

# How climate change adaptation interventions (trans)form the human-nature relationship: The prolonging of environmentality in Panchase, Nepal

Julian Swinkels<sup>1</sup>

---

## Abstract

Different scholars have emphasised different aspects of environmentality: some have explored how people come to intimately interact with their environment, others have explored how power/knowledge formations within disciplinary measures of government inform the human-nature relationship. This paper argues that these different perceptions of environmentality can co-exist. The data collection methods consisted of post-intervention fieldwork analysis of an ecosystem-based adaptation (EbA) project that was implemented in Panchase, Nepal. The findings illustrate that disciplinary spaces are not only capable of fabricating new states of environmentality, but can also be used to restore the resilience of pre-existing states of environmentality that are being threatened by climate change. I conclude that a more embedded framework can be constructed which will ultimately make it easier for the social sciences to imagine what types of interventions make subjects emerge that make both humankind and nature (more) resilient to climate change.

**Keywords:** *Ecosystem-based Adaptation, Environmentality, Power, Knowledge, Nepal*

## Introduction

Most environmental movements within the discipline of geography follow the basic discourse of Foucault's concept of governmentality. Agrawal (2005: 166) extended the framework of governmentality to explore how "*technologies of the self and power are involved in the creation of subjects who are concerned about the environment*". The body of literature that is concerned with such 'environmentality' marks the emergence of a distinctly new form of exercising power in a way that makes subjects care about their environment.

This research explores two aspects of environmentality; the first is the limited understanding of the relationship between institutional interventions and the human-nature relationship. To explore this relationship, I investigate the impact of adaptation intervention measures – which environmental governance institutions promote, crystallise and co-produce – on the

---

<sup>1</sup> Technical University of Delft, The Netherlands

Email: [Swinkelsjulian@gmail.com](mailto:Swinkelsjulian@gmail.com)

interaction that communities have with their environment. Secondly, I look at what relationships exist between interventions of environmental governance institutions and the people living in rural mountain communities. As Jasanoff (2010: 249) states, “*institutional norms influence fundamental choices that define the boundary between nature and culture, determining who has authority to represent natural objects, and selecting the rules for resolving controversies.*” So far, little concern has been expressed towards the power/knowledge formations within which the social construction of (adaptation to) climate change takes place in concrete geographical places (de Wit, forthcoming). Following the narrative that institutions construct power/knowledge structures, this paper seeks to address how these structures (trans)form the interactions between authorities, knowledge and subjects.

## Objectives

Nepal, being one of the lowest economically developed countries, means it will be one of the main countries that will be targeted by climate change adaptation projects (Ojha, et al. 2016). As human-induced climate change is starting to alter climate patterns, the three-quarters of Nepal’s population that is currently engaged in small-scale and subsistence agriculture will need to find a way to enhance their resilience to these changes (Maharjan and Maharjan, 2017). Panchase is an example of a remote region in Nepal where people are highly dependent on subsistence agriculture.

Following Randalls (2016), I view climate change as an integrated process that cannot be detached from its discursive formations. With the latter, it is meant that climate change adaptation interventions can enact different ontological realities to be managed depending on the different assemblies of practices, sciences, interventions, policies and ideas that are constructed. These articulations may then give further insight into how communities are triggered to respond to the current and future effects of climate change. The following two questions are explored in the integrated context of the adaptation interventions that the International Union for the Conservation of Nature (IUCN) is conducting – in partnership with Machhapuchhre Development Organisation (MDO), UNEP and UNDP - in Panchase, Nepal:

- i) How do the interventions of environmental governance institutions inform the human-nature relationship?
- ii) What relationships exist between climate change adaptation interventions and the formation of environmentality in local communities?

## Methodology

For the data collection, the following was conducted:

- i) participant observation;
- ii) informal interviews;
- iii) focus group discussions, and
- iv) expert interviews.

The participants all live in rural mountain communities in Panchase, Nepal. The expert interviews were held with representatives of IUCN and the MDO. Together, they give a good sense of what types of subjectivities are being formed in the interaction between authorities, knowledges and subjects in Panchase.

## Findings

What emerged from the interviews was that ‘environmentality’ had long been part of the existing way of life in Panchase. Older generations in particular were able to talk about the relationship they had with the environment before the intervention period. One effusive elderly man expressed “*When I was young, things were much easier! We lived off what the forests provided and did not have to worry about anything! Life was good before climate change*”. His friend agreed, saying “*It is true, we were able to grow more and better crops before; every year it is becoming harder*”. When asked about why he cared for the environment, the first man stated “*It is our way of living here, if we do not care for our environment, then how can we live here? Everything we need for survival comes from our land.*”

Unfortunately, this traditional ontological perception of the environment, that allows the people in Panchase to intimately engage with their ecosystem services, is being threatened by climate change.

Prior to the adaptation interventions, the IUCN held consultation meetings with various village groups (mothers, farmers, community forest users, elderly, MDO, village leaders and university members) to help understand the local context and voice their opinion on the project (IUCN, 2012). Each stakeholder was asked to contribute their specific knowledge, experience or disagreements they had with regards to the interventions. Local people were therefore not subjected to the gaze of one single authority, but rather the decisions that were made came out of an assemblage of authorities, knowledges and subjects. This indicates that the power inherent in adaptation is formed through dynamic patterns of power relations between actors.

The findings post-intervention show that the techniques which give people in Panchase more knowledge and control over their land are most successful. These include, but are not limited to: pond conservation, bee farming, agro-forestry, ecotourism, such as home stays, and improvement of livestock sheds. While these intervention techniques lay the foundation for a

neo-liberal perception of the environment, it does enhance resilience by identifying new ecosystem services that allow livelihoods to sustain a living in rural mountain areas.

## Conclusion

What has been established is that the adaptation interventions in Panchase have (re-)shaped the human-nature relationship in the sense that they have allowed the people of Panchase to prolong their environmentality and improve the resilience of their community. Moreover, the findings show that there are multiple environmentalities which are enacted by different foundations, discourses and perceptions vis-à-vis the environment. On the one hand, a traditional environmentality has existed long before the occurrence of anthropogenic climate change, and is deeply rooted within the culture of the people living in Panchase. On the other hand, a newly introduced neo-liberal environmentality introduces a more resilient stance towards climate variability. The hybrid space in which the different types of environmentality interact opens up the possibility for future research to explore how and in what ways climate change adaptation may fruitfully inform the human-nature relationship in different localities and institutional contexts. While it is evident that the neo-liberal environmentality has provided the space in which individuals can continue to intrinsically care for the environment, the opposite may also be possible. In western culture, where neo-liberalism has become a deeply rooted characteristic, intrinsically caring for the environment may fruitfully inform the human-nature relationship.

Either way, a durable and healthy relationship between nature and humans demands more than just objective claims and technological input. Instead of dichotomy, we need duality; the human-nature relationship achieves robustness through co-production between people and institutions. Whether is by preserving, transforming or shifting to new ontological understandings of the environment, it is ultimately about transforming our attitudes and behaviour in a way that ensures a healthy planet for generations to come. To do so, the social sciences will need to explore ways in which we can get a more comprehensive understanding of the links between human and ecological systems. It is towards such an end that this research has proceeded.

## References

- Agrawal, A. (2005). *Environmentality: technologies of government and the making of subjects*. Duke University Press Durham and London.
- De Wit. S. (2015). *Changing patterns of rain or power?* German Research Foundation, Working Papers of the Priority Programme 1448.
- Jasanoff, S. (2010). *A new climate for society*. *Theory, Culture & Society*, 27(2-3), pp.233-253

IUCN (2012). *Scoping of Piloting Ecosystem based Adaptation in Panchase*. A Report. IUCN Nepal.

Maharjan, S.K. and Maharjan, K.L. (2017). *Review of Climate Policies and Roles of Institutions in the Policy Formulation and Implementation of Adaptation Plans and Strategies in Nepal*. Journal of International Development and Cooperation, 23(1-2).

Ojha, H.R., Ghimire, S., Pain, A., Nightingale, A., Khatri, D.B. and Dhungana, H., (2016). *Policy without politics: technocratic control of climate change adaptation policymaking in Nepal*. Climate Policy, 16(4), pp.415-433.

Randalls, S. (2016). *Climatic globalities: Assembling the problems of global climate change*. In The Politics of Globality since 1945 (pp. 145-163). Routledge.