

# Linking cultural ecosystem services and coastal community wellbeing to improve governance of Marine Protected Areas

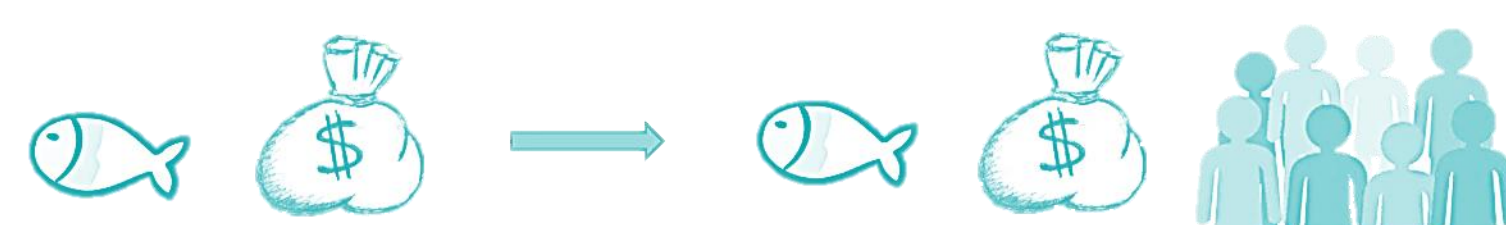
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## Background

Marine Protected Areas (MPAs) are widely recognized as an important conservation strategy and a potential foundation for socioeconomic development, e.g., from tourism. As such, most signatory countries to the Aichi Targets for biodiversity conservation (CBD 2010) have committed to setting aside 10% of their coastal and marine space by 2020 for conservation purposes.



Notwithstanding, many MPAs have been established in ways that discount the pre-existence of human communities that depend upon marine resources. When the relevance of marine resources to local communities is taken into consideration, the focus is usually on material benefits (e.g., income or food security).



However, despite the benefits of non-material and/or cultural ecosystem services to coastal community wellbeing, they are inadequately considered in the literature (IPBES 2018). With exception of recreational and aesthetic values, usually associated with the tourism industry (e.g., Martín-López et al. 2009), other non-material services are poorly quantified and are usually not integrated into management plans (Milcu et al. 2013).



These issues highlight the need for integrative research that combines disciplines in both social and natural sciences, as well as research approaches that build partnerships on the ground to understand environmental problems in community-based settings (Chan et al. 2012, Díaz et al. 2015, Bryce et al. 2016, Pascual et al. 2017).

## Research goal

In order to foster effective MPA governance, this research aims to critically analyze how communities and decision-makers can adapt to social-ecological change in coastal systems - using the lenses of ecosystem services and social wellbeing.

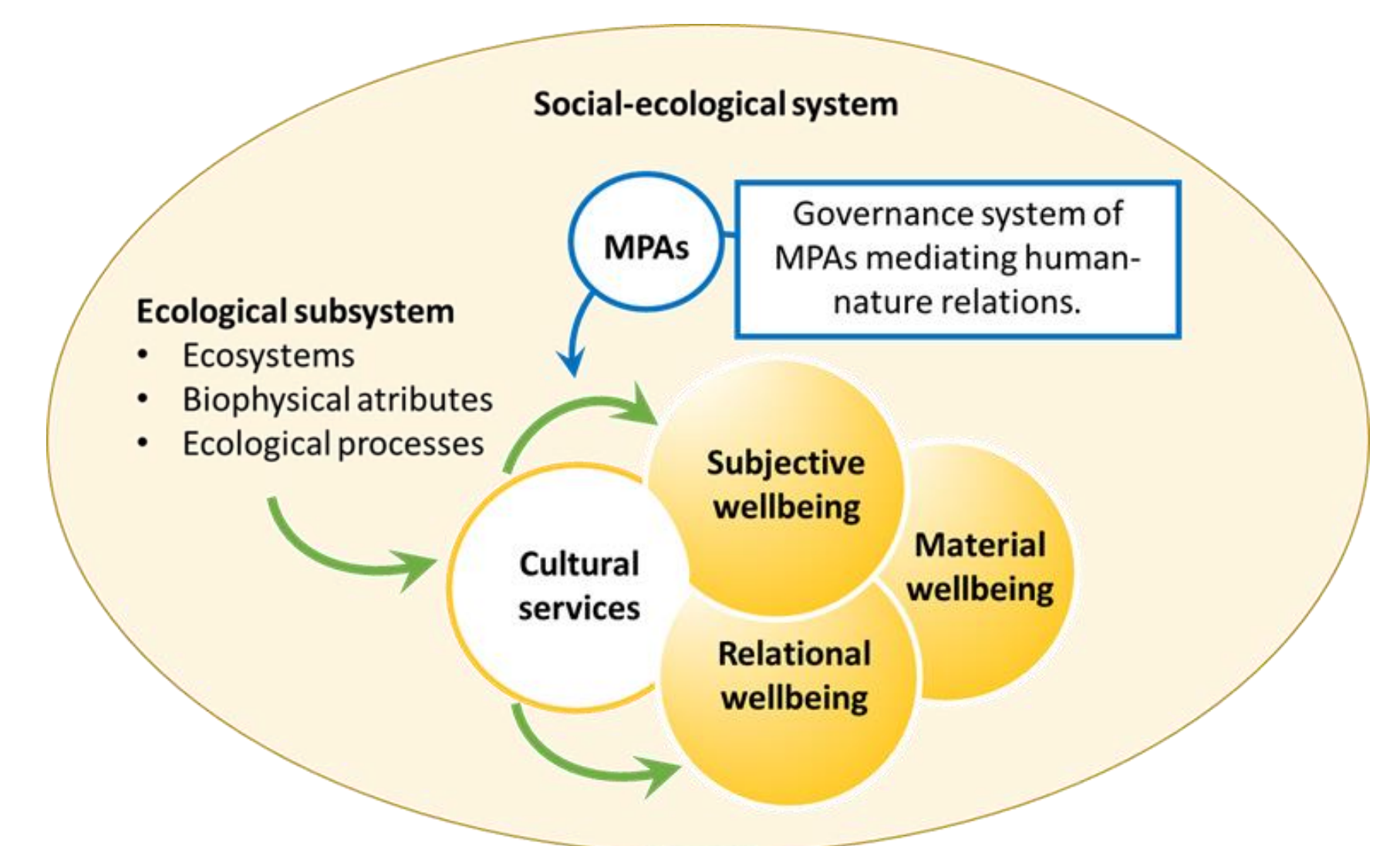
## Research objectives

Wellbeing-ecosystem services bundles or WEBS

- Analyse how key MPA stakeholders perceive the links among core cultural ecosystem services of the MPA and stakeholder wellbeing (i.e., Wellbeing-ecosystem services bundles or WEBS).
- Identify environmental changes in a selection of critically important WEBS and their implications to the wellbeing of key stakeholders.
- Examine how a better understanding of WEBS can be incorporated into the governance mechanisms of MPA.
- Develop a conceptual framework for WEBS to improve governance of MPAs under conditions of social-ecological change.

## Conceptual framework

Governance mechanisms of MPAs have the potential to influence connections (green arrows) between nature (i.e., the ecological subsystem), cultural services, and the three dimensions of social wellbeing (material, subjective, and relational).



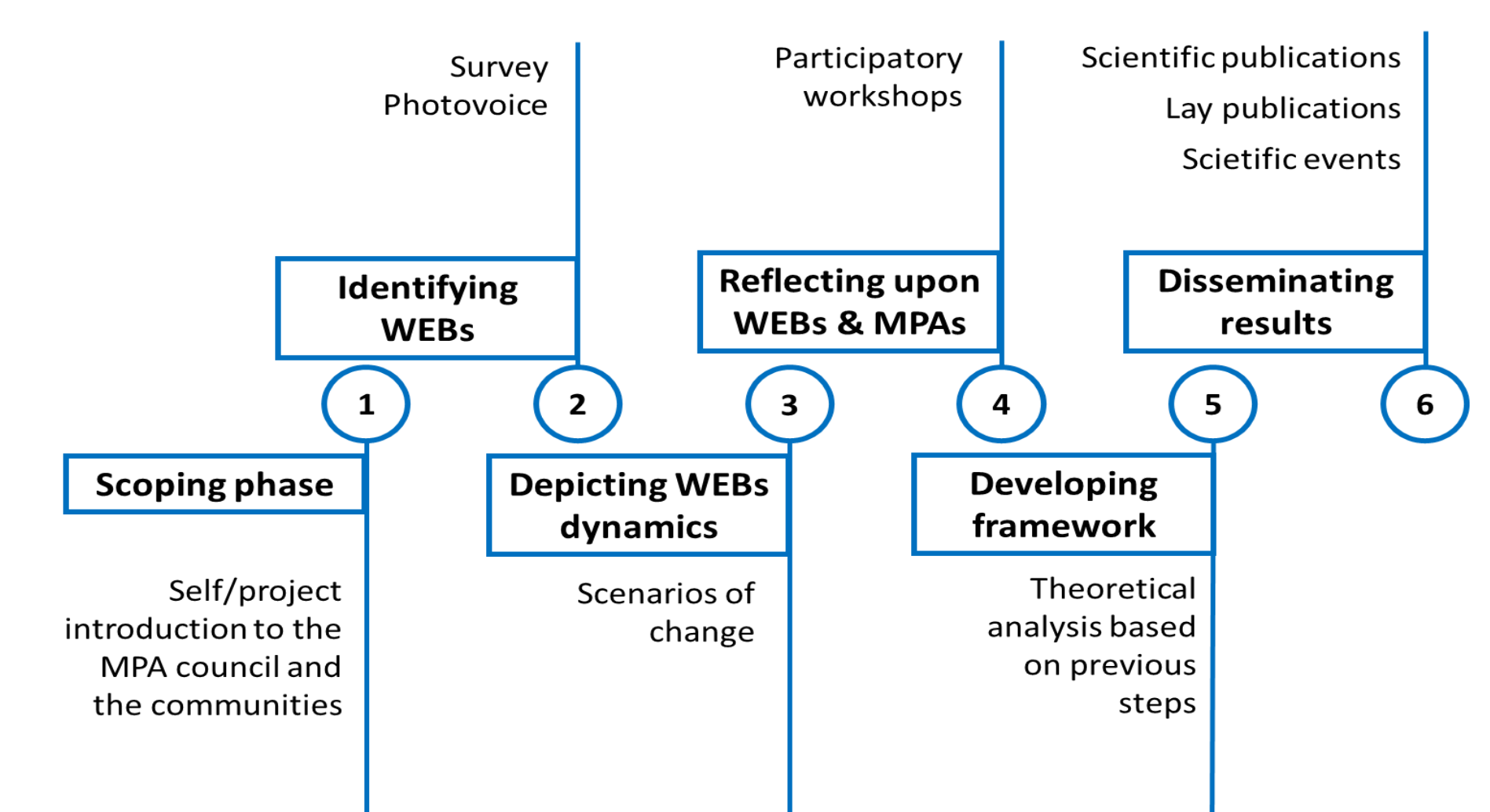
## Study site

Marine Environmental Protected Area of the Northern Coast of São Paulo State, Brazil



APAMLN, acronym based on its Portuguese translation

## Research design



## Expected contributions

- Depict the intangible connections between ecosystem services and social wellbeing of coastal communities.
- Demonstrate the dynamics of WEBS, using both ecological and social data.
- Enhance stakeholder engagement on MPA governance processes.
- Contribute to the theoretical development of WEBS scholarship and ecosystem services literature.

## References

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 Milcu et al. 2013. *E&S*, 18(3):44.  
 Pascual et al. 2017. *Curr Opin Environ Sustain*, 26, 7-16.

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SSHRC CRSH  
Social Sciences and Humanities Research Council of Canada  
Conseil de recherches en sciences humaines du Canada