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INTRODUCTION

- Artisanal or small-scale fisheries (SSF) are social-ecological systems which sustain millions of people worldwide. However, their importance is not always acknowledged. That is the case in Uruguay, where SSF represent a source of livelihoods, a "way of life", and constitute a food system (although fish consumption is considerably low).
- SSF in Uruguay face multiple and interdependent challenges, including those related to resource conditions, socioeconomic and governance dimensions. Climate change is one of the drivers that can intensify the so-called fisheries crisis. In this dynamic and uncertain context, fishers' adaptation becomes crucial.
- In 2023, the Latin American Network of Participatory Research (RIPAL), joined efforts with Uruguayan academic institutions and other actors to lead a transdisciplinary project on this topic.

OBJECTIVES

To collaboratively analyze challenges imposed by climate change on artisanal fisheries in Uruguay's coastal and inland areas, and to generate a co-creation and learning environment involving fishers and researchers to explore ongoing and potential adaptation strategies.

METHODS

Fifty-five fishers (men and women, including pre- and post-harvest fishworkers) participated in the project, belonging to 4 regions of the country (Fig. 1) with different fishing characteristics (number of participants per region in brackets): rivers (9), Río de la Plata estuary (22), lagoons (15), and Atlantic Ocean (9).

Three methods were used between August and December 2023 (all the data was analyzed qualitatively using Atlas.ti):

- Photo-voice:** fishers from all the country were invited to send pictures and audio messages via Whatsapp sharing how climate-related changes have been affecting artisanal fisheries as social-ecological systems; their contributions became part of a web map.
- Informal semi-structured interviews** (in person and virtual)
- Workshops** (one virtual and one hybrid, e.g. *World Café* on adaptation strategies)

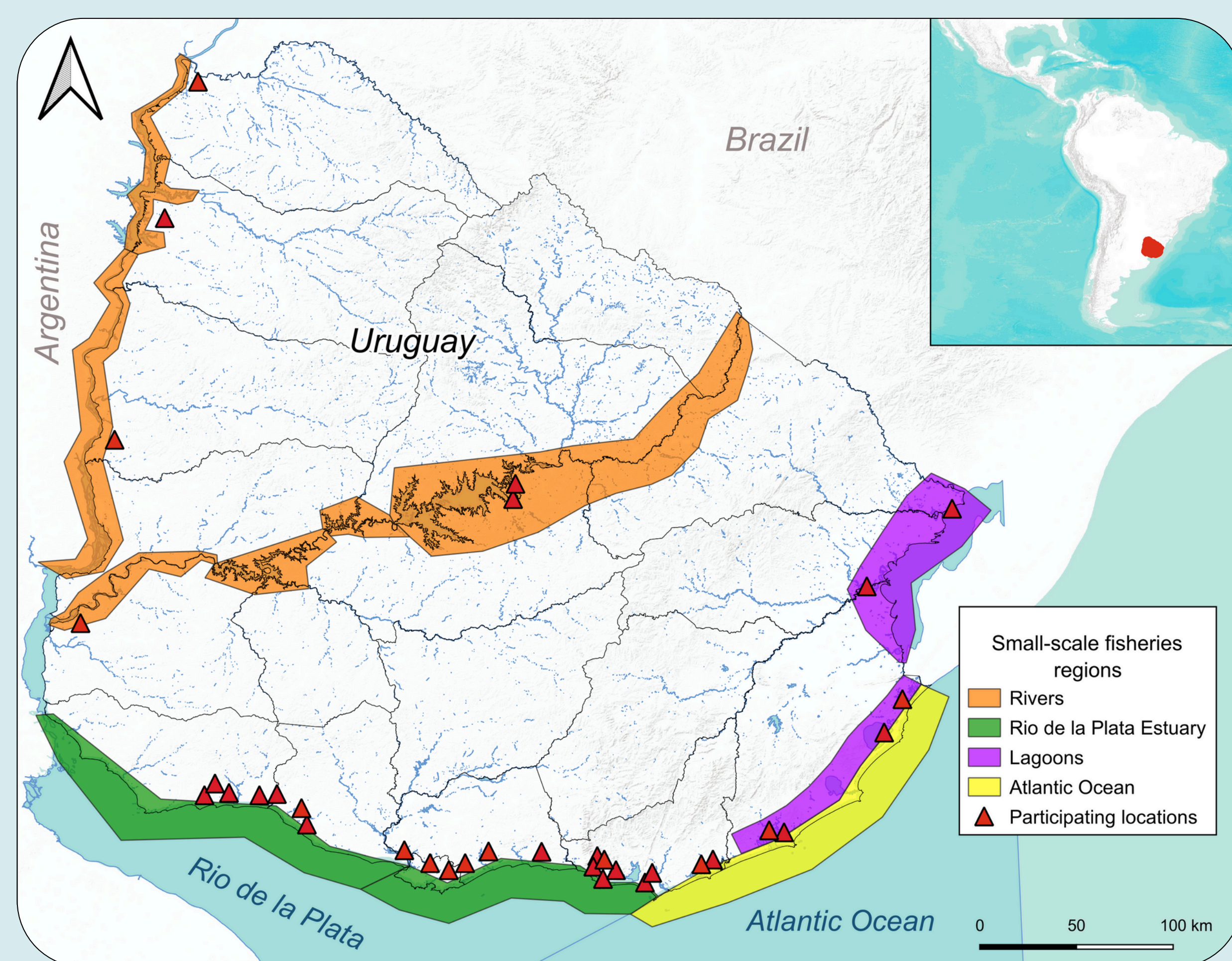
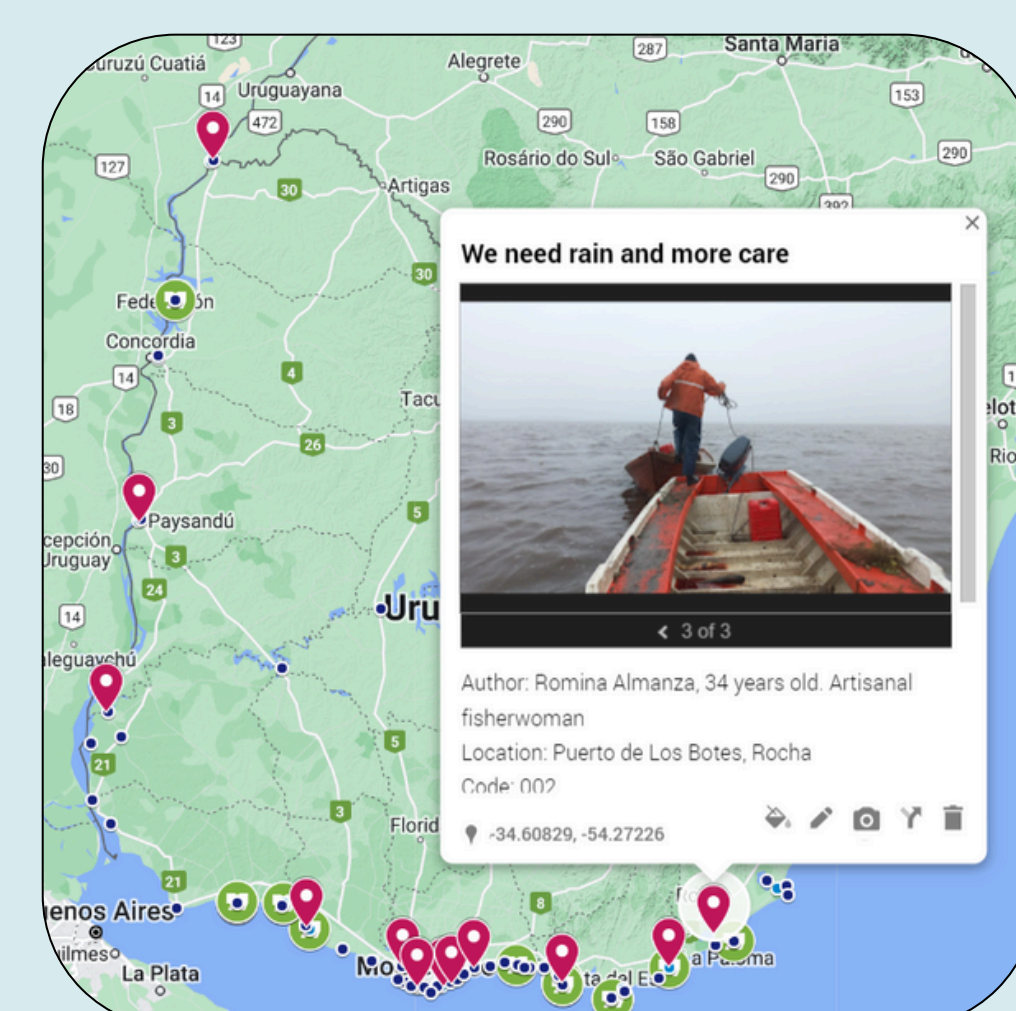


Fig. 1



Flyer broadly disseminated inviting fishers to contribute through photo-voice (translate from Spanish)

Access the collaborative map



Web map showing fishers' contributions through photo-voice (red) and interviews (green)

RESULTS

Despite the widespread interest in climate change among academic and funding institutions internationally, fishers appeared more concerned about other social-ecological issues (see Problems in Fig. 2), although the heavy drought had negative effects.

Ongoing adaptation strategies developed by fishers in Uruguay were grouped in three categories (based on Fedele et al. 2019, Env. Sci. & Pol.): (i) coping (used to resist the impacts, without altering the functions of the system), (ii) incremental (minor adjustments to current social-ecological systems, focused on building resilience), and (iii) transformative (aimed at reducing the root causes of vulnerability to changes in the long term).

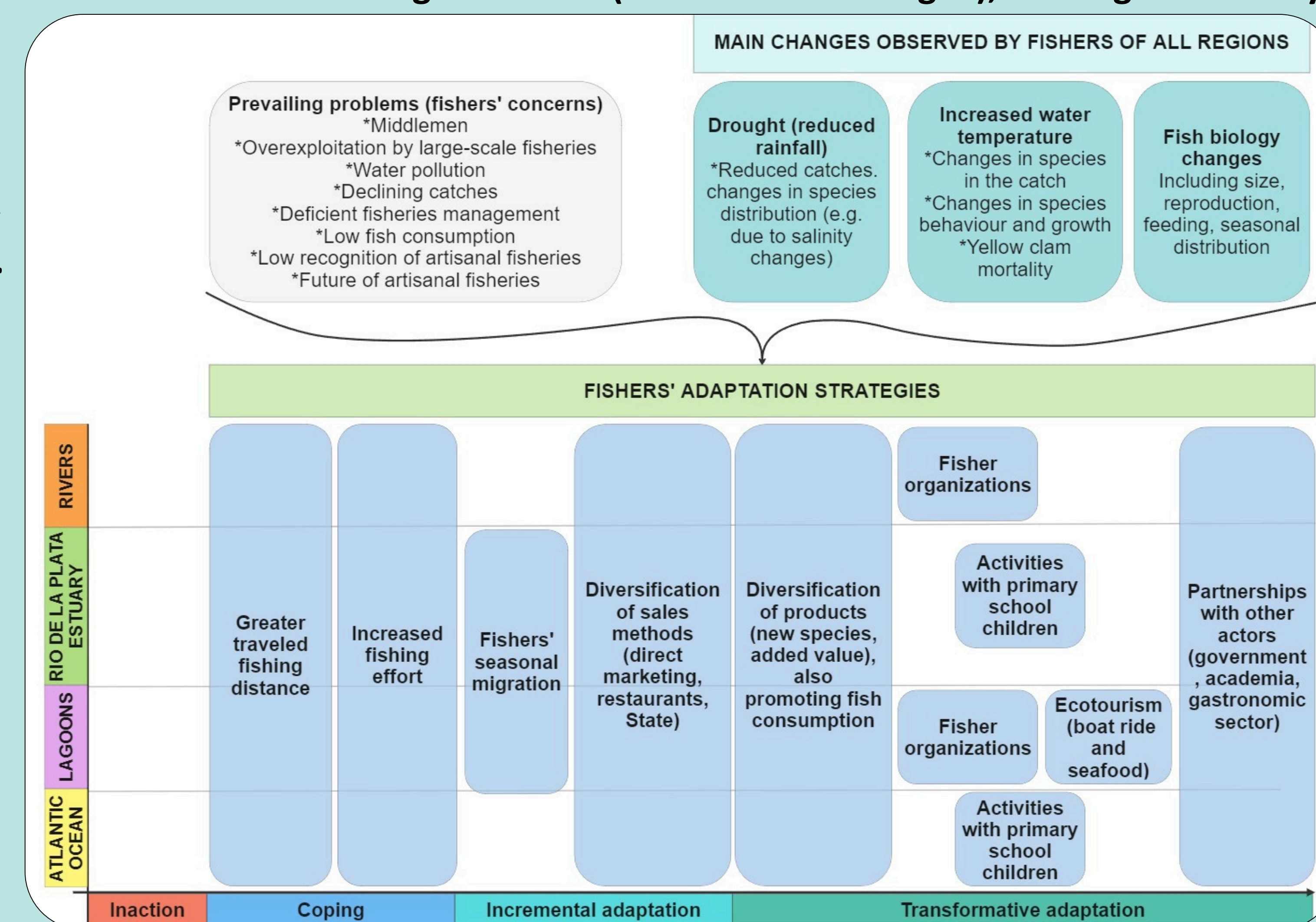


Fig. 2

Commonalities and differences in adaptation strategies between the four regions of the country were found (Fig.2).



PROJECT OUTCOMES

Learning and exchange between fishers from different locations (e.g. there is motivation for trying ecotourism initiatives). New relationships were formed (e.g. fishers-fishers, fishers-researchers, fishers-national union).

PROJECT OUTPUTS

Web map showing fishers' perspectives about the changes in the social-ecological systems they inhabit. Photo-exhibit (in paper and online) with pictures shared by fishers through photo-voice.

Photo-exhibit: <https://redipal.org/de-rios-mares-arroyos-y-lagunas-miradas-desde-el-territorio/>

CONCLUSIONS

Participatory research, an approach highly valued and adopted at the local level, can also be undertaken at the national level (such as in this case, involving fishers from multiple locations and also contributing to raising public awareness on SSF). Its potential for scaling up transformative adaptation strategies and sustainability initiatives should be further investigated.

Acknowledgments

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