



The politics of research

‘In the face of inequality, no science is neutral.’ That is the belief of Margreet Zwarteveen and Rutgerd Boelens, two water management researchers at Wageningen University in the Netherlands. They maintain, however, that scientific excellence can go hand-in-hand with a passion for justice.

In 2009, twenty-one social science research groups attached to Wageningen University took part in an international peer review. The Irrigation and Water Engineering (IWE) Group came out on top – out of 5, they scored 4 for scientific quality, 4.5 for productivity, and the 5 for relevance. Special mention was given to the interdisciplinary nature of IWE’s Programme on Water Rights and Social Justice.

This international and interdisciplinary programme is being run by researchers whose passion for academia matches their commitment to making a better world. Margreet Zwarteveen and Rutgerd Boelens, who have been involved in this programme since it started in 2000, are academics with a clear political agenda. They want their scientific research to help achieve water justice for people worldwide. The guiding

question behind their research projects is, ‘what is fair distribution?’

BECAUSE WATER IS becoming a scarce commodity in more and more locations around the world, deciding who has access to it quickly becomes a political issue. One recent example is a case in Peru where the government diverted water from the mountains to a desert-like plain near the

Irrigation systems neatly map a society's power relations

coast. Here, it is used to irrigate fields where, among other things, asparagus is grown for export to the Netherlands. This new irrigation system meant that Peruvian farmers in the mountains, who had previously used the water to grow food for their families, were suddenly and literally left high and dry.

Traditionally, water research programmes concentrated on technical and economic issues. But the Water Rights and Social Justice Programme is innovative in that it adds a socio-political dimension to academic research on water issues. As Rutgerd Boelens explains, the usual focus of water research is on increasing efficiency. 'The general idea is that, if the technology for dams, canals, sprinklers, etc. is top notch, then the market will do the rest,' he says. 'But water is more than H₂O. Water is power. It irritates us that policy recommendations are usually presented as if they were neutral or objective, while in fact they are *always* based on a political choice.'

His colleague agrees. 'The same goes for academic research. We do not believe that science is neutral,' says Margreet Zwarteveen. 'So we always make a point of clarifying our chosen perspective – in our case, that is the perspective of marginalized groups.'

Boelens and Zwarteveen were trained as engineers. But years of professional experience has made them question the goal of objectivity that often accompanies the technical sciences and adopt a less mainstream stance. 'We believe that seeing scientific claims from a political perspective strengthens your arguments,' says Boelens.

WHO ARE THE marginalized groups that are central to Boelens' and Zwarteveen's research? Women, small farmers and indigenous peoples, such as the Indians in parts of South America, who have no say in water management issues. Such groups are systematically disregarded in national policies. Often, no account is taken of the social structures that local communities

have developed, often over hundreds of years, to ensure access to water. In many villages, inhabitants acquired user rights by constructing their own irrigation system. Families' water rights were gradually acquired over successive generations. A crucial factor for retaining these rights is that everyone works to maintain the irrigation channels.

Then national legislation comes along and applies a completely different definition of water rights based on registered ownership of land and taxes paid. As a result, people do not feel responsible for government-constructed irrigation systems. If the water inlet, the channel or the pump is broken, no-one feels called upon to solve the problem. According to Boelens, who spent a number of years in farming communities in Ecuador, ignoring the social organization and institutions of rural communities is a classic pitfall of contemporary water management projects and structures. This is a subject that he deals with in detail in his article, 'The politics of disciplining water rights,' published in 2009 in *Development and Change*.¹

This and other publications testify to the innovative way in which Boelens, Zwarteveen and close colleagues combine technical and socio-political research. For instance, they argue that irrigation and canalization systems neatly map a society's social relationships and power relations. The layout of an irrigation system – which includes certain houses, villages and plantations and excludes others – shows very clearly who is at the tail end of the system. It is usually the person who is at the tail end of society as well.

SIMILARLY, TECHNICAL DESIGN

choices often speak volumes about the balance of power in a society. For example, the decision to not include a night reservoir, which would allow night-time crop irrigation, means that people have to use the water whenever it becomes available. For women this is often tricky because their daily routines are dictated by other care tasks, and they are unable to irrigate their fields at night for safety reasons. Not including a night reservoir means, in effect, female farmers lose a large portion of their water rights.

According to Zwarteveen, this is just one example of how recent neoliberal reforms in the water sector are participatory and gender-sensitive only on paper. In reality, gender is still a blind spot, with substantial consequences for policy effectiveness. This was exactly what amazed her during the years that she worked for the International Irrigation Management Institute (now known as the International Water Management Institute [IWMI]), which has its international headquarters in the Sri Lankan capital Colombo.

'In scientific studies and policy papers both the farmers and end-users were always assumed to be men,' points out Zwarteveen.

PES

Changes in policy fashions in a country and its political-economic situation may give rise to new research questions. The discussion on biofuels is a typical example of this, as is the debate on the growing mining industry in Peru, which is responsible for large-scale water contamination. The hype around incentives such as Payments for Ecosystem Services (PES), promoted by nature organizations and environmental economists, is another example. 'In Ecuador and Costa Rica the introduction of PES was presented as a success story,' says Rutgerd Boelens. 'And our Peruvian colleagues told us that their government was also interested in the idea. We then carried out research which showed that only a small number of communities actually benefited from the system, while most villages were extremely unwilling to relinquish their land-use autonomy. In effect, PES represents the introduction of a market mechanism for public goods which can hinder collective water usage and maintenance rules. That is another reason why it is so important to re-evaluate every local situation.'



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Water research should focus on justice rather than efficiency

‘Women, who were often the ones working in and irrigating the fields, were invisible. After several years I got tired of constantly fighting against such entrenched ideas, not least because it puts your own intellectual development on hold.’

Zwarteveen returned to Wageningen where, together with like-minded academics, she formulated a more progressive research agenda. One of many products of this is a 2009 publication in the peer-reviewed journal *Gender, Place and Culture*.² This article was co-authored with Rhodante Ahlers of IHE-UNESCO Institute for Water Education in Delft. In it Zwarteveen argues that feminist reflections about tenure-insecurity and social inequities in relation to water are at odds

with a neoliberal framework that renders invisible the politics and power relations involved in water allocation. Remaining true to her epistemological stance, Zwarteveen would like to extend this line of argument to the politics of academia. The question that begs to be answered is: ‘What effect does the fact that the world of water is such a man’s world have on the main academic research questions, the research approach, and the outcomes and translation of these into policy?’

IN 2008, RUTGERD Boelens, was awarded his doctorate degree, with distinction, from Wageningen University. The same year, the Amsterdam Institute for International Development (AIID) awarded him the prize for the best PhD thesis of 2007–2008. The combination of high quality research and a focus on social relevance were what earned him this accolade. Unfortunately, the criteria that underlie the tenure track system that was introduced at his university in 2010,

allow for very little formal appreciation of the ‘social impact’ of Boelens’ research. As Zwarteveen explains, ‘we are judged primarily on the basis of our publications in peer-reviewed journals. Most professional or popular scientific publications generate zero points for our tenure tracks.’ She laughs and adds, ‘what this in effect means is that we work twice as hard. Because we refuse to give up what we stand for.’

Zwarteveen and Boelens both believe it is important to link research networks together – for example, critical scientists in the North and the South, organizations of male and female farmers, and NGOs and policy makers interested in social justice. Many of the concrete results of Boelens’ and Zwarteveen’s research can be traced back to these local and global networks. Action research with local partners in Bolivia and Ecuador resulted in significant changes in recent national constitutions and in water-related Bills. In Ecuador the government is discussing water systems as social constructions – this would have been unthinkable 10 years ago. And in a totally different part of the world, the structure of the Nepalese national government’s irrigation department is changing. But just as rewarding as these concrete achievements, Boelens and Zwarteveen feel, is the fact that they are training a generation of young scientists who learn to see the inbuilt biases in academic research and to reflect on these in an open and critical way. Many of these young scientists come from abroad, and they take home with them what they have learned. Collaborative programs with universities in South Asian and Andean countries further contribute to the fact that the Wageningen approach is increasingly used as an example of the truly interdisciplinary research that is needed to tackle complex water problems and the ethical issues they are tied up with. ■

¹ Boelens, R. (2009) The Politics of Disciplining Water Rights. *Development and Change* 40(2):307-331.

² Ahlers, R. and Zwarteveen, M. (2009) The Water Question in Feminism: Water control and gender inequities in a neo-liberal era. *Gender, Place and Culture* 16(4):409-426.