2006); Ribot, J. *Democratic decentralization of natural resources*. WRI (2002); and World Bank. *Poverty Reduction Strategy Paper for Senegal 2006-10* (2006). Avail online @ <http://go.worldbank.org/DGKYW6LAL0> (accessed Aug 11, 2011)

European Union and others that exported Senegal's natural capital without comparable growth in human or social capital⁴; over-capitalization of the artisanal fleet; and explicit delegation of fisheries management functions to local and regional stakeholder groups such as the CLPAs⁵, subject to approval by locally-elected mayors and/or préfets and sous- préfets appointed by the Ministry of the Interior.

As USAID noted with respect to decentralizing land administration in Senegal, “*Decentralization, implemented over the past 45 years, has not, in general, resulted in greater local control, more productive and/or sustainable land use, or greater security of family or individual tenure... [T]he capacity of these councils is weak and they are not always capable of responding to rapidly-changing conditions such as demographic pressures, urbanization, economic activities, and patterns and performance of agricultural production. In addition, rural councils have not recognized or promoted women's access to or rights in land, a step that could, in some areas, increase both productivity and household incomes as well as sustainable land management practices.*”⁶ Similar observations can easily be made of the devolution of national responsibility for fisheries management. For instance, over-exploitation of many of Senegal's pelagic and demersal finfish and invertebrate fisheries⁷ coincides w/ increased local control of fisheries management and does not appear to have resulted in significant improvement in human welfare for the Senegalese. (See Finding 2, below.)

FINDING 2. Senegal ranks as 144/169 in terms of the *Human Development Index*. Population continues to increase at ~3% per year and the median age is 17.9. Fifty% of the population lives in the Dakar metropolitan and peri-urban area⁸ where 98% have access to potable water and 79% to sanitation⁹. *Life Expectancy at Birth* increased from 52 in 1990 to 56 (UNICEF) or 59.78 in 2010 (CIA Factbook).

⁴ UNEP, *The Fisheries Sector in Senegal. Round II A Synthesis Report* (2009) @ www.unep.ch/etu/publications/Synth_Senegal.PDF (accessed Jul 9, 2011)

⁵ Pursuant to the Fisheries Code of 1998 (Jun 10, 1998), as amended

⁶ USAID Senegal Profile: *Property Rights And Resource Governance*. Avail on-line @ <http://usaidlandtenure.net/usaidltpproducts/country-profiles/country-profile-senegal/?searchterm=senegal> (accessed Aug 12, 2011)

⁷ Lourdes, M. and D. Pauly (ed.). *West African Marine Ecosystems: models and fisheries impacts*. Fisheries Centre Research Reports 12(7) 221 pages. Published by the Fisheries Centre, University of British Columbia (2004); UNDP. pp.40-42; 62-65 in *Changement Climatique, Sécurité alimentaire et Développement humain Sénégal - Rapport National Su le Développement Humain* (2010) citing data from JICA (2006) and Ly (2009).

⁸ UNICEF (2010) @ http://www.unicef.org/infobycountry/senegal_statistics.html (accessed Jul 11, 2011); Index Mundi @ <http://www.indexmundi.com/g/r.aspx?c=sg&v=30> (accessed Aug 12, 2011)

⁹ USAID and WB *Water and Sanitation Programme*. PEPAM project (P109986) [\$57M from 2010-15]. @ http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/AFR/2011/07/09/F8DA94A6D5FA7039852578C80066A2D6/1_0/Rendered/PDF/P1099860ISR0Di009201101310236863544.pdf

However, the absolute number of households living in poverty has increased since 2005 and Senegal currently ranks as 189/226 in terms of GDP/capita (PPP)¹⁰. The World Bank estimates that economic growth would have to increase by 7% per year to halve poverty by 2015¹¹.

FINDING 3. Many internally-funded fisheries and environmental projects are currently underway in Senegal¹² which produces opportunities for productive collaboration and conflict. Table 1 presents partial list.

Table 1: Funded fisheries and environmental projects current underway in Senegal

PROJECT	GOAL	FUNDING and DATES
PNDPC (Programme National de Développement de la Pêche Continentale) Regions: St Louis, Louga, Kaolack, Tambacounda and Sédhiou.	Address domestic food security by: - Finalize Inland Fisheries Code - Restore degraded ecosystems and regenerating inland fisheries resources; - Enhance and promote inland fisheries products - Remove illegal fishing gear - Establish co-management and surveillance brigades; - Build processing areas and distribution channels for products from inland fisheries.	2005- 4B cfa [75M cfa for 2011] = ~\$10M USD (@ 450cfas/\$)
WB-GIRMaC	- Contribute to devpt of EB fisheries mgmt - Devpd mgmt plans are prepared for white shrimp (<i>Penaeusnotialis</i>) and Yeet (<i>Cymbium</i> spp.) - Contributed to writing the LPS and revising Fisheries Code; implemented 4 pilot co-management projects at local level; built fishermen's storage at the pilot sites	Phase I 2005-2010 \$6MUSD; Phase II 2010-2015
WB-GEF: GDRH (Projet Gestion Durable Des Ressources Halieutiques)	- Develop projects at 8 sites for approval by 4 CLPAs - Establish –AGR (FRAP) for retraining of artisanal fishermen - Develop artificial reefs	2009-2012 \$9.5M USD • \$6M USD (GEF grant)

¹⁰ Index Mundi @ <http://www.indexmundi.com/g/g.aspx?c=sg&v=67>. GDP/cap (PPP) declined from \$1,800 USD (2005) to \$1,600 USD (2008), and increased to \$1,900USD in 2010. The current growth rate is 2.5% per year, which makes the MDG goal impossible to meet,

¹¹ World Bank. *Poverty Reduction Strategy Paper for Senegal 2006-10*. Avail online @ [http://siteresources.worldbank.org/INTPRS1/Resources/Senegal-PRSP\(Sept2007\).pdf](http://siteresources.worldbank.org/INTPRS1/Resources/Senegal-PRSP(Sept2007).pdf) (accessed Aug 11, 2011). [See §4.1.3.2. *Renovation of fishing and development of aquaculture* (#147-153) re. the WB's findings and recommendations about Senegal's fisheries sector.]

¹² Ministère de l'économie maritime. Projects administered by MEM. Avail on-line @ <http://www.ecomaritime.gouv.sn/> (accessed Aug 12, 2011). List does NOT include USAID, EU SAGPS/COM/STABEX, FAO-PMEDP, Worldfish or WWF- funded fisheries projects.

PROJECT	GOAL	FUNDING and DATES
	<ul style="list-style-type: none"> - Develop co-managed fishery that meets MSC eco-certification - Micro-credit avail in target communities to develop non-fisheries projects that result in poverty alleviation 	<ul style="list-style-type: none"> • \$3.5M USD (IDA Credit) to the FRAP fund
WB- PRAO (Projet Regional Peche En Afrique De L'ouest)	(COPE-Senegal) <ul style="list-style-type: none"> - Contribute to recovery and sust mgmt of ≥ 7 overexploited fisheries; Increase annual net profits for Senegal and ave income of fishery-dependent households -Reduce IUU fishing 	Jun 2010 - Jun 2015. \$15M USD of which \$777,000 dollars lent to the Sub-Regional Fisheries Commission (CSRP) for its activities and sub-regional program.
Japan- JICA/COGEPAS (Cogestion des Pêcheries Artisanales au Sénégal)	<ul style="list-style-type: none"> - Strengthen mgmt capacity of artisanal fisheries (in Lompoul, Cayar, Joal et Djifère.) - Worked w/ Joal, Sindia, Mbour CLPAs to => Sep15-Oct15 ban on poulpe - Comparative study of monofilament and cotton nets and study of gear used by settled and migrant fishermen 	2009-2013 2B cfas or ~\$4.5M USD (@ 450cfas/\$)
PNI (Programme National d'Immatriculation Informatisée)	Reduce overcapacity in fishing by <ul style="list-style-type: none"> - physical and electronic tagging of all fishing and transport vessels - create central, computerized database of registration data - 12 regional offices w/ offices, staff, computers 	2008-2010? 1.32B cfas or ~ \$2.9USD financed by: Switzerland (23.18%); Spain (25.28%); EU in the COM - Stabex (15.78%); World Bank through the GIRMAC (26.63%); Senegal (9.10%)
PVTTPM (Projet de vulgarisation des technologies de transformation des produits de la mer)	<ul style="list-style-type: none"> -Improve product quality, working conditions for women processors, environment and hygiene at processing plants - Support production, distribution, sale of processed seafood by women processors via FENAGIE 	
GTFS-Italy (Appui aux Organisations de Producteurs pour la Valorisation des Filières Porteuses)	<ul style="list-style-type: none"> - Reduce poverty in rural communities - Intensify, diversify value chains (train >1000 women in processing, business mgmt, organ, functional literacy) - strengthen capacity of producer organizations (via GIEs affiliated w/FENAGIE) - build processing and storage sites; introduce improved techniques for certification 	3 years WackNgouna (Kaolack region); Toubacouta (Fatick region); Leona (Louga region)

FINDING 4. The CLPAs have been delegated clear and adequate legal authority to develop local and regional fisheries management plans. Plans adopted by the CLPAs are subject to approval by locally-elected mayors OR local officials appointed by the Ministry of the Interior (préfet and sous- préfet) AND/OR by the national Department of Marine Fisheries (*Direction des Pêches Maritimes* or DPM) depending on whether the species management plan raises potential user conflicts or has trans-boundary or security implications. The roles, organization and operations of the CLPAs are described in the Fisheries Code (1998, as amended), the *Lettre Politique Sectorielle* (2007) and subsequent *Arretes* and *Decrees*¹³.

The Ministère de l’Economie Maritime (MEM) is currently reviewing revisions to the Fisheries Code made with support from the World Bank GIRMaC project that will significantly modernize Senegal’s approach to fisheries management by stressing ecosystem-based management, conservation of marine biodiversity, reduction in post-harvest losses and regulation of recreational and sports fishing¹⁴. In addition the MEM is currently negotiating Decrees with the Ministries of Interior and Finance to clarify the CLPAs’ authority and relationships with the préfets, municipal governments and the DPM, and to transfer 60% of pirogue licensing fees back to the CLPAs¹⁵.

¹³ Title II§12 of the National Fishing Code Law 98-32 of April 14, 1998 says "local councils of artisanal fisheries may be established in the regions. The conditions of their creation, composition, powers and procedures may be defined by regulation". Decree 98-498 (June 10, 1998) implements §12 by describing the distribution and composition of CLPAs. The *Arrete portant creation, organization et fonctiennement des conseils locaux de Peche artisanale maritime* (2008) formally recognizes 8 CLPAs.

¹⁴ [NOTE: Senegal ratified UNCLOS in 1984 and adopted FAO’s Code of Responsible Fisheries in 1995.]

¹⁵ Pers. Communication. S.Kande (DPM).

Table 2 summarizes the authority of the CLPAs based on these laws and implementing regulations.

**Table 2. Authority of the *Conseils Local de Pêche Artisanale* (CLPAs)
to manage coastal fisheries**

CLPAs are empowered:

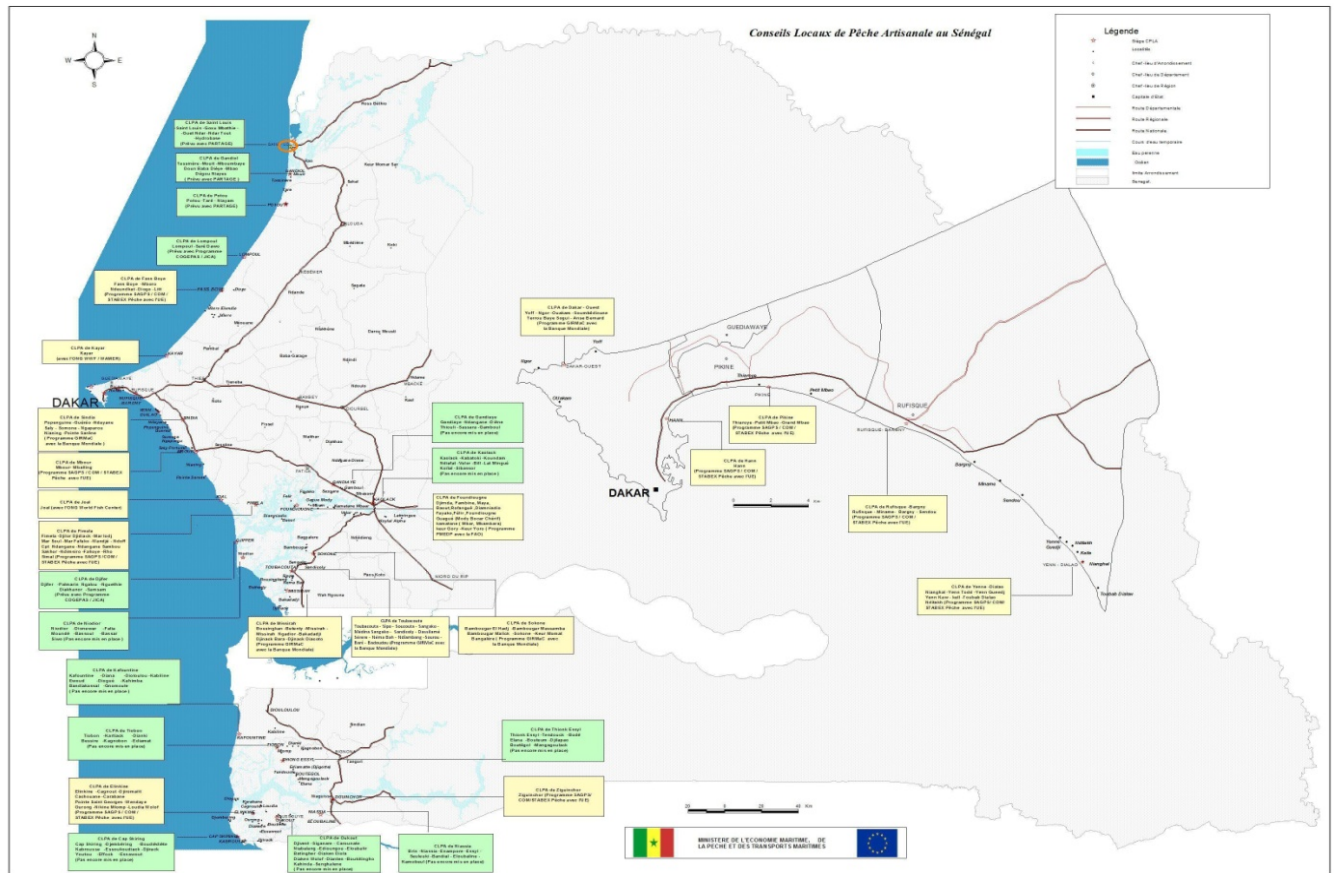
- a) to provide advice, upon request of the Minister of Marine Fisheries or his representative, on all matters relating to fishing craft and local marine culture;
- b) to provide information to artisanal fishers and fish farmers on all measures relating to fishing and marine culture in their community;
- c) to organize local fishermen to reduce and resolve conflicts between fishing communities and fishermen using different fishing methods;
- d) to organize the artisanal fishermen to enable them to assist the DPM in monitoring and control of fishing activities. (Based on Decree 98-498 (Jun 10, 1998))

In addition, various ministerial orders adopted since 1998 authorize the CLPAs:

- e) to propose interim measures for the development and management of artisanal fisheries resources and their habitats;
- f) to propose plans to sustainably manage local fisheries and conserve the marine ecosystem at the local level;
- g) to provide information to those involved in artisanal fishing on all measures relating to fishing and marine culture in their community;
- h) to advise on the management of community infrastructure;
- i) to participate in the management of socio-economic impact of management actions and conservation of all members of the community;
- j) to give notice of permit applications, and to perform business functions related to fishing.

(Based on *LPS* (2007) and *Arrete portant creation, organization et fonctiennement des CLPAs* (2008))

FINDING 5. Twenty-two of 32 CLPAs proposed by DPM in 2005 have been recognized by the DPM. See Figure 1. Map of CLPAs. Twelve (12) of these 22 CLPAs have active partners or some level of donor support¹⁶, although Kande and Diouf characterize 14 of 22 CLPAs as “inactive” or “non-functional” as of Jul 2011 based on intercept surveys with CLPA members and villagers¹⁷.



Map of CLPAs

FINDING 6. All of the CLPAs I visited with I. Niamadio and S. Kande between July 26-29, 2011 (Cayar, Mbour, Sindia and Joal) have partners and/or program support from one or more international development agencies or private parties and CLPA members perceive Cayar, Joal and Sindia to be “functional”¹⁸. However, none of these four CLPAs currently has the capacity to effectively develop,

¹⁶ SEE Appendix 1. WWF Summary of CLPAs modified to include Kande. and Diouf’s conclusions about CLPA capacity to govern.

¹⁹ Ibid.

¹⁸ Ibid.

implement and/or enforce *ecosystem-based fishery management plans*¹⁹. The Cayar CLPA is in substantially better shape than the other CLPAs in terms of its institutional development and ability to adopt and implement local regulations²⁰. However, the Cayar CLPA, which has been working on co-management of its fisheries since 1970, still focuses on management of single species and lacks the ability to enforce or monitor compliance with many of its own fisheries regulations²¹. The Cayar CLPA attributes this to seasonal in-migration of fishers from other villages; lack of formal deputization by DPM to enforce local rules; and lack of capital equipment such as patrol boats with 80 hp engines²².

Two villages (Oakam and Pt.Sarene) effectively manage some local fisheries via their *Comites de Plage* (CLP), with support from GIRMaC and JICA, respectively. The Joal and M'Balling fish processing centers; the Han Village CLPA and all of the sites within the Dakar Ouest CLPA except Oakam but including Yoff, Ngor and Soubédioune, operate at or near subsistence levels in terms of work, living and environmental conditions despite some evidence of local organization and/or donor support²³.

FINDING 7. Capacity issues common to all of the CLPAs include:

All of the CLPAs I visited with I.Niamadio and S.Kande (Cayar, Joal, Mbour, Sindia), the women's groups representing the Fish Processing Centers (M'Balling and Joal) and the CLPs in Oakam and Pt Sarene expressed confidence in their ability to manage "their fisheries", especially if certain funding, staffing and information requests were met. However, common concerns included:

- Many members of the CLPAs are unclear about the CLPAs' authority and responsibilities based on the 1998 Law, the *LPS* and subsequent Decrees. Differing understandings of CLPA authority by DPM, internatl donors, the prefects and municipal governments may contribute to confusion.

¹⁹ SEE Karp, C. Attachment 1. DRAFT Evaluation of CLPA Governance Capacity and Attachment 2. Field Observations of CLPAs and villages (Jul 2011)

²⁰ SEE Alioune, S. and J.Catanzano. *Self-regulation of Senegalese artisanal fisheries: A case study of Kayar* in Cunningham, S. and T.Bostock (eds.). Successful Fisheries Management. SIFAR/World Bank Study of Good Management Practice in Sustainable Fisheries (2005)

²¹ The Cayar CLPA has implemented the national law banning use of monofilament nets. However it does not currently receive summaries from DPM of monitoring/surveillance data collected by DPM Fisheries Technicians.

²² SEE Attachment 1. DRAFT Evaluation of CLPA Governance Capacity Jul 2011

²³ Ibid.

- Lack of communication about fisheries monitoring, surveillance and stock assessment data from the DPM and CRODT to the CLPAs. The Fisheries Technician at Cayar said that DPM was supposed to return synthesized landings and surveillance data w/in six months of receiving raw data from the DPM Technicians, although DPM had not returned any data or reports recently. [S.Kande, coordinator of CLPAs for DPM, solved this problem at Cayar, Mbour and Sindia by directing the Chefs de Peche to make their computers available to the DPM technicians so that surveillance and monitoring data could be compiled and distributed to the CLPAs more quickly.]

- Lack of communication about agendas, scheduled meetings, discussions and decisions from CLPAs to all members of the CLPAs; from the CLPAs to the CLPs; and between and within different *colleges* and *métiers*. Meticulous hand-written notes were taken by the Chef de Peche at the CLPA meetings, and at the meeting at the Joal Fish Processing Center. However these notes are not distributed or otherwise communicated to members. Access to computers, printers and CLPA members or staff who are comfortable with computers would, theoretically, enable the CLPAs to communicate decisions to all of their members as well as to constituents, DPM and other government offices. WWF's community radio stations present another good option.

- Lack of education about fisheries biology, new technologies and strategies used to manage fisheries, protect the environment and add value to local harvests. (One CLPA member commented that the CLPAs don't need fisheries science. I. Nimadio pointed out that fishermen don't tend to know anything about the life cycle of locally abundant species, e.g., *O.vulgaris*, which makes it very difficult to establish an effective management plan.)

- Widespread frustration with current system that requires the Prefet (who is appointed by the Minister of Interior) to be the President of the CLPA, approve appointments and/or to attend and chair meetings. (The Draft Decree of 2011 will allow the CLPAs to nominate their own representatives and leaders and to present their advice to the Prefet or the Mayor to issue regional or local *arêtes*.) Note that USAID COMFISH and its partners could/should pursue better communication with the prefets and sous-prefets appointed by the Minister of the Interior and the mayors of communes covered by CLPAs.

- Lack of funding. [Note that the Ministers of Maritime Economy and Finance negotiated transfer of 60% of pirogue license fees back to officially recognized CLPAs that have adequate banking and accounting systems in place. I understand that the process of transferring funds is underway. HOWEVER this should be accompanied by communication from DPM about mandatory re-licensing of pirogues, with joint enforcement by DPM and the CLPAs and/or CLPs. In addition, see Trouillet, B. et al. (2011) re. consequences of relying on license fees to support core programs such as monitoring, especially since Senegal's goal is to reduce the number of licensed vessels, resulting in lower fees to cover fixed costs.] Common budgetary concerns include:

- Lack of adequate space for the CLPAs to hold meetings. The Pt Sarene CLP has new space built by JICA. All the other meetings were held in run down, poorly maintained, poorly ventilated spaces owned or controlled by DPM. There are many unoccupied colonial-era buildings in these villages, many w/in the Chef de Peche compounds, that seem solid but run-down. There is also a lot of empty tourist-based and *greenfield* development --- mostly for sale or lease and deteriorating from lack of use.
- Lack of adequate infrastructure needed to protect international OR domestic value chains such as access to ice, refrigerated storage, refrigerated trucks. (The Cayar CLPA said 2/4 ice plants operating in Cayar were privately owned, suggesting that there are 4 ice plants in the city although there were many boxes of dead *O.vulgaris* sitting in warm water at the landing site.)
- Lack of training about new technologies, e.g., processing, packaging. The fishermen seem perfectly willing to adopt (or adapt to) new fishing techniques. Examples include widespread adoption of artificial reefs for poulpe, use of modified gill nets to avoid catching demersal fish and, of course, use of larger motors to access more distant fisheries.
- Lack of access to start-up funds to enable women in particular to diversify the local fisheries-based economy during periods of low landings. Women in Cayar, M'Balling and Joal expressed interest in micro-credit loans to start small stores that could

generate income, employ their children and keep their daughters AND sons in school longer. *Women in Joal and M'Balling explicitly said that "the CLPAs were not relevant" to them in terms of addressing their concerns.

- Lack of coordination among development agencies and NGOs with respect to goals for CLPAs. Many projects have a strong emphasis on economic development of single species, e.g., COGESPAS (octopus, Yet), WB-GIRMaC (lobster, shrimp), WULA NAFAA (oysters, shrimp), as opposed to sustainable management of marine ecosystems or *ecosystem services*²⁴. Similarly most donors and partners emphasize international vs domestic value chains; and biological and governance goals vs. human welfare goals. There are few references to the UN Millennium Development Goals in any of the donor documents I reviewed for this project, i.e., there is a decided bias in favor of biologically- and market-based targets (increased exports, landings or species abundance) without reference to associated improvements in human welfare (e.g., increased per cap GDP; improved access to water and sanitation; increased literacy) or to environmental protection (e.g., improved air and water quality, transition from reliance on oil to solar energy for electricity generation).
- Lack of adequate stock assessment and associated ethnographic and socio-economic data to support fisheries management plans. For instance, few if any fishery management plans seem to exist for the priority species identified at COMFISH Workshop, though there must surely be more than I list here. In addition, several CLPAs (Cayar, Sindia-M'Bour) referred to a seasonal influx of fishermen from other regions as an important contribution to fisheries exploitation and also an enforcement problem. The ports of Cayar and Joal seemed relatively quiet in July, suggesting that many local fishermen were working in other waters. It seems really important to understand and "map" the movements of artisanal fishermen along with movements of key fisheries since one enforcement option is to require pirogues to register with and/or receive permits from the CLPA that covers the community where fishing is occurring.

²⁴ *Ecosystem services* include provisioning/food security, regulating, supporting and cultural services (MEA 2004).

FINDING 8. Relatively few women or younger men attended the CLPA meetings I attended in July 2011. This is potentially a serious problem in terms of achieving a consensus on management plans and compliance with those plans if the CLPAs do not adequately represent the *métiers* or territories they represent. For instance, a counselor at the Mbour-Sindia CLPA meeting said that “none of the women from St Louis to Joal support the men in terms of supporting limits on fishing [such as the 15” limit on *Sardinella* sp..]” because they own the boats or depend on the market. A counselor at the Joal CLPA meeting, where there were no women representing the *mayereuses* or *transformatrices*, said that “women couldn’t attend because they did not own their time and had to work”. This is also likely to be true of men who would otherwise be fishing or working.

This raises the possibility that members of the CLPAs are very likely to be elders and/or elites since they are more likely to be able to attend frequent meetings. This is not a problem as long as constituents consider these councilors to be legitimate representatives and advocates. However, it is important to note that the women at the M’Balling and Joal Fish Processing sites – who did NOT attend the CLPA meetings held earlier in the day—clearly indicated that they did not consider the M’Bour and Joal CLPAs “to be relevant or influential” in terms of listening to and representing their interests.

FINDING 9. Two villages, Oakam (Dakar Oest CLPA) and Pt Sarene (Sindia CLPA), represent the best examples I saw of community-based management. Both have been influenced by donors to focus on a single species --- slipper lobster by WB GIRMaC in Oakam and octopus by JICA in Pt. Sarene. Both villages have “protected marine areas” and/or artificial reefs which are really intended as ‘grow-out’ areas for their target species but which may serve broader ecological goals by providing niche complexity, (re-)building invertebrate-based food chains etc. In addition, both villages explicitly address coastal management and environmental issues, including waste management, managing vegetation and marking boundaries of the protected area and/or fisheries-related areas of the village itself.

People interviewed in each village expressed genuine gratitude toward GIRMaC and JICA, respectively, and a number of people said approvingly, “JICA gives us gifts, not debt.” There are probably lessons here about where it might be most effective for COMFISH to invest its intellectual and financial capital. However, it is also important to read Kande and Diouf’s report analyzing the results of many interviews

at 22/32 CLPAs²⁵. Kande and Diouf frequently found that having an active partner such as JICA, GIRMaC or Wula Nafaa could “drive” the CLPA process. However, they also found that these investments were often focused on single species that resulted in benefits for a small subset of the community; and that village level projects sometimes cause confusion and even conflicts with the CLPAs.

FINDING 10. Han Village, the landing and processing site in downtown Dakar, and the rocky shore (corniche) on the margin of Ngor --all in the Dakar Ouest CLPA-- represent the worst examples I saw of resource use, environmental protection and protection of human welfare in Senegal. Han Village may have had support from the EU SAGPS/COM/STABEX Pêche programme at one time however there was no evidence of any investment in managing fisheries or protecting human health or the environment in July 2011. Raw sewage and tributary piles of decomposing fisheries waste drain across the beach into the embayment, where children were playing. The landing and processing site in downtown Dakar seems to be built on urban rubble and fish waste and the city of Dakar maintains a smoking pile of solid waste immediately to the north and in the airshed of the processing site. Lastly, there is a population of subsistence fishers who literally scrape their living off the rocks on the corniche in the shadows of space age embassies, INGOs and extravagant personal properties. Women in this last group were harvesting sea urchins and roasting them on piles of cockle, limpet and abalone shells for extended groups of women and children, i.e., a perfect example of fishing down the food chain for ‘under-utilized species.’

²⁵ See Appendix I, which I have modified to combine WWF’s summary of descriptive information about the CLPAs with Kande and Diouf’s conclusions about whether and why the CLPAs are “functional”.

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