

# CLIMATE CHANGE IN SOUTH ASIA

## GOVERNANCE, EQUITY AND SOCIAL JUSTICE

### Abstracts & Sessions

#### Session 1: *Development Technology, the State and Society*

#### **“Hydro-Hazardscapes of Pakistan: Redefining Adaptation and Resilience to Global Climate Change”**

*Daanish Mustafa: Department of Geography, King's College London*

Epistemological commitment to reactive mitigation and adaptation to modeling scenarios of high end climate science is likely to have limited efficacy in the South Asian cultural, institutional and developmental context. The almost universal hegemony of narrowly defined developmental and technocratic discourses at the policy level coupled with pervasive poverty, cultural diversity and multiple drivers of vulnerability at the local level in Pakistan are major challenges to the transference of a Western agenda of climate adaptation. The need is for the modernist monologue on vulnerability and adaptation to be changed into a dialogue where high science and policy can learn from and contribute to vulnerable populations' everyday strategies of adapting and coping with hazards as well as struggles for diversified and stable livelihoods. I am concerned with four main challenges to more efficacious climate adaptation regime in South Asia in general and Pakistan in particular: (1) repositioning a concern with socially driven vulnerability at the centre of policy discourse on disaster risk reduction and climate adaptation, (2) demonstrating the linkage between environmental quality and poverty reduction, (3) dialogue between modern scientific community and local level actors, and (4) reinsertion of indigenous cultural knowledge and world views in national and regional climate policy. All of the above challenges have to be negotiated within the context of a social transformation in Pakistan where traditional distinctions between rural and urban livelihoods systems no longer work. By drawing upon my work on water and hazards in Pakistan I propose to explore the inflection of these new hybrid rural/urban *desakota* systems on resource management, and vulnerability mitigation strategies.

## **“Connecting the people/hoisting the *mataka*: The Intersection of Climate Change Policy and Palimpsests of Water Development in Marwar”**

*Trevor Birkenholtz: Department of Geography, Rutgers University*

In what ways will state climate change policies interact with ongoing development programs in the Global South? Can existing development programs incorporate climate change predictions or are new programs needed? And what does this mean for the ongoing vestiges of these programs? This paper examines these questions through a case study of a rural water supply network in the Marwar region of western Rajasthan. Construction began on the Rajasthan Canal in 1958. Originating in the foothills of the Punjab Himalaya, it was originally conceived as a Green Revolution development project to ‘Green the Thar’. Its name was changed to the Indira Gandhi Canal in 1984, and in 1997, with the construction of the Rajiv Gandhi Link Canal, it began supplying drinking water to western Rajasthan through the construction of a complex network of reservoirs, treatment facilities, distribution centers and supply pipelines. Today water flows through the network in highly uneven ways, resulting in differentiated water collection times, usurious private markets, rising water tables, and the abandonment and subsequent rehabilitation of traditional water bodies. So too, climate change predictions draw into question the future viability of this already fraught system. The paper reflects on what the intersection of these processes might mean for future water supply to vulnerable populations in the region.

## **“Situating Community Forestry in Climate Change Mitigation: Promoting Household Biogas Technology”**

*Shaunna Barnhart: Department of Geography, Pennsylvania State University*

Community forestry in Nepal is often cited as a successful example of local resource governance which empowers local people and fosters greater social and economic equity. The carbon sequestration potential of community forests, and afforestation more generally, are commonly linked to carbon markets and global climate change mitigation strategies. However, forest management is not the only strategy which community forest users groups employ that may impact both local quality of life and global climate change mitigation. Hundreds of community forest users groups in Nepal are actively promoting alternative energy technologies, such as biogas. Switching from fuel wood to biogas for cooking has both direct benefits for users (improved health, reduced work load) and for the environment (less CO<sub>2</sub> emissions, increased carbon sequestration, reduced strain on forest resources). While biogas technology in Nepal operates on a household level and is promoted for its household benefits, the global impact of biogas technology in climate change mitigation is discussed at national levels, particularly in regards to carbon credit compensation available to the government. This project seeks to engage and build upon Arun Agrawal’s work on environmentality – how people come to think and act in new ways in relation to the environment – through understanding the impacts of community forestry in promoting alternative energy. This research explores the impacts and implications of community forest users groups as a dissemination vehicle for biogas technology, as well as impacts of the technology itself at multiple scales, and the users’ perception of their connections to a global community.