



Ciudadanos por el Ambiente Costero (CiuPAC)

(Citizens for the Coastal Environment) - Coastal environmental monitoring.



Objectives

Overall goal:

- Analyze the environmental dynamics of coasts in the province of Buenos Aires.
- Create a solid database that is sustained over time in which local stakeholders participate and play a major role in different complex issues, such as erosion, sedimentation, storm effects, and landscape changes.

Specific goals:

- Implement an environmental data monitoring system that is continuous and sustained over time throughout the coast of the province of Buenos Aires.
- Analyze the impact of extreme weather events, its year-over-year and seasonal variation and tendency on beaches of the province of Buenos Aires.
- Based on citizen participation, create a database of socio-environmental dynamics in each study town.
- Establish coastal erosion risk levels due to natural and anthropic actions.
- Strengthen the links among research institutions, civil society organizations, and decision-makers.

Description of citizen participation

Citizen participation starts by defining the coastal area to be measured based on the social or environmental issues citizens note or perceive on their own. After the area is defined, participants collect data every month (type of breaker, wave height and period, longshore drift speed and direction, sediment size, and beach profile) using measurement techniques learned in previous training sessions. Finally, the collected data is sent digitally to the project's email.

After a storm, data is also sent with photos and/or videos and pre-designed forms completed with citizens' perceptions of the storm's effects on their towns.

In June 2024, the project plans to organize participatory workshops in which citizens will be encouraged to think about possible solutions for the perceived issues and whether it is attainable to carry out some of them, for example, the decision and implementation of garbage bins.

Type of citizen science project

- Co-created project: Citizens participate in all stages of the scientific process.

Participating parties.

- Department of Geography and Tourism at National University of the South (UNS in Spanish) (Bahía Blanca, Buenos Aires).
- Argentine Institute of Oceanography (IADO in Spanish)/National University of the South (UNS)/National Scientific and Technical Research Council (CONICET in Spanish).
- Asamblea Regional en Defensa del Ambiente Costero (Regional Assembly in Defense of the Coastal Environment) (AREDAC in Spanish).

Status. In progress.

Time frame. 1/6/2021 - 4/11/2025

Frequency of project execution. Uninterruptedly.

Participation period. Sustained over time.

Scope of the initiative. Local (city, province).

Geographic scope. 18 coastal towns of the province of Buenos Aires where AREDAC meetings are held.

Project development members. It has been developed with the collaboration of both scientists and participants without formal training.

Number of participants. From 101 to 500.

Action/s involving citizen participation.

- Problem definition
- Data collection
- Phenomenon monitoring
- Solution planning
- Solution deployment

Technological device/tool required.

- Monitoring cameras
- Weather stations
- Rain gauges
- RTK GPS
- Mobile phone (camera and stopwatch)

Recruitment methods. The project has held training sessions and in-person meetings and carried out virtual surveys. In a few months, it plans to begin with the organization of participatory workshops and conferences where citizens can share their experiences.

Replicability. A complementary project was launched to replicate the experience in Australia and Mexico together with the University of Colombia.

Scalability. Originally, the project was carried out in 15 towns. By July 2022, it is present in 18 towns. The addition of more coastal towns to the project is expected.

Open access to data. Data will be uploaded to the website, which is currently being created.

Feedback. Results will be published on the website and the activities will also be shared on social media.

Linkage with state agency/government. No.

Institutional funds. Investigación, Desarrollo e Innovación en Ciencias del Mar program [Research, Development and Innovation in Ocean Sciences program] from Pampa Azul Initiative.

Awards/distinctions. No.

Comments. The creation of this project began in 2021, but the actual launch was on April 11, 2022.

Knowledge areas/disciplines (OECD)

NATURAL AND EXACT SCIENCES / Earth and Environmental Sciences
SOCIAL SCIENCES / Economic and Social Geography
SOCIAL SCIENCES / Other Social Sciences

Leaders.

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