

Networks of Coordination and Conflict

Institutional Change in Agriculture and Natural Resources
Institutioneller Wandel der Landwirtschaft und Ressourcennutzung

Governing Sustainability in India

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for Irrigation in South India

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Aim and Scope of the Series

„Nothing endures but change“. Heraclitus the Ephesian (ca. 535–475 BC)

Institutions, defined as “the rules of the game”, are a key factor to the sustainable development of societies. They structure not only the multitude of human-human interactions of modern societies, but also most of the human-nature interactions. Poverty, famine, civil war, degradation of natural resources and even the collapse of ecosystems and societies often have institutional causes, likewise social and economic prosperity, sustainable use of resources and the resilience of socio-ecological systems. Agriculture, forestry and fisheries are those human activities where the interdependencies between human-human and human-nature interactions are perhaps most pronounced, and diverse institutions have been developed in history to govern them.

Social and ecological conditions are, however, ever changing, which continuously challenge the existing institutional structure at a given point in time. Those changes may be long-term, like population growth or climate change, medium-term, such as new technologies or changing price relations, or short-term, like floods or bankruptcies, but all of them pose the question whether the rules of the game need to be adapted. Failures to adapt timely and effectively may come at a high social cost. Institutional change, however, face a principal dilemma: on the one hand, institutions need to be stable to structure expectations and effectively influence human behaviors; on the other hand, they need to be adaptive to respond to the ever changing circumstance mentioned above. Understanding stability and change as well as developing adaptive institutions and effective, efficient and fair mechanisms of change are, therefore, of central importance for societies and an ongoing research challenge for social scientists.

If we want to improve the effectiveness, efficiency and adaptability of institutions, it stands to reason that we have to develop a good understanding of the causes, effects, processes and mechanism of stability and change. This is the aim of the series “Institutional Change in Agriculture and Natural Resources,” which attempts to answer the questions “How do processes and mechanism of institutional change actually work? What and who are the main determinants and actors driving, governing and influencing these processes? What are the economic, political, social and ecological consequences? How can adaptive institutions be designed and developed, and what governance structures are required to make them effective?” These are the questions at the heart of the series. The works published in this series seek to provide answers to these questions in different economic, social, political and historical contexts.

Volker Beckmann and Konrad Hagedorn

Ernst-Moritz-Arndt-Universität Greifswald und Humboldt-Universität zu Berlin

Focus of the *Governing Sustainability in India* subseries

Deep transformations of interconnected social, ecological and technical systems are taking place in many regions of the world, requiring complex processes of institutional change. In India, such processes of transformation are particularly intense. As in many other countries, the main drivers there can be found in population growth associated with demographic change and economic growth, closely interlinked with technological change. Especially in Indian society, this often occurs in contexts of high population density, extreme resource scarcity, weak carrying capacity of ecosystems and harmful pollution. The growing economy calls for reliable energy provision and increased energy efficiency while, at the same time, also needing to cope with climate change.

The ICAR subseries *Governing Sustainability in India* provides a collection of studies on such action situations in both rural and urban areas. Rural areas are increasingly affected by the above-mentioned problems, as people's livelihoods there often depend directly on well-functioning bio-physical systems. They suffer from soil erosion, declining water tables, loss of biodiversity, impacts of climate change and other crucial problems. In Indian cities meanwhile, particularly its emerging megacities, urbanization is proceeding rapidly, leading to increased demand on natural resources. Changing lifestyles and economic growth are increasing energy consumption and greenhouse gas emissions. Climate change impacts, worsened by such urban developments, are already causing extreme weather events such as floods, heat waves and droughts.

In such action situations, crafting institutions can be the key to achieving sustainable development. The young researchers presenting their analyses in this subseries have accepted this challenge and engaged in excellent, in-depth studies. A variety of related issues were analysed, including enhanced energy efficiency, power-generation efficiency, policies for renewable energy, political discourses for promoting biofuels, sustainable traffic solutions, sustainable food chains, localized food systems, food accessibility for the urban poor, electricity provision for irrigation, microcredit organisations to combat poverty, governance of water allocation, industrial water pollution abatement, collective action in watershed management, rehabilitation of displaced farmers, and local service delivery. We are very grateful to the authors for having employed well-developed analytical frameworks, enlightening theoretical approaches and multiple methods to contribute to our common knowledge base. They have been working together with many partners in India and elsewhere, to whom we also want to express our special gratitude.

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Berlin, November 2012

Christian Kimmich

Table of Contents

Acknowledgements.....	ix
Table of Contents.....	xi
List of Tables.....	xv
List of Figures	xvi
1 Introduction: Scope and scientific context	1
1.1 The electricity–irrigation nexus	3
1.2 Empirical scope	4
1.3 Theoretical perspectives and scientific context	5
1.4 Thesis structure: Research questions, main threads, and building blocks	6
2 Conceptualizing infrastructure research: A transaction-economic analytical framework of actors, institutions, and governance	11
2.1 Introduction	11
2.2 Research on electricity infrastructure governance.....	13
2.3 The use of conceptual frameworks	15
2.4 Frameworks for institutional analysis	17
2.5 The Institutions-of-Sustainability framework.....	20
2.5.1 Transactions	22
2.5.2 Institutions.....	25
2.5.3 Actors	27
2.5.4 Governance	31
2.5.5 Interaction: Agency and the manifestation of transactions, institutions, and governance.....	33
2.6 Implications and outlook.....	36
3 Embedding infrastructure economics: Ontological and epistemological considerations and reflections on methodology.....	39
3.1 Introduction.....	39
3.2 Ontological heuristics and conjectures for economics	41

3.3	Epistemological limits.....	44
3.4	Methodology: towards an appropriate and concerted set of methods	46
3.4.1	Triangulation, recombination, and sequencing methods	47
3.4.2	Models, isolation, and inferences.....	50
3.5	Empirically amenable game theory models.....	52
3.6	Conclusions and implications	53
4	Policy persistence and the political economy of the electricity- irrigation conundrum in Indian agriculture: An analytic historical account	55
4.1	Problem statement.....	56
4.2	Utilities governance and party competition	58
4.2.1	Utilities regulation and regulation theories.....	59
4.2.2	Political economy and public choices.....	62
4.3	Choosing a suitable framework for analysis: transactions and rationality	64
4.4	Empirics and discussion.....	65
4.4.1	Early electricity infrastructure regulation and provision to agriculture	65
4.4.2	The emergence of agricultural electricity subsidization	68
4.4.3	The public choice dimension of subsidization.....	73
4.5	Conclusions for the case and implications for theory.....	82
4.6	Appendix: analysis of the specified model	85
5	Incentives for energy efficient irrigation through appliance quality: Empirical evidence of technology adoption.....	89
5.1	Introduction.....	89
5.2	Electricity-based irrigation and demand side measures in Andhra Pradesh	91
5.3	Data and methods.....	93
5.3.1	Sampling procedure	93
5.3.2	Survey design and summary statistics	95
5.4	Results and discussion	97
5.4.1	The actual costs of electricity-driven groundwater irrigation.....	98

5.4.2	The status of DSM implementation	99
5.4.3	Hypotheses for the potential factors influencing equipment burnouts	99
5.4.4	Statistical analysis	102
5.4.5	Electric power quality	106
5.5	Conclusions and implications	108
6	Infrastructure provision and coordination failure as impediments to demand side measures in power utilization for irrigation	109
6.1	Introduction	109
6.2	Common-pool and network properties of electricity provision.....	111
6.2.1	Concepts of common-pool resource analysis	113
6.2.2	Models of interdependent action.....	114
6.3	Methods of inquiry.....	115
6.4	Results and discussion	116
6.4.1	The farmers' coordination problem	117
6.4.2	Uncertainty and complexity impeding efficient coordinated action	120
6.4.3	The dilemma of load	122
6.5	Conclusions and implications	125
7	Action situation networks: Coordination, conflicts, and evolution in electricity provision for irrigation.....	129
7.1	Introduction.....	129
7.2	Theories for action situations.....	131
7.2.1	Networks of adjacent action situations	132
7.2.2	Evolutionary theories of institutional change in resource governance	133
7.3	Theoretical propositions.....	134
7.4	Methods of inquiry and inference	135
7.5	Adjacency networks in the electricity–irrigation nexus: insights from the case	136
7.5.1	The core action situation: A coordination problem	138
7.5.2	Factual versus actual games: Social learning	139

7.5.3 Institutions at work? Legal rules-in-form and practices on the ground	140
7.5.4 Infrastructure capacity: A dilemma of provision.....	141
7.5.5 The implicit conflict: Collusion and solidarity	143
7.5.6 Taking into account the utility's presence: Service, uncertainty, and fault.....	145
7.5.7 Capacities of the electricity–groundwater nexus	147
7.5.8 Extending the network of adjacent action situations	149
7.5.9 Linking the action situations	150
7.6 Conclusions and theoretical implications	151
8 Conclusions and implications for theory and practice.....	155
8.1 Research findings in context and implications for practice.....	155
8.2 Towards a social contract through a bargaining transaction	157
8.3 Towards a synthesis of institutional, transactional, and game theory ..	159
References	163