

Fisheries co-management in Senegal

Mamadou Thiam*1 and Makoto Ikeda*2

Project on the capacity improvement of the organizations and the training of the leaders of small-scale fishers (COGEPAS)

*1: Principal Counterpart of the project, Department of Marine Fisheries, Ministry of Fishery and Maritime Affairs (MFMA)
*2: Technical advisor for MFMA



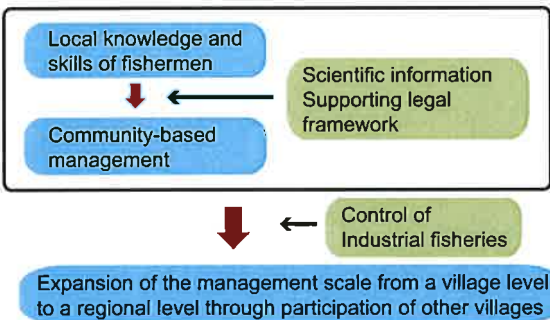
Background

Fisheries resources, particularly those species with high commercial value, have been over exploited in Senegal in the last decade. Although the government tried to manage them with a top-down approach, it has not been very effective. Now communities' initiatives in resources management are highly required.

Project objective

With the initiative of various stakeholders of small-scale fisheries, co-management of fisheries resources are established and adopted in the neighboring fishing villages along the coast of Senegal.

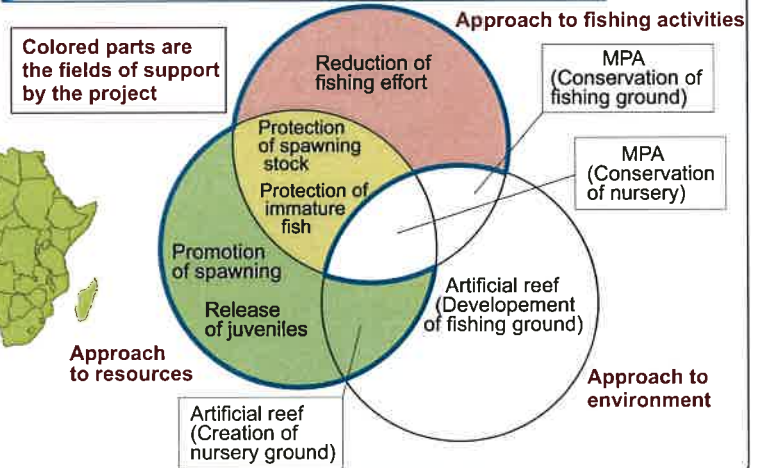
Steps toward



Perspectives

For sustainable fisheries co-management, further efforts will be required on the following points.
- To improve the capacity of management organizations and their leaders
- To establish a financial support system for the organizations
- To spread the co-management to other villages which have not started yet

Combination of management approaches in Senegal



Approach to resources

Promotion of spawning

Octopus resource management adopted in wider areas

Started at a small village called Nianing in 2004, closed period for octopus fishing was introduced with supplementary installation of terracotta pots to protect and promote spawning. This management measure has been expanded to two neighbouring villages in 2005 and to all (11) villages in the Department of Mbour in 2011.

L: Terracotta pots with future fishers, R: Octopus in the pot



Release of juveniles

Release of *Cymbium* juveniles

Cymbium holds 10-20 juveniles of 20-30g in their incubation sac during breeding season. The project collected 10,007 juveniles from captured *Cymbium* and released to the sea, which otherwise would have been consumed by villagers, with the hope that they are recaptured after growing to market size.



L: Adult, R: Juvenile

Promotion of spawning

Promotion of spawning of cuttlefish using artificial branches

Artificial branch has been developed not only to catch cuttlefish but also to serve as a spawning substratum. Eggs spawn to artificial branches are well protected in the trap and hatched.



L: Spawning of cuttlefish
C: Eggs of cuttlefish
R: Trap with artificial branches

Approach to fishing activities

Protection of spawning stock



Protection of immature fish

Management of "Thiof" (Grouper) (*Epinephelus aeneus*)

"Thiof" is a national fish in Senegal. Due to high price, this fish is over-fished in recent years. In order to conserve them, long-line fishers agreed to reduce the number of hooks to be used and partially use larger sized hooks.

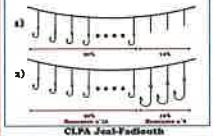
Information handout for fishers

Reduction of fishing effort

Gérons nos ressources Thiof



Mesures prises:
1) Diminuer le nombre d'hameçons de 10%
2) Combler 10% d'hameçons n°8 avec crocs de petite taille (n°14)



Management of bottom gillnet

Fishers have agreed to enlarge the mesh size and reduce the number of bottom gillnet in order to reduce the fishing pressure on high valued demersal fishes.

R-U: Sole fish entangled by gillnet
R-D: Fishing net reduced by fishers
L: Orientation seminar



Approach to environment

Creation of nursery ground

Installation of artificial reef made from discarded shells

Recycling of such fisheries waste as the discarded shells of *Cymbium*, artificial reefs have been made and installed on flat and smooth sea beds to create nursery ground for demersal species.

L: Discarded shells
C: Young fish at nursery
R: Artificial reef made out of discarded shells

