University of Basel

Partnering for Change: Link Research to Societal Challenges

Video Transcript

Tackling water scarcity – part 3: joint visioning and strategy development

[PD Dr. Flurina Schneider] Let us have a look at how researchers from different disciplines, as well as different local stakeholders, work to coproduce knowledge in our case study about water governance options. The aim of this phase was to bring together the perspectives of the scientists and the local stakeholders through four main working steps.

First, we investigated the water situation of the present. This is mainly systems knowledge. Second, we conducted participatory scenario development. This is mainly target knowledge. Third, we modelled future water situations and reflected on them. Fourth, we discussed possible measures that might foster sustainable water futures. We call this transformation knowledge.

What kind of activities were involved in these phases? First, we jointly defined the problem that we wanted to investigate. We also assessed the current situation.

In step two, we asked the involved stakeholders what water future they would like to become true for their region. We identified three different visions and one joint vision that represents a consensus between stakeholders.

In step three, these visions were translated into quantifiable water use scenarios. Researchers then could model and quantify what these scenarios implied about the future availability and use of water. This process is complex. You'll find a PDF for download below this video. Please take some time to carefully recapitulate each of these phases and activities at your own convenience.

Through all these interactions between researchers and local stakeholders, we gained shared or co-produced knowledge. What looks like a straightforward process in theory is quite a messy procedure when translated into practice. Indeed, we encountered many challenges.

First, we met with practical methodological challenges. They emerged, for instance, when we were integrating data from different sources in a spatially explicit way.

Hydrologists favoured the reference to hydrological catchments as these are needed for their models. Socioeconomists, on the other hand, preferred community borders as these are relevant for water management. In addition, socioeconomic data is usually structured according to communes, adding to the

relevance of their borders. A third kind of boundaries was necessary when it came to ancient water rights. These are often associated to water channels that cross the different communes.

Secondly, researchers had quite different ideas on how desirable synthesis concepts and knowledge products could look like. Some researchers thought about an integrative model where all interactions between water, people, and governance rules are represented in a fully quantitative way. Other researchers underlined the difficulty to quantify issues, such as informal arrangements that govern the use and distribution of water. They suggested to unravel what practices the actors use to deal with the high opacity of the actual water rights situation instead of quantifying water rights.

We fundamentally adapted the entire synthesis concept during the project and used a dialogue-based approach. Results or future scenarios were summarised in a so-called 'sustainability wheel'. In this wheel, the different dimensions of sustainability are shown in the centre. For each dimension, different indicators were defined. Rates ranging from 'very poor' to 'very good' were given to these predefined indicators by combining the knowledge produced by different disciplines.

Thirdly, the collaboration with and between stakeholders included a couple of further challenges. In the beginning, when we invited the different local stakeholders, one communal president, for example, questioned the involvement of an environmental NGO. In his opinion, the NGO lacked authority to discuss the water of his commune.

When we then were developing joint future missions, the process stuck several times. The stakeholders could, for instance, not agree which future scenarios should be considered. They also disagreed which measures might address the water problems they had identified. Should water rights be reformed or not? They could not concur.

Our objective was not to find a consensus on one desirable future vision. We aimed at having three scenarios that each would represent the perspective of a different group of stakeholders. However, at a certain point, it became impossible for the stakeholders to discuss these issues. As we realised later, there were political tensions external to the project, which led to these conflicts.

Then there was a turnaround. All of a sudden, the wish to generate a future vision came from the stakeholders themselves. They would say: 'Neighbours, it must be possible to find an agreement on a vision, how to develop a joint future.' And they did.

This obviously was not the end of our challenges. At one point, the president of the commune owning the most water vetoed the agreement since it included a reform of the water rights. In the atmosphere in which

the stakeholders meeting deliberated on the agreement, he could not oppose it. However, he could neither defend the agreement to his commune.

You see that the second project phase on knowledge generation harbours many challenges. Especially in the field of sustainability, the discussion may easily become very political, and sometimes contested.

How should one deal with these challenges? In our experience, two things are essential. You should communicate carefully, and you should take the different perspectives of researchers and stakeholders very seriously. We also found it useful to spend a lot of time together in the field. Actually working together helped us to get to know each other's perspectives.

As we tackled these challenges, we needed to stay in a process of continuous self-reflection. Thus, it was very beneficial for our team to meet regularly to discuss the challenges and to jointly find ways to go forward.