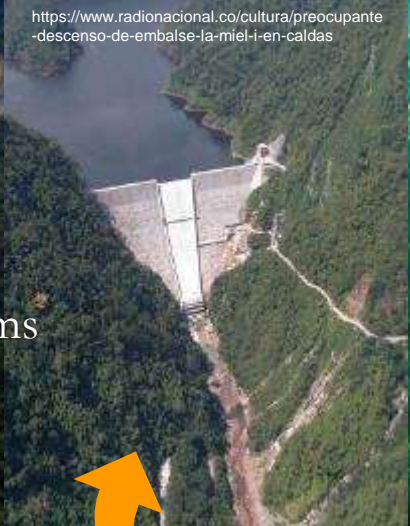




Fishermen and territory

*Fishery governance: Apropiation and colective actions for conservation in the Magdalena River
(Colombia)*



dams



Au minery



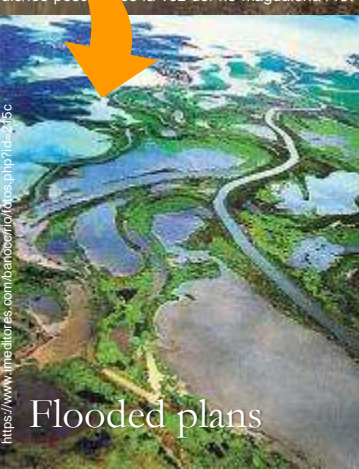
FISHING



deforestation



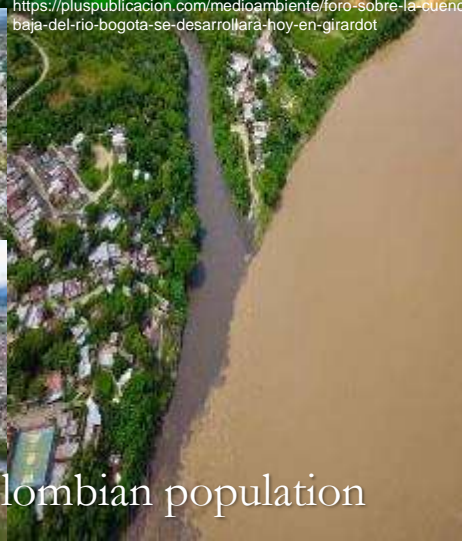
Flow rates



Flooded plans



85% Colombian population



Eroded riverbanks

<https://www.rcnradio.com/colombia/region-central/otorgan-polemica-licencia-para-proyecto-de-explotacion-de-oro-en-el-sur-del>

https://www.google.com/search?q=embalses+Colombia&ibm=isch&ved=2ahUKEwjE19G09Zr0AhVvF18KH5WUCeY02-C6gQIABAA&oeq=embalses+Colombia&gs_lcp=CgNpb0WcQAZiFCAAGgAQYBggAEAgQHIECAAGDIECAAGGFCPC1jYjWTJWgAcAB4AIAIBkAGIAZwJkgE DNS42mAEAAEBggEEL3ozLXdp611pbWIAAQE&scid=emg&oeq=ASy8YYTKHus&hl=es&bih=369&biw=1920&imgref=z2gaU6WjwTM

<https://www.contextoganadero.com/internacional/las-contribuciones-de-la-deforestacion-al-cambio-climatico-se-sobreestiman-enormemente>

<https://pluspublicacion.com/medioambiente/foro-sobre-la-cuenca-baja-del-rio-bogota-se-desarrollara-hoy-en-girardot>

<https://sema.gub.cu/web/articulo/los-pescadores-la-voz-del-rio-magdalena-/1579>

https://www.lapatria.com/tags/inundaciones-por-creciente-del-rio-magdalena?meta_tag=true

<https://www.lapatria.com/Archivos/2019/07/10/107523364021644/203373851103261/?type=1&theater>

<https://www.eltiempo.com/archivo/documento/CMS-16390789>

www.aa.com.tr

<https://www.hoydiariodelmagdalena.com.co/wp-content/uploads/2020/10/erosionsalamina.jpg>

A photograph of three people blindfolded with fabric strips. The person on the left is labeled 'Fishermen' and has a red blindfold. The person in the center is labeled 'Institutions' and has a yellow blindfold. The person on the right is labeled 'Biologists' and has a blue blindfold. The scene is lit with blue and purple light, creating a somber and mysterious atmosphere. The text 'We do not know the knowledge from the others' is written at the bottom of the image.

Fishermen

Institutions

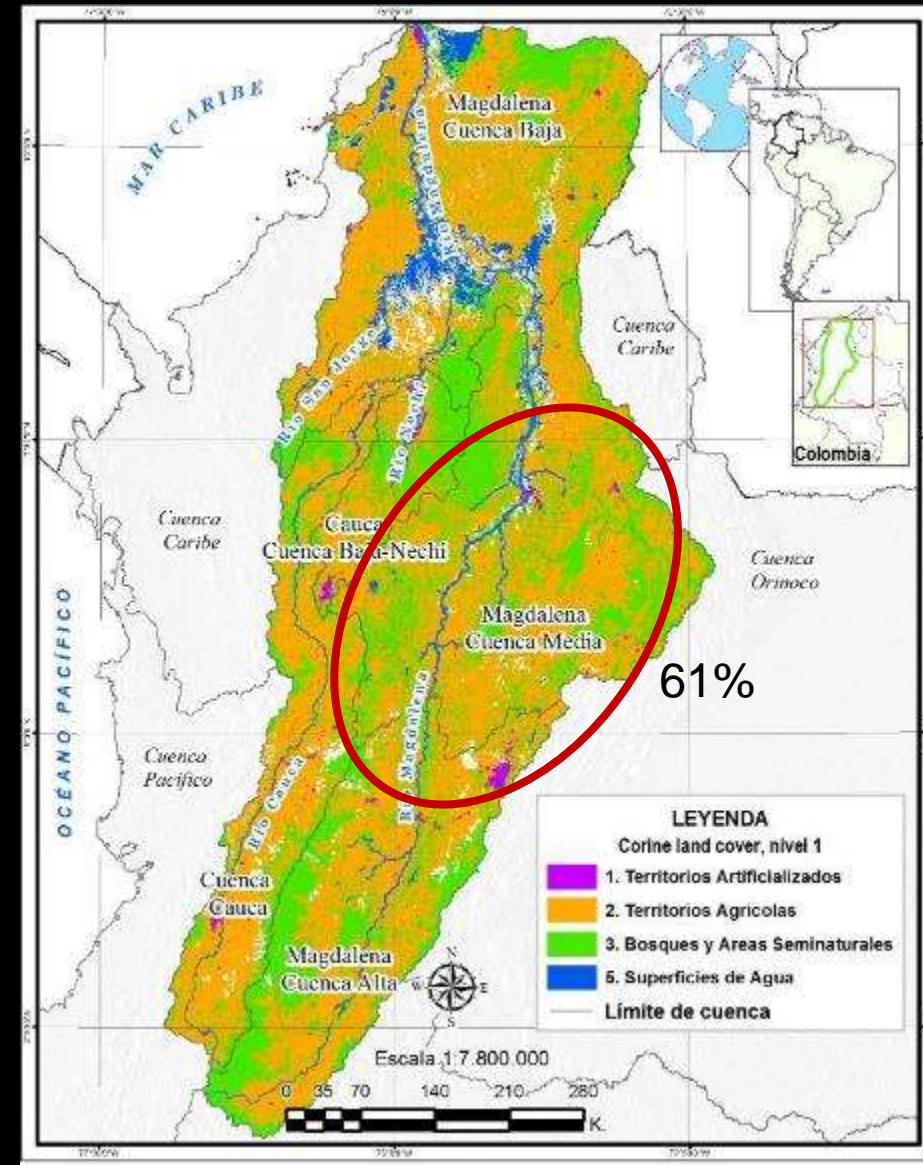
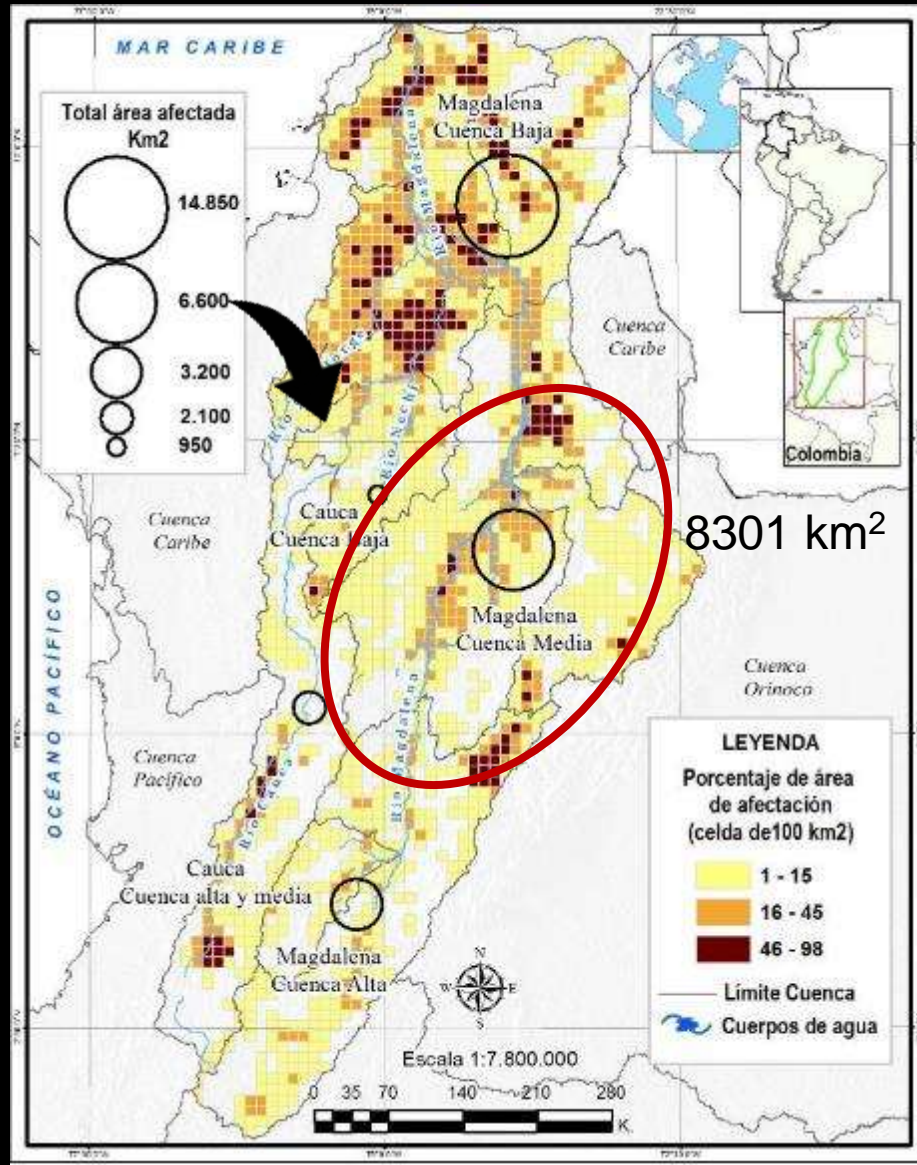
Biologists

We do not know the knowledge from the others

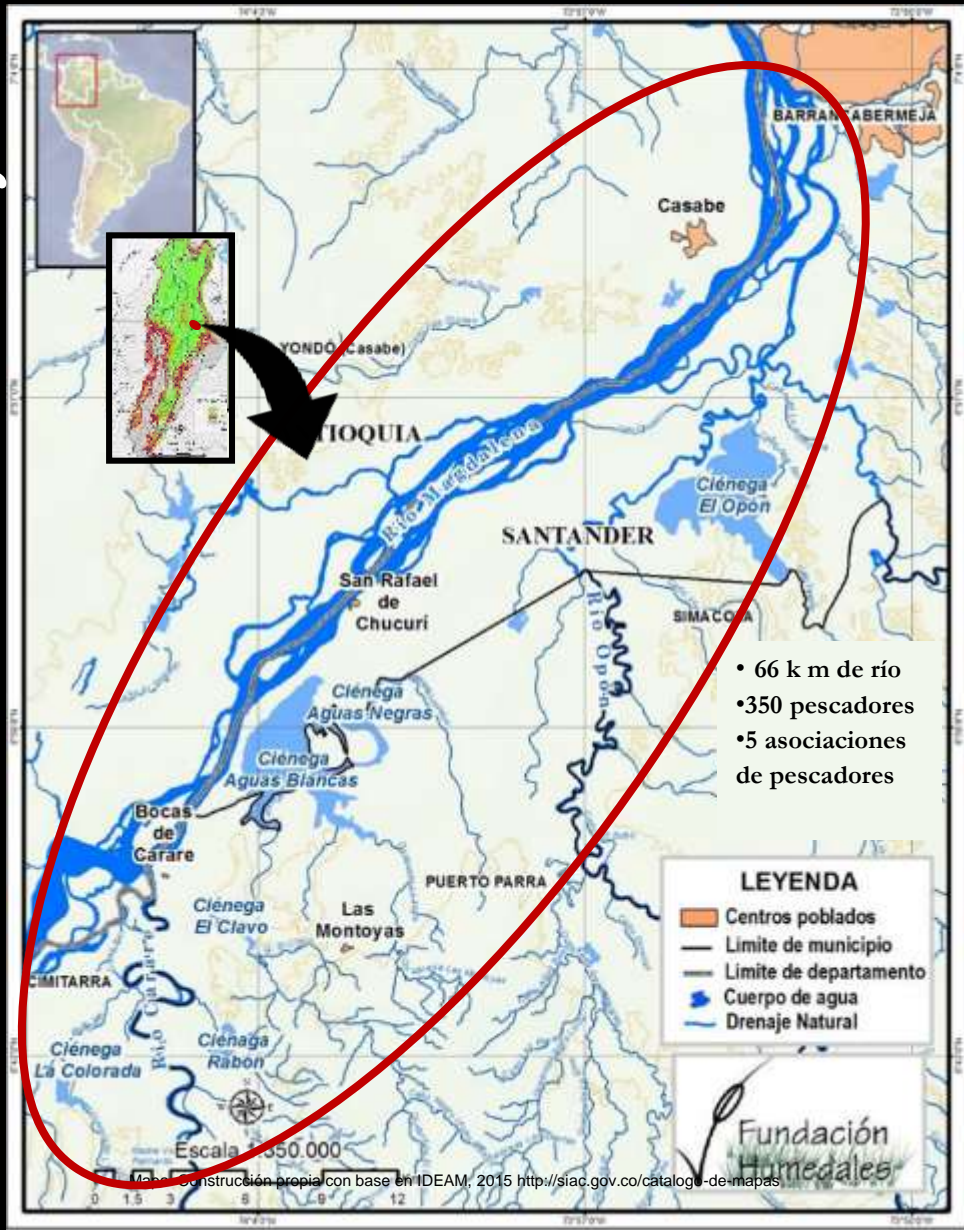
If the environment changes
and impacts things are
not longer obvious



Fishermen territory

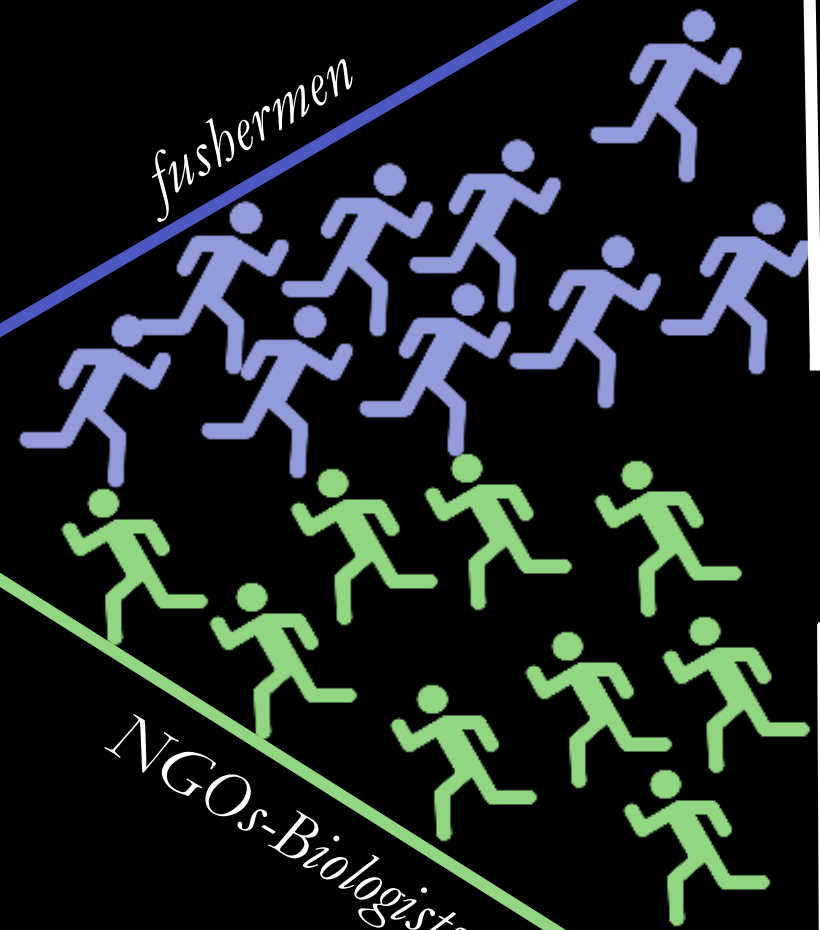


Fishermen territory

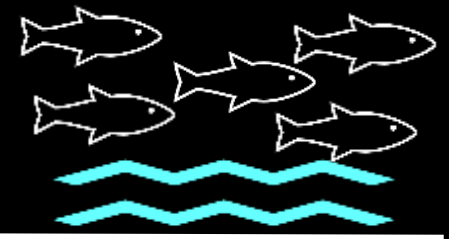


Rivers protection

fishermen



ecosystem



biodiversity



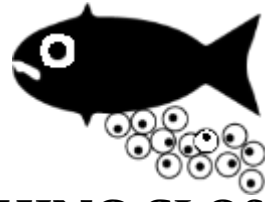
SAS (Chevalier y Buckles, 2021)



Collective fishery agreements



PROTECTED AREAS



FISHING CLOSURE (veda por candeleo)



SIZES



FISHING GEARS

PROTECTED AREAS

Critics hábitats and biodiversity



Ciénaga El Clavo: 44,4 ha
in Carare, protected areas: no
fishing.



Ciénaga Aguas Negras:
124,8 ha in Chucurí,
protected area: no fishing



Ciénaga La Colorada 52,4
ha in Carare, special
managment areas: fishing
with atarraya and hook. From
6am to 6pm



Ciénaga Aguas Blancas
1126,8 ha in Chucurí, special
management area: : fishing
with atarraya and hook. From
6am to 6pm

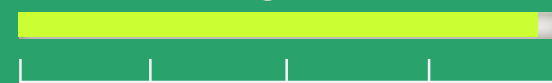
Compliance level

2014



92%

2021



96%



PROTECTED AREAS



FISHING CLOSURE
(veda por candeleo)



SIZES



FISHING GEARS

FISHING CLOSURE
(veda por candeleo)
Populations sustainability



Catfish's breeding real timing
Pseudoplatystoma magdaleniatum...candeleo and
Prochilodus magdalenae



Candele seeing in stablished rutes with comunitarian calender.

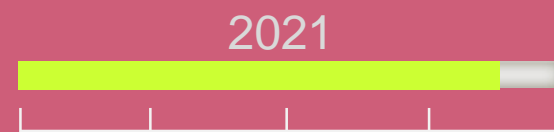


Gonads monitoring



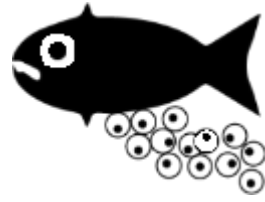
Early alarm for fishing closure

Compliance level

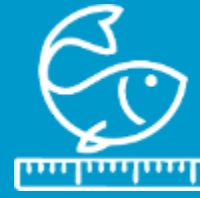




PROTECTED AREAS



FISHING CLOSURE
(Veda por candeleo)



SIZES



FISHING GEARS

SIZES

Populations sustainability



Reglamentary size changed from 80 cm SI to 65 cm SI



Size catching between 34 and 124 SI



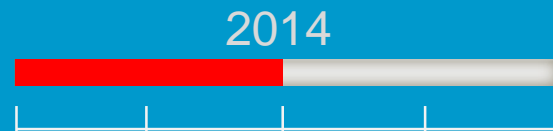
Avarage catching size between 2014 and 2021 69-70 cm SI



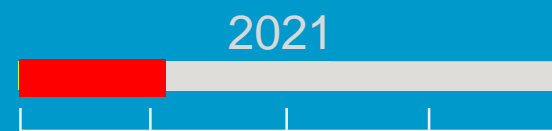
This agreement is still under negotiation with the fishery authority



Compliance level



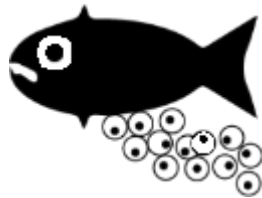
50%



25%



PROTECTED AREAS



FISHING CLOSURE
(veda por candeleo)



SIZE



FISHING GEAR

FISHING GEAR

Population sustainability



Nine fishing gear were regulated in mesh eye and use áreas (river and wetland-ciénaga)



The diversity in fishing gear is a réflex from the fishermen to the river shnages and the fishing área resilience



Wide mesh eye from 4-12 cm



The diversity in fishing gear allows that fihsermen have a more ecological and sustainable answer from the system

2014

2021

Compliance level



58%



85%



Schools Agreements

Signing of the agreements



Livehoods

Enviromental
program

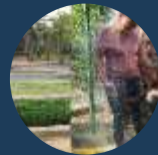
Territory

Magdalena River

Governance

Public politics

Participation



Territory and fishermen livelihood, work
resource and food security

Environmental
program



Territory



Magdalena River



Governance



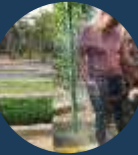
Public politics



Participation



Livehoods



Fishermen generated a governance process (22 october 2015) Catfish Table – Mesa del Bagre. Fishermen capacitated in the mangament of biology and fishery information to negotiate informal norms (fishing agreement). Up to 2021 9 Catfish Table

Territory

Magdalena River

Governance

Public Politics

Participation

Livehoods

Environmental
Program



Fishermen achieved that their informal norms have been formally approved and the national authority has published 2 regulations (protected areas and fishing closure) Resolución 2221 de 2017 y Resolución 2367 de 2019

Magdalena River

Governance

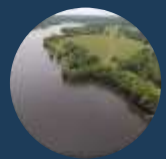
Politic Public

Participation

Livehoods

Environmental Program

Territory



The process made the fishermen visible and the process attractive at a national and international level ...25 institutions involved ... *“everyone wins”*

The connectivity among diferent actors made the fishery system more resilient

Governance

Public politics

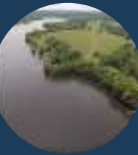
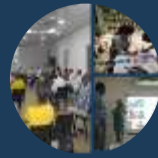
Participation

Livehoods

Environmental
program

Territory

Magdalena River



The process ameliorated the wellbeing from the inhabitants and the aquatic environment. In 2018 rural drinking water association and artificial wetland

Environmental program

Public politics



Participation



Livelihoods



Territory



Magdalena River



Governance



Participation of 5 educative institutions.

Participation



Livelihoods



Environmental Program



Territory



Magdalena River



Governance



Public politics



Fishermen have fully appropriation of their territory, rivers and species.



Fishermen

Territory



Empower fishery governance in the Middle Magdalena River, Colombia



Foundation Ursula Merz



Gracias
Thank you

