



# Adopto un Cuerpo de Agua como mi Mascota (Adopting a Waterbody as my Pet)

Educational linkage, interinstitutional integration, environmental monitoring, and establishing ties with the community



## Objectives

**Overall goal:** Enhance the appearance and quality of the waterbodies which are significant for each educational community on the basis of responsible stewardship. For this purpose, the project aims to improve the appearance and quality of waterbodies by adopting them responsibly, taking care of its watershed, monitoring the quantity and quality of runoff, cleaning its margins, re-educating neighbors and the educational community and raising their awareness of this issue.

### Specific goals:

- Establish ties at every educational level (from the earliest level to postgraduate courses) between public and private educational establishments.
- Draw analogies between responsible pet care and surface waterbody stewardship.
- Identify waterbodies with a high impact on different educational communities.
- Propose that the watershed of these surface waterbodies be considered a territorial unit to perform responsible water resource stewardship and management.
- Perform surveys, among other field activities, in the waterbody adopted by applying simple and advanced experimental techniques developed by the research team.
- Together with the community, co-create knowledge to be shared with the rest of society and the agencies responsible for water resource management.

## Description of citizen participation

The following activities are carried out by the students, the teaching staff, and the project work team:

- Definition of comparisons between properly caring for pets and properly caring for surface bodies of water.
- Determining the bodies of water that are significant to the community and the boundaries of their contribution.
- Analysis of the temporal evolution of bodies of water using cutting-edge technology and historical descriptions of the community that interacts with this body of water.
- Participating in fieldwork (surveys, monitoring, and others).
- Transfer of findings to organizations in charge of managing water resources.

## Type of citizen science project

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

### Participating parties.

- Faculty of Exact, Physical and Natural Sciences (FCEFYn, in Spanish) of the National University of Córdoba (UNC, in Spanish).
- National Scientific and Technical Research Council (CONICET, in Spanish) of Argentina.

**Status.** In progress.

**Time frame.** 01/03/2013 – N/A

**Frequency of project execution.** Based on demand or community outreach.

**Participation period.** On a sustained basis.

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

**Geographic scope.** The project originated in Villa Carlos Paz, province of Córdoba. It is being implemented in different regions of the province.

**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 identification. Data collection. Data analysis. Phenomenon monitoring. Solution design. Solution implementation. Citizens are involved in the entire process.

### Technological device/tool required.

- Low-cost automatic weather stations for commercial application
- Rain gauges and eco-friendly rain gauges (made of recyclable material)
- Photographic cameras
- Ruler
- Chronometer
- Tracer (pieces of wood)
- Multi-parameter water quality meter (provided by the university and APRHi)
- Basin model

**Recruitment methods.** Educational establishments joined the initiative as a result of the interest of both students and the teaching staff. Agreements have been signed with the Directorate of Technical Schools of the Province of Córdoba for this project to become part of the curricula recommended by said directorate.

**Replicability.** Action is being taken towards extending the activities performed with Instituto Dante Alighieri to other schools, both public and private., including all educational levels, from the earliest level to the third year of high school orientation cycle.

**Scalability.** New educational communities join the initiative by adopting other waterbodies, such as streams, rivers, lakes and wetlands.

**Open access to data.** The knowledge gained through crowdsourcing is transferred to the agencies responsible for water resource management. Students also spread knowledge among their families, friends and acquaintances, and consequently ensure that this is an extensionist project.

**Feedback.** Students, educators and the residents of educational communities create a set of guidelines which are incorporated into the new stages of the project.

### Linkage with state agency/government.

- Ministry of Public Services of the Province of Córdoba.
- Ministry of Education of the Province of Córdoba.
- Provincial Administration of Water Resources of Córdoba.
- Instituto Nacional del Agua, subgerencia de la Región Semiárida (CIR-SA).
- Municipality of Villa Carlos Paz, Córdoba province.
- Municipality of Río Ceballos, Córdoba province.
- Municipality of Laborde, Córdoba province.

The data generated are transferred directly to the government agencies in charge of monitoring the water resources of the province of Córdoba. A Bill proposing that one of the adopted waterbodies be named "Huahuas Mayún" (Children's Stream) was passed by the Legislature of the province of Córdoba (law No. 10350). The name was proposed by educational communities that develop their activities in regions drained by this stream.

**Institutional funds.** Extension secretariats of the universities responsible for this initiative. Ministry of Public Services of the Province of Córdoba. Provincial Administration of Water Resources of Córdoba. Municipality of Villa Carlos Paz. CONICET.

**Awards/distinctions.** –

### Classification of knowledge areas (OECD).

NATURAL SCIENCES / Computer and information sciences  
NATURAL SCIENCES / Earth and related Environmental sciences  
SOCIAL SCIENCES / Educational sciences

### Project leaders.

- Carlos Marcelo García Rodríguez, Physical and Natural Sciences (FCEFYn, in Spanish) / National University of Córdoba (UNC, in Spanish) and National Scientific and Technical Research Council (CONICET, in Spanish).
- José Manuel Díaz Lozada, FCEFYn/UNC and CONICET.

### Contact information.

Email: [carlos.marcelo.garcia@unc.edu.ar](mailto:carlos.marcelo.garcia@unc.edu.ar) ; [jmdiazlozada@unc.edu.ar](mailto:jmdiazlozada@unc.edu.ar)  
Website: [sites.google.com/mi.unc.edu.ar/proyecto-adoptouncuerpo-deagua](https://sites.google.com/mi.unc.edu.ar/proyecto-adoptouncuerpo-deagua)

