INTRODUCTION

Governance of Socio Technical Transformation is a collaborative project involving Kennedy School of Government, Harvard University (USA); Helmholtz Centre for Environmental Research (Germany); Science Policy Research Unit (SPRU), University of Sussex (UK), and African Centre for Technology Studies (Kenya) and Environment Support Group, Bangalore (India).

FOCUS OF THE PROJECT

Transformations in systems of energy, agriculture, and urban digital infrastructure are globally recognised as crucial to sustainable development. The research project Governance of Sociotechnical Transformations (GoST) focused on historical and prospective transformations in three key areas:

- Energy transformation and the ‘nuclear age’
- Transformation of agriculture and the ‘green revolution’
- Transformation of the urban digital infrastructure and ‘smart cities.’

The project examined past and prospective transformation efforts across the three areas of energy, agriculture, and urban digital environments, in five countries (Germany, India, Kenya, UK and US). A key concept for the project, and one which is being used as a theoretical starting point, is that of ‘sociotechnical imaginaries’ within Science and Technology Studies (STS).

RESEARCH METHODS

GoST combines qualitative, observational work at a micro-level with the analysis of primary materials, theoretically informed generalization, and policy recommendations, underpinned throughout by an interdisciplinary approach.

The project used a number of research methods in order to gain insight into transformations within different sectors and country contexts as well as the processes of social transformation and their relation for governance.

Some of these methods include:

- The development of comparative case studies of transformations in the three sectors in the five countries.
- Archival and document research – using local archives and other forms of data collection.
- Analysis of national laws and policies aimed at fostering transformations and relevant legal challenges and court decisions.
- Conducting interviews with policy-makers, businesses and members of civil society.
- The exploration of images and other visual/non-verbal imaginaries such as films, TV, cartoons, internet memes.
- Engagement workshops in India and Kenya bringing together policy-makers, non-governmental organisations and community organisations.

STI RESULTS & DISCUSSION

1. STI enable us to reconstruct where alternative visions and enactments concerning desirable or resisted futures comes from, how they take shape and solidify

2. The findings indicates that shifts in imagining sustainable futures do not automatically translate into transformations of political practices or into effective policies. Studying STIs in the making also indicates that there is neither a single causal factor for explaining radical change nor a single leverage point for enabling transformative change.

3. Research on STIs also indicates that shifts in imagining sustainable futures do not automatically translate into transformations of political practices or into effective policies.

4. STIs help us to understand how and why visions of a sustainable future can legitimate, rather than challenge, cognitive path-dependencies and material or discursive lock-ins, thus reinforcing entrenched power structures and resource-intensive lifestyles rather than rendering them open to change.

5. Case studies of energy futures indicate that questions of ‘who gets to imagine the future’, ‘whose visions and actions count?’ and ‘who will bear the risks and benefits’. Asking who gets to imagine transformative change, especially at constitutional moments, shows the connections between visions and values attached to sustainable futures and the politics of knowledge brought to support them.

Recognizing the domain of sociotechnical imaginaries as a field of political action, and investigating the forms of participation and representation that shape those imaginaries, are essential steps toward reclaiming for this century’s citizens a democratic politics of the future.