

Climate change and Society in the Peruvian Andes

During recent decades, climate change has increasingly left its mark upon Andean society as glaciers continue their retreat, precipitation alters its patterns and temperatures intensify with colder nights and warmer days as a result. The implications are manifold, and the trouble of climate change research within the social sciences has been one of how to single out – or not – climate change as that which causes social change. Research of environmental change points towards crucial engagements between people and the environment, and old questions of the relationship between nature and culture are being reposed, reframed and reconceptualized.

In 1938, Peruvian indigenist and writer published a novel entitled *The Starving Dogs*. Situated in the Peruvian highland, the book is a reminder that the people of the Andean sierra have always had to deal with capricious conditions, both in terms of the environment and in terms of government. While the present situation in the Andes is not entirely new, the increased pressure upon people and environment does seem to induce a sense of urgency as old forms of coping, managing and getting by are being challenged by the changing forms in which water presents itself. Modes of predictability and modalities of forecasting are increasingly perceived as being under pressure, as things no longer seem to be quite as they used to be.

The glaciated peaks of Peru's Cordillera Blanca have become one of those iconic places of global climate change. Alongside polar bears on floating ice flakes and sinking islands, the ice-turning-rock tells as dramatic story of the impact of humankind upon the world's well-being. Within half a century, the glaciers have been reduced by almost a third. My fieldwork was located in one of those places how have suddenly been placed at the centre of a global process of which the people have had very little influence. As Crate and Nuttall notes, global climate change is a radical form of environmental colonialism, as actions undertaken at distant places are having very direct effects upon human society. In this way, climate change challenges the ways that we think the local and the global, as it is at once an abstraction and yet very real and concrete.

The vanishing glaciers of the mountain regions don't only present a problem of aesthetics, and the effects move far beyond imagery. Glaciers serve as important water buffers, and they are likened to water towers by glaciologists and hydrologist. In a region where the year is divided into a wet and a dry season, the glaciers secure a year-round supply of water. Amongst the people with whom I worked there was a clear recognition that the ways of the water have changed. Not only are the glaciers diminished, but more importantly, the seasonality is changing. I have yet to see meteorological data on this, but informal conversations with natural scientists seem to agree with people's observations that the way the water fall from the sky is no longer the same. In an area where a large percentage of the population is sustained by rain fed agriculture, this is bad news.

Water, then, is the central issue of climate change. It is therefore worth pausing; thinking about the properties of water allows for a further understanding of the implications of an altered presence of this vital liquid. Water flows, anthropologists Orlove & Caton state, and it crosses human borders. Humans, in turn, are trying to control the water by damming, channeling, containing etc. Water thus is a matter of knowledge, technologies and, ultimately, power, and many social conflicts in Peru are evolving around the issue of water. At the moment of writing, the conflict evolving around the mining project in Conga in the northern part of the Peruvian Andes is exactly about the right to use and abuse the natural water resources.

In the case of my study area, it may be worth looking at the river and the way the water is shared amongst an array of users. The Callejón de Huaylas is an elongated, narrow valley. On the bottom, running from South towards the North, runs the Santa River, Peru's largest westward river that empties itself into the Pacific Ocean. Along its course it supplies water and serves as waste dump, upholding livelihoods and industries ranging from the herders and agriculturalists with whom I worked, to mines, towns and cities, hydro-power plants, to large scale irrigation systems at Chavimochic and Chincas on the arid desert coast. With water being perceived as increasingly scarce, conflicts are likely to occur.

In such a situation, laws and institutions are urgently needed for managing the water, making sure that the needs of everybody are met. A recent water law promulgated in 2009 replaced the out-dated legislation from the Agrarian Reform of 1969. However, in the eyes of the people with whom I work neither institutions nor the law in itself seem to address their needs and concerns. There is a certain ambiguity to the law as to whether it inhibits or promotes private investments, and it is feared that with time water could be privatized. What is important to underscore is, that the state is increasingly taking control over the water and what used to be governed by *usos y costumbres* are to a large extent part of a national legal framework.

This is important to consider when the impacts of climate change are being assessed. From the point of view of the peasants, both climate change and state interventions are being perceived as encroachments that challenge the ways of dealing with the things that matter. That water is life is a commonly held truth, and points towards the fact that not only is this a matter of biological fact, but that the issue of climate change, water and the state to a large degree is a matter of ethics. While Peru is very active in signing and ratifying international conventions, there is still a gap to be filled between good intentions and actual actions. When water is being increasingly scarce, the rules of governance are changing and the possibilities of leading a decent life with value are being put under pressure, the people of highland Peru can rightly inquire into their status as citizens in Peru and of the world.

Literature

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