Scaling and governance, theme 3: Scaling in Human-Environmental Processes

Upscaling local environmental problems to create governance solutions

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In this paper we describe three case studies, which give evidence that upscaling local (environmental) problems can lead to a shift from government to governance, from stakeholders standing against each other to stakeholders working together.
These three case studies are done by the science shop of the Wageningen University and Research Centre, using trandisciplinary techniques, which means that the results were a co-creation between students, researchers and lay-people (clients of the science shop). The latter group bringing a regional network, doing time consuming surveys and organising meetings with other stakeholders.
In the first case, the municipality of Utrecht wanted to build houses on the garden park of Ons Buiten. the board of the garden park asked the Science Shop to find ways to save the garden park. The Science Shop rephrased this question into: what is the value of the garden park for the city of Utrecht. An overview of ecological, social, environmental and historical values was given, and a pathway to involve neighbouring institutions (schools, eldery houses etc.) in using and developing the garden park. Now a coalition of stakeholders around the garden park is advocating that the many qualities that the garden park brings for the city may not get lost. Nowadays the garden park is not threatened anymore.
In the second case, a possible ring road around Erp, a little village in the municipality of Veghel (North-Brabant, The Netherlands) divided the community already for a very long time. Half of the village wanted the ring road, the other half absolutely not. A local pressure group 'Erp Alert' asked the science shop to prove that the ring road was a bad solution for the traffic problems in Erp. The science shop rephrased their question into: what is the best solution to the traffic problem taking into account the wishes of all stakeholders in the area. A stakeholder analysis showed that everybody wanted: increasing safety, increasing accessibility, reducing hindrance, minimizing damage to landscape and nature qualities. The researchers used these criteria to test 11 traffic options – which they collected from the stakeholders themselves – and found out that one of the solutions – which was not the ring road - was by far the best. The best option was a combination of guiding the traffic to the main roads, away from the village, in combination with a dead-end road to the industrial area. The municipality incorporated this solution in their policy. This solution could only be found by looking at a higher spatial level and a higher social level, the latter meaning not discussing the different solutions per se, but first the criteria on which a solution should be based.
In the third case, sand pits in Spaubeek (province of Limburg, The Netherlands), a local environmental group asked the Science shop to prove that an ecological lay out of the empty sand pits would be better than just the standard lay out that is required legally. The science shop rephrased this question into: which lay-out would fit best the needs of the region. This meant that – bases on a survey among the stakeholders - the solution should take into account –landscape-ecological, environmental (floodings), economical, recreational, liveability and cultural historical elements. The scale of the solution should then not only be the sand pits, but also the surrounding areas. By presenting an integral plan, the environmental group could change its status of 'always being against solutions', into taking the lead in finding solutions. This made that they became an interesting partner in regional discussions, which – as it seems now – are also more integral than before.

From these cases can be concluded that the science shop interventions led to a physical and social upscaling of the problem setting, which made it possible to find new solutions that were acceptable for all stakeholders. Also, before the intervention policy was made by the government, whilst the new policy is made in a network of stakeholders.