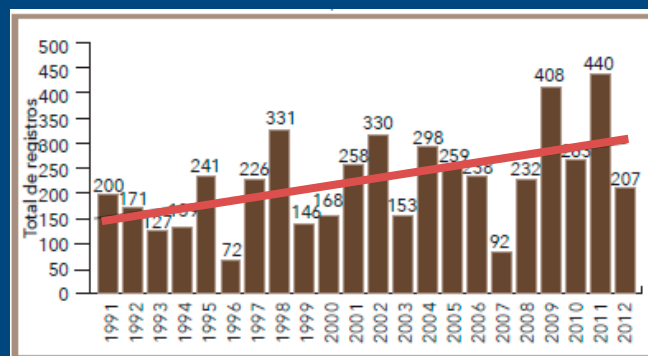


## Climate change perception in a fishers' community from southern Brazil: traditional ecological knowledge and meteorological time-series data



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## Climate change: increase in frequency and intensity of climate extremes

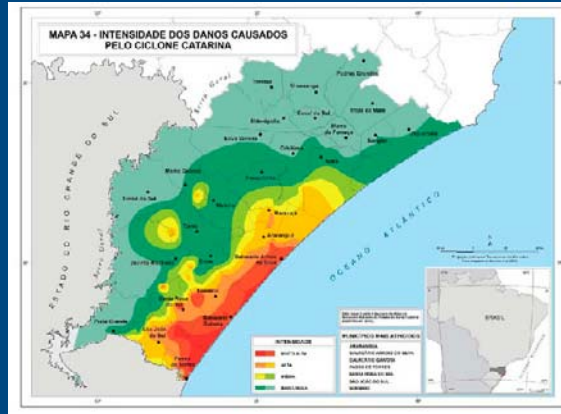


CEPED - UFSC (2014)

## Extreme climate events are major challenge in more vulnerable areas

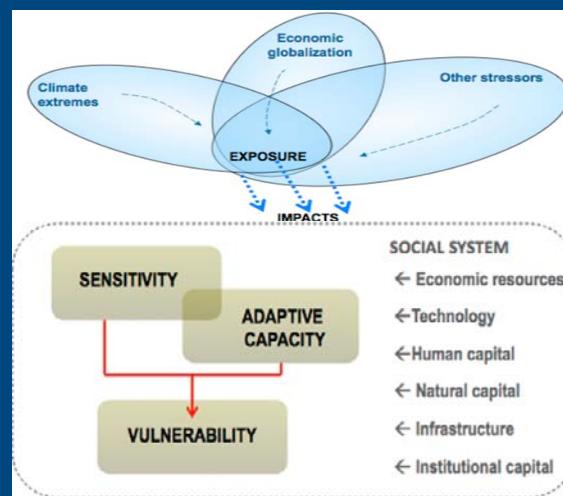
- Coastal zones: more vulnerable areas
- Impacts from:

- Ocean;
- Atmosphere;
- Adjacent ecosystems.
- High human occupancy



CEPED - UFSC (2014)

## Vulnerability (exposition, sensibility, adaptive capacity)



IPCC (2001)

## Local knowledge about climate and weather

- Long-term observation
- Complement scientific knowledge
- Improve adaptive capacity
  
- People have short-term memory  
e.g., Brondizio and Moran (2008)



## Many studies regarding climate change:

- Large scales

### The gap in knowledge:

- Little attention to climate change perception in more vulnerable areas in a local scale.

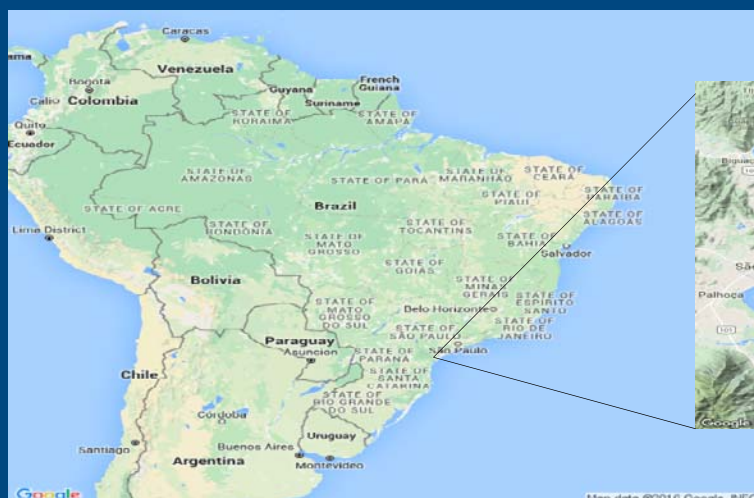
## Our question is:

How a traditional artisanal fishers' community perceives climate change since 1980?

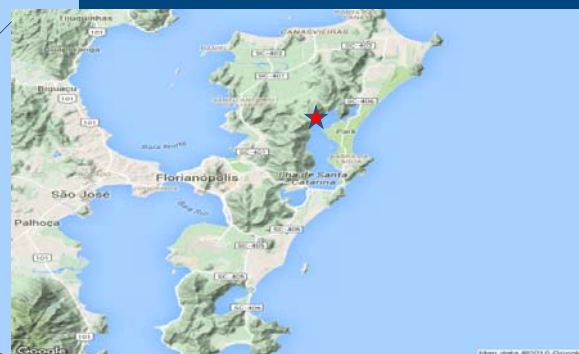
## Our hypothesis:

They perceive trends in extreme indices of temperature and precipitation.

## Study area



Florianópolis, Santa Catarina Island



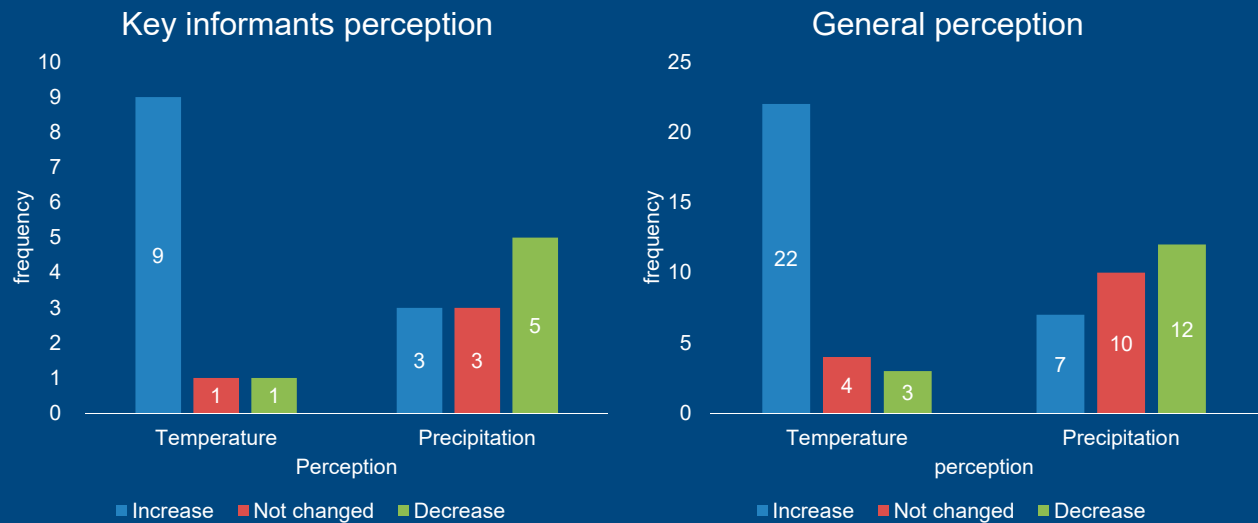
## Costa da Lagoa, Florianópolis.



## Material and Methods

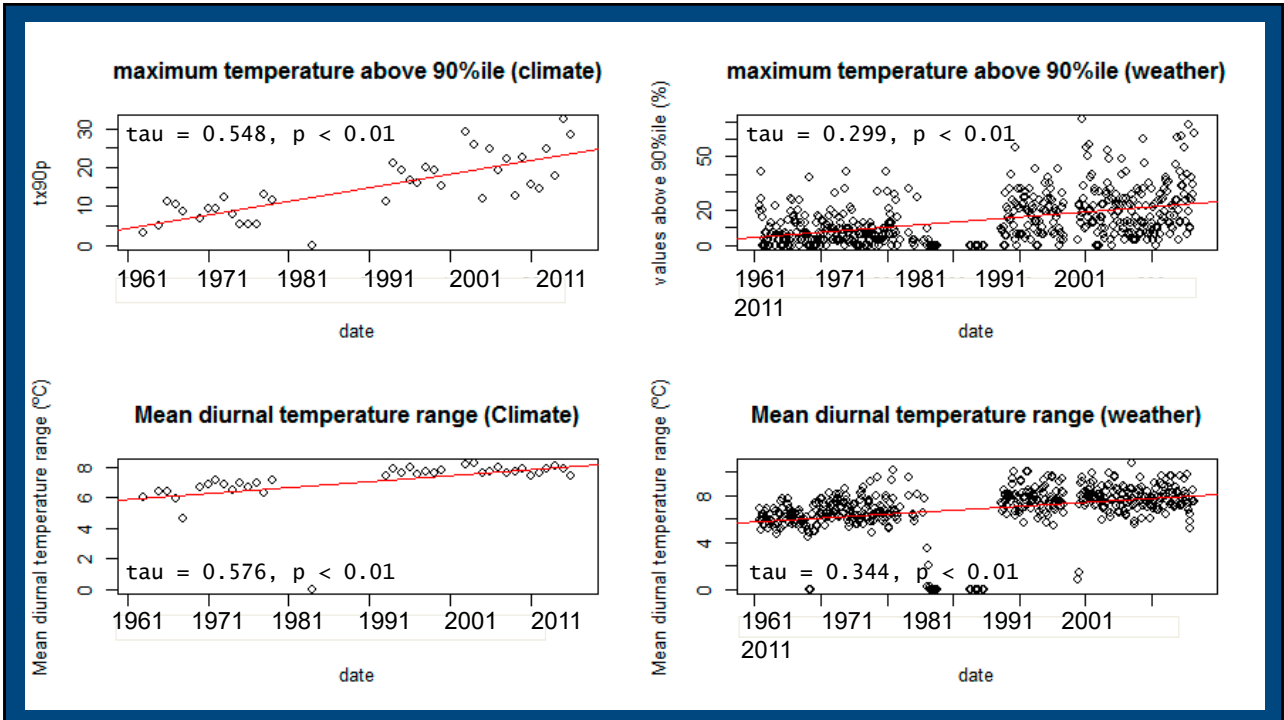
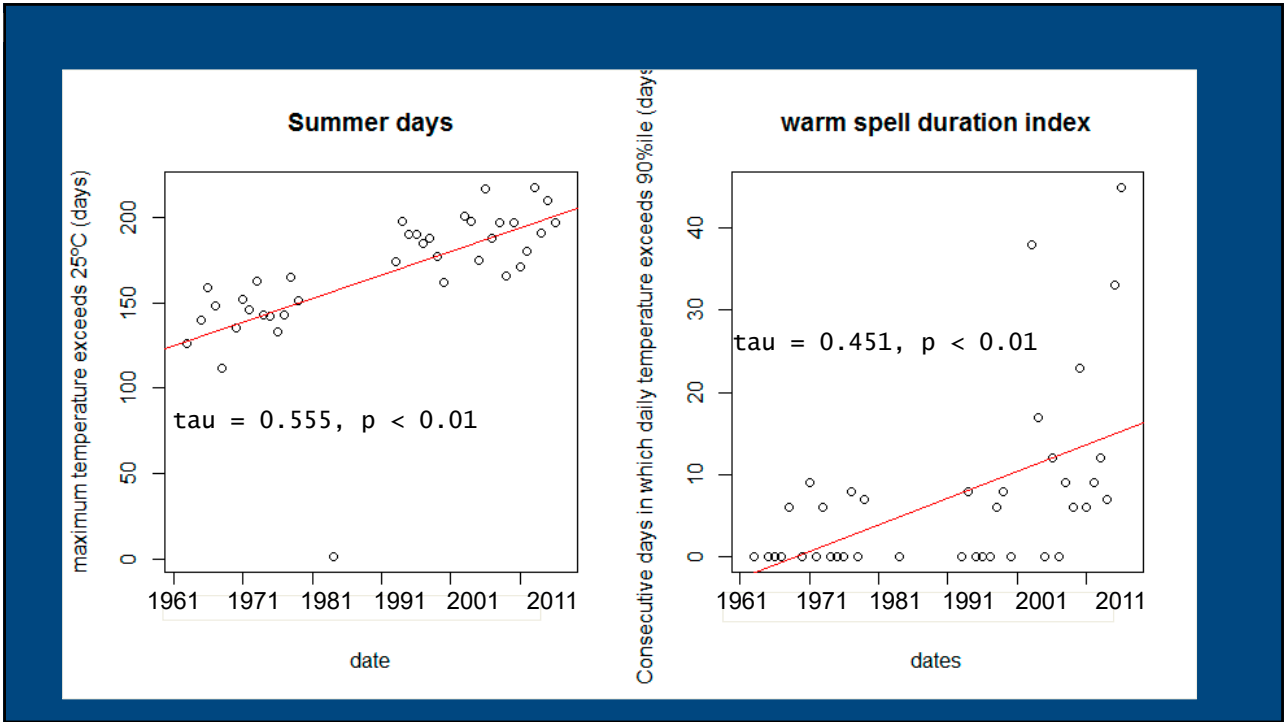
- Local knowledge
  - Semi-structured interviews: key informants
  - Semi-structured interviews residents more than 40 years old
- Time series of meteorological data (from 1961, to 2016)
  - Precipitation
  - Temperature
    - Mann-Kendall trend test in R (Kendall package)
    - Indices of climate extremes in R (Sillmann et al, 2013) (Climdex)

## Results and Discussion



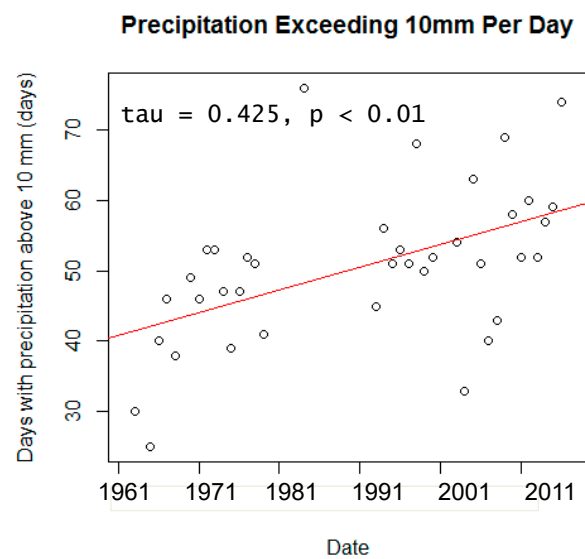
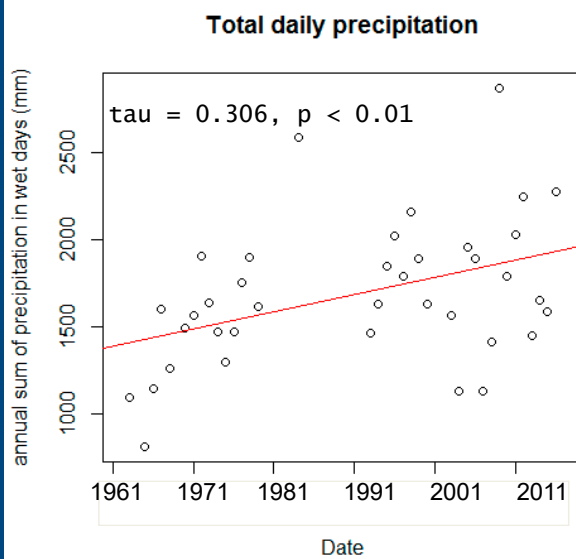
## Some observations about temperature

- “More oscillations in temperature.”
- “Nowadays, we have summer all the year.”
- “In the past, in march, people used to wear more clothes.”

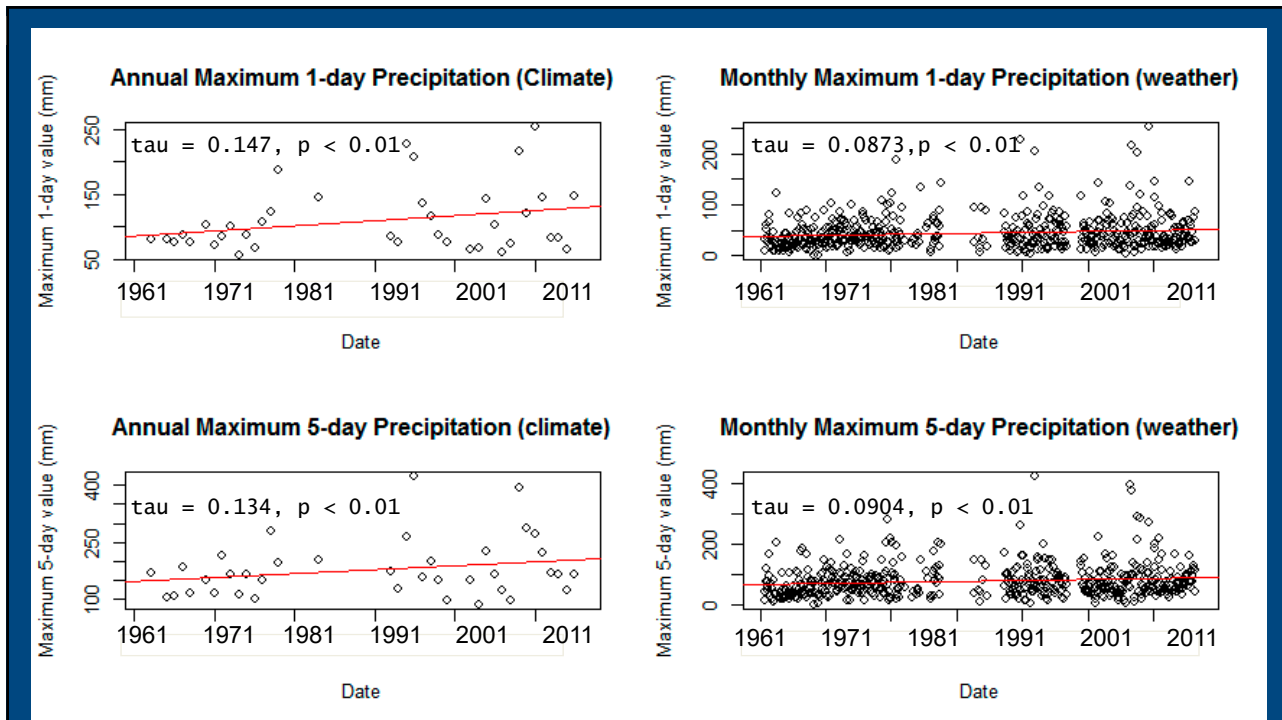


## Some observations about precipitation

- “In the past there was more rain.”
- “In the past there was a higher volume of water in the streams.”
- Any rain used to carry all kind of things to lake, nowadays it changed.”

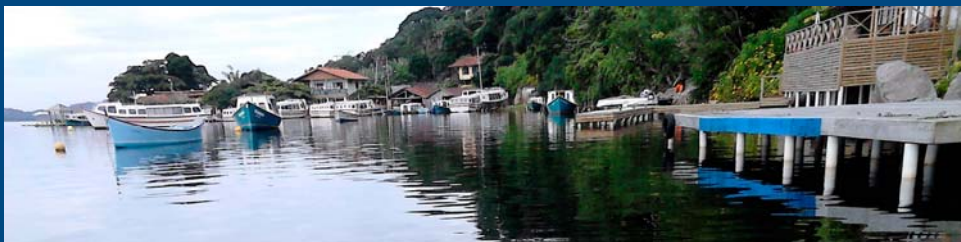






## Conclusion

- Collaborators perceive changes in temperature;
- People do not perceived changes in long-term precipitation;
- Perception of decrease in precipitation could be explained by soil use changes
- Climate change is not a major challenge in Costa da Lagoa community.



## Acknowledgement



- Fish Adapt Conference organizers
- Collaborators from Costa da Lagoa.

