



Small-scale fisheries in times of change Senegalese artisanal fisheries

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Take home message

- Communities see environmental change in the region, perception and justification is dependent on location
 - Affecting overall sector and regulation
- Fishing is a connecting communities; income is diversified, dependent on location
 - Determines ability to adapt to change inside and outside the sector

Senegalese Fisheries

- 450 thousand tonnes catch (2018)
- 80% caught by artisanal fleet
- 20'000 canoes and 100 vessels in the industrial fleet
- 60'000 fisher and an additional 550'000 in processing and retailing (about 20% of Senegalese workforce)





Gathering knowledge on:

- fisheries sectors and their interaction
- the relationship between weather and abundance of fish
- impacts of climate change
- perceptions of fisheries regulations by fishermen
- communication and social interaction
- fisheries activities
- credit markets/loan systems and payback mechanisms
- risk behavior
- development over time



Gathering knowledge on:

- fisheries sectors and their interaction
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- communication and social interaction
- fisheries activities
- Financial diversification, loan systems
- risk behavior
- development over time

Approach

Field surveys among West African fishing communities to assess how fishermen and -women perceive environmental change and how they cope with it

- **Main landing sites** (towns, villages)
- Communities (Lébou, Guet-ndarien, Sérère niomka, etc.)
- The whole value chain (Producers, fish mongers, processors)
- Related to:
 - Species (small pelagics, demersal, shellfish, etc.)
 - **Fishing type (vessel and gear)**





Respondents

For Senegal, we have collected data from **691** participants, of which **485** (70.19%) are artisanal captains, vessel owners or both, **98** (14.18%) are processors and **108** are retailers (15.63%).

3 large ethnic groups: Lébou (41.03%) , Guet-ndarien (38.50%) , Sérère niomka (12.08%)

Senegalese fisher folk are near-exclusively Muslim and male (>99% for both).



A vast majority is married (92.68%)


The average household size (defined as the number of people eating together from one pot) is **14.4** people




Landing Sites


Saint Louis (12%) 

Kayar (15%) 
Dakar (15%) 

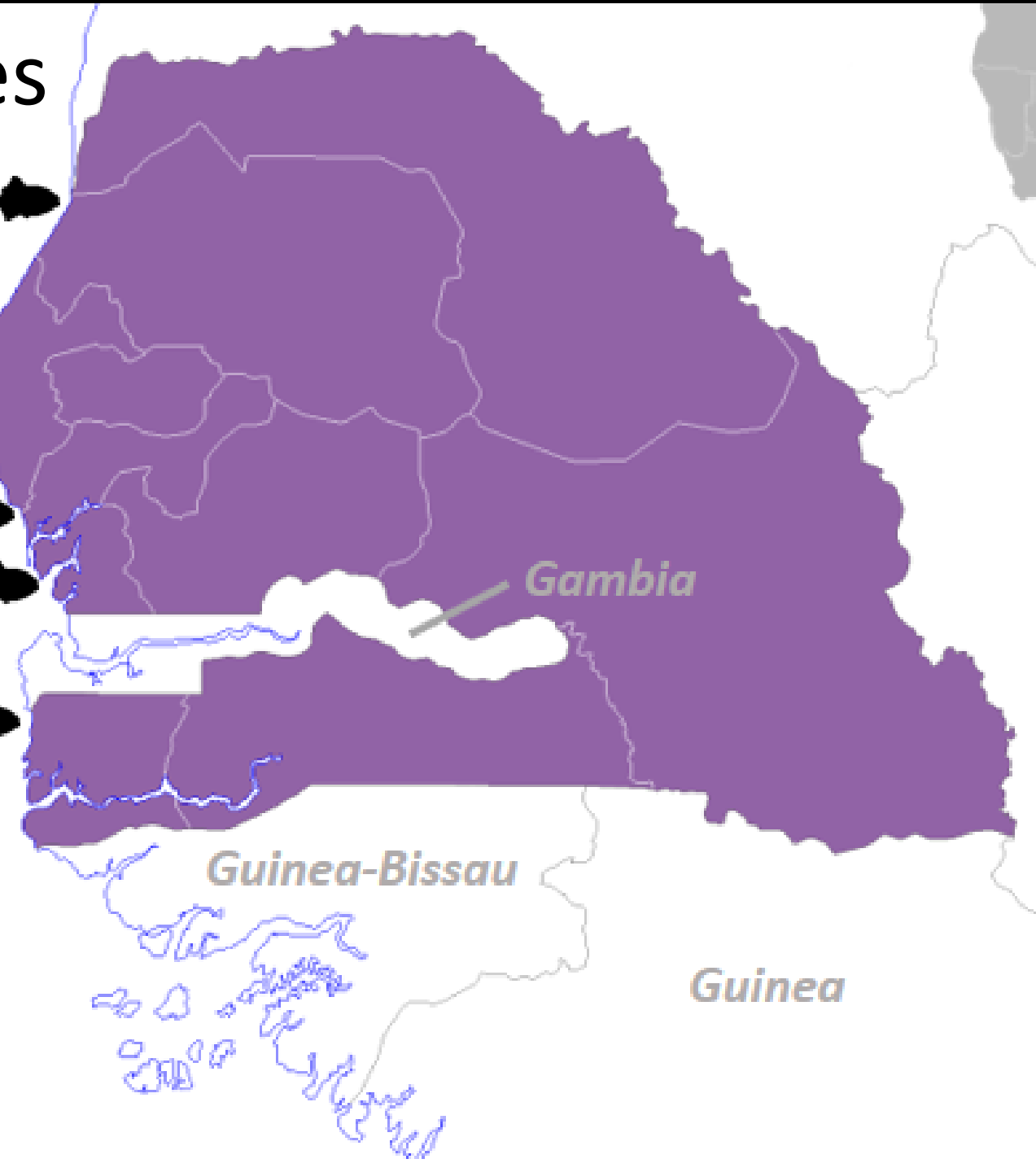
Mbour (14%) 

Joal (14%) 

Sine Saloum (10%) 

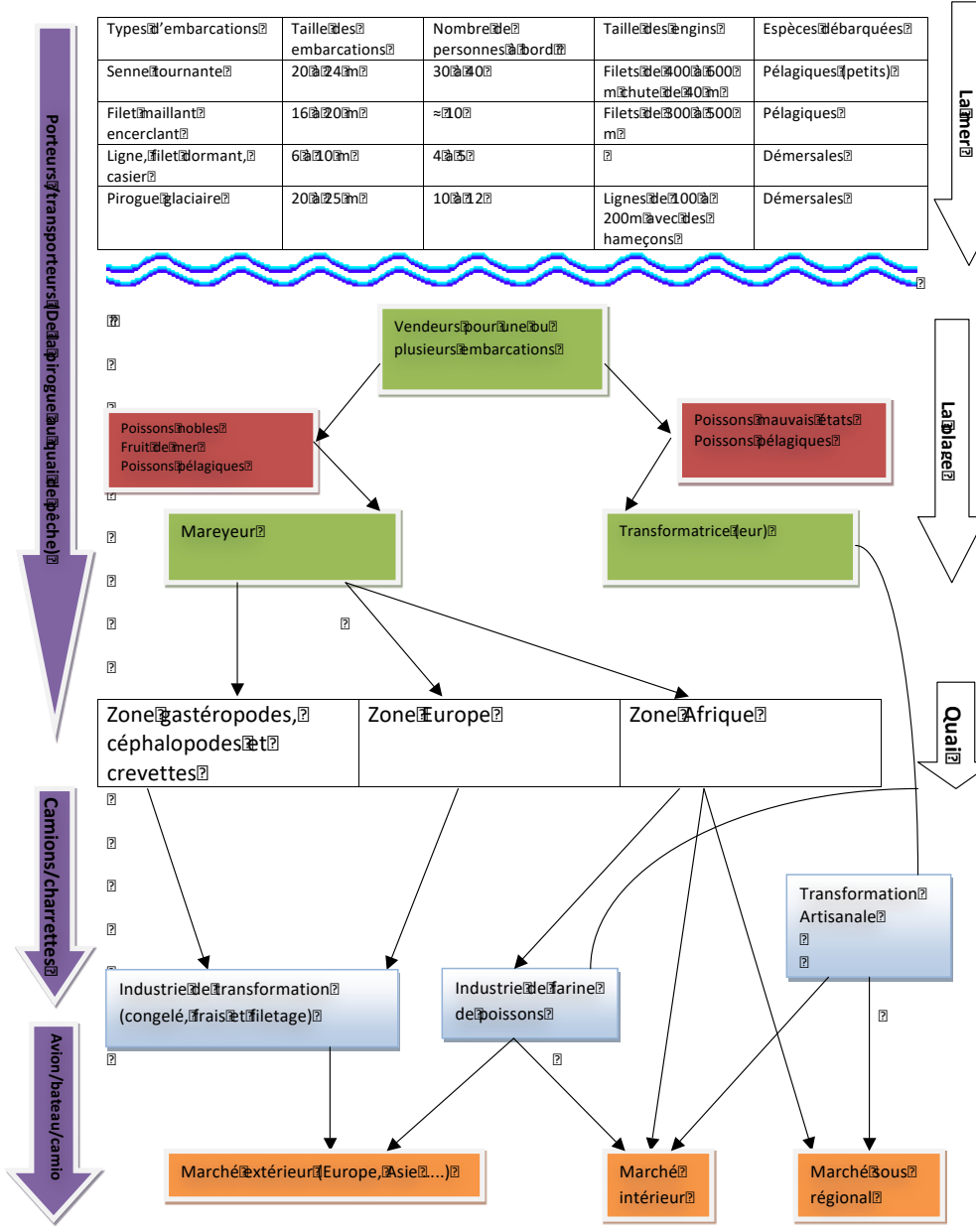
Casamançe (14%) 

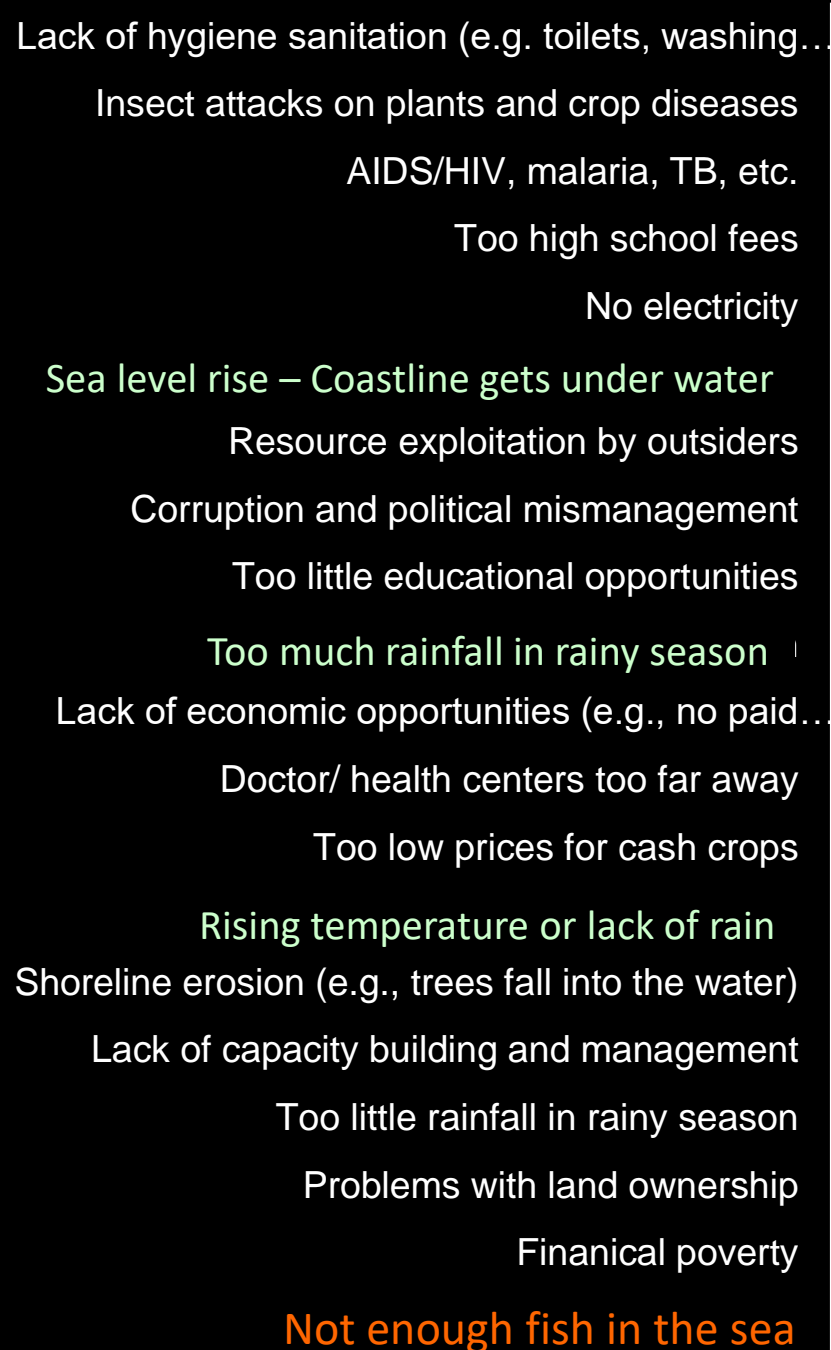
100 km





Scheme of a landing site (Aliou Ba, 2014)

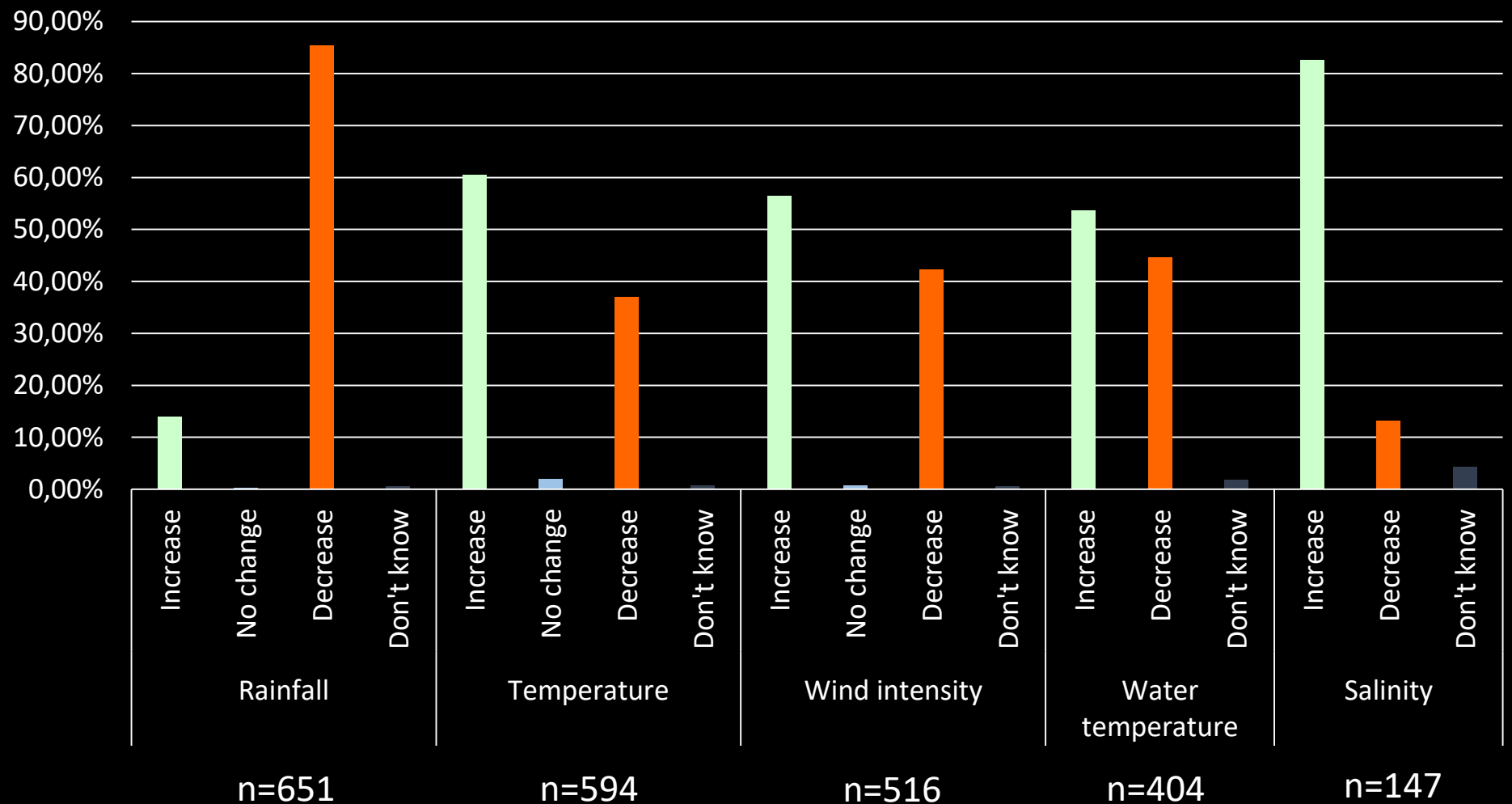




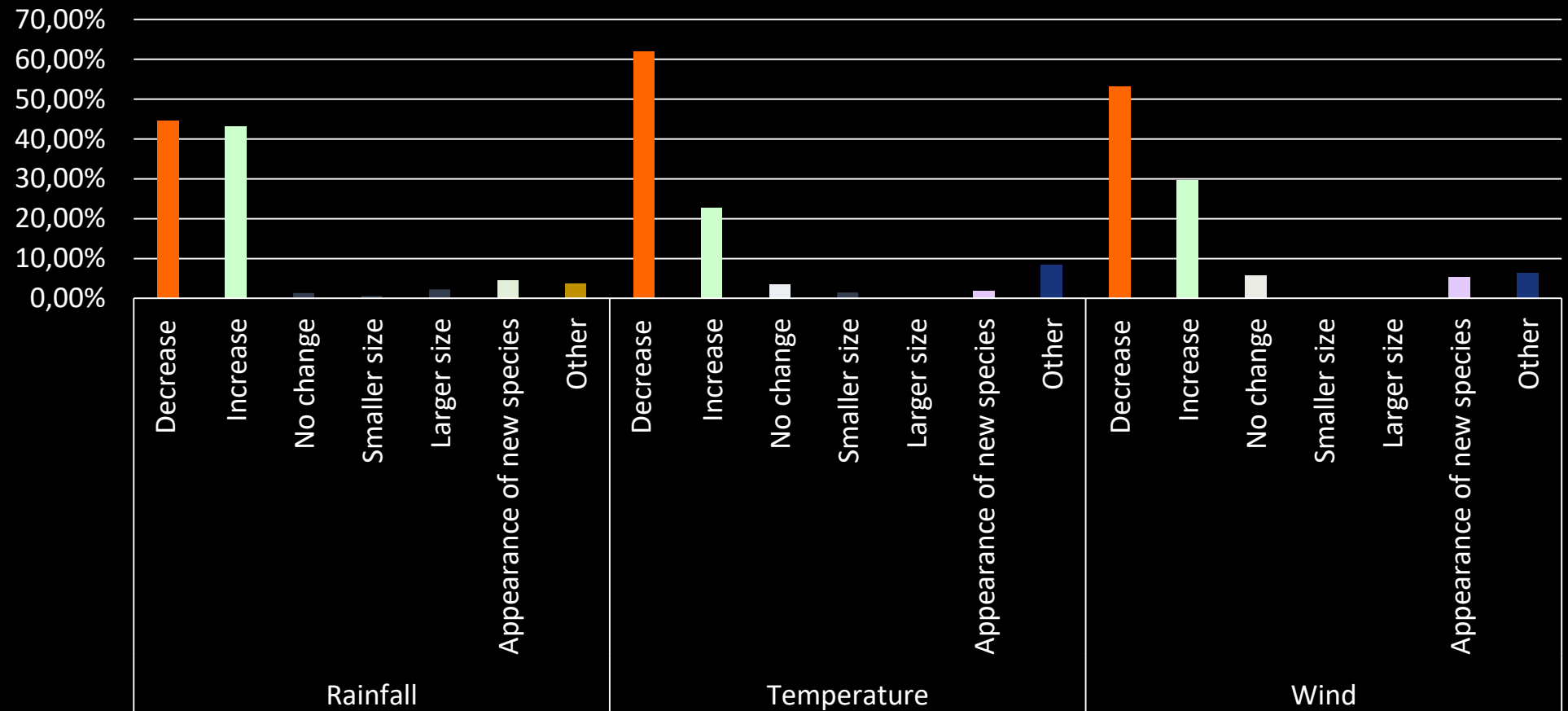
List of worries (top 5 named by each participant)



Environmental Change (between 2010 and 2015)

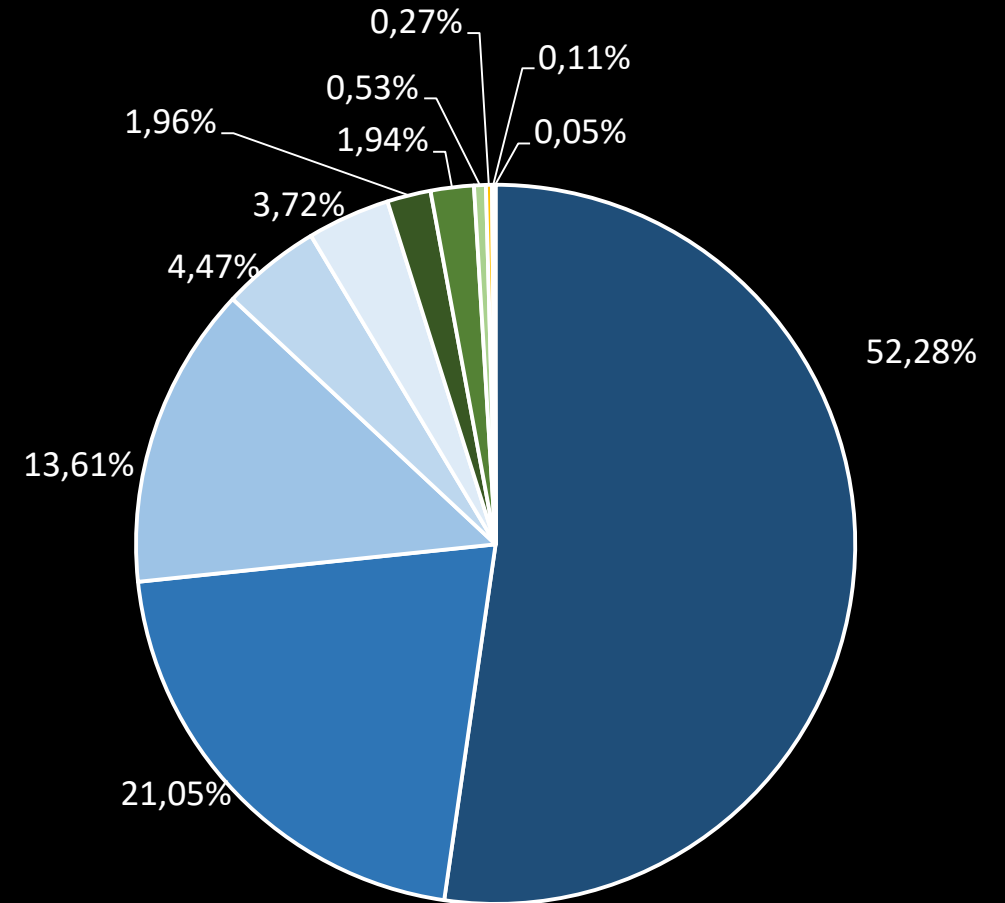


Perception of effect on fish resource



Causes of change

- God's will
- No idea
- Deforestation
- Air pollution from inside the community
- Nature/natural processes
- Pollution from outside the community
- Other
- No change
- Bush fires
- Disrespect toward social norms
- Disrespect toward religious principles



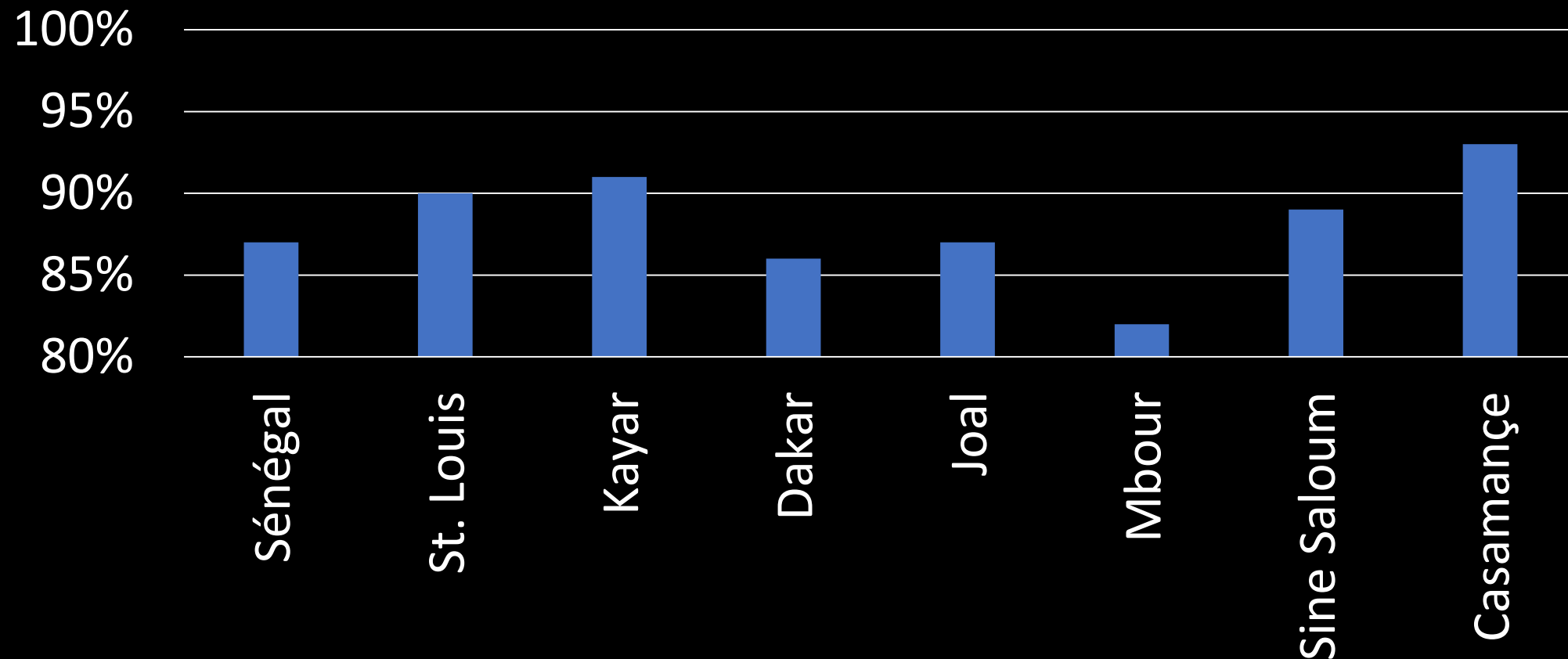
Community Strength

- Three quarters of the respondents were born to parents who also worked in the fishing industry
- In 66.79% of all cases, the parents worked at the same location
- 91.84% say that a large number of migrants live in their own fishing locality
- 82.9% of fishermen in Senegal are a member of a fishing association in Senegal



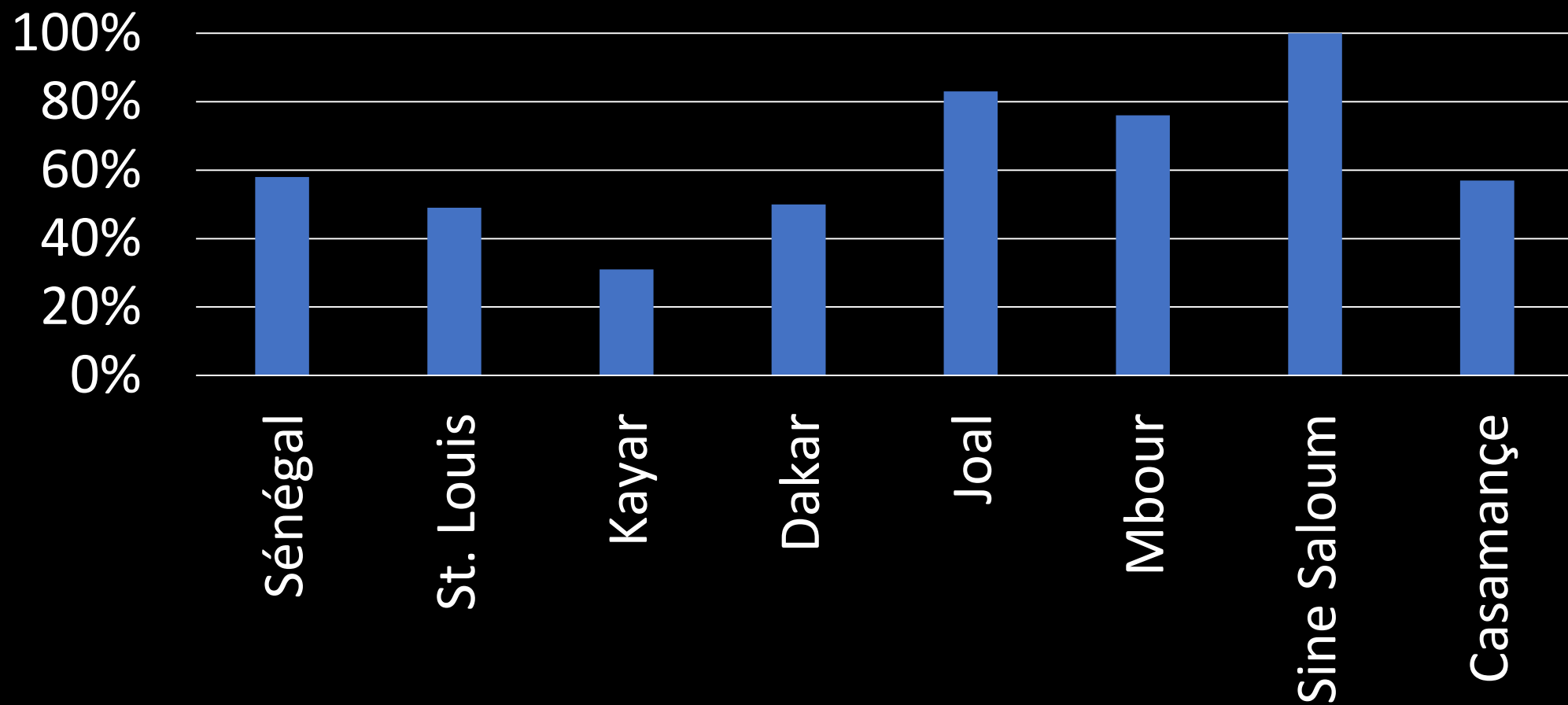
Income diversification

Share of participants who have other sources of income than fishing.



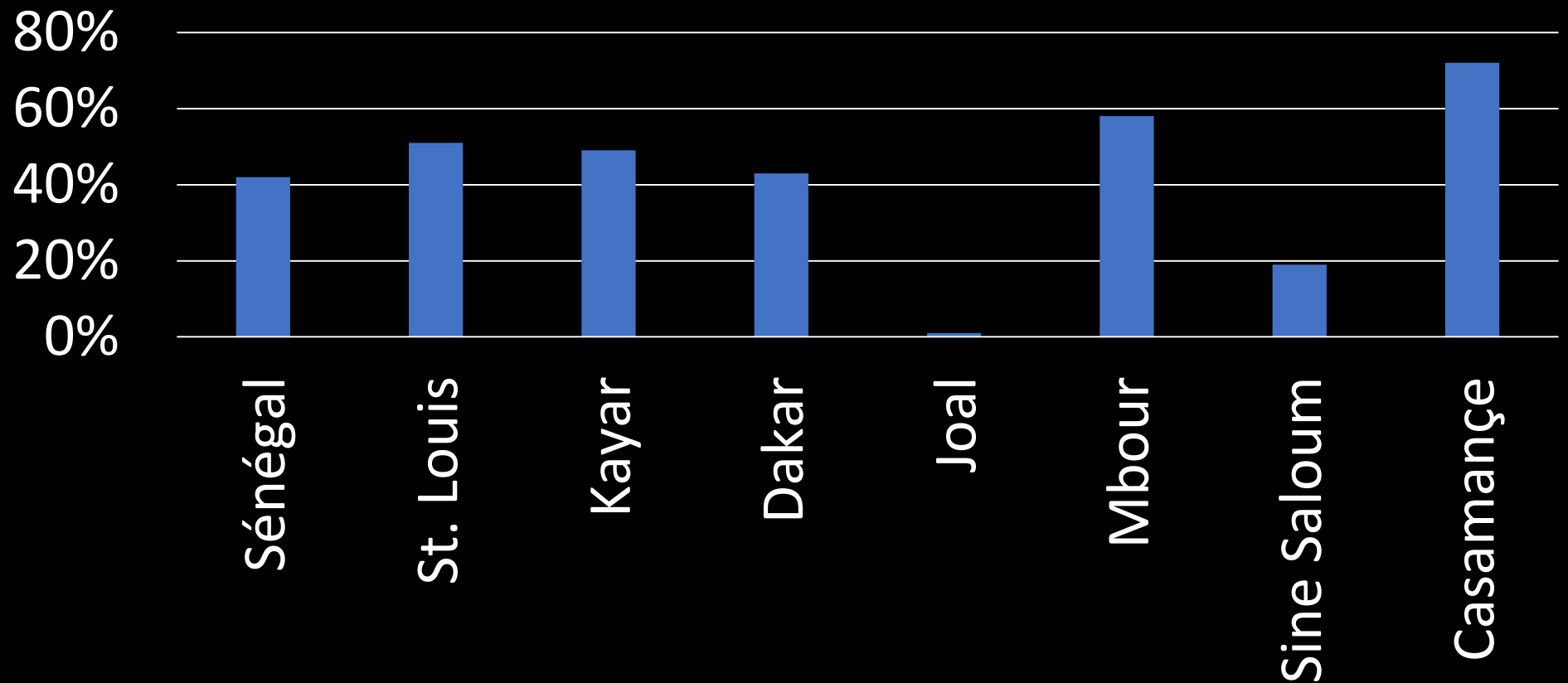
Saving money

Share of participants who save money.



Loans

Share of participants who take out a loan.



Follow up

- The data is available from Kiel University (in anonymized and aggregated form to suffice data protection)
- A follow up survey would help seeing changes in the last 5 years
- Data coverage is still poor and the responses show that change is locally different and differently perceived, which affects management
- Developing more participatory approaches and the idea of community supported observations