

Collaborative mapping of water conflicts in Andalusia, Spain

B. Pedregal, C. Laconi, M. Mancilla, G. Orozco, A. Figueroa, V. Cabello, J.R. Raposo, L. Del Moral

Rationale for the project

Addressing water governance conflicts requires adopting a complexity approach that aims at triggering an adaptive process of "collective learning, exploration and experimentation" (Xiang, 2013). Indeed, when facing different social and complex issues, analytical processes need to be associated with reflective and experimental thinking, to fully tackle system dynamics. New Information and Communication Technologies (ICT) can serve as a platform for the collaborative production of knowledge. In the last decade, initiatives inspired in this perspective have reached important developments.

This project builds on previous studies, to construct a process of social and collaborative mapping that leads to the production of a map on water conflicts in Andalusia (Spain). This contributes to current debate in the field of Environmental and in particular Water Justice and the map is conceived as a knowledge tool to substantiate rights to a sustainable and ethical use of water for human and non-human uses (Hofrichter, 1994). Indeed, the process of building the map is understood as constructing a civic space for the effective exercise of social and environmental rights which civil society is responsible for together with the state (Brañes Ballesteros, 2004).

Objectives

*Strengthen citizen participation through the use of TICs as a significant tool in the democratization process of water governance.

*Promote action research in environmental justice and support social movements' work through the creation of outreach material to document and make visible conflicts around water in Andalusia

*Evaluate the effect of open data, transparency and open government public policies on the management of water conflicts in Andalusia

*Disseminate, reflect and educate on the new perspectives that the New Culture of Water brings to sustainability thinking

Methods

This is an Action Research project for which inspiration was drawn from previous initiatives such as the Atlas of Environmental Justice (EJOLT) developed at the Universidad Autónoma de Barcelona.

1st Step: Creation of a form to enter the relevant information to classify diverse types of conflicts. Each report contains a title for the conflict, the localization, the type of conflicts, links and pictures. Other information included: waterbody, origin of the conflict, actors, mobilization, impact, results, resources and metadata.

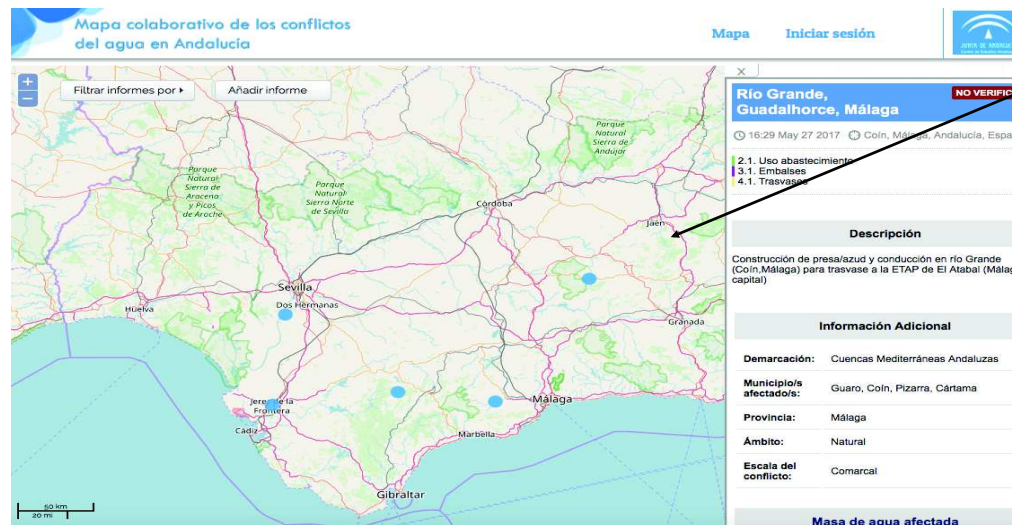
2nd Step: Organization of workshops with activist groups in which the form was explained and feedback on the form was obtained. Participants in the workshops were divided into groups and each group entered a conflict or mobilization of their choice in the map.



Fig.1: Presentation of the project in the XVIII Assembly in Andalusia of the Association "Ecologists in Action" El Bosque (Cádiz, Spain)



Fig.2: Workshop organized during the XI Andalusian Water Festival Castril (Granada, Spain)



Challenges

How to conciliate public policy planning formal requirements with activists' needs and language?

How to define conflict categories that make sense for activists and public officers in the context of the Water Framework Directive implementation process?

How to make the project sustainable? How to maintain the map updated beyond the project? How to sustain public participation?

What kind of collaborative mapping? Should the map be moderated by experts or should the register be open? Should the user community act as moderators? Which model would lead to greater sustainability and maintain information quality?



Next Steps

On the base of interviews with activists and the notes taken during the workshops, we will revise suggestions on:

- *information provided*
- *concepts used*
- *tool's interface*
- *model of collaboration*

We will identify: the main sources of **conflicts**, their **location**, the **affected population and areas**, and the **role of the identified key actors**, the main **variables determining social participation** as well as the usefulness of ICTs and collaborative mapping in civic participation.

Contact Information

Belen Pedregal Mateos,
Departamento de Geografía Humana,
Universidad de Sevilla; María Mancilla García, Stockholm
Resilience Centre, Stockholm University
Email: bpedregal@us.es; maria.mgarcia@su.se

References

1. W. Xiang "Working with wicked problems in socio-ecological systems: Awareness, acceptance, and adaptation" *Landscape and Urban Planning*, 110(2013), pp. 1-4
2. Hofrichter R., *Toxic Struggles: The Theory and Practice of Environmental Justice*, (1993), New Society Publishers
3. Brañes Ballesteros R., *El Acceso a la Justicia Ambiental en el Distrito Federal y la Procuraduría Ambiental y del Ordenamiento Territorial*, (2004), Publicaciones PAOT

Acknowledgements

Este trabajo ha sido financiado por la Fundación Pública Andaluza Centro de Estudios Andaluces en la X Convocatoria de Proyectos (referencia PRY125/17)