

Does participatory and collective governance promote sustainable decisions?

Theoretical explanations and lessons from the megacity of Hyderabad.

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“I was taught that the way of progress was neither swift nor easy.”

Marie Curie, 1867-1934, multiple Nobel laureate, physicist, chemist, mother and pioneer

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Dedication

I dedicate this work to my mother, Anna Ueding, whose absolute love, trust and unconditional commitment to her children's well-being paved the way for all achievements in my life. Danke, Mama!

SUMMARY

This dissertation studies the interrelation between collective stakeholder participation and sustainable decision-making when dealing with various resources. It follows a bi-partite research agenda consisting of a theoretical-conjoint-methodological approach and an empirical approach. Accordingly, the thesis pursues two mutually affecting research goals. First, the thesis aims to advance the theoretical debate on the relation between participatory governance and sustainable outcomes incorporating considerations on collective action. The second research aim is to accumulate concrete empirical insights on cases of participatory and collective stakeholder governance in Hyderabad, India.

These two research goals are pursued via five research papers. Based on a household survey, paper 1 explores the prospects for more inclusive water planning and for collective action at the neighbourhood level in Hyderabad. Paper 2 presents an extensive literature review resulting in the design of a distinct theoretical framework for exploring the capability of participatory and collective governance in sustainable outcomes. The two following papers disclose through qualitative case studies insights on concrete occurrences, conditions and implications of collective stakeholder participation in Hyderabad. Paper 3 is a qualitative case study on the cooperative sector in Hyderabad, revealing its lack of member participation and autonomy. Paper 4 covers the first part of a qualitative case study on SCOTRWA (Standing Committee of Tarnaka Resident's Welfare Associations), a federation of neighbourhood associations in Hyderabad. This paper exemplifies how SCOTRWA uses its social capital as a tool for collective action against medical exploitation. Finally, paper 5 designs and applies a qualitative data evaluation approach to assess the interrelation between collective participation and sustainable decision-making. The approach, which combines an abstracting point-based scaling system with explanatory narratives, is applied to a campaign promoted by a member association of SCOTRWA to evict a slum settlement in order to construct a green park. This application of the new methodological tool points to the complexity in the interrelation between collective participation and sustainable decision-making. The findings on SCOTRWA retroactively affect the dissertation's theoretical and methodological conceptualisations and show the need to amplify both starting concepts. Using and combining inductive and deductive reasoning, the five research papers in the dissertation describe theoretical, empirical and finally methodological results. The resulting developed methodological approach thereby establishes an innovative basis for further research.

ZUSAMMENFASSUNG

Die Dissertation untersucht den Zusammenhang zwischen der kollektiven Beteiligung betroffener Akteure und nachhaltigen Entscheidungen im Umgang mit verschiedensten Ressourcen. Hierbei wird eine zweiteilige Forschungsagenda aus einem theoretisch-methodologischen und einem empirischen Ansatz verfolgt. Entsprechend strebt die Dissertation zwei Forschungsziele an, die sich gegenseitig beeinflussen. Zunächst soll die theoretische Debatte um die operativen Mechanismen zwischen partizipativen Governance-Formen und nachhaltigen Ergebnissen vorangetrieben werden. Hier sollen auch Erkenntnisse zu kollektiven Handlungen in die Überlegungen eingebunden werden. Daneben geht es darum, empirische Einsichten zu konkreten Fällen von partizipativer und kollektiver Beteiligung von betroffenen Akteuren in Ressourcen-Governance in Hyderabad, Indien, zu gewinnen.

Fünf wissenschaftliche Aufsätze widmen sich in unterschiedlicher Schwerpunktsetzung diesen beiden Forschungszielen. Der erste Aufsatz untersucht mit Hilfe einer Haushaltsumfrage in Hyderabad die Chancen für eine stärker inklusive Planung und kollektive nachbarschaftliche Lösungsansätze im Bereich der Wasserversorgung. Der zweite Aufsatz präsentiert eine umfangreiche Literaturlauswertung, aus der der Entwurf eines eigenen theoretischen Frameworks für die Untersuchung des Potentials von partizipativer und kollektiver Governance für nachhaltige Ergebnisse hervorgeht. Die zwei folgenden Aufsätze liefern mittels qualitativer Fallstudien Erkenntnisse zu konkreten Ausprägungen, Bedingungen und Auswirkungen der kollektiven Partizipation betroffener Akteure in Hyderabad: Der dritte Aufsatz ist eine qualitative Fallstudie über den genossenschaftlichen Sektor in Hyderabad. Die Fallstudie legt eine mangelnde Mitglieder-Partizipation und erhebliche Defizite in der Autonomie der Genossenschaften der Stadt offen. Der vierte Aufsatz umfasst den ersten Teil einer Fallstudie zu SCOTRWA (Standing Committee of Tarnaka Resident's Welfare Associations), ein Zusammenschluss von Nachbarschaftsorganisationen in Hyderabad. Das Papier stellt dar, wie SCOTRWA sein Sozialkapital als Instrument für ein kollektives Vorgehen gegen medizinische Ausbeutung einsetzt. Schließlich entwirft der fünfte Aufsatz einen methodologischen Ansatz für die Auswertung qualitativer Daten. Dieser Ansatz dient der Einschätzung des Zusammenhangs zwischen kollektiver Partizipation und nachhaltigen Entscheidungen. Der Ansatz, der ein abstrahierendes und punktebasiertes Skalensystem mit erläuternden Hintergrundberichten verbindet, wird auf einen Fall angewendet, in dem verschiedene Dimensionen von Nachhaltigkeit in Konflikt zueinander stehen: eine

Mitgliederorganisation von SCOTRWA zwingt einen Slum innerhalb ihres Wohngebiet zur Räumung, um auf dem entsprechenden Gebiet einen Park zu errichten. In dieser Anwendung des in der Dissertation entwickelten methodologischen Ansatzes wird die empirische Komplexität der Beziehung zwischen kollektiver Partizipation und nachhaltigen Entscheidungen verdeutlicht. Die Erkenntnisse aus dieser Fallstudie beeinflussen rückwirkend die theoretischen und methodischen Konzepte der Dissertation und unterstreichen die Notwendigkeit, die Ursprungskonzepte immer wieder empirisch zu prüfen und zu erweitern. Die Konzeptualisierung von kollektiver Partizipation mit Hilfe der Dimensionen Inklusion und Einfluss wird um eine Dimension ergänzt, die den gegenseitigen Informationsfluss und Deliberation umfasst. Die Konzeptualisierung von Nachhaltigkeit mit Hilfe einer externen und internen Dimension wird um eine dritte Dimension erweitert, die die Parität der Verteilung von Kosten und Nutzen einer Entscheidung betrifft.

Mittels der Verknüpfung von deduktiver und induktiver Argumentation münden die fünf Papiere in theoretische, empirische und schließlich auch in methodische Erkenntnisse. Der am Schluss weiterentwickelte Ansatz für die Auswertung qualitativer Daten ist ein wichtiges Ergebnis dieser Dissertation und bildet die Grundlage für weitergehende Forschung.

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ABBREVIATIONS

AID India	Association for India's Development
Aarhus convention	The United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters
A.P.	Andhra Pradesh
APCS Act of 1964	Andhra Pradesh Co-operative Societies Act, 1964
APES	Actor-Process-Event Scheme
APMACS Act of 1995	Andhra Pradesh Mutually Aided Co-operative Societies Act, 1995
BGSS	Berlin Graduate School of Social Sciences
BICS	Berlin Institute for Cooperative Studies
BMBF	German Federal Ministry of Education and Research
Brundtland report	Report of the World Commission on Environment and Development: Our Common Future
CBO	Community Based Organisation
CDF	Co-operative Development Foundation
CSA	Centre for Sustainable Agriculture
ECOPAG	Research project at the INFU-Institute for Environmental Communication, Leuphana University in Luneburg: 'Environmental Consequences of Participatory Governance—A Comparative Meta-Analysis of Case Studies in Environmental Decision-Making'
EDGE	Research project at the INFU-Institute for Environmental Communication, Leuphana University in Luneburg: 'Evaluating the Delivery of Participatory Environmental Governance using an Evidence-Based Research Design'
EPG	Empowered Participatory Governance

GHMC	Greater Hyderabad Municipal Corporation
GoAP	Government of Andhra Pradesh
GoI	Government of India
HITEC City	Hyderabad Information Technology Engineering Consultancy City
HPEC	High Powered Expert Committee for Estimating the Investment Requirements for Urban Infrastructure Services
HUDA	Hyderabad Urban Development Authority
IAD Framework	Institutional Analysis and Development Framework
IASC	International Association for the Study of the Commons
ICA	International Co-operative Alliance in Geneva
IDS	Institute of Development Studies, University of Sussex in Brighton, UK
IFDH	International Foundation for Human Development
IISD	International Institute for Sustainable Development, Canada
INFU	Environmental and Sustainability Communication, Leuphana University of Luneburg
LIAISE	EU – Network of Excellence LIAISE: Linking Impact Assessment Instruments to Sustainability Expertise
LUCSUS	Lund University Centre for Sustainability Studies
Megacity Hyderabad Project	Climate and Energy in a Complex Transition Process towards Sustainable Hyderabad - Mitigation and adaptation strategies by changing institutions, governance structures, lifestyles and consumption patterns
MCH	Municipal Corporation of Hyderabad
MSCS Act of 2002	Multi-State Co-operative Societies Act of

	2002
MUCS Act of 1942	Multi-Unit Cooperative Societies Act of 1942
NAPCC	Indian National Action Plan On Climate Change
NCUI	National Cooperation Union of India
NGO	Non-governmental Organisation
Rs.	Rupees (Indian currency)
RWA	Resident Welfare Association
SCOTRWA	Standing Committee of Tarnaka Resident's Welfare Associations
SES Framework	Social-Ecological Systems Framework
SES Model	Socioeconomic Status Model
SHG	Self-Help-Group
UK	United Kingdom
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UN Habitat	United Nations Human Settlements Programme
WCED	World Commission on Environment and Development
WHO	World Health Organization
WZB	Social Science Research Center Berlin

1. RESEARCH AGENDA

“Recognizing that sustainable development, democracy and peace are indivisible is an idea whose time has come” Wangari Maathai (1940-2011) in her Nobel lecture in Oslo, December 10, 2004

The idea that approaching sustainability is interrelated with including concerned people in decision-making processes has been promoted by environmental activists such as Wangari Maathai in the African context or Vandana Shiva (Shiva op. 2005) in the Indian context. This spreading idea also inspired this dissertation, which intends to scientifically shed light on this normative claim.

1.1. Research purpose and scope

The call for enhanced participation in decision-making processes in order to advance the sustainability of policies has become prevalent, particularly since Agenda 21 and in the field of environmental politics. Participation is expected to increase the legitimacy and effectiveness of decisions (Bulkeley, Mol 2003, pp. 144, 147; Newig 2007, pp. 51-52; Paavola, Adger 2006; Paavola 2007; United Nations 1992). Not only the ideational interest but also the practical interest in participatory approaches is accreting in environmental politics and in the sustainability debate (Bulkeley, Mol 2003, pp. 144). The European Union’s Water Framework Directive includes, for example, a call for the participation of “all interested parties” in the Directive’s implementation (European Parliament and the Council of 23, 2000, Article 14). This call corresponds to the spirit of the Aarhus convention (UN Economic Commission for Europe 1998).

In defining the interrelation between participation and sustainability, the need for clearly defined concepts is stressed in this thesis. Despite being widely supposed to be promoted by participatory decision-making, what exactly does sustainability mean? How can participation be defined? Moreover, why and how exactly are the two correlated?

The scientific exploration of the relations between sustainability and collective participation is just in the beginning stages and promoted in the fields of environmental studies and sustainability sciences; see, for example, “EDGE — Evaluating the Delivery of Participatory Environmental Governance Using an Evidence-Based Research Design” at the Leuphana University in Lüneburg, Germany (INFU-Institute for Environmental

Communication; Newig, Fritsch 2011). At present, systematic concepts are missing here (Newig, Fritsch 2011; Newig 2007, pp. 57–58). The dissertation contributes to the scientific exploitation of the relations between participatory modes of decision-making and sustainable effects aiming to design a systematic framework for the analysis of these relations. Thereby, the dissertation goes beyond environmental governance (Paavola 2007, p. 94) and looks at resource governance in general. The dissertation's approach is thereby restricted to small-scale local resource governance.

In a nutshell, this dissertation aims at contributing to the scientific debate on the relationship patterns between participation and sustainability. Specifically, the dissertation has two research aims:

First, it wants to advance the theoretical debate on the operational mechanisms between participatory governance and sustainable outcomes and incorporate considerations on collective action.

Second, the dissertation wants to explore cases of collective participatory stakeholder governance in Hyderabad, India.

To reach these two overall aims, the dissertation addresses five research questions, whereby the last question emerged while developing the dissertation:

The **first question** seeks the pre-conditions for participatory and collective governance. What makes stakeholders participate in collective decision-making processes?

The **second question** enquires about the interrelation between collective participation and sustainable decisions. Why might collective participatory governance result in sustainable decision-making?

The **third question** looks for exemplary cases in Hyderabad: Are there cases of collective participatory governance in resource management in Hyderabad?

The **fourth question** aims for the insights that these cases reveal on the interrelation between collective participation and sustainability.

The **fifth and final question** emerged when the dissertation examined the second, third and fourth questions and pools the theoretical and empirical insights. Facing a lack of convincing data evaluation approaches, the fifth question asks how the interrelation

between collective stakeholder participation and sustainable decisions can be assessed by relying on qualitative case study data.

Hence, the dissertation analyses the interrelation between collective stakeholder participation and sustainable decision-making on theoretical grounds and simultaneously reviews the interrelation through explorative case studies. Agreeing with the transdisciplinary research premise that problems can be “reviewed and interpreted from a variety of non-equivalent perspectives” (Jabbar et al. 2001, p. 168) the dissertation allows for both nomothetic, abstracting and idiographic and descriptive research ideals (Krohn 2008, pp. 371f, 381–382).

1.2. Basic research assumptions

The dissertation sticks to the research heuristic of actor-centred institutionalism (Mayntz, Scharpf 1995b; Scharpf 1997) claiming that neglecting structure or neglecting actors both miss important points of explanation (Hodgson 2007; Mayntz, Scharpf 1995a, p. 46). Instead, the dissertation assumes that behaviour is resulting from interactions of boundedly rational actors who act strategically but whose scope of action as well as the preferences and perceptions are partly shaped by the institutional settings (Scharpf 1997). Institutions can assume the role of the independent and dependent variable and are in turn shaped by the actors’ behaviour (Mayntz, Scharpf 1995a, p. 45). Thereby, the institutional scope of action is not all-embracing but leaves room for additional factors influencing actors’ orientations and behaviour such as economic, cultural or social resources (Mayntz, Scharpf 1995a, p. 52).

In detecting and understanding the mechanisms which link collective participation and sustainable decision-making, a causal linkage is presumed. Looking for the operation of causalities, the dissertation sticks to a mechanism approach (Glennan 1996; Brady 2008). Stuart S. Glennan, one of the founding authors of the mechanism approach, suggests “that two events are causally connected when and only when there is a mechanism connecting them” (Glennan 1996, p. 64)¹. Still, the dissertation does not attempt to finally prove causality but to substantiate the claim for causality and to prove tendencies (see paper 5).

¹ For the mechanism approach it is not only essential to speak of causation that a mechanism connecting A and B exists but also that this mechanism needs to be observable (Glennan 1996, p. 50). There must be direct or indirect ways to observe the mechanical connection (Glennan 1996, p. 51).

Epistemologically², the dissertation follows a critical objectivist tradition and strives for objectivity, verifiability and falsifiability of its results (Guba, Lincoln 2011, p. 110).

Concentrating on its two general research aims (to advance the theoretical debate and to explore cases) the dissertation's research agenda is split into two parts: one conceptual, theoretical and methodological agenda, and one empirical agenda focusing on Hyderabad.

1.3. Conceptual, theoretical and methodological research agenda

On theoretical grounds, the dissertation aims at four conceptual, theoretical and methodological research objectives.

1. To define and pool the concepts of participatory governance and collective action (collective participation) and to identify the basic requirements for their realisation (paper 2)
2. To define sustainability and sustainable decision-making (papers 2 and 5)
3. To model a theoretical framework identifying the main aspects and components of the interrelation between collective participation and sustainable decision-making (paper 2)
4. To design a qualitative measurement tool to assess the interrelation between collective participation and sustainable decision-making (paper 5)

1.4. Constitutive theoretical and methodological elements and assumptions

"Concept formation lies at the heart of all social science endeavor" (Gerring 1999, p. 359).

The dissertation agrees with this declaration and tries to cope with its implications by dedicating a major part of its work to elaborating its major concepts: collective participation and sustainability as well as integrative institutions, subsidiarity, social learning and social capital (paper 2 and paper 4). The elaboration of each theoretical concept is based on a broad literature review, whereby these reviews are purposely limited with the dissertation's first basic research aim in mind ("to advance the theoretical debate on the operational mechanisms between participatory governance and sustainable outcomes and incorporate considerations on collective action").

² Ontologically, the dissertation agrees with critical realism (Bhaskar 2011; Guba, Lincoln 2011, p. 110) and assumes that even though a downright reality is existing it is only "imperfectly and probabilistically apprehendable" for human beings (Guba, Lincoln 2011, p. 109).

1.4.1. Sustainability

The dissertation takes into consideration the most commonly used and most influential definition of sustainable development from the Brundtland report, the World Commission on Environment and Development's report "Our Common Future" from 1987 (World Commission on Environment and Development 1987), but does not limit its definition of sustainability to this rather loose understanding of sustainable development. Instead, the dissertation reverts to scientific concepts on institutions (Gatzweiler, Hagedorn 2002; Hagedorn 2008a, 2008b; Mayntz, Scharpf 1995a; North 1990; Ostrom 2005). The definition of sustainability gets a scientific basis when defining sustainability as the adjustment of the social (human) and the ecological system (Bossel 1999, p. 2; Gatzweiler, Hagedorn 2002). This approach of institutional economics is free from value judgements. To achieve the adjustment of the social and the ecological system, the dissertation assumes that institutions need to advance and harmonise economic prosperity, social development and the evolution of resource use (World Commission on Environment and Development 1987). The dissertation further claims that this harmonisation requires institutions to allow for two dimensions of sustainability: first, for the external impact of behaviour on others (inner- and intergenerational alters) and second, for the internal capacity to face pressures and "maintain an adequate and decent livelihood" (Chambers, Conway 1992, p. 9)³.

To put the dissertation's first main concept in a nutshell, the dissertation starts defining sustainability as the adjustment of the social and ecological system via institutions which allow simultaneously for the external and internal impact of behaviour and decisions. In its conclusion, the dissertation calls to refine this definition and to supplement a dimension allowing for equality in the distribution of the costs and benefits of a decision.

1.4.2. Participatory governance

The term participation is used inconsistently in the literature, and is even intermingled with the terms equity and social justice (Lélé 1991, p. 615). This dissertation deploys the concept of participatory governance, clearly defined as those forms of governance that involve those actors in the processes of planning and decision-making who are in turn affected by the end decision (Walk 2008, p. 52) and herewith reverts mainly to political science. The dissertation incorporates basic approaches on participation and participatory governance with some normative implications; see inter alia (Arnstein 1969; Brady,

³ Here the dissertation refers to the sustainable rural livelihoods framework of the Institute of Development Studies (IDS) in Brighton, UK

Collier 2010; Dachler, Wilpert 1978; Fung, Wright 2003b; Fung, Wright 2003a; Geißel 2008, 2009; Healey 2003; Innes 1996; Walk 2008). Moreover, the term stakeholder participation is used in the dissertation. Following Edward R. Freeman's approach from the field of strategic management research, where he defines stakeholders with respect to their relation to an organisation (Freeman 2010; Reed 2008, p. 2418) the dissertation defines stakeholders as those actors who are affected by an end decision. This definition is closely connected to the dissertation's understanding of participatory governance (Walk 2008, p. 52). The dissertation resets the wide literature on participatory governance in the discourse of development, as this literature is itself based on the applied, more general literature; see inter alia (Blair 2000; Cooke, Kothari 2001; Gaventa 2004; Hickey, Mohan 2004; World Bank 1997). Still, the dissertation agrees with the development discourse that collective participation is neither a panacea for development nor for sustainability (Cooke 2001; Cooke, Kothari 2001; Newig et al. 2011, p. 31).

1.4.3. Collective action

The interest of the dissertation is not restricted to the study of individual participation like voting. A focus lies on the study of individual motivational determinants of collective participation where several people make joint decisions⁴. Literature on the likelihood of sustainable management of collective resources is widespread; see inter alia Agrawal (2001). For the concepts of collective action, the dissertation concentrates on the work of Elinor Ostrom (Ostrom 1990, 2007, 2010), but also incorporates other studies (Agrawal 2001; Baland, Platteau 1996; Wade 1988). A collective action situation is defined based on Mancur Olson, "[...] when a number of individuals have a common or collective interest — when they share a single purpose or objective — [and when] individual, unorganized action [...] will either not be able to advance that common interest at all, or will not be able to advance that interest adequately" (Olson 1965, p. 7). The dissertation refers to the literature on common-pool resources but looks beyond collective and beyond natural resources and includes resource governance ranging from drinking water (paper 1) to organic food (paper 3) to green spaces (paper 5) and even public health (paper 4).

⁴ As an exemption paper 4 concentrates on collective determinants of collective participation. It elaborates on social capital on the macro-level and looks at its implications for collective action, thereby concentrating on Putnam's ideas (Putnam et al. 1993; Putnam 1995, 2000; Putnam, Goss 2001). The weak points of Putnam's approach are considered (Field 2003; Fine 2003; Harriss 2002; Kenworthy 2001) as well as additional supplementary approaches (Burt 2008; Coleman 1988; Granovetter 1983; Lin 2008; Portes 1998).

1.4.4. Collective participation

Pooling and operationalising collective participation, paper 5 drills down to the conjoint concept, summarising it with the two dimensions of “influence” and “inclusion”. The dimension “influence” can be traced back to the models of Sherry Arnstein and her successors (Arnstein 1969; Wilcox 1994; Rowe, Frewer 2005), which deal with the degree of empowerment. The dimension “inclusion” deals with the maximisation of participation and refers to Aristoteles’ typology of regimes (Aristoteles, Schwarz 1989; Lauth, Wagner 2009, p. 110) and Heike Walk’s starting points for the analysis of participative governance (Walk 2008, p. 118). The empirical results in paper 5 reveal the need to refine and supplement this conceptualisation of collective participation with a third dimension which regards the mode of communication and whether the views of stakeholders at the periphery are noticed. The dissertation’s conclusion refers to existing approaches of Archon Fung, Jens Newig and others who have also conceptualised participation along three dimensions (Fung 2006; Newig 2011, p. 488).

To put also the dissertation’s second main concept in a nutshell, the dissertation defines collective participation as joint decision-making involving those actors in the processes of planning and decision-making who are in turn affected by the end decision. The dissertation starts differentiating between the dimension of “influence” (dealing with empowerment) and the dimension of “inclusion” (maximisation of participation). In its conclusion, the dissertation calls to refine this definition and to supplement a dimension regarding for communication.

1.4.5. Normativity of concepts

The dissertation assesses and combines various scientific schools of thought. Hence, the concepts this thesis is built on differ in their scientific positions and in their degree of their “Werturteilsfreiheit” (Weber, Sukale 1991) opposite to their implicit normativity. This thesis tries to pool these diverse concepts into a consistent framework. Hereby, the dissertation itself accounts for the inevitable ingredient of normativity even in scientific concepts in the social sciences. As Philippe C. Schmitter says, “All concepts are doubly normative in the sense that they evoke positive or negative reactions from those described by them and invoke positive or negative evaluations from the scholar who uses them” (Schmitter 2009). Sustainability is broadly recognised as a desirable phenomenon by the society as well as by the scientific community (Beckerman 1994). A similar consent is observable with participation and collective action in conjunction with sustainable

development (Baranek et al. 2005). Consequently, the thesis' theoretical framework on the interrelation between collective participation and sustainable outcomes is not devoid of normativity too. However, the thesis does by no means call for collective participation as a panacea for sustainable outcomes.

1.5. Empirical research agenda

Empirically, the dissertation focuses on the Indian city of Hyderabad. Countries in the south of India are suffering the earliest and the most from climate change (Stern 2007) which is heavily affecting the adjustment of their social and ecological systems. The already-stressed infrastructure of cities in developing countries is additionally burdened by climate change and climate change associated risks, e.g., heat waves or increasing variability in precipitation rates (Khan 2009; Sherbinin et al. 2007). Asia is a hotspot of these trends, which underline the urgent need to balance and adjust the social and ecological systems in these surroundings. I. S. A. Baud and J. de Wit (2008, pp. 1f) report that the majority of the world's urban population is in Asia (1.6 billion people in 2005). P. G. Dhar Chakrabarti expects the urban population in India to rise to nearly 800 million by 2045. The general population growth is declining but not the urban growth rate. Natural population growth is accompanied by a strong influx from rural areas. In the 2040s India's urban population is projected to be larger than the whole population of Europe and the number of Indian megacities will double until 2021 while the current Indian megacities of Calcutta, Mumbai and Delhi will be joined by Chennai, Bangalore and Hyderabad (Dhar Chakrabarti 2001, pp. 260ff; Pinto 2000, p. 8).

At this juncture, Hyderabad is one of the largest urban agglomerations in India with a decadal growth rate of 50 per cent from 1981 to 1991 and 27 per cent from 1991 to 2001. The census of 2011 counted the city of Hyderabad, with about 6.8 million people, as the fourth-largest city and its urban agglomeration, with about 7.7 million people, as the sixth-largest urban agglomeration in India (Government of India (GoI) 2011a, 2011b). It is one of the fastest-growing cities in India and is rapidly moving towards the 10-million megacity line (GHMC 2007; MCH 2005; MCH 2003). These enormous and rapid growth rates stress Hyderabad's urban infrastructure and environment. Enhanced participation of resource users in urban regions could be an answer to these challenges and could advance mitigation as well as adaptation measures. In the National Eleventh Five Year Plan (2007-2012) as well as in the National Action Plan on Climate Change (NAPCC) the Indian state itself recommends the incorporation of civil society and community participation for

sustainable solutions (Government of India (GoI) 2008; Prime Minister's Council on Climate Change (GoI) 2008). Given these policy claims and given the theoretical assumptions on participation and sustainability, this dissertation wants to empirically investigate this interrelation and the legitimacy of the call for more stakeholder participation in order to achieve sustainable outcomes. Next to an explorative study on Hyderabad residents' general willingness for collective self-help approaches in water governance (paper 1), the dissertation focuses on the case studies of two particular objects in the city. The city's cooperative sector at large and several cooperatives constitute the first research object (paper 3). The second research object is an umbrella organisation of neighbourhood associations in the city and its member associations, the Standing Committee of Tarnaka Resident's Welfare Associations (SCOTRWA) (papers 4 and 5).

1.5.1. Cooperatives in Hyderabad

The International Co-operative Alliance in Geneva (ICA) defines a cooperative as “an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise” (International Co-operative Alliance). Thus, cooperatives are by definition characterised by participatory modes of governance. The cooperative movement is very prominent in India with about half a million registered cooperatives in the country (Rajmanohar 2008, p. 8). The dissertation explores the actual degree of participatory governance in Hyderabad's cooperatives (paper 3). The study reveals that the majority of Hyderabad's cooperatives are registered under an old cooperative act of 1964, which is of a restrictive nature and limits their autonomy and member participation. Whereby a new, more liberal act has existed in parallel since 1995 and provides the cooperatives in Hyderabad with legal space for participatory governance, they do not utilise this space fully but are still mostly hierarchically structured and dependent on external supervision.

1.5.2. SCOTRWA in Hyderabad

So-called resident welfare associations (RWAs) are associations of residents of houses or apartments buildings in which civil society in India performs urban self-organisation. This phenomenon is gaining more and more prominence (Coelho, Vent 2009, p. 361). Thereby, these RWAs care for the proper allocation of public services in their neighbourhoods as well as for the maintenance and the security of their housings (Tawa Lama-Rewal, p. 5). The investigated Standing Committee of Tarnaka Resident's Welfare Associations (SCOTRWA) is a federation of 19 colony welfare associations and 220 apartment-building

welfare associations in Tarnaka and its surroundings. The dissertation explores the degree of participatory governance within the umbrella organisation of SCOTRWA as well as within its member associations and within several horizontal initiatives. Paper 4 outlines how SCOTRWA uses its bonding and bridging forms of social capital in a campaign for medical fairness and thereby explores one of the dissertation's main theoretical sub-variables influencing collective participation. Paper 5 deploys the dissertation's theoretical framework and its methodological approach when analysing a RWA's agitation for green spaces and slum eviction in Tarnaka. Empirically, this application outlines the degree and limits of collective participation in the RWA's decision-making and analyses what this means for the sustainable character of the decisions. Methodologically, this chapter exemplifies the need to further improve the presented assessment approach.

In summary, the dissertation aims at four empirical and descriptive research objectives:

1. To assess the general willingness for participatory and collective self-help approaches in resource management in Hyderabad (paper 1)
2. To explore cases of participatory collective governance of affected stakeholders in resource management in Hyderabad (papers 3, 4 and 5)
3. To give an explorative overview on the cooperative sector in Hyderabad, including its scope in membership and the covered economic sectors, and with a special emphasis on the cooperatives' degree of collective participation (paper 3)
4. To illustrate SCOTRWA with its RWAs and its horizontal associations as an example of neighbourhood associations in India with a special emphasis of SCOTRWA's degree of collective participation and its prospects for sustainable decision-making (papers 4 and 5)

The fourth research objective (on SCOTRWA) was targeted after the research progress revealed a lack of participatory and collective governance within the cooperative sector in Hyderabad (paper 3).

1.6. Constitutive empirical elements, approaches and methods

Looking for the mechanisms connecting collective participation and sustainable decision-making, the dissertation follows its bi-partite design and combines deductive reasoning and inductive reasoning (Babbie 2007 [i.e. 2006], p. 22; Hyde 2000, p. 83). The emphasis is on the deductive reasoning, based on its theoretical framework. With the background of the theoretical framework and the deductive application of its assumptions and questions, the

dissertation increases the transparency of its approach (Hyde 2000, pp. 82–83) while the openness for inductive modifications regards the preliminary character of the framework (paper 2) and for the preliminary character of the method for analysis (paper 5) as well as for the scarcely investigated case studies (papers 3, 4 and 5).

The dissertation follows the logic of triangulation as defined by Norman K. Denzin (Denzin 2009, c1970, p. 297). Starting with a quantitative regression analysis in its explorative study on the water sector in Hyderabad (paper 1) the dissertation deploys different qualitative research methods and different data sources in its main studies to achieve a high degree of multiplicity (Denzin 2009, c1970, p. 310). The dissertation focuses on how collective participation and sustainable decisions are interrelated. These questions for links and conjunctions match qualitative methods (Marshall 1996, p. 522). Qualitative methods are also useful for in-depth analysis of cases and for describing complex phenomena (Johnson, Onwuegbuzie 2004, p. 20) of which sustainability and participation are both (see p. 2f). Besides, qualitative methods allow for contexts, for peoples' personal experiences, and for dynamics and changes during the study (Johnson, Onwuegbuzie 2004, p. 20). These considerations correspond to the dissertation's actor-centred institutionalist research heuristic as well as to the needs of the scarcely investigated cases and the unknown empirical surrounding. Since the dissertation does not intend to produce generalisable results and does not follow the epistemological claim to test hypotheses but tries to look for causal mechanisms, the weaknesses of qualitative methods (Johnson, Onwuegbuzie 2004, p. 20) are taken into account but are not contradicting the dissertation's research purpose.

Research methods used for qualitative case studies can vary (Yin 2009, p. 13) and encompass inter alia document research, interviews and observations (Yin 2009, p. 8; Eisenhardt 1989, p. 537). The dissertation relies on all these methods with a special emphasis on qualitative interviews. All employed quantitative and qualitative methods are listed and briefly illustrated in the annex.

1.7. Bipartite research design

The dissertation intends to account for both: for new theoretical insights and for policy-relevant empirical findings and recommendations. The dissertation's first research component comprises the elaboration of an innovative theoretical framework for the interrelation between collective stakeholder participation and sustainable decisions and the

innovative elaboration of an associated methodological approach for qualitative data evaluation (results are summarised in papers 2 and 5). The second component of the dissertation is focused on several empirical studies on collective participation, mainly on resource management in Hyderabad covering the fields of drinking water provisions and the willingness for collective self-help approaches (paper 1), the cooperative sector in Hyderabad (paper 3) and the phenomenon of neighbourhood associations on the basis of SCOTRWA (papers 4 and 5).

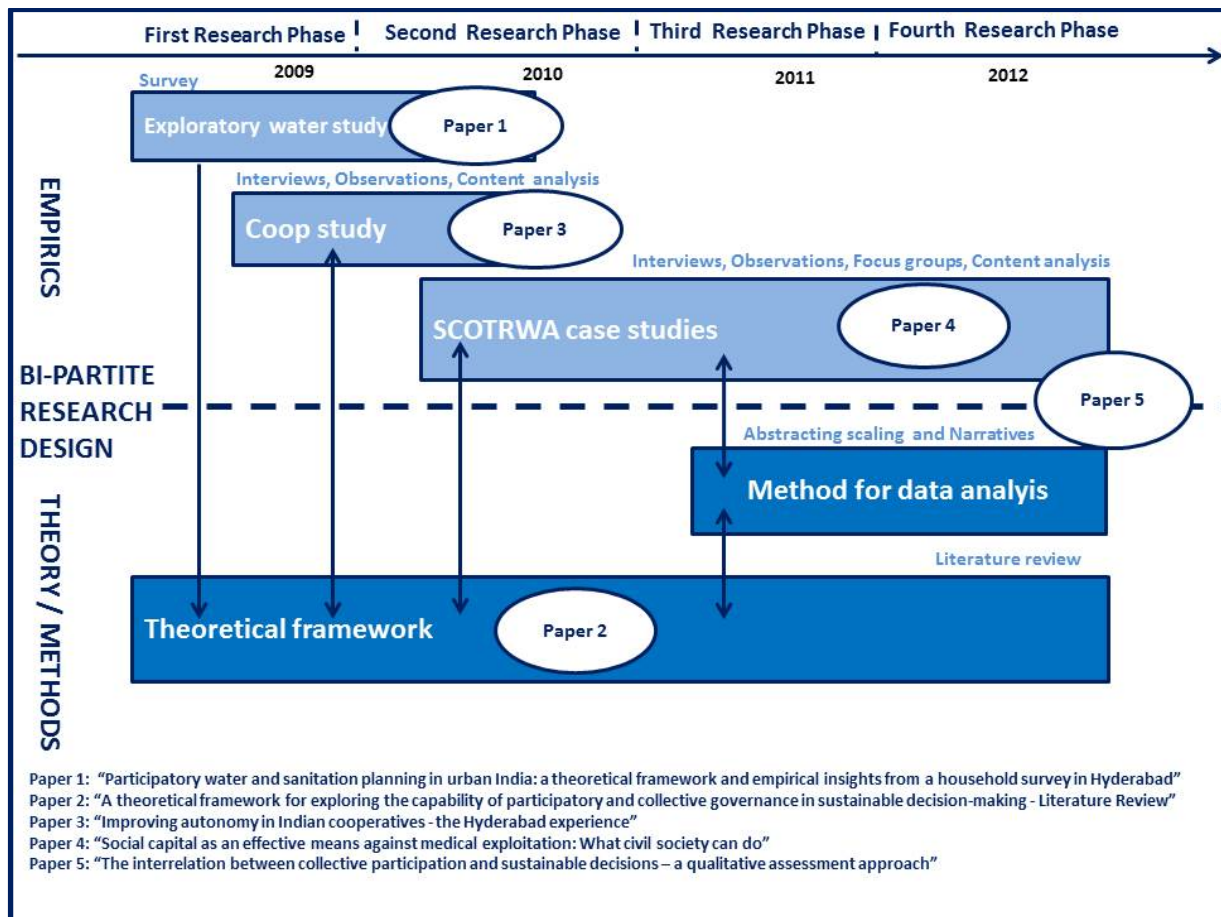


Figure 1.1: The bi-partite research process with time line and written papers

Source: Author

1.7.1. First exploratory phase

The dissertation's research process started with an exploratory field work phase in Hyderabad in February and March of 2009. During this field work I observed the overall public service provision in the city and got a first, general overview on civil society and self-help initiatives in public service provision in the city. The field visit revealed shortcomings in public service provision, inter alia in drinking water provisions. In addition, I monitored disparities in service provision and in coping mechanisms between

slum neighbourhoods and middle-class neighbourhoods. On the basis of these observations, I started to work simultaneously on the dissertation's theoretical and empirical approaches. Theoretically, I reviewed approaches on participatory governance, on collective action, on social capital and individual resources, and on sustainability and sustainable development (see p.10ff, paper 2). Empirically, I started with the conceptual preparation for the first exploratory quantitative household survey, which was implemented together with my colleague Hannah Janetschek during the second field phase from November to December 2009. While the survey generally aimed at collecting information on drinking water and sanitation policies in Hyderabad, the survey's scientific research interest was on the willingness of the households to organise with their neighbours and especially on the explanatory scope of social capital and individual resources for this willingness. More information on the sampling, survey design and results are summarised in paper 1 and the survey's questionnaire is attached in the annex of this dissertation.

1.7.2. Second research phase

While continuously working on the theoretical approach I started to review the city's cooperative sector after the first field visit in 2009. The second field visit was conducted from November to December 2009. Next to the implementation of the exploratory household survey, I started to work on the second empirical study on the city's cooperative sector. Together with Sophia Opperskalski, I collected statistical data on the cooperative sector in Hyderabad, including documents and legislative acts and conducted several expert interviews in this field. During this second stay in Hyderabad, I also started to work on the empirical study on neighbourhood associations and conducted first interviews and observations in Tarnaka where SCOTRWA is located.

More information on the field methods of expert interviews, observations and document analysis are summarised in the annex.

1.7.3. Third research phase

In 2010 and in 2011 I concentrated on the analysis of the data collected in the first two field visits and on the elaboration of the theoretical framework. Secondly, I started to work on the dissertation's data evaluation method.

More information on the theoretical approach is summarised on page 10ff and is recorded in paper 2. More information on the data evaluation approach is summarised on page 21

and recorded in paper 5. The results of the explorative study are written up in paper 1, which was co-authored with Jens Rommel. The results of the study on cooperatives are compiled in paper 3 and first insights on SCOTRWA and its social capital with its prospects for collective self-help approaches are reflected in paper 4.

1.7.4. Fourth research phase

In February 2012 I conducted my third field visit in Hyderabad, focusing on SCOTRWA. On the basis of the elaborated theoretical framework and with the data evaluation approach in mind, I conducted interviews, observations and focus groups. Results are compiled in paper 5. Paper 5 also elaborates on the approach for data evaluation, which is based on the theoretical framework and on the empirical insights especially gained from the second and third field visits. Alongside summarising the results of the third field visit and writing up paper 5, the final research phase in 2012 was deployed to write the dissertation's framing chapters, to present the research results on several conferences and workshops,⁵ and to elaborate on policy recommendations for policy makers and stakeholders in Hyderabad.

Altogether, I spent five months on field visits in Hyderabad, reviewing drinking water provisions and prospects for collective self-help initiatives (the first and second field visits), the cooperative sector (the second field visit) and SCOTRWA and its member associations in Tarnaka, Hyderabad (the second and third field visits). The overall research process took four years from 2009 to the end of 2012.

⁵ 1. International Conference "Cooperative Responses to Global Challenges", organised by the Division of Cooperative Sciences and the Berlin Institute for Cooperative Studies (BICS) in Berlin, Germany, March 21–23, 2012.

2. Lund Conference on Earth System Governance "Towards a Just and Legitimate Earth System Governance: Addressing Inequalities", organised by the Lund University Centre for Sustainability Studies (LUCSUS) and the Department of Political Science at Lund University, on behalf of the Earth System Governance Project. Lund, Sweden, April 18–20, 2012.

3. Berlin Summer School in Social Sciences, "Linking Theory and Empirical Research", organised by the Berlin Graduate School of Social Sciences (BGSS) at the Humboldt-University Berlin and the Social Science Research Center Berlin (WZB). Berlin, Germany, July 15–27, 2012.

4. Berlin Conference on Evidence for Sustainable Development", organised by the Environmental Policy Research Centre, Freie Universität Berlin, in collaboration with the EC-FP7-Network of Excellence LIAISE ("Linking Impact Assessment Instruments to Sustainability Expertise"). Berlin, Germany, October 5–6, 2012.

1.8. Summary: The dissertation's taxonomy



Figure 1.2: The dissertation's taxonomy

Source: Author

1.9. Outlook: Knowledge generation

The dissertation's bi-partite research agenda and design implemented by an extensive literature review and an empirical triangulation approach strive for the generation of multidimensional knowledge. The dissertation's design is geared to the model of transdisciplinary research "as a form of research that is driven by the need to solve problems of the life-world" (Hirsch Hadorn et al. 2008, p. 19). Even though the dissertation is directed to the ideas and principles of transdisciplinary research, it does not fulfil all criteria of transdisciplinary research. With sustainability and the sustainability of decision-making in resource governance in Hyderabad, the dissertation focuses on a "life-world problem" by reverting to concepts and theories of different disciplines, e.g., political science and agricultural economics (see paper 2); the dissertation transcends and integrates disciplinary paradigms searching "for a unity of knowledge beyond disciplines" (Hirsch Hadorn et al. 2008, p. 29). However, the dissertation's research design cannot be classified

as participatory research since the research process was not organised in a participatory way (Cornwall, Jewkes 1995, pp. 1667, 1669): the research topic was not about local priorities and local people were neither directly involved in the process of problem identification nor in data collection or analysis. Nevertheless, I intend to share the dissertation's results with the local people in Hyderabad, which has been researched. I counted on their knowledge during the research process and hope that the dissertation's results are for their benefit. Therefore, the dissertation not only addresses system knowledge as "the interpretation of the life-world", but also targets knowledge "about the need for change, desired goals and better ways of acting" and transformation knowledge "about technical, social, legal, cultural and other means of redirecting the existing behavior" (Hirsch Hadorn et al. 2008, p. 39; Hirsch Hadorn et al. 2006, p. 127).

The pursuit of all three types of knowledge is summarised in Tables 1 and 2 below.

Table 1.1: Dissertation's research questions and pursued knowledge

			System Knowledge	Transformation Knowledge	Target Knowledge	
Theoretical Research Goals	1 a)	Defining and pooling the concepts of participatory governance and collective action (collective participation)				Paper 2
	1 b)	Identifying the basic requirements for their realisation				Paper 2
	2)	Defining sustainability and sustainable decision-making				Paper 2 Paper 5
	3)	Modelling a theoretical framework identifying the main aspects and components of the interrelation between collective participation and sustainable decision-making				Paper 2
	4)	Designing a qualitative measurement tool for assessing the interrelation between collective participation and sustainable decision-making				Paper 5
Empirical I Research Goals	1)	Assessing the general willingness for participatory and collective self-help approaches in resource management in Hyderabad				Paper 1
	2)	Exploring and picturing the cooperative sector in Hyderabad including its scope in membership and the covered economic sectors and with a special emphasis on the cooperatives' degree of collective participation				Paper 3
	3 a)	Exploring and picturing the Standing Committee of Tarnaka Resident's Welfare Associations (SCOTRWA) with its resident welfare associations (RWAs) and its horizontal associations as an example of neighbourhood associations in India				Paper 4 Paper 5
	3 b)	Reviewing SCOTRWAs degree of collective participation				Paper 4 Paper 5
	3 c)	Reviewing SCOTRWAs prospects for sustainable decision-making				Paper 5

The fields of knowledge which are dominantly tackled by the research goals' are highlighted with blue settings

Source: Author

Table 1.2: Dissertation's papers and pursued knowledge

	System Knowledge	Transformation Knowledge	Target Knowledge
Paper 1	<p>On the water and sanitation services in Hyderabad</p> <p>On the needs and concerns of the population and here...</p> <p>...On the differences between the different urban strata</p>	<p>On the prospects for participatory water planning and collective action (education / existing informal networks / location)</p>	<p>On the water related stress faced by the slum population</p> <p>On the slum population's focus on water quality issues</p>
Paper 2	<p>The theoretical framework works a research heuristic for the generation of system knowledge</p>	<p>The framework and the associated analytical matrix can assist in generating transformation knowledge</p>	<p>The framework and the associated analytical matrix can assist in generating target knowledge</p>
Paper 3	<p>On the cooperative sector in Hyderabad</p> <p>On the covered economic sectors and the scope in membership</p> <p>On different cooperative laws</p>	<p>On the cooperative principles promoted by the International Co-operative Alliance</p>	<p>On the degree of collective participation and the degree of autonomy</p>
Paper 4	<p>On the problem of medical exploitation in India</p>	<p>On the potential of bonding and bridging forms of social capital in counteracting medical exploitation</p>	<p>On the costs of medical exploitation for the civil society in India</p>
Paper 5	<p>After refinement the approach can be used for the generation of system knowledge</p>	<p>After refinement the approach can be used for the generation of transformation knowledge</p>	<p>After refinement the approach can be used for the generation of target knowledge</p>

The papers' focal points in knowledge generation are highlighted with blue settings

Source: Author

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2. FIRST STUDY (P1): PARTICIPATORY WATER AND SANITATION PLANNING IN URBAN INDIA: A THEORETICAL FRAMEWORK AND EMPIRICAL INSIGHTS FROM A HOUSEHOLD SURVEY IN HYDERABAD

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Abstract: India faces a water and sanitation crisis, with newly available exit options undermining the rich's incentives to use voice for better service provision. Consequently, the poor forgo indirect benefits, which may give rise to the importance of participatory planning. Based on a household survey conducted in Hyderabad, we contrast slum and middle class households and find considerable differences in water and sanitation services. Furthermore, we study people's preferences for collectively addressing service provision. People are most willing to participate under the conditions of being focused on water quality, organised around existing informal networks and taking place in the city's old neighbourhoods.

Keywords: collective action; exit and voice; Hyderabad; participation; urban water governance

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2.1. Introduction

India faces a severe sanitation crisis, with annual economic losses due to inadequate sanitation totalling more than 50 billion dollars (World Bank, 2011). Likewise, water utilities and drinking water supply in urban areas are classified as poor by any international standard (World Bank, 2012). In a novel approach based on Albert Otto Hirschman's (1970) exit–voice typology, we develop a theoretical argument for why the quality of water and sanitation could have deteriorated in the context of the commodification, marketization and governance reform of India's water sector (Barlow and Clarke, 2002; Gopakumar, 2010; Bakker, 2010). We also reason that the poor and voiceless would be the most negatively affected in such a process, empirically illustrating this point by contrasting the level of water supply and sanitation services of slum and middle class households in Hyderabad, based on a household survey.

We highlight the multiple advantages of participatory planning in addressing some of these problems, with ownership of the process, higher efficiency and effectiveness of outcomes, better design and empowerment identified as key arguments in favour of participation (Lüthi and Kraemer, 2012). Such benefits have also been recognised by urban authorities as a means to achieve a more effective service delivery in the development plans and programs for India's cities (GoI, 2005; GHMC, 2006). However, practice in the country's large cities such as Hyderabad does not live up to the prominently proclaimed objectives and consequently a more detailed consideration is required to understand the situation on the ground (Huchon and Tricot, 2008). In this paper, we focus on the socio-economic determinants of people's preferences for collectively addressing poor water services on the basis of our survey data. This analysis helps us to identify potential for interventions and preconditions necessary for political reforms towards a more inclusive planning in the field of drinking water and sanitation in Hyderabad. We summarise our findings in a final section of the paper, drawing some conclusions for the future participatory planning in urban India.

2.2. Theory and literature

2.2.1. The transformation of exit and voice in the context of de-monopolised water utilities

In his seminal book “Exit, voice, and loyalty: Responses to decline in firms, organizations, and states” (1970), Albert Otto Hirschman criticises both economists' one-sided focus on market transactions and political scientists one-sided focus on political influence in

understanding people's content or discontent regarding the quality of goods and services. When dissatisfied with a quality decline, people cannot only respond by "exit," i.e. abstain from consumption, they can also use "voice." This means they can try to improve the quality of the good or service by striving to influence its supplier. Both mechanisms work simultaneously and are associated with particular costs.

Hirschman's typology is particularly relevant for former monopoly markets facing newly introduced competition through political reform or technical change. This is illustrated with an example from the Nigerian Railway Corporation, which has performed fairly well despite being the only transport company in the country. Following the introduction of trucks as competitors, the quality of railway services declined, contrary to what conventional economic wisdom would suggest. Hirschman argues that without competition in transport, the exit option, i.e. not to use transport at all, has been very costly. Instead, people have used voice – their political influence – to ensure a decent quality of the transport services, which are of high economic importance. Through having an additional option, the introduction of trucks reduced the costs of exit and therewith made voice relatively unattractive.

A related example is provided by the introduction of private schools as an alternative to public schools following educational system reforms in the United States. Hirschman argues that the rich will particularly make use of the private exit option to ensure the best possible education for their children. Moreover, this group of people is also the most politically influential. After reform, by using the private alternative they would abstain from lobbying for a high quality of public schools, which may result in a deteriorating public school system. The net effect of such reforms can render large parts of the society worse off and would hit the poor particularly hard. Accordingly, it may thus be socially desirable to be locked in a monopoly.

This logic can be also applied to the water sector, with formerly state-owned monopolised water utilities that have been privatised across the world (Bakker, 2010). For India, it has been shown that the middle class is politically very influential in urban planning processes (Zérah, 2007; Kamath and Vijayabaskar, 2009), with little positive influence left among the urban poor (Zérah, 2009). Marketization and commodification of water have introduced private competition and created new exit options for the middle and upper classes (Barlow and Clarke, 2002). Technical change and rising incomes also contribute to these developments, exemplified by the increasing availability of convenient water filters,

bottled water or home-delivered drinking water (Barlow and Clarke, 2002). While wealthy households may have lobbied for better water quality in the past, today they may be in favour of using the less costly exit options.

Once the state has backed-out from service provision, it would be very difficult or undesirable to reverse the situation. The emergence of a laissez-faire attitude in some instance has attracted criticism, with the somewhat naïve hope that collective self-help based on social capital would magically fill the gaps left by the withdrawal of government from public service provision (Fine, 1999; Harriss, 2002). On the other hand, such arguments should not be used to generally dismiss community involvement or collective service provision schemes. Ultimately, the question does not relate to whether the state is involved in service provision. Rather, when services are “co-produced,” it matters how costs and benefits are distributed for a particular level of state involvement (Ostrom, 1996). Neither participatory approaches nor collective action are panaceas to successful development. Whether the market, state, collective action or some combination of the three, are most suitably adapted to govern a complex system, ultimately, empirical work has to consider the many different factors of the particular context at hand (Meinzen-Dick, 2007; Ostrom, Janssen and Anderies, 2007).

2.2.2. Participation, collective action and social capital

Indian cities have experimented with water governance reform with mixed results, including a more prominent role for communities to participate in planning processes (Huchon and Tricot, 2008; Gopakumar, 2010). It has been shown that social inclusion in developed countries can be enhanced by participatory planning (Healey, 2003; Innes, 1996; Innes and Booher, 2003) and there is even evidence for the successful collective provision of water and sanitation services in some developing countries, sometimes also involving the private sector (Nance and Ortolano, 2007; Watson, 1995; Dill, 2010). In most cases, some degree of coordination between community members is necessary for successful participation. For instance, authorities expect at least a minimum of collective organization for participation in Hyderabad (GHMC, 2006) and neighbourhood associations are important actors in planning processes in Mumbai and elsewhere in urban India (Zérah, 2007).

Participation and collective action can take different forms, with distinctions between direct democracy, co-governance, deliberative procedures (Geißel, 2008), different modes

of participation like voting, providing information, donating money or spending time (Brady et al., 1995) or the degree of involvement and empowerment (Arnstein, 1969; Braumoeller and Goertz, 2000) representing possible ways to disaggregate the concepts of citizen involvement and participatory planning. Likewise, collective action in the context of water planning could mean many different things, ranging from the mere coordination of joint complaints at the water authority among neighbours (Huchon and Tricot, 2008) to the provision of an entire water network (Dill, 2010). Considering the appropriate level of aggregation or disaggregation of such concepts is particularly important in empirical work and ultimately depends on the research question asked. Researchers have to decide whether they want to cover a broad range of issues or rather evaluate one particular issue in greater detail. We will further elaborate on this point in the methodical section.

An important aspect that has long been stressed in the study of collective action is the prominent role of social capital. Social capital and collective action have received enormous scholarly attention and the interrelation of the two concepts has repeatedly been emphasised (Putnam, Leonardi and Nanetti, 1993; Ostrom and Ahn, 2009). According to a widely cited definition, social capital consists of civic networks and may advance trust and norms of reciprocity. It can thereby “facilitate coordination and communication, amplify reputations and thus allow dilemmas of collective action to be resolved” (Putnam, 1995, p. 67). Elinor Ostrom even puts trust “at the core of an evolving theoretical explanation of successful or unsuccessful collective action” (Ostrom, 2010, p. 162).

Some particularities have to be acknowledged with regard to cities. For instance, “community cohesion is necessary for the successful operation of collective water schemes, but such cohesion, unlike in rural areas, can be less probable in heterogeneous urban contexts, particularly newly settled peri-urban areas where population turnover is high” (Dagdeviren and Robertson, 2011, p.499). Forrest and Kearns (2001) argue that individualism is replacing networks and alliances in urban areas. Furthermore, increasing social mobility may deplete social capital in cities (Putnam, 1995). In India, the role of informal networks is of particular importance (Krishna, 2002), thus rendering a multi-dimensional treatment of social capital necessary. Survey research has developed ways to disaggregate particular facets of social capital and operationalise it in a way that can be understood by respondents (Paldam, 2000; van Deth, 2003; Woolcock and Narayan, 2000). For the empirical part of the paper, we decided to differentiate social capital by generalised trust, following norms of reciprocity, formal and informal networks.

2.3. The study area: Hyderabad

With a population of approximately seven million people, Hyderabad is the fourth largest city and sixth largest urban agglomeration in India (GoI, 2011a, 2011b). Fuelled by its rapidly expanding service sector, software, pharmaceutical and chemical industry, the city is rapidly expanding. The economic growth has affected some areas of the city more than others, manifest through construction, migration and a high population turnover. Located in the city's North-West, Patancheru is the centre of the pharmaceutical and chemical industry, whereas HITEC city, the software and information technology hub, is in the Western part. Furthermore, land prices have risen around the newly constructed "Rajiv Gandhi International Airport" in the South-West, resulting in rapidly changing social structures of entire neighbourhoods. Other neighbourhoods including the old Muslim centre of the city are much less affected by such developments. Similar to Bangalore, another metropolis of Southern India, these developments have resulted in a "fragmented city" (Dittrich, 2007).

In the city, infrastructure provision cannot keep pace with this rapid population growth (Hanisch et al., 2010; HPEC, 2011). The city also faces a severe water crisis, with water and sanitation facilities poor even by Indian standards. The city's problems include a poorly maintained pipe network with high losses, additional administrative losses due to organizational inefficiencies, corruption and rapidly groundwater tables (Bajpai and Bhandari, 2001; Shaban and Sharma, 2007; Ramachandraiah and Vedakumar, 2007). Moreover, these existing problems are exacerbated by climate change, with precipitation likely to become more volatile, resulting in more frequent floods and drought periods. According to some estimates, the number of days with heavy rainfalls may triple, which would lead to a lower groundwater recharge and increased water erosion (Lüdeke et al., 2010).

Hyderabad's most important freshwater sources are the Musi and Krishna rivers, with several hundred lakes and irrigation tanks in and around the city – Hussain Sagar in the centre and Himayat Sagar and Osman Sagar in the South-West of the city being the largest – contributing to the supply. However, many of these surface water bodies have been destroyed in the course of urbanization and are steadily decreasing in number and size while the city's water needs steadily increase (Ramachandraiah and Prasad, 2004; Ramachandraiah and Vedakumar, 2007). Hyderabad's water and sanitation board has met the rising water demand by utilising increasingly remote water sources and consequently

water currently has to be pumped into the city over long distances. The resulting costly and environmentally hazardous projects could not close the supply gap and have left behind highly indebted water authorities (Ramachandraiah and Vedakumar, 2007). Moreover, demand side measures or the use of recycled waste water for irrigation have been implemented hesitantly and only on a small scale (Van Rooijen, Turrall and Biggs, 2005).

Water scarcity is an everyday problem for households in Hyderabad. According to some estimates, average available water is as low as 58 litres per capita per day (Huchon and Tricot, 2008, p. 41) – far below the 100 litres recommended by the World Health Organization (World Health Organization, 2010). Those households that can afford to respond to erratic supply by installing water tanks, pumping ground water or calling in mobile water tankers. Service access, water availability and coping mechanisms differ starkly across and within neighbourhoods. Slum households receive less water and rely more frequently on public taps, water tankers and other uncertain water sources, with water and sanitation costs accounting for almost a quarter of household income (Rommel et al., 2010). Like elsewhere in India, water is consumed without treatment in the cities slums, particularly causing enormous health problems among the poorest and their children (Jalan and Somanathan, 2008; Jalan, Somanathan and Chaudhuri, 2009; World Bank, 2011).

2.4. Empirical approach: Survey design and variables

We conducted a household survey in Hyderabad in December 2009 and January 2010 to study the situation on the ground, employing a two-stage sampling strategy. In the first stage, electoral wards were sampled with probability proportionate to size, based on 2001 census data. On the ward level, sampling was again stratified by neighbourhood type. These two types of neighbourhoods were differentiated based on a list of slums and employing a commonly used definition (UN-Habitat, 2007), with a total of 251 slum and 251 middle class households sampled. It must be noted that our survey only includes slums notified by the authorities, which means that they are eligible for the provision of basic services. Given that reliable census data is not available for the city's numerous unnotified squatter settlements, they had to be excluded from our sample, which may explain the relatively good level of services reported in slums.

One objective of the survey was to gain an overview on the water and sanitation services used in Hyderabad, with a further aim of eliciting the willingness for organising collective water and sanitation service on a rather general level. In this regard, respondents were

asked whether they would be willing to contribute time and money to collectively address water and sanitation problems with their neighbours. This question was chosen to gain a broad overview of the potential of collective approaches, rather than to narrow the view to specific aspects. Contributing time and money involves a relatively high degree of involvement and requires more than providing some information or merely playing a passive role of being informed (also see Arnstein, 1969). A description and summary statistics for the variables used in the analytical part of this study are provided in the following two tables.

Table 2.1: Description of variables

<i>Variable Name</i>	<i>Description</i>
HHDINCOME	Household Income in 1,000 Rupees
SEX	= 1 if male
SLUM	= 1 if household located in slum
AGE	Age in years
EDUC	Ordinal Variable Education (six levels)
HHDHEAD	= 1 if respondent is the head of the household
ROOMS	Number of rooms
HHDSIZE	Number of household members
HOUSETYPE	= 1 if pucca house
YEARS	Number of years living in the neighborhood
EAST	= 1 if in Eastern Zone
NORTH	= 1 if in Northern Zone
SOUTH	= 1 if in Southern Zone
WEST	= 1 if in Western Zone
H2OQUANT	= 1 if household experienced problems with insufficient amounts of water
H2OQUAL	= 1 if household experienced problems with insufficient

	quality of water
TRUST	= 1 if trust in neighbors
NORMS	= 1 if norm following
NET	= 1 if formal membership
INFORMALNET	Number of shared activities
PARTY	= 1 if membership in party
POLITICDISC	= 1 if frequent political discussions

Source: Own design.

Table 2.2: Summary statistics for the variables studied

<i>Variable Name</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Minimum</i>	<i>Maximum</i>
HHDINCOME	407	15.00	11.31	0.64	82.00
SEX	502	0.57	0.50	0.00	1.00
SLUM	502	0.50	0.50	0.00	1.00
AGE	498	36.45	11.57	18.00	84.00
EDUC	491	4.30	1.43	1.00	6.00
HHDHEAD	502	0.41	0.49	0.00	1.00
ROOMS	468	2.52	1.24	1.00	12.00
HHDSIZE	502	5.25	2.30	2.00	26.00
HOUSETYPE	502	0.82	0.39	0.00	1.00
YEARS	481	17.08	11.75	1.00	70.00

EAST	502	0.11	0.31	0.00	1.00
NORTH	502	0.16	0.37	0.00	1.00
SOUTH	502	0.29	0.45	0.00	1.00
WEST	502	0.10	0.30	0.00	1.00
H2OQUANT	502	0.20	0.40	0.00	1.00
H2OQUAL	502	0.35	0.48	0.00	1.00
TRUST	501	0.68	0.47	0.00	1.00
NORMS	501	0.83	0.38	0.00	1.00
NET	501	0.41	0.49	0.00	1.00
INFORMALNET	500	2.83	0.68	1.00	4.00
PARTY	481	0.10	0.30	0.00	1.00
POLITICDISC	502	0.70	0.46	0.00	1.00

Source: Authors' calculations

2.5. Results

2.5.1. Exploring differences in water and sanitation between slum and middle class households

The following table shows access, facilities and perceptions regarding water and sanitation disaggregated neighbourhoods.

Table 2.3: Contrasting water and sanitation access, facilities, and perceptions between slums and middle class neighbourhoods

<i>Variable</i>	<i>Mean (SD)</i>	<i>Mean (SD)</i>	<i>Mean (SD)</i>	<i>Test Statistic</i>	<i>p-Value</i>
	<i>Sample</i>	<i>Slum</i>	<i>Middle Class</i>		

Hours per Summer	Supply Week	9.28 (20.34)	5.48 (5.17)	12.92 (27.54)	6.984***	0.000
Hours per Winter	Supply Week	12.64 (22.99)	7.74 (6.64)	17.35 (30.83)	7.254***	0.000
Hours per Monsoon	Supply Week	12.54 (22.97)	7.74 (6.61)	17.17 (30.84)	7.185***	0.000
Tank in liters	Capacity	1092.05 (1976.31)	514.11 (702.05)	1667.67 (2579.53)	9.87***	0.000
Frequency Individual Bore Well		0.24 (0.43)	0.08 (0.27)	0.41 (0.49)	8.74***	0.000
Frequency Individual Tap Inside House		0.57 (0.50)	0.50 (0.50)	0.65 (0.48)	3.43***	0.001
Frequency Individual Toilet in House		0.88 (0.32)	0.76 (0.42)	0.99 (0.09)	7.70***	0.000
Water System Has Improved over the Last Five Years (5-point Likert Scale)		2.84 (1.01)	2.71 (1.10)	2.97 (0.89)	3.80***	0.000
Sewerage System Has Improved over the Last Five Years (5-point Likert Scale)		2.65 (1.02)	2.56 (1.00)	2.75 (1.04)	2.47**	0.0135

Note: The asterisks *, **, and *** denote significance on the 10%, 5%, and 1% level (Wilcoxon-Mann-Whitney test for continuous and ordinal variables, two-sample test of proportions for binary variables).
Source: Authors' calculations

It is evident that slum neighbourhoods face shorter water timings, with middle class households owning larger tanks and thus being better able to cope with erratic water supply. In slums only about 60% even have a water tank at all, compared with about 90% in middle class households. If cut off from supply for two days, a typical five member slum household would only have water storage for 50 litres per person per day. Moreover, there

are striking differences in the ownership of individual groundwater bore holes, with more than 40% of the middle class households and less than 10% of slum households owning a well. However, differences in in-house water taps are small, while differences in access to toilets in the house are somewhat larger. In general, these facts support our proposition that richer households have better exit options. However, the fact that services are perceived as deteriorating does not find strong support in our survey, despite slum dwellers being a little more discontent with the situation than middle class citizens. It might very well be that the major changes in the system occurred around 2000, somewhat earlier than the five years chosen in our survey.

2.5.2. Determinants of the willingness for organise collectively

Table 4 presents different specifications of logistic regressions for the binary item on the willingness to collectively address water problems. To test for robustness, we have added variable blocks stepwise. Model 1 only includes characteristics of the household and the respondent. Model 2 adds perception of problems related to water quantity and quality. Model 3 extends Model 1 by adding a block of social capital variables, including variables for frequent political discussions and party membership. Model 4 includes all variables.

Table 2.4: Logistic regression estimates on willingness to ally with neighbours

	(1)	(2)	(3)	(4)
INCOME	0.4274 (14.0631)	2.3251 (15.1659)	-3.2596 (13.9861)	1.0254 (15.3917)
SEX	0.1170 (0.3564)	0.0459 (0.3829)	0.1913 (0.3557)	0.1849 (0.4031)
SLUM	0.8851** (0.4126)	0.9725** (0.4742)	0.9370** (0.3940)	1.0233** (0.4650)
AGE	-0.0074 (0.0176)	0.0025 (0.0188)	-0.0052 (0.0190)	0.0005 (0.0200)
EDUC	0.2990* (0.1651)	0.2877* (0.1731)	0.3012 (0.1949)	0.3167 (0.2061)
HHDHEAD	0.2850	0.2395	0.2364	0.2262

	(0.4562)	(0.4774)	(0.4802)	(0.5281)
NO OF ROOMS	0.1437 (0.1545)	0.1626 (0.1673)	0.2120 (0.1741)	0.2327 (0.1895)
HHDSIZE	0.1025 (0.0762)	0.0964 (0.0752)	0.0868 (0.0723)	0.0715 (0.0715)
HOUSETYPE	0.0576 (0.3866)	-0.0132 (0.3977)	0.1539 (0.3828)	0.0646 (0.3807)
YEARS IN NEIGHBOURHOOD	0.0203 (0.0135)	0.0239* (0.0128)	0.0185 (0.0129)	0.0239* (0.0126)
EAST	-1.5379*** (0.4447)	-2.2031*** (0.6694)	-1.3174** (0.5845)	-1.7394** (0.7120)
NORTH	-2.2193*** (0.8517)	-2.1697** (0.9048)	-2.2651** (0.8927)	-2.3481** (0.9986)
SOUTH	0.1316 (0.3926)	-0.0455 (0.3758)	0.1209 (0.4260)	-0.0619 (0.3959)
WEST	-3.6753*** (1.1967)	-3.6567*** (1.1330)	-3.7823*** (1.1742)	-3.7401*** (1.1244)
WATERQUANT PROBLEMS		0.2857 (0.4661)		0.3685 (0.4639)
WATERQUAL PROBLEMS		1.3977*** (0.3073)		1.5446*** (0.3087)
TRUST			0.2234 (0.3442)	0.0596 (0.3872)
NORMS			1.0987*** (0.4237)	1.1442** (0.4753)
FORMAL NETWORKS			-0.2935 (0.4765)	-0.4742 (0.5233)
INFORMAL NETWORKS			0.1487 (0.2430)	0.1368 (0.2786)
PARTY			-0.0638 (0.4905)	-0.2317 (0.4277)
POLITICAL DISCUSSIONS			0.1977 (0.4015)	-0.0657 (0.4554)
Constant	-3.0561** (1.2063)	-3.9515*** (1.2976)	-4.8330*** (1.1715)	-5.4185*** (1.2500)

<i>N</i>	349	349	341	341
pseudo R^2	0.205	0.264	0.235	0.302
Log lik.	-183.2719	-169.6275	-172.6600	-157.6191
Chi-squared	64.5494***	74.1046***	88.3987***	103.8131***

Notes: Robust standard errors (clustered for wards) in parentheses. The asterisks *, **, and *** denote significance on the 10%, 5%, and 1% level, respectively.

Source: Authors' calculations

All four models have a large explanatory power and with each of the added variable blocks, Chi-squared statistics and pseudo R^2 increase. Testing for multicollinearity, we find no serious problems, with the highest recorded variance inflation factor of 2.12. Moreover, specification tests show a low likeliness of omitted variable bias or over-specification. The data is generally rather noisy, resulting in only a few coefficients that are statistically different from zero. Despite this, most coefficient estimates are stable relative to their standard errors.

Across all models, coefficients for education are around 0.3, translating into an odds ratio of around 1.3 for a one level increase in education. Another finding is that slum dwellers are more likely to have positive attitudes towards collectively addressing water problems, even if we control for the perception of the problem and household characteristics. For a coefficient of 0.9, the odds ratio would be around 2.5.

Coefficient estimates for the zone dummies are jointly significant in all models and geographical heterogeneity explains a large part of the variation in the dependent variable. Apart from the Southern Zone, coefficients have a negative sign, with living in the Eastern, Western or Northern parts of the city substantially reducing the odds, relative to the reference category of the central zone. This central zone includes Hyderabad's old city with its long-established (mostly Muslim) community and important aspects of living in this oldest part of the city may not have been captured by household characteristics, e.g. how long people have stayed in their current location. The much lower likeliness to be willing to ally in the city's Western zone – including Hyderabad's upper class neighbourhoods Banjara Hills, Jubilee Hills and the city's information technology hub of HITEC city – may be explained by a more individualised and Western lifestyle. Slum dwellers in this zone can perhaps also benefit from the common occurrence of water donations from upper class households. The odds ratio for the effect of moving from the old city to the Western zone is around 0.025. This surprisingly strong effect is the single

most important factor recorded for a dummy variable across all models. Middle class households in this part of the city may also be more likely to work for the city's booming information technology sector, which may also entail a more individualised lifestyle and social networks that are spatially more detached from the immediate neighbourhood. However, such aspects might not have been captured by our survey questions on social capital. As compared to other parts of the city, the low willingness in the Western part mirrors similar findings in the United States (Guest and Wierzbicki, 1999) and would also reflect the societal transformation India is currently undergoing.

We find mixed evidence concerning respondents' assessment of their household's water supply. Our estimates show a small and statistically not significant coefficient for water quantity, yet a comparatively large and statistically highly significant coefficient for water quality problems. The calculated odds ratio for the latter coefficient is around 4.7 in model 4 and thus one of the largest. Interestingly, respondents who have too little water do not see much benefit in collectively addressing water problems. However, households that have experienced water quality problems have a substantially higher likelihood of positively assessing collective action, which suggests that the field of sanitation might be promising in terms of collective approaches. In some areas, the city's Nalas (open sewage channels) have caused many problems with mosquitoes and locally organised garbage collection could be one potential activity to address such issues.

Of the estimated coefficients on the social capital variables, only the coefficient of the "norms variable" is large and statistically different from zero. With an odds ratio of around 3, norm following has a strong effect on households' propensity for collective action. Estimated coefficients for membership in formal networks and party membership are negative. Accordingly, it could very well be that membership in these organizations serves as a "substitute" for collective action and would allow households to "get things done" through links to politicians or other influential people. Likewise, informal networks – framed in our survey item as shared activities with neighbours – have a positive, although small, effect on the willingness to ally, which confirms the importance of informal networks in India as indicated by previous studies in India.

2.6. Summary and concluding remarks

The South Indian emerging megacity of Hyderabad faces a severe water and sanitation crisis. Based on Hirschman's exit-voice typology, we have argued that more widely

available exit options for the rich have deteriorated formerly monopolised water services by rendering voice less attractive resulting in a disadvantaged position of the poor. We have illustrated this point by contrasting water and sanitation access, facilities and perceptions between neighbourhoods in Hyderabad. It is notable that many middle class households currently own groundwater bore wells and no longer rely on piped water. However, households do not perceive a sharp decrease in service provision quality over the last five years. In this respect, further fieldwork is required to investigate the historical sequence of important events in greater detail. Our approach cannot ultimately resolve how far the emergence of new exit options coincided with water governance reform or has been a result of it. Such processes may have directly influenced the relative attractiveness of exit and voice. In-depth interviews with actors from different classes on their changing practices of civic involvement and changing use of bore wells or private drinking water supplies against the background of water governance reform would represent a promising approach to gain a deeper understanding and the theoretical framework developed in this paper may form the basis for such work.

We have also argued that participatory planning could help to improve the quality of public services for the poor. In this regard, we have focused on eliciting the general willingness of households to collectively address water and sanitation services. Our results suggest that slum dwellers, more than the middle classes, anticipate benefits from collective action. Moreover, geographical heterogeneity is extremely important reflecting the societal transformation and consequential fragmentation of Indian cities. Further research on Hyderabad should be directed towards a better understanding of this spatial diversity, for example by employing a case study approach at the neighbourhood level. Such work could also include the many unrecognized squatter settlements that have been omitted from our analysis owing to the unavailable census information. Disaggregating the degree of participation and civic involvement could also be helpful for such qualitative work. Anecdotal evidence suggests that the ideas of participation differ starkly across neighbourhoods ranging from very active to rather passive forms. Likewise, authorities often have a very passive understanding of citizen involvement, which does not match citizens' expectations of a more active involvement. Therefore, a further interesting line of research would relate to how aspects of urban planning could be integrated with the many committees foreseen in India's decentralised and federal system, also including strong elements of local self-government (e.g. ward committees and ward sabhas).

Straightforward practical implications from our study are hard to come by. NGOs or religious organizations often act as catalysts in starting collective action and community organization and given the positive effects of education, location in slums and norm following, these organisations could adopt approaches that encompass training elements and focus on poor neighbourhoods. Group formation should be encouraged around existing informal neighbourhood networks. Furthermore, activities should focus on water quality improvements, for instance the cleaning of sewage channels, as respondents who have experienced water quality problems more positively assess the prospects of collective action. We consider our work as a starting point for further investigations in this direction.

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3. LITERATURE REVIEW (P2): A THEORETICAL FRAMEWORK FOR EXPLORING THE CAPABILITY OF PARTICIPATORY AND COLLECTIVE GOVERNANCE IN SUSTAINABLE DECISION-MAKING - LITERATURE REVIEW

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Abstract: Since the Agenda 21 the call for more participation in environmental decision-making is gaining influence and prominence. This article presents an extensive theoretical literature review as a starting point for profound scientific research on the interrelation between collective modes of stakeholder participation and sustainable decision-making. On the basis of literature in the fields of participatory governance, collective action theory and diverse sustainability approaches, the article develops a research matrix with various sub-variables. In addition, the article reviews the actor-centred institutionalist approach of Fritz Scharpf and Renate Mayntz and system theoretic approaches of David Easton and Gabriel Almond, which are then mutually used for designing a theoretical framework linking collective participation and sustainable decision-making. I conclude by suggesting an application of the elaborated framework and research matrix to empirical studies.

Keywords: Framework; sustainability; participatory governance; collective action; integrative institutions; subsidiarity; social learning; system theory; actor-centred institutionalism.

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3.1. Introduction

Participation is a core element in mainstream sustainability definitions but remains poorly defined in this context (Lélé 1991, p. 612). Participation can be understood as a constituent part of sustainability as well as being credited with its own value. Considering inter-generational fairness, participation needs to be incorporated into the concept of sustainability as an integrative part. However, participation can also be determined as a means to an end. This last approach is discussed in this article. Participatory modes of decision-making help to incorporate respective local and cultural conditions and are thereby viewed as benefitting sustainable solutions (Baranek et al. 2005, pp. 15-16, 23-24; Geißel 2009, p. 404).

Since the Agenda 21 the call for more participation in environmental decision-making is gaining influence and prominence. Non-participatory approaches are increasingly criticised as being illegitimate and ineffective (Bulkeley and Mol 2003, pp. 144, 147; Paavola and Adger 2006; Paavola 2007; United Nations 1992). With the Water Framework Directive in the spirit of the Aarhus convention (UN Economic Commission for Europe 1998) the European Union started to practically implement the call for more participation and encourages the participation of “all interested parties” in the Directive’s implementation (European Parliament and the Council of 23 2000, pp. Article 14).

Given this growing ideational and practical interest with regard to participatory approaches when it comes to environmental politics and sustainability, this article enriches the associated theoretical debate. In doing so this article’s considerations are not restricted to institutions “to resolve conflicts over environmental resources” (Paavola 2007, p. 94) and the theoretical assertions are extended to resource governance in general. Thereby, the article’s theoretical approach responds to the lack of systematic concepts on the interrelation between participatory modes of decision-making and sustainable effects and supplements specific approaches in the field of environmental governance (Newig 2007, pp. 57–58). More precisely, this article aims to design a research matrix and a comprehensive framework to aid both the analysis of the degree of participatory governance and collective action according to appropriate organisational forms and at various levels and to analyse its implications for sustainability. Elinor Ostrom claims that “a general framework helps to identify the elements (and the relationships among these elements) that one needs to consider for institutional analysis” (Ostrom 2005, p. 28). In this regard, this article intends to deliver some new insights into the interrelation between

participation, collective action and sustainability and concentrates on those effects of collective participation that can be attributed directly to the participatory and collective character of the decision-making process. These effects have to be distinguished from “baseline effects” which could be achieved by authoritative and hierarchical decision-making too (Newig 2007, p. 61).

The article proceeds as follows. The second section addresses the dependent variable of the merging framework of sustainability. The political discourse on sustainability and the Brundlandt definition are based on scientific theories of institutions. In the third section, the article gives a short overview on various approaches to participation and participatory governance. The fourth section deals with collective action theory. The fifth section looks directly at the theoretical interlinkages between participation, collective action and sustainability, introduces Konrad Hagedorn’s concept of integrative and segregative institutions and addresses subsidiarity and the concept of social learning. Referring to the previous parts of the article this section concludes with a comprehensive research matrix on the interrelation between collective participation and sustainable outcomes. The sixth section reviews the literature which is used for the later framework design. The first part of this section describes the actor-centred institutionalist approach of Renate Mayntz and Fritz Scharpf, which serves as basic material for the framework design. In the second part of this section, the actor-centred institutionalist approach is broadened with the systems theory approaches of David Easton and Gabriel A. Almond, applying an input-output logic and taking causalities into account. The seventh section analyses the results of the previous literature review, summarises the major variables that can be extracted from the theories presented and lays out the composite analytical framework. In the conclusion I call for the empirical application and review of the presented framework.

3.2. Review

3.2.1. Sustainability

The Brundtland report, the World Commission on Environment and Development’s report “Our Common Future” from 1987, which affected most of the following international conferences and declarations on sustainable development, includes the most commonly used definition of sustainable development:

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development 1987, Point 1).

This definition, even though it is lacking in scientific character, has gained political influence. Since the Brundtland report was released, the international community has agreed that the complexity of sustainable development is composed of economic and social development as well as environmental protection. These three defining pillars of sustainable development are acknowledged to be interdependent and reciprocally reinforcing (United Nations General Assembly, pp. 11–12). This comprehension is reflected *inter alia* in the Agenda 21 and the Rio Declaration on Environment and Development of 1992, in the Johannesburg Declaration on Sustainable Development and in the Johannesburg Plan of Implementation of 2002, in the United Nations World Summit of 2005 and in the World Economic and Social Survey of 2009 (United Nations 1992a; United Nations 1992b; United Nations 2002; United Nations General Assembly; United Nations 2009). This “mainstream” definition of sustainable development is also represented by various development and environmental agencies, such as the World Bank and the United Nations Environment Programme (Lélé 1991, p. 611).

The Brundtland definition does not have a proper scientific basis, and this definition as well as successive related definitions have been viewed as subjective, sketchy and weakly conceptualised (Beckerman 1994, p. 194; Lélé 1991, pp. 607ff). However, the comprehensiveness and broad applicability of the Brundtland definition are not problematic as long as applications fill the concept with concrete attributes. Applications require more precision in order to make the concept operational. Lacking this, the operational challenge (Daly 1990, p. 2) cannot be managed satisfactorily. I take up the Brundtland definition and conceive sustainable development as a process of structural change comprising ecology, economics and socio-political matters (Harborth 1992, pp. 231ff; Nohlen et al. 1998, pp. 633ff). However, I link the Brundlandt definition with scientific concepts on institutions (Gatzweiler and Hagedorn 2002; Hagedorn 2008). According to Douglass C. North (North 1990, p. 3) institutions are considered “the rules of the game in a society”. Institutions encompass rules-in-form (e.g., formal laws) as well as rules-in-use (e.g., social norms) (North 1990; Ostrom 2005, p. 20). They are of major relevance for the configuration of human interactions. Institutions can be resources or restrictions for the actors (Diekmann and Voss 2004, pp. 15ff). Institutions shape the

strategies of the actors whose actions in turn impact and shape the institutions (Mayntz and Scharpf 1995a). In accordance with Institutional Economics I assume here that the elements of sustainable development (economic prosperity, social development and the evolution of resource use) are to be harmonised and fostered by institutions. Only if institutions keep all these components in balance can they adjust the development of the social (human) system and the ecological system. It has to be prevented that the two systems, the social and the ecological, diverge from each other as both systems “need to sustain each other in order to sustain themselves” (Gatzweiler and Hagedorn 2002). As long as the social system and humankind exist, mutuality is given, even though the ecological system could exist without humankind, whereas the social system could not exist without its ecological counterpart. The call for an adjustment of the social and ecological system theoretically accounts for the substantial characteristic that social development is interlaced with the scarcity of natural resources (Burger 2007, p. 29). In a further addition to the three elements of sustainability, I assert two dimensions of sustainability referring to the livelihood conceptualisation of the Institute of Development Studies (IDS) in the UK and the ideas of Robert Chambers and Gordon R. Conway and others (Scoones 1998, p. 5; Chambers and Conway 1992). These two dimensions increase the concept’s operational usefulness. One dimension covers the external impact of behaviour on others (inner- and inter-generational alters). Chambers and Conway call this dimension “environmental sustainability”. The other dimension (“social sustainability”) covers the internal capacity to face pressures and “maintain an adequate and decent livelihood” (Chambers and Conway 1991, p. 9). Using these two dimensions I elaborate on my claim for the harmonisation of the three elements of sustainable development to achieve an adjustment of the social and ecological system: It is assumed that the social and ecological system can only be adjusted, and economic prosperity, social development and the evolution of resource use can only be traced simultaneously, if behaviour and decisions benefit both the livelihood prospects and subsistence of fellow humans and of the ecological system and the respective actors themselves.

Sustainability is perceived as the adjustment of the social and ecological system via allowing for an internal and an external dimension of decisions and behaviour. This definition is illustrated in figure 3.1.

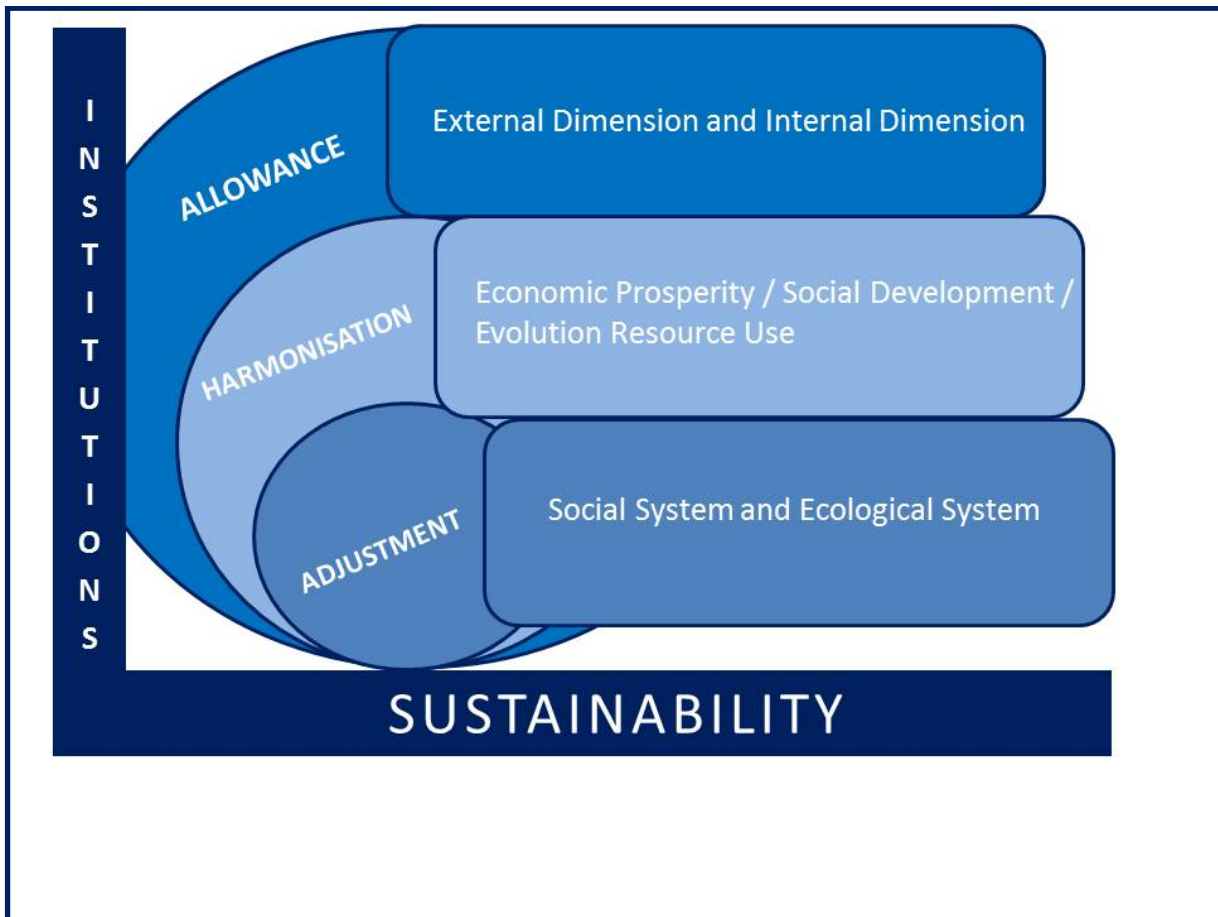


Figure 3.1: Conceptualisation of sustainability

Source: Author

3.2.2. Participatory governance

Supplementing definitions of governance from political science, which focus on regulation, with economic definitions of governance focusing on the limitation of transaction costsⁱ, (Mayntz 2004; Williamson 2005), I define governance here as follows: the entire coexisting forms of the intended regulation of common issues and transactions at various levels of an organisation. Participatory governance is defined broadly as all those forms of governance that involve in the processes of planning and decision-making those actors who are in turn affected by the end decision (Walk 2008, p. 52).

Various general approaches to participation and participatory governance are presented here. They provide multiple perspectives in terms of the conditions, purposes, modes and outcomes of participatory decision-making and will be used for designing a research matrix and a comprehensive participatory collective governance framework for sustainable outcomes. Participation and participatory governance are not defined or reviewed in a manner restricted to “the participation of ordinary citizens in the public policy process”

(Andersson and van Laerhoven 2007, p. 1090). The literature and approaches reviewed can be applied to the analysis of participation at different political levels (local, regional, national, global) and within various organisational forms (e.g., within non-governmental organisations or within co-operatives). It should be noted that the comprehensive group of participatory approaches within the wider discourse of development is not incorporated into the discussion; see inter alia (Blair 2000; Cooke and Kothari 2001; Gaventa 2004; Hickey and Mohan 2004; World Bank 1997). These approaches are themselves based on the more general literature which this article considers. However, I share the view inherent to the development discourse that collective participation is neither a panacea for development nor for sustainability (Cooke 2001; Cooke and Kothari 2001; Newig et al. 2011, p. 31).

3.2.2.1. *Empowered participatory governance (Archon Fung and Erik Olin Wright)*

Archon Fung and Erik Olin Wright assess representative forms of democracy as being inadequate in meeting the growing complexity of tasks and challenges that current states are facing. They introduce examples of an alternative mode of governance which they call “Empowered participatory governance” (EPG). These examples include inter alia the Participatory Budget in Porto Alegre, Brazil, and the Panchayat Raj reforms in West Bengal and Kerala, India (Fung and Wright 2003, p. 5ff). EPG would advance effectiveness, equity and participation (Fung and Wright 2003, pp. 15, 24). Examples of EPG “...all aspire to deepen the ways in which ordinary people can effectively participate in and influence policies which directly affect their lives” (Fung and Wright 2003, p. 5). Three fundamental political principles characterise EPG as follows: 1. “a focus on specific, tangible problems”; 2. the “involvement of ordinary people affected by these problems and officials close to them”, and 3. “the deliberative development of solutions to these problems”. “Equity of power” is highlighted as the central enabling condition for EPG. For the purposes of deliberative decisions a rough equality of power is necessary (Fung and Wright 2003, pp. 15, 24). Fung and Wright add three institutional design properties which offer conditions that promote EPG: 1. the administrative and political devolution of power into local units; 2. centralised supervision and coordination and 3. state-centrism (“transforming formal governance institutions”) (Fung and Wright 2003, pp. 20–23). Fung and Wright acknowledge that their concept of EPG is not easy to implement and has

several barriers, such as unequal distribution of power, rent-seeking, balkanisation of politics and insufficient political commitment from citizens (Fung and Wright 2003, p. 33).

3.2.2.2. *Resource model of participation (Henry E. Brady, Sidney Verba and Kay Lehman Schlozman)*

Resource models of participation focus on the individual resources available to actors. Different resources can be considered: income, time, education, knowledge and skills, and social capital (Walk 2008, p. 90; Brady et al. 1995). These models have been upheld for their reliability to the measurability of the variables involved (Brady et al. 1995, p. 271). Analysing political participation in America, Henry E. Brady, Sidney Verba and Kay Lehman Schlozman present an advanced resource model predicting political participation. They go beyond SES (socioeconomic status) models, which are restricted to socioeconomic variables of status (education, income and occupation). After inquiring as to the reasons why people do not participate in politics, they develop three answers: They can't, they don't want to or nobody asked them to. Accordingly, the resources the authors focus on are time, money and civic skills (Brady et al. 1995, p. 271). The authors differentiate between three modes of participation: voting, donating money and spending free time on political activities (Brady et al. 1995, pp. 272–273). Brady et al. assert that the resources they focus on are interrelated and that the different modes of participation require different resources (Brady et al. 1995, p. 275).

3.2.2.3. *Analysis of participatory governance (Heike Walk)*

Heike Walk specifies the concept of participatory governance by applying a theoretical perspective and following normative democratic assumptions (Walk 2008, pp. 20, 52). She points out that perspective matters in the context of participatory approaches: A perspective concentrating on legitimacy differs from one concentrating on representation or one from an emancipatory point of view (Walk 2008, p. 87). Walk differentiates between the democratic effect of participation (activation and legitimisation), the economic effect (effectiveness and efficiency)ⁱⁱ and the emancipatory effect (political capacity and self-confidence of citizens) (Walk 2008, p. 98). She points out several starting points for an analysis of participatory governance: 1. the maximisation of participation, which involves the identification of relevant stakeholders and of the criteria for inclusion/exclusion from the decision-making processes; 2. the examination of decision-making powers and

structures; 3. the identification of the various interests involved and the identification of conflicting interests; 4. the identification of power structures and hierarchies; 5. the identification of structures of communication and negotiation; 6. social learning (identification of emancipatory processes); and 7. an appraisal of whether or not democracy is promoted (Walk 2008, p. 118).

3.2.2.4. *Participation in organisations (Peter Dachler and Bernhard Wilpert)*

Requesting a multidimensional model of participation, Peter Dachler and Bernhard Wilpert (1978) argue for a transdisciplinary approach that integrates micro and macro questions and different paradigms with the disciplines of psychology, sociology, economics, political science and law. They develop a broad conceptual framework for participation in organisations and emphasise the interdependencies between four dimensions that define participation: 1. values and goals of the participatory system; 2. the properties of the participatory system; 3. the contextual factors of the participatory system; and 4. the outcomes of the participatory system. The outcome of participation, “what it is capable of being and what it can ideally achieved”, is therefore defined by its conditions and their interrelations, naming the properties of the participation process, the contextual factors and the values and goals underlying participation (Dachler, Wilpert 1978, p. 20).

3.2.2.5. *“Ladder of Citizen Participation” (Sherry Arnstein and others)*

Sherry Arnstein’s well-known “Ladder of Citizen Participation” from 1969 (Arnstein 2007) is designed based on her own work on urban citizen participation in the US in the 1960s. The work concentrates on the redistribution of power and empowerment of the “have-not” citizens. Arnstein differentiates three dimensions and eight levels of (non)participation. At the bottom of her ladder she places two levels of “Nonparticipation”: “Manipulation” and “Therapy”, which include citizens who are being educated or orchestrated for their support. The proceeding levels of “Tokenism”, “Informing” and “Consultation” “allow the have nots to hear and have a voice” but “lack the power to insure that their views will be heeded by the powerful” (Arnstein 2007, p. 235, 237). Even the fifth rung of “Placation” cannot, according to Arnstein, be called real participation, because it only allows advising, giving citizens some influence but no power to decide (Arnstein 2007, pp. 235, 239). The first level of “Participation” where power is actually

redistributed is “Partnership”, where citizens and power-holders agree to share planning and decision-making responsibilities (Arnstein 2007, p. 241). The last two rungs on Arnstein’s ladder are “Delegated Power” and “Citizen Control”. Under “Delegated Power” citizens have the dominant decision-making authority over a particular program. “Citizen Control” even encompasses the citizens’ rights to negotiate the conditions of their decision-making powers (Arnstein 2007, pp. 236, 242-243). Several authors have picked up Arnstein’s ladder and suggested similar approaches (see e.g., the five step approach by D. Wilcox (1994) which comprises “Information”, “Consultation”, “Deciding Together”, “Acting Together”, and “Supporting” or G. Rowe’s and L. J. Frewer’s (2005) approach which differentiates between “Public Communication”, “Public Consultation”, and “Public Participation”. George Brager, Harry Specht and James L. Torczyner (1987) arrange their levels of participation between a high control of participants at the top and no control of participation at the bottom. In contrary to these hierarchical approaches, Scott Davidson (1998), with his “wheel of participation”, arranges his levels of participation in a circle emphasising that “the wheel promotes the appropriate level of community involvement to achieve clear objectives, without suggesting that the aim is always to climb to the top of the ladder” (p. 14).

3.2.2.6. *Collaborative governance (Patsy Healey, Judith E. Innes and others)*

The collaborative governance approach in the field of urban planning calls for a collaboration between public and private actors in public decision-making which includes stakeholders who are typically excluded from public decision-making and which is organised in a non-hierarchical mode (Innes and Booher 2003; Innes 1996). This refers inter alia to the communicative theory of Jürgen Habermas (1995) and his claim for equality in communication and to John S. Dryzek’s (1990, 2000) claim for a “discursive democracy” relying on active citizenship. Judith Innes and others in their collaborative governance approach for the US (Innes 1996; Innes and Booher 2003) and Patsy Healey on her approach for the United Kingdom (Healey 2003, pp. 107–108) normatively aim for enhanced social inclusion.

3.2.2.7. *Different forms of participation (Brigitte Geißel)*

Focused on consolidated Western democracies and based on her research on the European Local Agenda 21 processes, Brigitte Geißel elaborates a framework for assessing the

surplus and perils of democratic innovations that move society towards more participative forms (Geißel 2008, p. 228). Based on a broad literature review, Geißel highlights four criteria for evaluating participatory governance: 1. effectiveness, 2. legitimacy, 3. a gain in social capital and 4. a gain in civic skills (Geißel 2008, p. 233; Geißel 2009, p. 403). Regarding the first criterion, effectiveness, the core question for Geißel was whether participation advances or impedes desirable outputs (Geißel 2008, p. 235). Geißel concentrates on input-legitimacy (participation of affected stakeholders), throughput-legitimacy (process of participation—transparency and fairness), and deliberative legitimacy (rational and non-hierarchical participation) (Geißel 2008, p. 234). She identifies three major groups of participative innovations: elements of direct democracy, co-governance (e.g., participatory budgeting) and deliberative procedures (Geißel 2008, p. 229). Her analyses show that these different forms of participation have different effects on effectiveness, legitimacy, social capital and civic skills (Geißel 2008, pp. 243ff). Geißel indicates that the different forms of participation do not stringently promote the four criteria of democracy; hence, participation can build up social capital but eventually only between elites. Civic skills can be enhanced by participation, and egoistic interest might be transformed, but this transformation might also fail to appear (Geißel 2009, p. 404).

3.2.2.8. *More variables and barriers to participation*

Further literature on participation and participatory governance deals with several additional variables: transparency, involvement of actors in time, joint determination of process rules, objectivity of mediation (Thomas 1995), the level of information and awareness, identification with the problem at stake and the confidence to be able to make a difference (Buse and Nelles 1975), whereas a lack of interest in the problem or the feeling that one's own interest is sufficiently represented constrains participation (Diduck, Sinclair 2002). Also, a lack of communication among stakeholders, dominance of particular groups and interests, lack of knowledge and skills, lack of time and money, and distrust are additional factors referred to as antagonising participatory forms of governance. And finally, the political actors in charge of a redistribution of power are reported to need to be willing to implement an effective devolution of powers (Walk 2008, pp. 98–99; Arnstein 2007, p. 236).

3.2.3. Collective action

This article concentrates on collective forms of participation. Therefore, the article supplements its review on literature on participatory governance with literature in the field of collective action.

Literature on collective action, especially in natural resource management, is extensive and widespread. This paper follows the standard working definition of collective action, which can be traced back to the ideas of Mancur Olson. According to Olson, a collective action situation exists “when a number of individuals have a common or collective interest—when they share a single purpose or objective—[and when] individual, unorganized action [...] will either not be able to advance that common interest at all, or will not be able to advance that interest adequately” (Olson 1965, p. 7). Informal arrangements and spontaneous actions can be embraced by the term collective action, as well as formal organisations of people (Meinzen-Dick et al. 2002, p. 650). Many factors and combinations of factors have been identified that affect the likelihood of successful management of resources (especially common-pool resources) in collective ways (Agrarwal 2001; Baland and Platteau 1996; Meinzen-Dick 2007; Ostrom 1990; Ostrom 2007b; Ostrom, et al. 2009; Wade 1988).

3.2.3.1. Successful local management of common-pool resources (Arun Agrarwal and others)

Robert Wade argues that if the number of users becomes too large, if the resource boundaries are unclear, if the settlements are scattered, and if monitoring or sanctioning is lacking, successful common-pool solutions through collective action are impeded (Wade 1988, p. 215). Jean-Marie Baland and Jean-Philippe Platteau (1996) summarise the consensus of the scientific community on certain conditions affecting the likelihood of successful local management of common-pool resources: Resource users need to be aware of the status quo of the respective resource and of their own impact on the resource so that they can evaluate the benefits of collective action. The following factors partly overlapping with Wades’ insights are listed by Baland and Platteau: limited size of user groups, closeness to the common-pool resource, high dependency on the common-pool resource, self-management of rules, a clear sanctioning mechanism, the low cost of monitoring, simple conflict-resolution mechanisms, publicity of major decisions, and accountability and record-keeping (Baland and Platteau 1996, pp. 233, 289). In addition to these general

factors, the authors refer to the cumbersomeness of cultural heterogeneity and the encouragement from past experiences as factors in the success or failure of collective action and leadership (pp. 344, 345).

Arun Agrawal reviews and supplements 24 different conditions for the successful management of common-pool resources named by Robert Wade (1988), Jean-Marie Baland and Jean-Philippe Platteau (1996), and Elinor Ostrom (1990) (Agrawal 2001, pp. 1651ff, 1660). As a common conclusion Agrawal identifies four sets of variables that influence the successful management of common-pool resources: 1. resource characteristics, 2. group characteristics, 3. institutional regimes and 4. the external environment (pp. 1653, 1659).

3.2.3.2. *Communities can overcome social dilemmas (Elinor Ostrom)*

Communities can overcome social dilemmas. This insight constitutes one of the pillars of Elinor Ostrom's complex work: "Individuals do take costly actions that effectively take the interest of others into account" (Ostrom 2007c, p. 187). Ostrom studies communities that chose the path of collective action, relying "on institutions resembling neither the state nor the market to govern some resource systems with reasonable degrees of success over long periods of time" (Ostrom 1990, p. 1). In this regard Ostrom advises examining the context of any particular social dilemma (Ostrom 2007c, p. 195). Action is not the "simple result of individual differences" but strongly affected by the context (Ostrom 2010, p. 662). Ostrom questions which internal and external factors cause communities to succeed or fail in collective action solutions for the commons dilemma (Ostrom 1990, p. 21). In her explanations of collective action she objects to simple models of rational behaviour and claims that individuals are bounded, rational adaptive creatures, able to learn norms and heuristics, to self-reflect and able to design new institutions (Ostrom 2007c, pp. 187, 195ff, 2010, pp. 660–661). Ostrom recognises that "the distribution of benefits and harms" of collective action "to those in a group and those who are external to it" differ (Ostrom 2007c, p. 187).

3.2.3.2.1. Ostrom's theory of collective action within her IAD framework

Within her IAD framework Ostrom identifies eight structural variables that influence collective action solutions. She differentiates between situations that demand a single isolated decision or repeated encounters. In a manner consistent with and supplementary to

Wade's, Baland's and Platteaus' factors, she points out five structural variables that do not essentially depend on a situation being repeated: 1. the number of participants involved; 2. whether benefits are subtractive or fully shared (i.e., public goods versus common-pool resources); 3. the heterogeneity of participants; 4. face-to-face communication; and 5. the shape of the production functionⁱⁱⁱ in addition to the level of trust and a certain autonomy in crafting self-applicable rules. She then goes on to list 6. information about past actions; 7. how individuals are linked; and 8. whether individuals can enter or exit voluntarily as factors of importance in repeated situations (Ostrom 1990; Ostrom 2007c, p. 188). Ostrom states herself that her list of structural variables is not complete. It was not possible to cover all variables in an analysis and create a general causal model. Rather, she recommends restricting oneself to certain variables and relationships and developing "specific scenarios of causal direction" (Ostrom 2007c, p. 202).

3.2.3.2.2. Collective action in Ostrom's social-ecological systems (SES) framework

In her multitier framework for analysing social-ecological systems (SES), Ostrom (2007a, 2009)[94- 95] models four main groups of variables affecting interactions in social-ecological settings: the resource system (e.g., the water system), the resource units (e.g., the amount and flow of water), the governance system (e.g., rules related to the use of water) and the users (e.g., individuals that consume water). As external variables she incorporates the social, economic and political setting as well as the related ecosystems (Ostrom, et al. 2009, p. 420). All these first-level variables in her framework thereby encompass several second-tier variables. Referring to Wade (1994), and Baland and Platteau (1996) among others, as well as her own research, Ostrom presents 10 subsystem variables within her multitier SES framework that affect the likelihood of people coming together to manage environmental resources in self-organised efforts and in a sustainable way. The size of the resource system (variable 1) is important, insofar as large sizes impede the manageability and small sizes impede substantial flows. Mobile resources are more difficult to organise (variable 2). Regarding the productivity of the resource system (variable 3) the actors need to feel scarcity but still have the opportunity to manage resources. Additionally, changes and trends in the stock of available resources need to be to a certain extent calculable for the actors (variable 4: predictability). In addition to these resource-related attributes, the group structure and attributes of its actors influence the likelihood of collective action in Ostrom's SES framework. These variables partly mirror

some of the structural variables identified in her collective action theory as based on her IAD framework (see above). Group size, for example, does not have a mono-causal effect according to Ostrom's SES framework. If the costs of coming together and making agreements are high, group size becomes a restriction for collective action. However, if the costs of managing and monitoring resources are high, group size can become an opportunity (variable 5). Trust, to which Ostrom ascribes special importance for collective action in her broader collective action theory but which she does not identify as a structural variable there, is elaborated as a context variable in her SES framework. Social capital (shared norms, trust and reciprocity) lowers transaction costs and simplifies the process of making agreements, as well as lowering the need for monitoring (variable 6). These spatial and social requirements require a well-considered arrangement of entities thereby. All entities will need certain capacity-building. Local actors have knowledge of their area and know their needs. What might be missing are administrative skills and technical skills if new technologies have to be applied: the availability of "leaders" with good reputations and skills facilitates self-help and cooperation (variable 7). Decisive factors are also the pressure and need that affected actors might feel for regulation and decision-making. Recognition of a limitation to resources (variable 8) and a high importance of resources for users serve as motivating factors (variable 9). Under these circumstances and given autonomy (variable 10) users are able to craft and enforce their own rules with low transactions costs (Ostrom, et al. 2009, pp. 420, 421).

As a general insight Ostrom emphasises "that long-term sustainability depends on rules matching the attributes of the resource system, resource units and users" (Ostrom, et al. 2009, p. 421). That is why she neglects blueprint solutions for governing SES and presents her multitier framework as a diagnostic tool.^{iv}

3.2.4. Intermediate variables: Integration, subsidiarity and social learning

The elaborated research matrix and the theoretical framework consult the concepts of integrative institutions, subsidiarity, participative theories of democracies and social learning as intermediate concepts interlinking collective participation and sustainable outcomes.

3.2.4.1. *Hagedorn's concept of integrative and segregative institutions*

For Konrad Hagedorn, “sustainable development has to be interpreted as a regulative idea which requires adequate institutions to become effective in the various areas of society” (Hagedorn et al. 2002, p. 15). According to him, sustainable development requires the balance of two sorts of costs caused by institutional settings: “the costs of integration and segregation by institutions”. Integrative institutions are characterised by an internalisation of both the transactions costs of decision-making and the positive and negative effects of decisions, whereas segregative institutions are characterised by (the potential) externalisation of transaction costs and negative costs of decisions (Hagedorn 2008, p. 33).

Hagedorn advocates integrative institutions for “complex and interconnected transactions” with “numerous and diverse effects”. He offers transactions related to natural systems as an example (Hagedorn 2008, pp. 30, 35). Intuitively, integrative institutions rather than segregative ones seem to comply with the principles of sustainability. Too much segregation causes pressure from non-integrated adverse effects and compromises a system's stability. But allowing for efficiency and capacity for innovation, Hagedorn claims some segregation to be reasonable and protective of sustainability. An excessive degree of integration reduces a system's dynamic potential and its ability for adaptation, which can also threaten its stability (Hagedorn 2008, pp. 36ff). Hagedorn's concept of integrative and segregative institutions especially accounts for the external impact of behaviour on inner- and intergenerational alters.

Institutions where the affected stakeholders decide about the policies and resource use themselves correspond to the idea of integrative institutions. Decentralising property rights and implementing participatory and collective action-based modes of governance can be seen as internalising costs, risks and benefits of decision-making (Hagedorn 2008), and therefore endorsing the harmonisation of the two dimensions of sustainability, that is, the external impact of behaviour on others and the internal capacity to face pressures. Additionally, this integration is supposed to increase accountability and commitment and to enhance the system's learning capacity (Fung and Wright 2003, pp. 16ff, 25), which is also assumed to benefit the internal and external dimensions of sustainability.

3.2.4.2. *Subsidiarity*

The overlapping of decision-making actors and decision-affected actors in participative institutions corresponds with the socio-political principle of subsidiarity (Schmidt 1995, p. 949; Schubert et al. 2007, p. 295). Subsidiarity in decision-making is envisaged as regarding especially the internal dimension of sustainability. Subsidiarity is assumed to promote community capacity for facing environmental and climate-related pressures and sustaining livelihoods. Decisions based on subsidiary decision-making can be adjusted to the specific ecological, social and cultural environment in order to avoid unexpected outcomes (Ostrom 2005, p. 3). The needs of a community are generally thought to be best perceived by those who have them, and coping strategies for dealing with problems are also supposed to be best known by the actors involved. These actors are aware not only of the needs to be satisfied and the hurdles to be overcome but also aware of the capacities and resources they have to apply on the way as well (Hagedorn et al. 2002, p. 18; Meinzen-Dick et al. 2002, p. 650; Stöhr 2001, pp. 41f). Resource users (especially those users of common-pool resources) who design their own rules learn over time to adjust their rules to the environment to achieve acceptable outcomes. Additionally, subsidiarity in decision-making is expected to enhance the identification of the later rule-followers with the respective rules as well as with the resources concerned. This identification with the rules and the control over the rule-making process are assumed to make the actors more willing to comply with the rules. Active participation and involvement in resource use is also supposed to result in a more thoughtful handling of the respective resources (Bulkeley and Mol 2003, p. 151; Geißel 2009, p. 404; Hagedorn et al. 2002, pp. 13f, 19f; Meinzen-Dick et al. 2002, p. 650; Ostrom 2005, p. 22; Newig 2007, pp. 60ff).

3.2.4.3. *Collective rationale and social learning*

With reference to participative theories of democracies and to the ideas of Jean-Jacque Rousseau, it is hypothesised that via collective participation people can learn to consider more than just their own interests, generating common welfare (Geißel 2009, p. 406; Pateman 1970; Rousseau 1977; Walk 2008, pp. 74, 79). This article assumes that within the process of collective decision-making, individual interest can be accumulated and transformed into a collective rationale. Through discussion and discourse based on trust and norms of reciprocity, actors can agree on certain common interests. If all members of a community identify with some common goals, this is conceived as a common interest.

Group common interest is therefore more than the accumulated individual interest of all members of the group. Group interest is built via discussion and argument. This assumption is very much in line with theories of social learning which assume public participation to initiate social learning processes “which translate uncoordinated individual actions into collective actions that support and reflect collective needs and understandings” (Webler et al. 1995, p. 460; Stringer et al. 2006). Social learning “occurs whenever interdependent stakeholders with different interests and perceptions come together and manage to deal with their differences to the benefit of all involved” (Mostert et al. 2007).

3.3. Research matrix

Following from the literature review I compile the research matrix presented in figure 3.2. The research matrix arranges the variables according to conditions, characteristics, intermediary functions and effects of collective participation. The application of this matrix in the research process helps to identify the interrelations between collective participation and sustainable decision-making.



Figure 3.2: Research matrix

Source: Author

3.4. The framework design

3.4.1. The actor-centred institutionalist approach by Fritz Scharpf and Renate Mayntz

The actor-centred institutionalist approach, resulting from research done by the Max Planck Institute for the Study of Societies, is a research heuristic which offers the possibility to simultaneously account for actors and their behaviours, as well as for structures, when analysing governance. Fritz Scharpf and Renate Mayntz combine action-theoretic perspectives with institutionalist and structuralist perspectives and connect methodological individualism with institutionalism. Explanations following actor-centred institutionalism first revert to actors and their behaviour as the “proximate cause” and then to institutions as the “remote cause” (Mayntz and Scharpf 1995a, p. 46). Many other factors are perceived as intervening (Scharpf 2006, p. 17). Institutions can be both formal and informal and constitute actors and actor-constellations. Among other things, they structure the resources and capabilities possessed by actors, and influence actors’ orientations and important characteristics of the action situation. However, institutions do not determine actions completely (Mayntz and Scharpf 1995a, p. 49; Scharpf 2006, pp. 77ff). As the range of institutions is rarely comprehensive, the orientations of the actors gain crucial importance for the decision-making space which is left (Scharpf 2006, pp. 83ff). These orientations are themselves defined by institutions, as well as by the actors’ constellations and their characteristics. With respect to actor characteristics Scharpf and Mayntz distinguish between cognitive and motivational orientations and the actors’ identities. The first pertain to the actors’ perceptions and interpretations of a situation^v and the second to motivational driving factors. Identity encompasses incorporated norms as well as features such as sex or societal roles (Mayntz and Scharpf 1995a, pp. 52ff). Which interests will guide the action in the end is determined by the specific features of the respective action situation (Mayntz and Scharpf 1995a, p. 55). The authors neglect the fact that actors^{vi} could have a fixed, hierarchical preference. Depending on the constellation of actors (which is defined by institutional rules), Scharpf and Mayntz identify four ideal modes of interaction in decision-making processes (policy-making): “mutual adjustment”, “negotiated agreement”, “voting” or “hierarchical direction” (Mayntz and Scharpf 1995a, pp. 61–62; Scharpf 2006, pp. 88ff).

Scharpf and Mayntz understand their framework as a research heuristic of high complexity and advise employing certain aspects of the concept for analytical applications (Mayntz and Scharpf 1995a, pp. 39, 67). The analytical framework of actor-centred institutionalism

provides a tool for identifying and arranging different influencing factors in order to explain social phenomena. Brigitte Geißel uses the actor-centred institutionalism framework for analysing the incorporation of civil society in local governance processes in the course of the post-Rio Local Agenda 21 processes in Western democracies (Geißel op. 2007). She incorporates “process” as an additional factor for analysis (Geißel op. 2007, p. 29, 35). This paper takes up this supplement in the elaborated combined framework as well and hence accounts for five categories: Context, Actors and Constellation of Actors, Problem, Process and Outcome.

3.4.2. The system theoretical approach according to David Easton and Gabriel Almond

System theoretical approaches include a wide range of approaches, from the sociological ones of Talcott Parsons (1951, 1966) and Niklas Luhman (1987) to those of political science by Karl W. Deutsch (1969), David Easton (1965, 1966) and Gabriel A. Almond (1979 and together with and G. B. Powell 1966, 2003) This article accounts for David Easton’s and Gabriel Almond’s approaches and adopts their causal input-output logic in its theoretical framework.

3.4.2.1. David Easton’s system theoretical approach

David Easton applies systems theory to political science. Based on his renowned and common definition of politics as “the formulation and implementation of collectively binding decisions” he describes the political system “as those interactions through which values are authoritatively allocated for a society” (Easton 1965, p. 21; Münch 1995, p. 626). In contrast to others, such as Talcott Parsons, Easton’s attention rests mainly on the political system, which he perceives as a subsystem of the overall social system (Narr 1972, p. 124). Easton’s system centres on the question of how “any and all political systems manage to persist in a world of both stability and change” (Easton 1965, p. 17; Fuhse 2005, pp. 33–34; Greven 1974, pp. 68–69). According to Easton, political systems need to fulfil two essential functions to persist: First, they need to allocate values for a society and second, they need to make the society comply with this allocation (Easton 1965, p. 24; Narr 1972, pp. 124, 128). He designs the political system as a “flow model” for the processing of environmental influences. The political system is fed with inputs in the form of support or demands:

“the inputs provide what we may call the raw material on which the system acts so as to produce something we are calling outputs” (Easton 1965, p. 31).

Support can be material (e.g., tax payments) or immaterial (e.g., following laws and rules). Support can be further differentiated into overt support (observable actions) and covert support (mind-set). Additionally, Easton’s theory distinguishes between specific support related to specific outputs and diffuse support unrelated to specific outputs. The object of the political support can be the political community, the regime or the authorities. The requests directed at the political system are called demands by Easton. They can encompass, for example, demands for social services or for more political participation. Demands give the political system specific instructions for its actions. Within the political system the inputs are processed into outputs via a “conversion process”, which is not defined in detail. Outputs are the services provided by the political system. Material outputs include, for example, taxes and social services, whereas immaterial outputs imply symbolic acts and regulations. The outputs induce a feedback process retroacting on the input side. Those demands which are not met or insufficiently met will be requested again. Meeting the demands increases support. The more efficiently the demands are implemented, the more legitimacy is granted to the political system. This feedback loop enables the political system to operate permanently. Political systems must be able to respond to fundamental disturbances from the environment, including where appropriate to modify its own structures and objectives (otherwise they fall) (Easton 1965, pp. 28f; Fuhse 2005, pp. 33–49; Greven 1974, pp. 68–69, 87–89; Münch 1995, pp. 626ff; Narr 1972, pp. 128ff).

Critics accuse Easton of mixing organistic and cybernetic approaches, neglecting power and actors and skipping normative questions (Fuhse 2005, pp. 57–62). When one uses Easton’s approach one has to consider that he is taking a governmental perspective. The approach restricts itself to the persistence of the political system (Greven 1974, p. 82). The process of political decision-making remains a “black box” in Easton’s approach. The inner structure of the “conversion process” covering questions on participation and influence among others is discounted (Greven 1974, pp. 80–81). The system theoretical approach by Gabriel A. Almond, which had particular impact on comparative politics, provides an analytical supplement for looking inside this “black box”.

Easton’s system theoretic approach is seen as a foundation for a causal input-output design of the elaborated theoretical framework.

3.4.2.2. *Gabriel A. Almond's system theoretic approach*

Gabriel Almond (together with Bingham Powell 1966 and 2003, first edition 1980) advances Easton's model and distinguishes between three functional levels: system functions, process functions and policy functions (Fuhse 2005, pp. 62ff). System functions are the most basic functions of a political system, which it must provide in order to reproduce itself in its current form. To provide for these system functions, the other two functional levels must be accomplished. The system functions comprise socialisation (e.g., by families or schools), recruitment (of new players for the political system) and communication (with the social community, for instance, via the incorporation of their inputs) (Almond and Powell 2003, pp. 41–42). The level of process functions tackles the process of converting inputs into outputs. Process functions are “the distinctive activities necessary for policy to be made and implemented in any kind of political system” (Almond and Powell 2003, p. 40). In Easton's approach this conversion stays in a black box (see above). According to Almond the process functions run in the following order: interest articulation, interest aggregation, policy-making and ultimately policy implementation and policy adjudication (policy review) (Almond and Powell 2003, pp. 40–41).

Process functions in Almond's approach reflect the policy cycle and its analytical steps. The policy cycle is an analytical framework that divides the policy process into several steps. It was formulated first by Harold Dwight Lasswell in 1956 who elaborated seven steps: “Intelligence”, “Promotion”, “Prescription”, “Ivocation”, “Application”, “Termination” and “Appraisal” (Lasswell 1956; Jann and Wegrich 2009, p. 78). The classification in Agenda Setting, Policy Formulation, Adoption, Implementation and Evaluation, which is most common today, was later compiled by Charles O. Jones (1970) and James E. Anderson (1975).^{vii}

The system's outputs constitute the end of this policy cycle in Almond's concept. The outputs must meet three to four policy functions: extraction (e.g., through taxes), regulation (e.g., public order), allocation and distribution (e.g., social services), and symbolic outputs (e.g., statements of politics) (Almond and Powell 1966, p. 26, 2003, pp. 41–42). Similar to Easton's model, Almond sees that the system's output “result in new inputs, in new demands for legislation or for administrative action, and increases or decreases in the amount of support given to the political system and incumbent officeholders” (Almond and Powell 2003, p. 42). However, Almond indicates that the system's output does not necessarily correspond with the actual outcome (Almond, Powell 2003, p. 45). The

system's environment influences the outcome. The three functional levels can be found in any political system, no matter how it is organised and what specific types of policies it ultimately produces. However, which structures carry out the respective function varies between political systems and "similar structures may have different functions across political systems" (Almond and Powell 2003, p. 39, 1966, pp. 31ff).

This article here adopts all three functional levels of Almond's approach and applies them in its framework to forms of decision-making processes with collective and participatory characters. Additionally the accentuated difference between output and outcome is resumed too.

3.5. Results: The framework for exploring the capability of participatory and collective governance in sustainable outcomes

Dealing with sustainable development does not end with the identification of its components. It is a further pivotal and decisive step to ascertain which institutions can promote harmonisation of these components (Hagedorn et al. 2002, p. 15). This review article focuses on institutions affecting decision-making processes.

With the objective of creating a comprehensive framework for analysing the degree of participatory governance and collective action and their implications for sustainability, this article reviewed literature and concepts on participation and participatory governance, on collective action on sustainability and on some intermediate variables. Based on the design principles retrieved from the actor-centred institutionalist approach by Mayntz and Scharpf and the system theoretical approaches by Easton and Almond we can now arrange our main variables, collective participation and sustainable decision-making, according to an input-output-outcome logic in five categories. The resulting framework considers collective participation as an independent variable with sub-variables along with four of the five abovementioned categories: Context, Actors and Constellation of Actors, Problem and Process. Sustainable decisions are the dependent variable in focus and are attributed to the fifth category, Outcome. Internalisation (integrative institutions), subsidiarity and social learning /collective rational are intermediate variables assumed to link collective participation and sustainable outcomes (see Figure 3. 3).

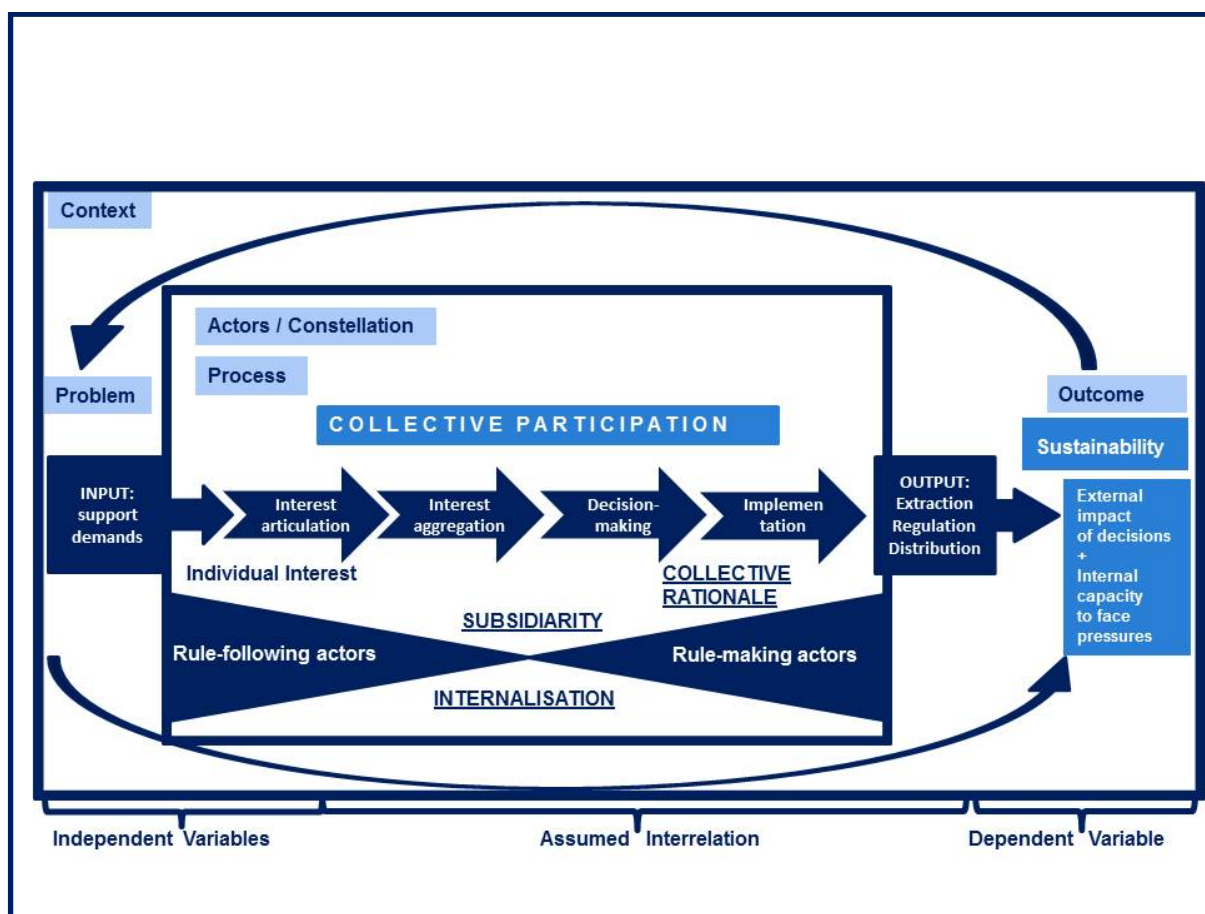


Figure 3.3: Framework for exploring the capability of participatory and collective governance in sustainable outcomes

Source: Author

3.6. Conclusions

There is a lack of systematic studies and theoretical concepts on the interrelation between participatory modes of decision-making and their (un)sustainable or environmental effects (Newig 2007, p. 53). Concepts regarding both the participatory and the collective character of the decision-making process are missing so far. The presented research matrix in figure 3.2. and theoretical framework in figure 3.3. try to fill this theoretical gap. The presented framework is still a preliminary one. The variables summarised in the elaborated research matrix need to be checked and when indicated supplemented with respect to their impact on empirical grounds. The framework itself should serve as a heuristic model. Its operationalisation and application on empirical grounds will be the next step. I apply the framework in my studies on cooperative societies and neighbourhood associations in the Indian city of Hyderabad. However, the framework can also be applied at higher levels (regional, national and supranational) and to different organisational forms, from informal

and spontaneous associations to registered civil society organisations and formal political organisations.

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ⁱ Transaction costs are based on the costs of using the market and the costs of imperfect information (Zerche et al. 1998, p. 60). These costs encompass production factors as well as dependencies on outsiders (Bonus 1986, p. 173). Referring to North (1990, p. 362) and Williamson (2005) the major aspect of transaction costs is thereby seen to be “the costs of measuring and enforcing agreements”.

ⁱⁱ The positive effect of participation on effectiveness has been debated. The opposing view goes back to Robert Dahl, who views participation and effectiveness to be in conflict, see Dahl 1989, 1971; Walk 2008, p. 74.

ⁱⁱⁱ The production function covers the threshold which defines when to what extent individual contributions lead to certain group outcomes. The effect of the production function here depends on the heterogeneity of the group, on the sequences of contributions and on the information shared (Ostrom 2007c, pp. 191ff).

^{iv} Among others, Ruth Meinzen-Dick picks up Ostrom’s SES framework and applies it to rural water and irrigation issues (Meinzen-Dick 2007, p. 15201).

^v „Menschen handeln nicht auf der Basis der objektiven Realität, sondern auf der Basis der wahrgenommenen Realität“ (Scharpf 2006, p. 47)

^{vi} Scharpf and Mayntz consider corporate actors as well: Mayntz and Scharpf 1995a, pp. 49–51; Scharpf 2006, pp. 78–79.

^{vii} Since then the concept has been employed and further elaborated upon, see (Mayntz and Scharpf 1995b; Jann and Wegrich 2009, pp. 80, 102–103), as well as criticized, see (Sabatier 1993). Sabatier and others accuse the concept first of suffering from an inherent top-down perspective, second misleadingly assuming all action to be goal-oriented, and third ignoring that some steps can occur in parallel (Sabatier 1993)

4. FIRST CASE STUDY (P3): IMPROVING AUTONOMY IN INDIAN COOPERATIVES - THE HYDERABAD EXPERIENCE

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Abstract: Member participation and autonomy are of fundamental essence for the character of cooperatives. Since colonial rule and extending until today, Indian cooperatives have been kept under government control. This article depicts the cooperative sector in the Indian city Hyderabad. The majority of Hyderabad's cooperatives are registered under an old act which limits their autonomy and member participation enormously. A new, more liberal act simultaneously provides legal space for member participation and control. But in practice external supervision even characterizes this new generation of cooperatives in the city.

Keywords: Cooperatives; participation; autonomy; Hyderabad; India

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4.1. Cooperative principles, member participation and autonomy

Member participation and control are core organizational principles of cooperatives as organizational forms. Today, the International Cooperative Alliance in Geneva (ICA) defines a cooperative as

an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise (International Cooperative Alliance 2010a).

This ICAs definition, promoted worldwide, goes back to the original cooperative ideas of 19th and 20th century in Europe (Engelhardt 1990). Revised in 1995 but still referring to the principles set up by early agents like the Rochdale Pioneers in 1844, the ICA sets forth seven principles to define and guide the cooperative movement (Zerche et al. 1998, 15f). The seven principles are as follows: Voluntary and Open Membership, Democratic Member Control, Member Economic Participation, Autonomy and Independence, Education, Training and Information, Co-operation among Cooperatives, and Concern for Community (International Cooperative Alliance 2010b). Regarding the decision-making processes in cooperatives, two of these seven principles are most relevant:

The 2nd Principle: Democratic Member Control:

Cooperatives are democratic organisations controlled by their members, who actively participate in setting their policies and making decisions. Men and women serving as elected representatives are accountable to the membership. In primary cooperatives members have equal voting rights (one member, one vote) and cooperatives at other levels are also organised in a democratic manner (International Cooperative Alliance 2010b).

The 4th Principle: Autonomy and Independence:

Cooperatives are autonomous, self-help organisations controlled by their members. If they enter to agreements with other organisations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control by their members and maintain their cooperative autonomy (International Cooperative Alliance 2010b).

The three classic cooperative principles set down by Georg Draheim in 1955 reflect the demand for autonomy and participation:

‘The identity attribute’: Draheim defines cooperatives as organizations with a dual nature, being associations of individuals and simultaneously joint enterprises. Committing to self-help, the members of the cooperative who demand specific services and goods are at the same time the owners of the enterprise who have to satisfy these needs themselves (Draheim 1955, 16).

‘The promotion of members’ interests’: The major purpose of a cooperative is the promotion of its members’ interests (Draheim 1955, 16; Zerche et al. 1998, 14). The promotion of member interests has to take precedence over success in the market (Hahn 1990, 87). The success of the cooperative’s enterprise in the market is a necessary precondition to enabling the cooperative to promote member interests effectively, but it is no self-contained aim (Kramer 2005, 4; Jokisch 1994, 24f; Patera 1990, 285).

‘The democratic attribute’: A third core characteristic of cooperatives outlined by Draheim requires that the cooperative’s members possess one vote in general meetings independent of their capital share (Draheim 1955, 16; Zerche et al. 1998, 14). New generation cooperatives deviate from these principles, breaking away from core cooperative ideas (Laurinkari and Brazda 1990, 77).

The ICA’s cooperative principles and Draheim’s classic cooperative principles both centre the cooperative members. Organisations in which members do not actively participate in making decisions and organisations which lack autonomy and are controlled by outside agencies are not real cooperatives (Münkner 1976, 7).

The article proceeds as follows: The second and third section give a comprehensive overview of the cooperative sector in India and Hyderabad and its historical development. The fourth section presents data on registered cooperatives in Hyderabad and the fifth section compares the two most important laws on cooperatives in Hyderabad with regards to room they allow for autonomy and participation. In the conclusion the article refers to the most important challenges the cooperative sector in Hyderabad and India is still facing despite the legal liberalization in recent years.

4.2. The cooperative movement in India

The management of most cooperative businesses has been taken over by the state. This has led to the cooperative institutions losing their democratic style of management (Rajmanohar 2008b, 12).

Since colonial rule and extending until today, Indian cooperatives have been kept under government control. Within the federal structure of India not the Union but the Indian states are responsible for the cooperative sector. About 500,000 cooperatives with nearly 230 million members operate in India. In terms of membership and enclosure of sectors, the cooperative movement in India is one of the most prominent in the world (Amin 2007; Shukla 2009; Rajmanohar 2008b, 8). Cooperatives have a considerable share of certain economic sectors such as sugar production, handlooms, and agricultural credit (Amin 2007; Anand 2008; Hanisch 2010, 104f; Shukla 2009). Cooperatives are also important employers. In the formal or organized sector cooperatives are reported to provide for 32 percent of employment, whereby it should be noted that the informal or unorganized⁶ sector dominates India's economy (Bhatt 2009; Hanisch 2010, 25).

"Due to historical reasons, Indian cooperatives have been dominated by the Government from the start" (Rajmanohar 2008a, 26). Cooperatives were introduced in India early on, under the British Raj in the second half of the 19th century. In response to fierce famines and rural poverty credit, British authorities first set up credit cooperatives in rural areas (Nadkarni 2007; Taimni 1997; Rajmanohar 2008b, 6). These early steps in the Indian cooperative movement used the European movement as a role model (Nadkarni 2007). Still, given a lack of indigenous support for the Raiffeisen model of agricultural credit cooperatives the early Indian cooperative movement was promoted by a structure later known as the "classic British-Indian pattern" with a registrar whose powers exceeded those of the registrar of Friendly Societies in Britain by far and a specialized government agency responsible for registration, audit, supervision and dissolution of societies (Birchall 1997, 134 and Chapter 5).

Official cooperative legislation started after the turn of the century with the Cooperative Credit Societies Act passed in 1904. This 1904 act is considered the official beginning of

⁶ The informal or unorganized economy (also second or unrecorded economy) covers all undocumented legal as well as semi-legal and illegal economic activities. In developing countries not market-compliant economic activities are far more meaningful than in industrialized countries (Rittenbruch 1990, 71-73).

the Indian cooperative movement (A.P. State Cooperative Union 2008; Hanisch 2010, 26; Nadkarni 2007; Rajmanohar 2008b, 6). Since 1912, the Cooperative Societies Act has allowed for non-credit cooperatives and cooperative federations (Rayudu 1991; Rajmanohar 2008b, 6). In 1919, the jurisdiction for cooperatives was shifted from central to provincial administration, where it has remained a state matter until today (Hanisch 2010, 26, Nadkarni 2007; Rayudu 1991; Rajmanohar 2008b, 6). Only cooperatives which operate in more than one Indian state come under the Multi-State Cooperative Societies Act of 1984/85 (A.P. State Cooperative Union 2008).

After independence from British rule, the cooperative movement fitted quite well to Jawaharlal Nehru's model of a mixed economy, combining socialism and capitalism. Their organizational form was appraised as a combination of public and private ownership, and cooperatives were widely employed as governmental instruments for implementing the policies of community development defined in the five-year plans (A.P. State Cooperative Union 2008; Amin 2007; Hanisch 2010, 27; Rajmanohar 2008b, 7; Raju et al. 2007, 77; Taimni 1997). Since that time the employment of cooperatives as government tools for community development has involved the top-down usurpation of the movement. This has been amplified by extensive financial and material assistance. Motivated by vote-catching as well as concern for development politicians and governments assisted the cooperative sector with share capital, subsidies or guarantees and concessions (Rajmanohar 2008b; Taimni 1997). In this way, Indian cooperatives did not develop in a competitive environment but in an artificially promotive environment. Cooperatives' members and managers have largely been precluded from developing knowledge of managing or market (Hanisch 2010, 27; Taimni 1997).

The liberalization of the Indian economy that started in 1991 (Mitra 2011, 151ff) involved the partial liberalization of the cooperative sector as well. State control was reversed and the private sector accelerated at all levels (Shankar 2007; Taimni 1997). Liberalization increased competition. Cooperatives were confronted with a changed environment for their operation. Their performance now had to compete with other organizational forms. The cooperative movement in India still seems to be in process of adapting to these changes (Hanisch 2010; Singh 2007). Some authors evaluate the changes as an opportunity. Singh, for example, envisages for cooperatives a role in counteracting increasing income disparities that can ally liberalization (Singh 2007). Economic liberalization served as a starting point for legal reforms in the cooperative sector as well. In 1991, the 'Choudhary

Brahm Prakash Committee', an expert committee on cooperative legislation, was appointed by the national Planning Commission at the request of the National Cooperation Union of India (NCUI) and particularly the Cooperative Development Foundation (CDF), Andhra Pradesh (Sharma 2007). Based on the international cooperative principles the expert committee's recommendations targeted autonomy and self-reliance of cooperatives as well as their democratic character (Sharma 2007). Since the 1990s a few Indian states have implemented the committee's recommendations and enacted more liberal cooperative acts, whereby the new acts often did not replace the old acts but ran in parallel as is the case in Andhra Pradesh (see below), in Bihar, Jammu & Kashmir, Karnataka, Madhya Pradesh, Orissa, Rajasthan, and Uttaranchal (Hanisch 2010, 29; Sharma 2007). After the millennium, the Multi-State Cooperative Societies Act of 1984 was also amended and replaced by the Multi-State Cooperative Societies Act (MSCS Act) of 2002 (Sharma 2007).

Additional legal efforts to reform the Indian cooperative movement are still going on. Since 2006 controversial action has been taken to incorporate cooperatives into the national constitution of India. In 2006, the (106th) Constitution Amendment Bill was proposed to insert a new part IXB into the constitution with certain guidelines for running cooperative societies in India. The Amendment was rejected in August 2007. On November 30, 2009 a new attempt was started and the (111th) Constitution Amendment Bill was introduced to the lower house of the Indian national parliament, the Lok Sabha (Bhatt 2009; Hanisch 2010, 30; Sanyal 2008). The bill was passed by the Lok Sabha and the Rajya Sabha (upper house) in December 2011. The amendment to the Constitution grants citizens a fundamental right to form cooperative societies and shall protect cooperative societies in India from political and government interference (Jha 2011; Times of India, December 29, 2011).

The hitherto existing changes in cooperative legislation have resulted in more legal space for autonomy and independence for Indian cooperatives. This will be demonstrated by an examination of the legislation currently operating in Hyderabad, Andhra Pradesh. However, autonomy of Indian cooperatives is still not assured in practice as will be shown.

4.3. Cooperative development in Hyderabad and Andhra Pradesh

Hyderabad is one of the fastest growing urban agglomerations in India, rapidly approaching the ten-million megacity line with an estimated population of 7.7 million in the year 2011 and an expected population of 10.8 million in the year 2012 (GoI 2011). Due

to natural population growth, Hyderabad will continue to grow even if measures are taken to control migration (GHMC 2007; MCH 2005; MCH 2003). Enormous and rapid urban growth rates stress the urban infrastructure and environment in urban agglomerations such as Hyderabad: Urban and peri-urban inhabitants face inefficient structures for public and private goods, with service provision shortages for various facilities such as water, power, housing and transportation. Current urban institutions are not able to cope with the demographic pressures or risks of climate change and environmental degradation caused by populations on this scale (Revi 2008, 225; Vira and Vira, 2004). Cooperatives are supposed to provide room for incorporating civil society into the management of scarce resources and urban challenges (Elsen 2012, 85). However, the cooperative sector in Hyderabad is adversely affected by poor member participation and a lack of autonomy. The following sections will demonstrate the history and the shortcomings of Hyderabad's cooperative sector.

Under colonial rule Hyderabad had the status of sovereign princely state and therefore did not employ either the 1904 or the 1912 acts (Hirschman 1970). Despite this Hyderabad initiated similar cooperative legislation quite early on: In 1914, the princely state established a Department of Cooperation and passed its own Credit Societies Act, and in 1952 the Hyderabad Cooperative Societies Act extended the cooperative movement further in the small state (Hanisch 2010, 28; Rayudu 1991).

After Independence, the Princely State of Hyderabad, ruled by the Nizam, refused to join Pakistan or India. During the so-called 'Operation Polo' of 1948, the Indian government coerced Hyderabad's accession by force (Sherman 2007). In 1956 Hyderabad and the state of Andhra (a state comprising 16 Telugu-speaking districts that had broken off from the state of Madras in 1953) were merged into one integrated Telugu-speaking state—Andhra Pradesh—according to the States Reorganisation Act (Rayudu 1991; Mitra 2011, 100). The reorganization of states necessitated a reorganization of cooperative legislation (Hanisch 2010, 28). However, until 1964 the newly composite state of Andhra Pradesh lacked a uniform legislation of cooperatives (Rayudu 1991). The Telangana region of the new state still employed the 'Hyderabad Cooperative Societies Act of 1952' while the Andhra region employed the 'Madras Cooperative Societies Act of 1932'. In 1964 a uniform law for the entire state of Andhra Pradesh replaced the former regional acts. Since then, the 'Andhra Pradesh Cooperative Societies Act of 1964' and the 'Andhra Pradesh Cooperative Societies

Rules’ have constituted the legislation in effect, even though they have been amended several times (Hanisch 2010, 28f.; Rayudu 1991).

In the 1990s Andhra Pradesh was the first Indian state to implement the recommendations of the ‘Choudhary Brahm Prakash Committee’ into the ‘Andhra Pradesh Mutually Aided Cooperative Societies Act of 1995’ (Hanisch 2010, 29; Sharma 2007; Rajmanohar 2008b, 8). Still, the ‘Andhra Pradesh Mutually Aided Cooperative Societies Act of 1995’ did not replace the former ‘Andhra Pradesh Cooperative Societies Act of 1964’. Both acts are currently valid in Andhra Pradesh (A.P. State Cooperative Union 2008).

4.4. Overview of today’s cooperative societies in Hyderabad

In Hyderabad and Andhra Pradesh cooperative societies can register under four different acts. The characteristics of the societies coming under the different acts vary extensively. In addition, one has to keep in mind the high number of non-registered societies or entities that are registered under different society acts. These types of societies can also comply with cooperative principles. The formal acts for registration as a cooperative encompass the (1) the ‘Andhra Pradesh Cooperative Societies Act of 1964’ (APCS Act 1964); (2) the ‘Andhra Pradesh Mutually Aided Cooperative Societies Act of 1995’ (APMACS Act 1995); (3) the ‘Multi-State Cooperative Societies Act of 2002’ (MSCS Act 2002); and (4) the ‘2002 Amendment of the Indian Companies Act of 1956’ for cooperative producer companies (Hanisch 2010, 31). The co-existence of the older restrictive legislation (APCS Act of 1964) with post-1990s more liberal cooperative legislation (APMACS Act 1995) characterizes the cooperative sector in Andhra Pradesh. Our study shows that the majority of Hyderabad’s cooperatives are still registered under the APCS Act 1964. They lack autonomy and contradict cooperative principles, showing certain shortcomings in participative governance. These shortcomings in participation go along with shortcomings in their capabilities. Accordingly, lack of autonomy is highlighted as a core problem of the cooperative sector in Hyderabad. The following table presents the cooperative societies in Hyderabad that are registered under the APCS Act 1964 or the APMACS Act 1995 in 2010. The data was received in 2009 and 2010 from the Deputy Registrar of Cooperative Societies Hyderabad District, the Deputy Registrar of Cooperative Societies, Ranga Reddy District District and the Cooperative Development Foundation, Hyderabad. A similar illustration of the data can be found in Hanisch 2010, 37ff:

Table 4.1: Number of cooperative societies in Hyderabad registered under the APCS Act 1964 and the APMACS Act 1995 in 2010

	Housing	Thrift & Credit	Consumer	Urban Banks		Others*	Total	Percentage
				Working	Under liquidation			
APCS Act 1964	462	439	177	31	15	638	1,762	84%
APMACS Act 1995	165	140	44	-	-	6	345	16%
Total	627	579	221	31	15	644	2,107	100%
Percentage	30%	27%	10%	1%	1%	31%	100%	

*'Others' includes weaker section cooperatives, labor contract cooperatives, industrial cooperatives, and bamboo worker cooperatives, among others.

Source: Data received from Deputy Registrar of Cooperative Societies, Hyderabad District.

There are 2,107 registered cooperative societies in the urban district of Hyderabad as of February 28th 2010. The APCS Act 1964 is far more prominent and covers 1,762 cooperatives whereas the APMACS Act 1995 only covers the remaining 345 cooperatives. Sectorwise, the majority of registered cooperative societies in the urban district of Hyderabad belong to housing societies (627) or credit societies (579). Consumer cooperatives rank third (221) and urban banks fourth (46). Following these main sectors are labor contract cooperatives, industrial cooperatives, weaker section cooperatives, bamboo worker cooperatives and others (see Table 1).

The vast majority of cooperative societies in the urban district of Hyderabad are still registered under the APCS Act 1964, but over the last decade the APMACS Act of 1995 shows an incremental increase. In 2006 (January 31st), only 210 societies were registered under the APMACS Act 1995, and in 2009 (February 28th) 345 societies were already registered. Housing (73 to 165) and credit societies (89 to 140) were mainly responsible for this increase (data received from the Deputy Registrar of Cooperative Societies, Hyderabad District).

As Hyderabad comprises an area larger than its urban nucleus, its suburban surroundings have to be considered if a comprehensive picture of the cooperative sector of the city is to be created. Ranga Reddy District neighbors Hyderabad directly. The district has already partly become urban and parts of it belong to the Hyderabad Urban Agglomeration. Data on cooperatives in the Ranga Reddy District is only available for the whole district on an aggregated level. On July 31st, 2009 a total number of 2,683 cooperative societies were registered in the Ranga Reddy District. Of those 1,343 societies were registered under the APCS Act of 1964 and 1,339 under the APMACS Act of 1995. Sectorwise the vast credit cooperatives dominate, covering 1,289 societies. Additionally, 580 housing cooperatives and 463 labor contract societies are registered in the Ranga Reddy District. Besides these are a few consumer cooperatives (52), joint farming cooperatives (29), urban bank cooperatives (26), farmer service cooperatives (12), one district cooperative central bank and one district cooperative marketing society. As in Hyderabad District, the APMACS Act 1995 has been spreading in the Ranga Reddy District over the last couple of years. On January 31st 2006 only 104 cooperatives were registered under the APMACS Act 1995, and on July 31st 2009 1,339 cooperatives were registered under the new act. This increase is almost exclusively due to an increase in thrift and credit cooperatives under the new act (from 86 to 1,102) and an increase in housing cooperatives from 49 to 212 (data received from the Deputy Registrar of Cooperative Societies, Ranga Reddy District).

4.5. Legal scope for participation and autonomy in APCS Act of 1964 cooperatives and APMACS Act of 1995 cooperatives

The decision-making power of cooperatives and their members was strengthened considerably by the APMACS Act of 1995 when compared to the APCS Act of 1964. Accompanying this gain in power on the part of cooperatives and their members is a consequent decline of influence on the part of the registrar and the government. The registrar of cooperative societies heads the Cooperative Department (Andhra Pradesh State Cooperative Union Ltd. 2008). The following table compares the powers assigned to cooperatives and their members in the two acts.

Table 4.2: Powers assigned to cooperatives and their members in the APCS Act of 1964 versus the APMACS Act of 1995

	APCS Act of 1964	APMACS Act of 1995
Making rules	The government is empowered to make rules on every subject covered by the Act	There is no rule-making power of government. All affairs of a cooperative are to be regulated by the provisions of the Act and the bylaws of the cooperative
Special Courts	Government sets up special courts and tribunals ⁷	Government sets up special courts and tribunals
Registration	The registrar registers cooperative at his discretion and can cancel registration at his discretion	The registrar has to register cooperative if it is in consonance with the Act The registrar can only recommend dissolution to a tribunal if a cooperative works in contravention of the Act and principles of cooperation, etc.
Bylaws and Amendments	The registrar registers bylaws and can amend bylaws compulsorily; the registrar must approve of all bylaw amendments The registrar can compulsorily amalgamate, divide, and classify cooperatives	The registrar has little power: he has to register bylaws if they are in consonance with the Act The registrar amends certain bylaw provisions and takes on record amendments to most bylaw provisions
Admission, disqualification and expulsion of members / committees	In matters of admission, disqualification and expulsion of members, the registrar has final say. He can admit members and he must approve of expulsion of members The registrar can disqualify committee members and he can supersede committees	Admission, disqualification and expulsion of members and the committee are the exclusive prerogative of the cooperative

⁷ for the settlement of internal disputes, for taking cognisance of violations of the provisions of the act, for deciding on action to be taken on special audit, inquiry, etc.

Management and board	Size of board fixed; term of board fixed; composition of board fixed; reservations on board ⁸ Elections are conducted by the registrar who can call for special general meetings and for meetings of no-confidence	Size, term, composition of board left to bylaws; staggered terms Disqualification of all directors for not conducting elections in time, for not conducting general body meetings in time, for not placing audited accounts before annual general meeting
Directives	The registrar can give directions for cooperatives	The registrar cannot give directives
Staff	Common cadre possible; little authority with board Registrar must approve staffing pattern, service conditions, salaries, etc. Deputationists ⁹ from government	All staff fully accountable to cooperative Deputationists from government and other organizations possible if a cooperative so deserves
Share capital	Government and other non-members can contribute share capital	Members alone can contribute share capital and non-member share capital is forbidden The government may provide other funds and guarantee to cooperatives based on memorandum of understanding that it may enter into with cooperative.
Investment in own business	Investment of funds even in own business is restricted, lending limits are fixed by the registrar who must approve of investments in own business	No restriction in investment in own business, but other investments to be in any non-speculative manner specified by bylaws

⁸ Reservation of appointments or posts in favour of the Scheduled Castes, the Scheduled Tribes and the Backward Classes

⁹ Authorised delegates/ envoys

Audit	<p>The registrar must approve of transfer of assets and liabilities and of division or amalgamation</p> <p>The registrar approves of the bank in which deposits can be kept</p> <p>The registrar audits; inspects; inquires</p> <p>The registrar can summon documents etc.; can surcharge</p>	<p>Audit is the responsibility of the board; auditor to be chartered accountant or from registrar's office at cooperative's discretion; non presentation of audit report to general body in stipulated time results in disqualification of all directors</p> <p>The registrar receives annual reports and audited financial statements; he inquires and he can conduct special audit where nonmember funds are involved</p>
Settlement of disputes	<p>The registrar can suspend officers and settle disputes; he winds up cooperative and appoints liquidators; he can recover dues</p> <p>The registrar serves on cooperative tribunal; he sanctions institution of prosecution and handles appeals, revisions, and reviews</p> <p>The registrar or his appointee is the sole arbitrator</p>	<p>Bylaws must contain manner of arbitrator settlement of disputes, only after which tribunal has been given role</p> <p>The registrar has no role</p>
Dissolution	<p>Dissolution only by registrar, only in the event of poor functioning; voluntary dissolution by members is not possible; no time limit on liquidation proceedings</p>	<p>Dissolution by members and by tribunal; not just because of non-viability, but also because of lack of interest in continuing cooperative; for not functioning in accordance with the Act and Principles of Cooperation; liquidators proceedings to be completed in 2 years</p>

Extra powers of government	<p>Government can postpone elections</p> <p>Government can exempt cooperatives from legal provisions</p> <p>Government can nominate directors to board</p> <p>Government can appoint persons-in-charge for state level federations</p> <p>Government can frame rules</p> <p>Government can handle appeals, revisions, reviews</p> <p>Government can give directions to cooperatives regarding reservations on staff</p> <p>Government can hold equity in cooperatives</p>	No extra powers of government
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Source: Andhra Pradesh Legislative Assembly: APCS Act of 1964; Andhra Pradesh Legislative Assembly: AMPACS Act of 1995; Andhra Pradesh State Cooperative Union Ltd. 2008

Cooperatives and their members have become the decisive decision-makers in APMACS Act of 1995 cooperatives. The registrar is actively participating only in the processes of the registration and the audit of cooperatives. Hence, the formal rules on which the APMACS Act of 1995 cooperatives are based allow for member participation. However, many APMACS Act of 1995 cooperatives, though independent from governmental control, are under external supervision by non-governmental organizations. These cooperatives rely on their external guidance and financial as well as administrative support. In most cases observed in Hyderabad the cooperatives have not been initiated by their members themselves but by external impulse. Only rarely, it seems, have members of cooperatives in Hyderabad designed their own rules and retained involvement in direct decision-making processes, thereby identifying with rules and resources and evolving commitment and accountability. For example the Sahaja Aharam Mutually Aided Cooperative Federation Ltd, registered under the APMACS Act of 1995, is a federation of seven producer cooperatives located in the peri-urban area of Hyderabad and one consumer cooperative society located in urban Hyderabad. ‘Sahaja’ meaning natural and ‘aharam’ meaning food, it is the federation’s declared intention to promote an eco-friendly food supply in Hyderabad, including farming, consumption and the supply chain. The federation was

initiated in 2008 by two non-governmental organizations, the Centre for Sustainable Agriculture (CSA) and the Association for India's Development (AID India). The Sahaja Aharam Organic Consumer Cooperative Ltd currently has 25 members, most of which are CSA and AID India employees. The entire management is in the hands of the two supporting agencies. The cooperative's management board is not elected and solely occupied by employees of AID India whose president is the executive director of CSA. Elections are intended and members of the cooperative are supposed to elect the managing board from among themselves, but no date has been set for the election so far (as of February 2012).

4.6. Conclusion

Characterized by the “classic British-Indian pattern” Indian cooperatives have been kept under governmental control since colonial times. Ongoing liberalization reforms in the cooperative sector since the 1990s provide more legal scope for participation and autonomy as the review of the co-operative sector in Hyderabad has shown. In urban Hyderabad, the number of cooperatives registered under a liberal cooperative act is accelerating during the last years. Mainly housing and credit societies are responsible for this increase. Yet, the co-operative sector in Hyderabad is facing challenges which are characteristically for the cooperative movement in India:

Notwithstanding the given legal scope, rules-in-use of the new generation of cooperatives in Hyderabad still do not comply with the principles of autonomy and the cooperatives rely on external supervision by non-governmental organizations. It remains to be seen whether the ongoing dependency of the cooperatives on outside agencies will initiate a trend towards privatization, a phenomenon to be observed from many countries. A first case example of this trend might have been the conversion of the widely known Karimnagar district mutually-aided cooperative milk producers union located in a rural district of Andhra Pradesh, into a producer company¹⁰ in 2012 (The Hindu, June 3, 2012). The conversion of the Karimnagar dairy cooperative might also been motivated by another threat to the cooperative movement in Hyderabad and Andhra Pradesh. In recent years political activities to restore the powers of government on the cooperative sector intensified (Government of Andhra Pradesh 2010). Concerning this matter, the power and impact of

¹⁰ In contrast to private companies, producer companies are still based on co-operative principles but membership is restricted to primary producers.

the (111th) Constitution Amendment Bill which shall protect cooperative societies in India from political and government interference still needs to be demonstrated. Given the antithetic political and legal driving forces it will be interesting to further monitor the next steps of development in Hyderabad's and India's cooperative sector.

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5. SECOND CASE STUDY, FIRST PART (P4): SOCIAL CAPITAL AS AN EFFECTIVE MEANS AGAINST MEDICAL EXPLOITATION: WHAT CIVIL SOCIETY CAN DO

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Abstract: The costs of medical treatment are increasing worldwide. In low-income countries adequate health insurance systems are lacking and the average person is forced to pay for medical services out of pocket, oftentimes going into debt. At the same time certain sectors of the medical industry are expanding the health care market and prescribing unnecessary drugs and treatments. Here we look at this problem of medical exploitation in India and introduce social capital as one potential countermeasure. The relationship between health care and social capital has not yet been sufficiently explored and the oftentimes scientifically vague concept of social capital has been criticized. In response to this criticism we have undertaken a literature review using the ideas of Robert Putnam as a reference point. By means of a qualitative case study we proceed to illustrate how social capital can be employed against medical exploitation. Our case study focuses on a federation of neighborhood associations in Hyderabad which campaigns for medical fairness. We discuss how this community employs bonding and bridging forms of social capital. Although collective action against medical exploitation depends on an array of resources, we conclude that social capital is a resource that communities already possess, and deserves recognition.

Keywords: Medical exploitation; medical industry; social capital; collective action; civil society

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5.1. Introduction: Medical exploitation. Selling sickness in India and worldwide

The costs of medical treatment are increasing worldwide. Especially in countries without an established health insurance system such as India, the average person is suffering enormously under the burden of oftentimes unbearable medical costs. Increases in out-of-pocket expenses for public and private services are already driving many families into poverty (Witehead et al. 2001: 833). The poor are remaining untreated, and those who can afford medical treatment often face long-term impoverishment due to high and unexpected costs (ibid 834).

The medical industry is making a significant contribution to the increasing overall cost of health care. Besides providing basic medical care, the medical industry is progressively working on expanding the health market. Strategies for earning additional money from sick patients or from those who think they are sick are becoming more and more common. There is increasing evidence, for example, that the pharmaceutical industry sponsors certain diseases, promoting them to both prescribers and consumers, and thereby attempting to convince healthy people that they are sick (Moynihan et al. 2002). New diseases such as hair loss are being invented, and drugs to cure them sold. Unfortunately, not only the pharmaceutical industry contributes to the explosion of health care costs—medical professionals themselves are accounting for a significant share of the increase. Doctors, for example, often prescribe unnecessary drugs and unnecessary diagnostic tests and treatments. Investigations in Delhi revealed high expenditures in the private sector on unnecessary drugs, while in the public sector education subsidies and salaries translated into little (and in small clinics, very little) effort or care (Das, Hammer 2007). An effect called supplier induced demand reflects the asymmetrical information and economic interests of health care providers (ibid: 28) and leads to a range of health care products far exceeding the essential. In a tremendous finding, investigations revealed that up to 70% of all pharmaceutical drug expenditures in India are considered unnecessary (Iyer, Sen 2000). Interwoven with supplier induced demand is a phenomenon known as expansion of boundaries of treatable diseases, which, in addition to the invention of new diseases, reflects the strong commercial interests of health care providers and can result in individual patients being exposed to potential harms with little expectation of benefit (Doran, Henry 2008).

These accumulating effects of health marketing and disease mongering, resulting in unnecessary overtreatment with partly hazardous side effects (Witehead et al. 2001), are an often overlooked socioeconomic problem. In India, expenses for medicines account for 50—80% of the cost of treatment, with both the poor and the affluent confronting a powerful pharmaceutical industry (Srinivasan 2011). Here it is important to note that the problem of medical exploitation affects the various strata of society differently. Whereas the middle class has the privilege of worrying about the quality of treatment and about unnecessary treatments, the poor have to fight to afford basic medical care. Without profound medical knowledge, the average person in India, whether middle class or poor, is at the mercy of the medical industry, with tremendous economic pressure on doctors of any discipline. In light of this deadlock it seems that civil society should help itself. This can be done via civil society-based initiatives as well as collaborations between civil society and agents of the medical profession, as we show here. In the course of this paper we introduce social capital as one instrument in the hands of civil society that can counteract the problems presented.

In the first part of the paper, we classify the significance of social capital within public health research and explain the concept of social capital in detail. In doing so, we focus on Robert Putnam's ideas. In the second part of the paper, we move on to outline a real-world example in which a federation of neighborhood associations in Hyderabad has employed both bonding and bridging forms of social capital in running a campaign for increased medical fairness. In our conclusion we point to further resources affecting the potential for collective action while stressing that civil society's position in confronting medical exploitation can be considerably strengthened by the use of social capital.

5.2. Social capital and health

The health of the individual as well as society as a whole is largely affected by the availability of resources (Israel et al. 1994). The connections between social and economic status and health outcomes have been extensively elaborated upon (Hawe, Shiell 2000: 874). However, the relationship between health and social capital, and more precisely between health and community networks, trust and norms of reciprocity, has not yet been sufficiently explored. Scientific analysis of the interrelation between health and social capital is also largely lacking scientific accuracy. Precise definitions of the applied concept of social capital are needed, as are their precise application to particular aspects of public health. In this paper we try to fulfill both requirements. We look at the problem of medical

malpractice and explore the utilization of a particular community's social capital as one instrument in the hands of civil society that can counteract medical exploitation. We claim that a large amount of social capital is a powerful resource in the hands of civil society for joining power and acting collectively to gain access to the skills and knowledge necessary in the fight against medical exploitation. We base this hypothesis on an extensive literature review on the topic of social capital and collective action, focusing primarily on the ideas of Robert Putnam. With respect to the scientific debate, we attempt a clear and well-defined description of social capital, which is of major importance in addressing skepticism regarding the scientific value of the concept for public health. The empirical application of a clearly distinguished and defined concept of social capital can deliver verifiable findings to enhance our understanding of public health. We agree with Kawachi who states that social capital 'provides a useful framework for identifying the potential resources available within a community to improve the health of its members' (Kawachi 1999: 128). In order to focus on the interlinkages between social capital and collective action, this short literature review focuses on social capital on the macro-level following the internal perspective or 'collective perspective' adopted by Robert Putnam (Putnam et al. 1993; Putnam 1995; Putnam, Goss 2001). This perspective looks at social capital as a community resource. The micro-level, which is highlighted among others by Bourdieu, where social capital functions as an individual resource (Bourdieu 1983; Kunz et al. 2008: 20f; Riemer 2005: 89ff, 115) plays a lesser role in our review .

We define our concept of social capital in reference to Putnam as comprising cultural and structural aspects, 'features of social organization, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated actions' (Putnam et al. 1993: 167) and 'enable participants to act together more effectively to pursue shared objectives' (Putnam 1995: 56). Social capital in Putnam's approach has both cultural and structural aspects . The cultural aspects encompass norms of generalized reciprocity and trust. Generalized norms of reciprocity include general courtesy and assistance without direct payment or conditions. They have long-term value but require a certain length of socialization to grow (Putnam et al. 1993: 171ff). With respect to trust, Alejandro Portes emphasizes that it provides reliability of reciprocity to the cooperators and can serve as a substitute for formal rules. Social capital in this respect maintains discipline (Portes 1998: 10). Horizontal networks form the structural aspect of social capital; they encompass formal and informal networks (Putnam, Goss 2001: 25). According to Putnam, networks can be differentiated into bridging and bonding networks. Putnam and Goss define

bridging networks as those networks that team heterogeneous people and bonding networks as those that team homogenous people (ibid 29; Roßdeutscher, Westle 2008: 167). Most networks are characterized by bridging and bonding aspects simultaneously. John Field argues that both forms include benefits and risks. Bonding social capital fosters in-group solidarity and bridging social capital fosters the diffusion of information, the generation of broader identities and reciprocity (Field 2003: 32). For facilitating inner-group collective action, we assumed that closure and a high amount of bonding social capital are profitable, but bridging social capital can also be useful for communities, allowing the addition of new resources. The negative aspects of social capital as mentioned by Portes (1998) and Woolcock (1998), include downward leveling norms and the exclusion of outsiders, and have only lately been taken into account by Putnam himself in *Gesellschaft und Gemeinsinn* (Putnam, Goss 2001: 24). These aspects of course should be kept in the back of one's mind when analyzing the interrelation between social capital and health care.

Putnam highlights the positive effects of social capital remarking that networks of civic engagement advance trust and norms of reciprocity, and thereby 'facilitate coordination networks, facilitate coordination and communication, amplify reputations, and thus allow dilemmas of collective action to be resolved' (Putnam 1995: 67). Other authors, too, refer to this interrelation. Social capital has been viewed as a decisive factor in fostering cooperation because it reduces reciprocal uncertainty, incentives to defect and transactions costs (Baud, de Wit 2008: 17; Pretty, Ward 2001: 210; Putnam et al. 1993: 177; Putnam, Goss 2001: 21). Trust among actors is seen as enabling collective actions (Ostrom, Ahn 2008). The Nobel laureate Elinor Ostrom even puts trust 'at the core of an evolving theoretical explanation of successful or unsuccessful collective action' (Ostrom 2007b: 200).

Social capital and collective action mutually amplify each other. Our own approach to social capital does not attempt to solve the hen-and-egg question of social capital and collective action. It is assumed that social capital is in most cases not generated deliberately but evolves as a by-product of other activities (see the argumentation of James S. Coleman here for individual social capital, Coleman 1991: 412; Coleman 1988: 118). We restrict our statements to specific, defined and bounded communities and to a few directional functional chains, i.e. how bonding social capital advances collective action and how bridging social capital can amplify a community's medical skills.

How has social capital been incorporated into the field of public health so far, and to what extent can it be used to counteract medical exploitation? Public health literature has debated on both the direct and indirect implications of social capital in health care. Even though there is agreement among scientists that social affiliations influence health (Hawe, Shiell 2000: 876; Kawachi 1999: 121), the extent of this influence has been controversially discussed. It has been cautioned not to neglect the concepts of power and inequality, and objections have been raised to the oftentimes scientifically vague concept of social capital (Hawe, Shiell 2000: 880). Empirical reports providing evidence of the interrelations between social capital and health outcomes are still rare (Kawachi 1999: 122), with some of the limited empirical studies available having been produced by Kawachi et al. On the basis of US data their studies deliver some correlative evidence linking social capital with mortality (Kawachi et al. 1997) and with self-rated individual health (Kawachi et al. 1999). Kawachi views social capital as affecting health outcomes “via processes of informal social control, maintenance of healthy norms, and the provision of access to various forms of social support” (Kawachi 1999: 124). In these studies social capital is explored as having two major implications. The first implication involves social capital at the community level in what Putnam would call its bonding forms: Communities with a high amount of social capital exercise social control and act as watch dogs against deviant behavior such as drug abuse. Kawachi admits that in this form social capital can also have adverse health effects when social affiliation cultivates behavior such as smoking or drinking (Kawachi 1999: 128). Regarding the fight against medical exploitation, this watchdog function of a community’s social capital can be used for community monitoring of the medical profession, as we will presently illustrate using a case from India. The second implication of social capital observed by Kawachi and others deals with social capital at the individual level. A particular individual’s supply of social capital seems to increase that individual’s access to health support, which we also take into account in our Indian case. However, we primarily focus on social capital at the community level. Here we point out how a community’s supply of bridging social capital can enhance the amount of medical knowledge available to the community, which is essential in offsetting medical exploitation. Referring to Putnam’s basic ideas on social capital, we emphasize a third major implication of social capital in health outcomes in general and in the fight against medical exploitation in particular: We claim that the social capital of a community increases the probability of collective action in health care issues, including the fight against medical overtreatment. This interrelation increases a community’s potential to join hands against the pharmaceutical lobby. Referring back to the exploration of public health

and social capital so far, and relying on Putnam's concept of social capital, we therefore posit social capital as a useful resource for civil society in counteracting medical exploitation by facilitating awareness building, sharing and the accumulation of knowledge and skills, and setting up a counterforce. We empirically account for our theses using a case of neighborhood engagement against medical exploitation in the South Indian city of Hyderabad.

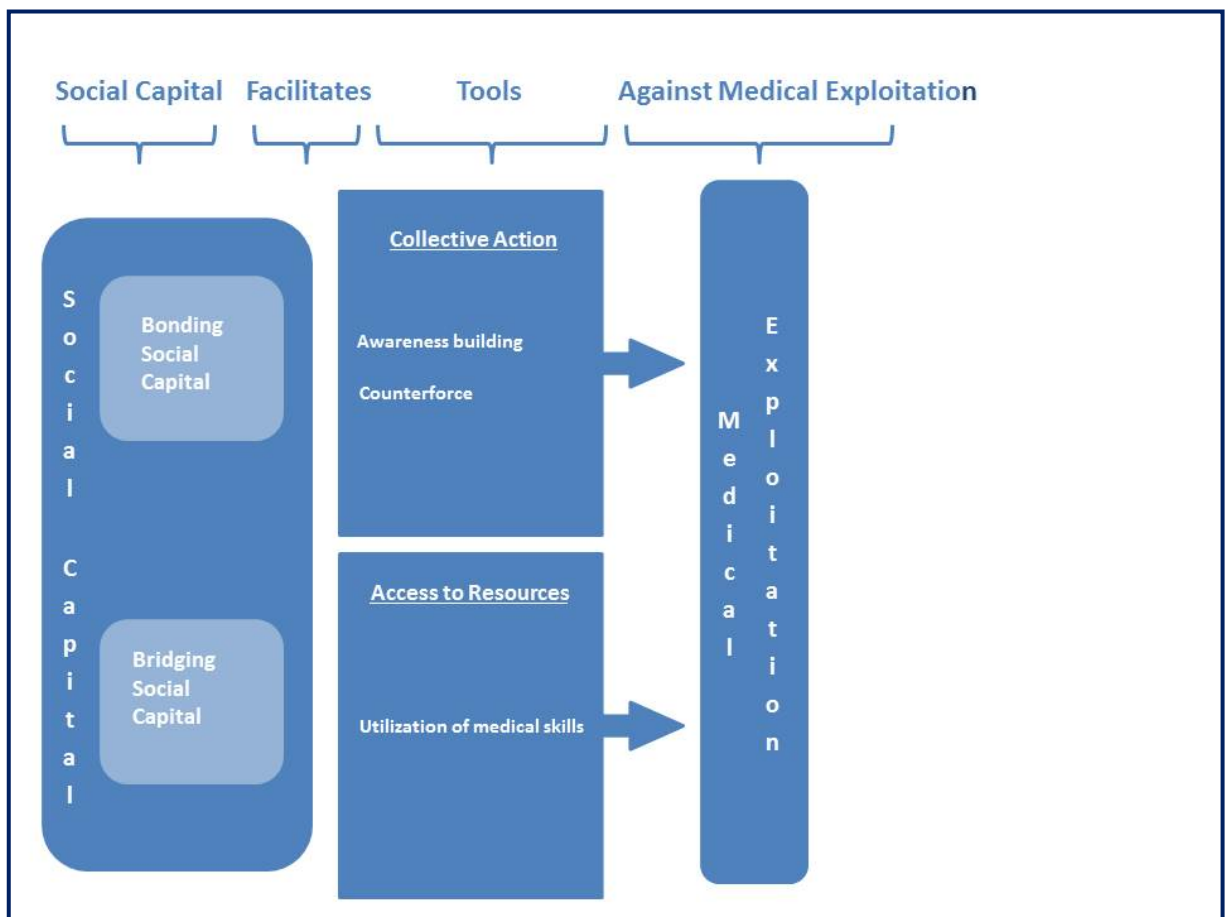


Figure 5.1: How civil society can employ its social capital against medical exploitation

Source: Authors

5.3. Case SCOTRWA in Hyderabad against medical exploitation

Located in the South Indian city of Hyderabad, SCOTRWA (Standing Committee of Tarnaka Resident's Welfare Associations) is a federation of neighborhood associations that is very active in the fields of care for the elderly and health care, and is currently organizing a large campaign against medical exploitation. We will present this case as an example of a community's utilization of social capital in antagonizing medical exploitation.

During the last few decades the phenomenon of neighborhood associations in India, mostly called Resident Welfare Associations (RWA), has been of growing prevalence (Coelho, Venkat 2009: 361). RWAs are associations of residents living in houses or apartment buildings. They are concerned with the maintenance and security of their housing and the neighborhood, and with public services for their neighborhood, e.g. water or solid waste management. Neighborhood associations are usually referred to as ‘middle class associations’. Their main purpose is the improvement of the quality of life of their residents. RWAs act directly by organizing activities such as park maintenance or daycare, and also indirectly by lobbying, monitoring and bargaining with public authorities. The scope of activities pursued by individual RWAs differs greatly, as does the amount of resident participation (Huchon, Tricot 2008: 89; Kamath, Vijayabaskar 2009: 369; Kennedy 2009: 67; Tawa Lama-Rewal 2007). The growing strength of RWAs has been criticized for the hazards of withdrawing power from elected representatives and promoting exclusionary politics (Coelho, Venkat 2009: 361; Harriss 2010, pp. 12ff). The case presented here from Tarnaka in Hyderabad in part reflects these hazards. However, the federation’s campaigning for a wider participation base distinguished this case from others. The information on SCOTRWA outlined here is based on field research for the project Sustainable Hyderabad.

Whereas several existing RWAs seem to function more or less as service agencies to which residents as users pay fees, the SCOTRWA RWAs, based in Tarnaka, Hyderabad, have been cited as an example of citizen participation and urban self-management. Tarnaka is the 100th ward in East Hyderabad, with a population of nearly 80,000, dominated by middle-income families. SCOTRWA comprises 19 colony welfare associations and 220 apartment building welfare associations throughout Tarnaka and its surroundings. SCOTRWA is the federation of these RWAs, formed in 2001 and registered under the Society Act in 2002. Its formation was motivated by increases in the fees assessed by cable TV operators in 2000. With the support of an NGO called International Foundation for Human Development (IFDH), many RWAs united themselves to successfully resist the fee increases and simultaneously become a permanent committee to unite the RWAs of Tarnaka. The formation of SCOTRWA and its persistence has been credited to the leadership of Dr. Rao Chelikani, former president of the UNESCO-NGO Standing Committee and a political activist striving for enhanced civic participation and direct democracy in Hyderabad. Including Mr. Chelikani, the group of SCOTRWA office bearers and actively responsible members is dominated by male and retired inhabitants. SCOTRWA is currently trying to

activate other social groups. Despite its shortcomings, SCOTRWA has realized several collective action-based projects in the fields of food, water and sewage, green spaces, and health. SCOTRWA activities have generated a high amount of social capital, which the federation is also currently using to counteract medical exploitation. The RWAs and apartment building associations belonging to SCOTRWA stay independent as registered neighborhood associations covering certain territories in Tarnaka, and have their own, independent organizational structures, including regular meetings and elections. Within their respective areas the individual SCOTRWA RWAs deal with their problems independently. Participation in and commitment to SCOTRWA varies among different RWAs. In order to pool resources and influence, SCOTRWA enlarged its structure in 2006 to form several horizontal committees on specific issues and with specific target groups. These structures enlarged the networks among Tarnaka residents, thereby increasing bonding social capital. One of the most active committees is the Senior Citizens' Forum for Tarnaka. Its activities span from the organization of free health camps in conjunction with the Red Cross to the organization of social events. Other active committees are the Tarnaka Consumer Council, which strives for a dialogue between consumers and providers, and the recently formed Community Radio Committee, which intends to set up a community radio station for Tarnaka.

In its health campaigns SCOTRWA can now rely on bonding forms of social capital to organize the collective action of Tarnaka residents against medical exploitation. In October 2011 the Consumer Council yielded a new initiative, Doctors—Diagnostic Centres, which is supposed to fight medical exploitation in Tarnaka. This civil society initiative uses two basic instruments: awareness building and sensitization. These methods are low in material and financial costs. The first instrument, awareness building among the population concerning medical exploitation, is simplified and accelerated in its implementation by the large amount of trust and networks already available in Tarnaka on which campaign initiators can rely. Awareness building is done via the RWAs' and committees' meetings, via face-to-face communication, via the organization's newsletter Tarnaka Times, and is planned over Community Radio, which is to be established in 2012. The second instrument against medical exploitation that SCOTRWA has undertaken involves winning over doctors in Tarnaka and sensitizing them to their responsibilities. Similarly, medical shops, diagnostic centers and medical distributors are to be sensitized. SCOTRWA can advocate for 19 colony welfare associations and 220 apartment building welfare associations. This greatly enhances its bargaining power. Both instruments, i.e. awareness building and

sensitization, are largely designed with the help of SCOTRWA's bonding social capital, its networks and the trust among its population. However, these initiatives could not be successfully initiated or implemented without sufficient medical knowledge. SCOTRWA is provided with a large amount of medical knowledge via the bridging social capital inherent in its networks with the medical profession. During the last several years SCOTRWA has initiated an annual dialogue between its community and the medical profession on Doctor's Day, July 1st. The dialogue is intended to overcome the distance in terms of medical knowledge, skills and interests that separates citizens and doctors. SCOTRWA also has a cooperation with the Innova Children's Heart Hospital in Tarnaka. Innova acts as one of the community hospitals of Tarnaka, with facilities available for use for meetings on preventive health education. Innova organizes health education sessions and trains candidates sponsored through SCOTRWA in domestic nursing care and bedside assistance. In a joint effort SCOTRWA and Innova want to facilitate an Ethics and Peace Committee for counseling and reconciliation in cases of strained relations between doctors and patients. These bridging interlinkages with the medical profession provide SCOTRWA with the necessary medical skills to campaign against medical exploitation.

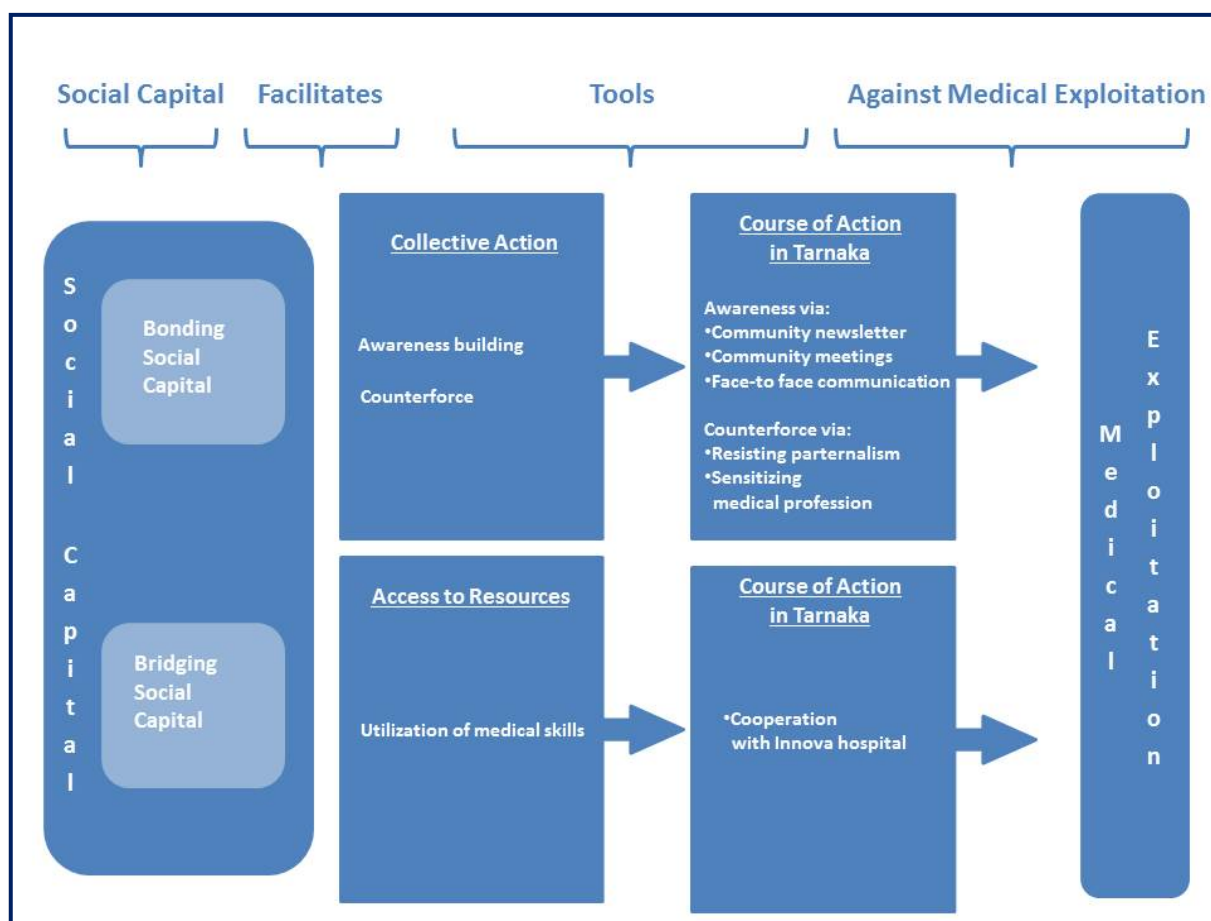


Figure 5.2: How Tarnaka employs its social capital against medical exploitation

Source: Authors

5.4. Conclusion

This article assesses the increasing problem of medical exploitation as being especially troublesome for societies in countries lacking adequate health insurance systems, such as India. Medical exploitation in this context has been found to pressure average people in all strata of these societies. Based on findings from an extensive literature review and an Indian case study, this article introduces social capital as a tool for counteracting medical exploitation. Since doctors are oftentimes facing economic pressure and are incorporated into the system of medical exploitation, we assert that civil society itself needs to promote counteractive measures. Given civil society's disadvantages in terms of economic power and medical knowledge, we suggest employing social capital as a counterforce. We assert that bonding forms of social capital, which team community members together, are poised to facilitate collective action and awareness building in the community, and thereby to exert pressure on the medical industry. Bridging forms of social capital, providing linkages between civil society with the medical profession, allow for the medical skills and

knowledge necessary in counteracting medical exploitation. This article's argumentation thus provides aggrieved actors belonging to the sphere of civil society with a template for how to use their social capital in striking out against medical exploitation.

The case presented here is one of middle class engagement. It should therefore be addressed as to whether similar cases can be found in other strata of society. In their review of health-related self-help in Western and industrialized countries, Oliver Razum and K. R. Nayar state that these 'are not equally appropriate for all population strata. Many groups are run and attended largely by the white middle class in distant middle class suburbs' (Razum, Nayar 2006: 60–61). In addition, collective action and participation require more than just social capital, as has been argued extensively by Elinor Ostrom and others regarding collective action (Ostrom 1990; Ostrom 2007a; Ostrom, et al. 2009), and by Archon Fung and Erik O. Wright regarding participation (Fung, Wright 2003). Collective action and participation depend on various individual resources ranging from material assets to education and skills, on various group characteristics such as homogeneity, leadership and communication, on the devolution of powers and the external environment, on resource characteristics, and on various additional parameters. However, we maintain that it is worth looking at social capital. Our findings from the literature review and the case presented reveal that recourse to social capital opens up new vistas for civil society in neighborhood engagement. It is a resource that communities already possess. Public health science and civil society itself need to be aware that it can be employed against medical malpractice and unnecessary overtreatment. Our article provides only brief insight into how bonding and bridging forms of social capital can be of use in counteracting medical exploitation. More research is needed. Social capital remains an interesting topic for public health as well as health activists.

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6. SECOND CASE STUDY, SECOND PART (P5): THE INTERRELATION BETWEEN COLLECTIVE PARTICIPATION AND SUSTAINABLE DECISIONS – A QUALITATIVE ASSESSMENT APPROACH

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Abstract: The theoretical claim for stakeholder participation in order to achieve sustainable policy outcomes is prominent in the literature. Empirical evidence substantiating this claim is, however, lacking. We propose a qualitative assessment approach based on theoretical considerations. Our methodological starting point refines the complex interrelation between collective participation and sustainability by qualitatively assessing the value of the two concepts separately before looking for mutual or opposing trends. Based on theory, both concepts are re-split into two dimensions. Collective participation is re-split into 1. inclusion and 2. influence and sustainability is re-split into 1. the external impact of decisions and 2. the internal capacity to face pressures. For each dimension the approach combines an abstracting point-based scaling system with explanatory narratives. This ensures the comparability of different cases and at the same time the transparency and reliability of the assessment. By matching and comparing the previous scaling results in the end, the assessment procedure explores whether the degree of collective participation and the degree of sustainability are rather synchronic or opposite. We exemplify our approach with an example of non-governmental neighbourhood governance in India and review primary data on the agitation for green spaces and slum eviction in Hyderabad. This application outlines the disregard for diversity among stakeholders and the cost-benefit assessment of sustainability as remaining theoretical and methodological items for the amendment of our assessment approach. The conceptualization and methodological operationalization of both collective participation as well as sustainability need to be extended with a third dimension each.

Keywords: Sustainability; collective participation; qualitative assessment; methodology

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6.1. Background and goals

Since Agenda 21 the call for more participation in environmental decision-making is gaining influence and prominence. Nonparticipatory approaches are increasingly criticised as illegitimate and ineffective (Bulkeley, Mol 2003, pp. 144, 147; Newig et al. 2011; Paavola, Adger 2006; Paavola 2007; United Nations 1992a). Recent approaches and research initiatives are starting to investigate the interrelation between participation and environmental outcomes striving for scientific evidence; see, for example, ‘EDGE - Evaluating the Delivery of Participatory Environmental Governance Using an Evidence-Based Research Design’ at the Leuphana University in Luneburg, Germany (INFU-Institute for Environmental Communication 04.2012; Newig, Fritsch 2011).

In this paper we¹¹ introduce a methodological approach which tries to supplement these approaches by generalising the questioned interrelation and by deliberately restricting the scope of its explanatory power. The presented approach does not limit itself to the evaluation of participation in the governance of environmental resources but attempts to be able to assess implications of participatory decision-making on a more general level and to be applicable to a broader range of cases. This claim accounts for the complexity of the phenomenon of sustainability. This complexity simultaneously makes us restrict the approach in other respects. Given the variations, complexity and often looseness in defining sustainability and sustainable development, there is no scientific consensus on how to best to measure sustainable development. When a phenomenon cannot be clearly defined as to where it starts and ends, setting exact quantitative reference values for this phenomenon is an infeasible challenge (Azar et al. 1996, p. 108). Approximate values can be achieved but not more. Thomas M. Parris and Robert W. Kates point out with regard to sustainable development that ‘there are no indicator sets that are universally accepted, backed by compelling theory, rigorous data collection and analysis, and influential in policy (...) due to the ambiguity of sustainable development, the plurality of purpose in characterizing and measuring sustainable development, and the confusion of terminology, data, and methods of measurement’ (Parris, Kates 2003, p. 559). Our approach does not try to fill this measurement gap but it replies to the scientific conditions, given the plurality of the concept. The plurality and opaqueness of concepts is the core methodological challenge when measuring sustainability. We face this challenge by stepping back and restricting our

¹¹ Notice: The text applies the plural subject ‘we’ on the ground of stylistic reasons. The text was written by a single author only.

explanatory claim; we deliberately use the term assessment and not measurement. Our approach allows for an assessment of policies and outputs as more or less sustainable and for a qualitative comparison of various policies. The presented approach does not allow for a quantitative evaluation of policies. Thus, we do not join the large compendium of initiatives for quantitative indicators for sustainability (Parris, Kates 2003, p. 561; Azar et al. 1996, p. 89). We acknowledge that our definition of sustainability necessarily directs our assessment (Bossel 1999, p. 3). The presented measurement approach assesses sustainability and not sustainable development, even though the concept of sustainable development (Lélé 1991; World Commission on Environment and Development 1987) is incorporated into our understanding of sustainability (see below). The assessment approach scientifically defines sustainability as the adjustment of the social and ecological system (Bossel 1999, p. 2; Gatzweiler, Hagedorn 2002) based on the regard for two dimensions; first, the external impact of behaviour on others and second, for the internal capacity to face pressures (Chambers, Conway 1992). Just as we restrict our definition of sustainability to focusing on the claim for systems adjustment and on its two dimensions, we limit the scale of the assessment simultaneously and neglect other indicators that do not tackle these two dimensions. In addition we follow further scientific criteria that have been originally generated for quantitative measurements of sustainability. In his report for the International Institute for Sustainable Development (IISD) in Canada, Hartmut Bossel lists several requirements for finding indicators of sustainable development. His list is orientated towards a quantitative measurement. We agree with several of his postulations for the measurement of sustainability and apply these propositions to our approach of assessing sustainability even though our approach does not attempt a comprehensive quantitative measurement. Among other points, we agree with his neglect of ad hoc approaches and with his call for a systematic approach (Bossel 1999, p. 7). By taking our theoretical framework for exploring the capability of participatory and collective governance in sustainable outcomes and the corresponding concepts as bases for our levels and criteria of assessment we systematise our approach and keep it traceable (see p. 4ff). A detailed explanation of the underlying theoretical framework for exploring the capability of participative and collective governance in sustainable outcomes is written up in a submission of the author to *Emerging megacities*. Bossel further claims for a participatory selection of indicators to find a set of indicators that ‘encompasses the visions and values of the (respective) community or region’ (Bossel 1999, p. 7). For our qualitative assessment of sustainability we call to pick up and use the assessment of the affected people in review processes. Thereby, we claim it to be essential to study the assessment of

various groups of stakeholders and to incorporate not only the views of the decision-making group but also the views of outsiders who are nevertheless affected by the respective policies (Bossel 1999, p. 7). In our example this requires inter alia an incorporation of the evicted slum dwellers living in Tarnaka (see below).

The proposed qualitative assessment method not only assesses the sustainable character of policies and outputs but also assesses the degree of participatory governance and collective action, according to appropriate organisational forms and at various levels and tries to estimate the interrelations between collective participation and sustainable decision-making. We attempt to assess the sustainable character of certain policies of respective organisations (be they formal organisations of people such as registered cooperative societies or registered resident welfare associations) or informal groups (such as neighbourhood groups that are not registered). Our approach can, however, encompass organisations at various levels (local, regional, state, global). The next chapter briefly outlines the undying theoretical concepts and assumptions. Chapter 3 gives a detailed layout of the assessment approach before chapter 4 applies the approach to a case of urban neighbourhood governance in India. This application illustrates the need for amendments of the approach which are summarised in the conclusion.

6.2. Constitutive concepts and assumptions

6.2.1. Sustainability

Referring to Harmut Bossel, Franz Gatzweiler, Konrad Hagedorn and others we define sustainability as the adjustment of the social (human) system and the ecological system (Bossel 1999, p. 2; Gatzweiler, Hagedorn 2002). This definition of sustainability is linked to scientific concepts of institutions as ‘the rules of the game in a society’ with major relevance for the configuration of human interactions (North 1990, p. 3). Institutions encompass rules-in-form (e.g., formal laws) as well as rules-in-use (e.g., social norms) and might serve as resources or restrictions for the actors shaping the strategies of the actors whose actions in turn impact and shape the institutions (Diekmann, Voss 2004, pp. 15ff; Ostrom 2005, p. 20; Mayntz, Scharpf 1995; North 1990). We employ this idea of institutions to the Brundtland definition of sustainability (World Commission on Environment and Development 1987) and thereby cope with its weakness of weak conceptualisation (Beckerman 1994, p. 194; Lélé 1991, pp. 607ff). We claim that institutions need to harmonise the elements of sustainable development (economic prosperity, social development and the evolution of resource use) in order to accommodate

the social and ecological system. Following the livelihood conceptualisation of the Institute of Development Studies (IDS) in the UK and the ideas of Robert Chambers and Gordon R. Conway and others we also allow for two dimensions of sustainability (Scoones 1998, p. 5; Chambers, Conway 1992). The first dimension pertains to the external impact of behaviour and its impact for inner- and intergenerational fellows and the ecological system. Chambers and Conway call this dimension 'environmental sustainability'. The second dimension pertains to actors' internal capacities to face pressures and to 'maintain an adequate and decent livelihood' (Chambers, Conway 1992, p. 9). In the light of these two dimensions of sustainability we specify our claim for the harmonisation of the three elements of sustainable development to achieve an adjustment of the social and ecological system. We contend that economic prosperity, social development and the evolution of resource use can only be traced simultaneously, and the social and ecological system can only be adjusted when behaviour and decisions are beneficial along both dimensions, thereby maintaining or enhancing the livelihood prospects and the subsistence of fellow humans, of the ecological system and of the respective actors themselves.

With this scientific framing of the Brundtland ideas which constitute the background of all internal negotiations since Rio (United Nations 1992b; United Nations 1992a) and which are also represented by various development and environmental agencies such as the World Bank or the United Nations Environment Programme (UNEP) (Lélé 1991, p. 611) we regard the scientific quality as well as for the policy relevance of our conceptualisation and operationalisation of sustainability.

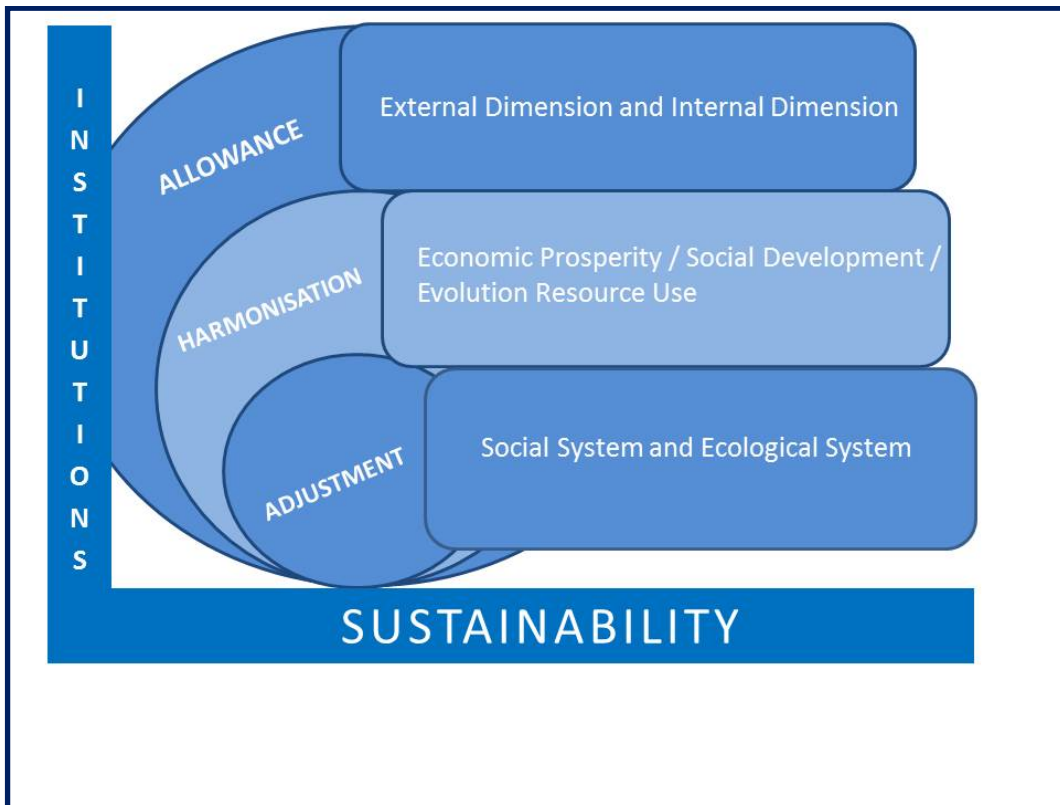


Figure 6.1: Conceptualisation of sustainability
Source: Author

6.2.2. Participatory governance

Considering the political sciences' focus on regulation (Mayntz 2004) as well as the economics' focus on limiting transaction costs (Williamson 2005) we define governance as the entire coexisting forms of the intended regulation of common issues and transactions at various levels of organisation. With regard to participatory governance we adhere to Heike Walk's definition and define participatory governance as all those forms of governance which incorporate the actors which are affected by a decision into the processes of planning and decision-making (Walk 2008, p. 52). Our review of participation and participatory governance does not pertain to 'the participation of ordinary citizens in the public policy process' (Andersson, van Laerhoven 2007, p. 1090) but to participation within various organisational forms (e.g., within non-governmental organisations or within co-operatives) and at different political levels (local, regional, national, global). Nevertheless, we incorporate various fundamental approaches on participation and participatory governance with multiple perspectives in terms of the conditions, purposes, modes and outcomes of participatory decision-making in our framework for exploring the capability of participatory and collective governance in sustainable outcomes (Arnstein 1969; Brady et al. 1995; Dachler, Wilpert 1978, p. 20; Fung, Wright 2003, pp. 15, 24;

Geißel 2008, p. 228; Walk 2008, p. 20). Thereby, mainly fundamental approaches on participation and participatory governance are incorporated, and the comprehensive group of participatory governance approaches within the wider discourse of development is not directly incorporated (see inter alia Blair 2000; Gaventa 2004; Hickey, Mohan 2004; World Bank 1997).

6.2.3. Collective action

We subscribe to Mancur Olson's classical definition of collective action that 'a number of individuals have a common or collective interest—when they share a single purpose or objective—[and when] individual, unorganised action [...] will either not be able to advance that common interest at all, or will not be able to advance that interest adequately' (Olson 1965, p. 7). The widespread literature on collective action, especially in natural resource management, identifies various factors and combination of factors to affect the successful management of (common-pool) resources. Our framework incorporates various approaches, concentrating on Elinor Ostrom's work (Agrarwal 2001; Baland, Platteau 2007; Meinzen-Dick 2007; Ostrom 1990, 2007; Ostrom, et al. 2009; Wade 1988). Within our framework we concentrate our attention as well on the interrelation between social capital and collective action, referring mainly to Robert Putnam (Putnam et al. 1993; Putnam 1995). Thereby, we avoid circular argumentation and restrict all implications to specific, defined and bounded communities and on one directional functional chain, that is, how social capital advances collective action.

6.2.4. Intermediate concepts

Our theoretical framework consults the concepts of integrative institutions, subsidiary, participative theories of democracies and social learning as intermediate concepts interlinking collective participation and sustainable outcomes. Firstly, Konrad Hagedorn develops his concept of integrative and segregative institutions on the assumption that sustainable development requires the balance of the costs of integration and segregation by institutions. Thereby, integrative institutions are characterised by an internalisation of both the transaction costs of decision-making and the positive and negative effects of decisions and by the protection against costs resulting from the activities of other agents. Some segregation can keep a system's capacity for innovation but generally integrative institutions rather than segregative ones comply with the principles of sustainability and especially account for the external impact of behaviour on inner- and intergenerational alters (Hagedorn 2008). Aside from this, in participative institutions, the overlapping of

decision-making actors and decision-affected actors corresponds with the socio-political principle of subsidiarity. Subsidiarity is beneficial to sustainability in various ways, thereby especially promoting the internal capacity to face pressures, see the adjustment to the specific ecological, social and cultural environment, the regard for community needs and coping strategies and the initiation of learning processes and identification of people with rules and resources (Bulkeley, Mol 2003, p. 151; Geißel 2009, p. 404; Hagedorn et al. 2002, pp. 13f, 18f; Ostrom 2005, pp. 3, 22; Meinzen-Dick et al. 2002, p. 650; Newig 2007, p. 61; Schmidt 1995, p. 949; Schubert et al. 2007, p. 295; Stöhr 2001, pp. 41f). With reference to participative theories of democracies and to the ideas of Jean-Jacque Rousseau, it is assumed that via collective participation and by discussion and discourse based on trust and norms of reciprocity, individual interest can be accumulated and transformed into a collective rationale (Rousseau 1977; Walk 2008, pp. 74, 79). This assumption is very much in line with theories of social learning which assume public participation to initiate social learning processes ‘which translate uncoordinated individual actions into collective actions that support and reflect collective needs and understandings’ (Webler et al. 1995, p. 460).

Based on the concepts summarised above we have created a framework which considers collective participation as an independent variable and sustainable decision-making as a dependent variable (see submission to *Emerging megacities*). We design our framework according to system theoretic approaches by David Easton (Easton 1965) and Gabriel A. Almond (Almond, Powell 2003) and arrange our sub-variables in categories inspired primarily by the actor-centred institutionalist approach of Renate Mayntz and Fritz Scharpf (Scharpf 2006; Mayntz, Scharpf 1995).

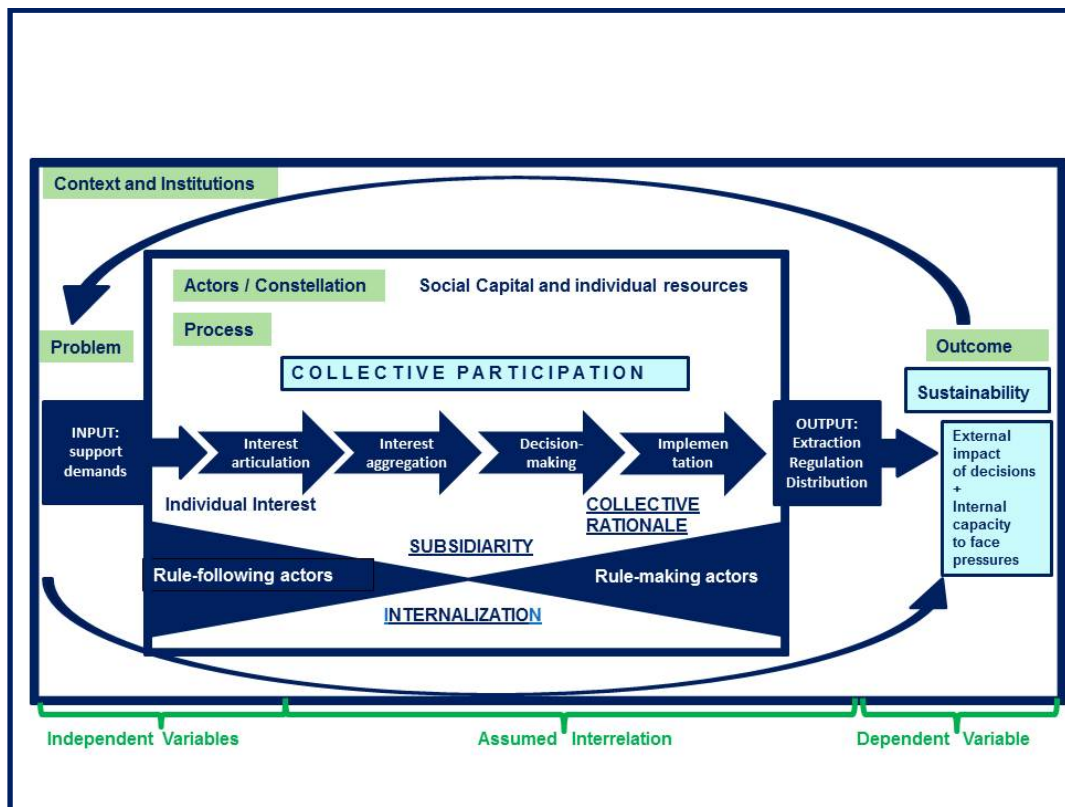


Figure 6.2: Draft design - a theoretical framework for exploring the capability of participatory and collective governance in sustainable outcomes

Source: Author

Our framework features similarities with specific approaches in the field of environmental governance. Jens Newig, for example, designs a more comprehensive model which arranges variables into three categories: Context (also covering Problem Structure, Actors and their Constellation or ‘Social Structure’), Process and Results (Newig 2007, pp. 57–58). The proposed qualitative assessment procedure is intended to provide a sound methodological footing for these and similar kinds of theoretical approaches which link (collective) participation and sustainability.

6.3. The qualitative assessment approach

Our approach attempts to qualitatively assess the interrelation between the mode of decision-making and its output with reference to sustainability. We thereby acknowledge critical features of qualitative research which apply to our assessment approach: e.g., the question of generalisability, the difficulty of predictions, insufficiency in testing hypotheses, lower credibility with policy makers, and the time-consuming character of collecting and analysing the data and the risk of personal bias influencing the results (Johnson, Onwuegbuzie 2004, p. 20). However, because sustainability is a complex

phenomenon and because we want to refer to the local context, qualitative research is an appropriate tool for our purpose, if we regard its weaknesses (Johnson, Onwuegbuzie 2004, p. 20). We do not want to test hypotheses or to make predictions, and we do not aim for the generalisability of our results. Instead we aim for the disclosure of trends. The basic idea is to refine the complex interlinkage between collective participation and sustainability by assessing the value of the two concepts of collective participation and sustainability separately before looking for mutual or opposite trends. This approach does not allow for proving causalities but allows for demonstrating tendencies. The approach can be used for the meta-analysis and comparison of secondary case-studies as well as for the analysis of primary qualitative data.

Our qualitative assessment approach combines an abstracting point-based scaling system with explanatory narratives. This combination ensures the comparability of different cases and at the same time the transparency and reliability of the assessment of each individual case. The scaling is conducted on theoretical lines and represents the core analytical procedure in our approach. Narratives are employed for explaining this classification and ensuring the reliability of the findings.

6.3.1. Narratives

Narrative inquiry is a prospering yet still evolving method in the social sciences (Riessman 2008, p. 5; Chase 2011). There are multiple definitions of narratives (Riessman 2008, pp. 3–4). We agree with the definition of Horace P. Abbott, who describes a narrative as ‘the representation of an event or a series of events’ (Abbott 2008, p. 13). We do not employ narratives as ‘the objective of the research’ (Lieblich et al. 1998, p. 2) and do not inquire about interpretations of things (Bruner 1986, p. 51) but we employ narratives as ‘the means for the study of another question’, using the narratives ‘to learn about a social phenomenon’ (Lieblich et al. 1998, p. 2). The systematic study (‘narrative analysis’) of decision-making processes (‘narrative data’) thereby substantiates our scaling approach (Riessman 2008, p. 6). Therefore, we proceed differently than with, for example, the analytical narrative approaches. They ‘employ game theory to discipline their narratives’ (Hanisch 2003, pp. 130f) whereas our approach employs narratives to explain its classifications. The narratives will support the analytical procedure along all the steps: The narratives will be firstly employed to explain the classification of cases along the concept of collective participation with references to the supporting or limiting roles of social capital and individual resources. Secondly, the narratives will be employed to explain the

classification of cases along the concept of sustainability, and thirdly, they will be employed to explain the interrelation between both concepts and the synchronic or a-synchronic tendencies, thereby referring to the intermediate concepts of integrative institutions, subsidiarity and social learning. This way, the narratives are guided by theoretical considerations and are simultaneously used to empirically substantiate our classifications and to review our theoretical assumption. Similar to the analytical narrative approach our approach ‘goes back and forth between the model and the data’ and keeps testing the model against reality (Bates et al. 2000, p. 700; Hanisch 2003, p. 131).

6.3.2. The scaling system

Our point-based scaling system is inspired by an existing software tool for the analysis of public policy processes designed by a Swiss group of political scientists from the University of Zurich. The Actor-Process-Event Scheme (APES) uses qualitative case study data to link different chronological phases of a decision-making process with the actors participating in this process.¹² Similar to APES our assessment approach deploys a point-based scaling system. The ordinal steps are theoretically founded. The scaling and assessment is thereby done via dimensions. The concept of collective participation is re-split into two dimensions:

1. Inclusion and maximisation of participation (who of the affected stakeholders gets to participate in the decision-making) and
2. Influence (how much the stakeholders have to say)

¹² APES transforms and visualises the data and prepares it for employment in standardised procedures such as network analysis. APES differentiates between ‘leading influence’ in decisions as the highest possible degree, followed by ‘active participation’ as the second highest degree, ‘passive participation’ as the lowest degree and ‘non-participation’. The different degrees are associated with points. Leading influence is associated with three points, active participation with two and passive participation with one. (Serdült et al. 2004; Serdült et al. 2007, 2008).

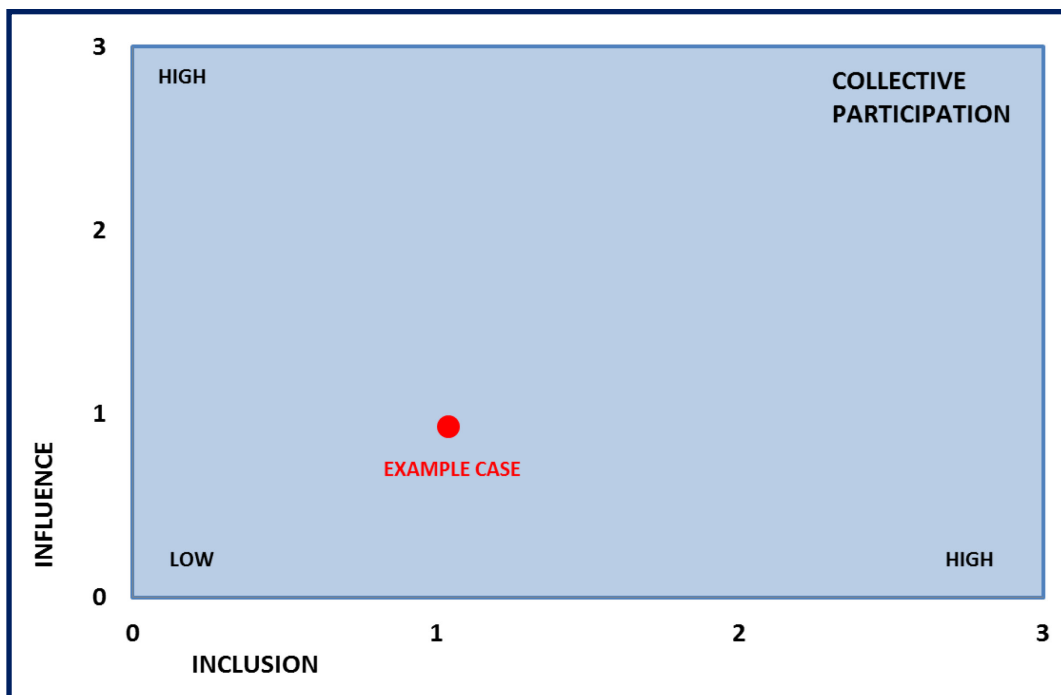


Figure 6.3: Two dimensions of collective participation

Source: Author

Similarly, and according to our definition of sustainable development, we also split the concept of sustainability into its two dimensions:

1. The external impact and
2. The internal capacity to face pressures.

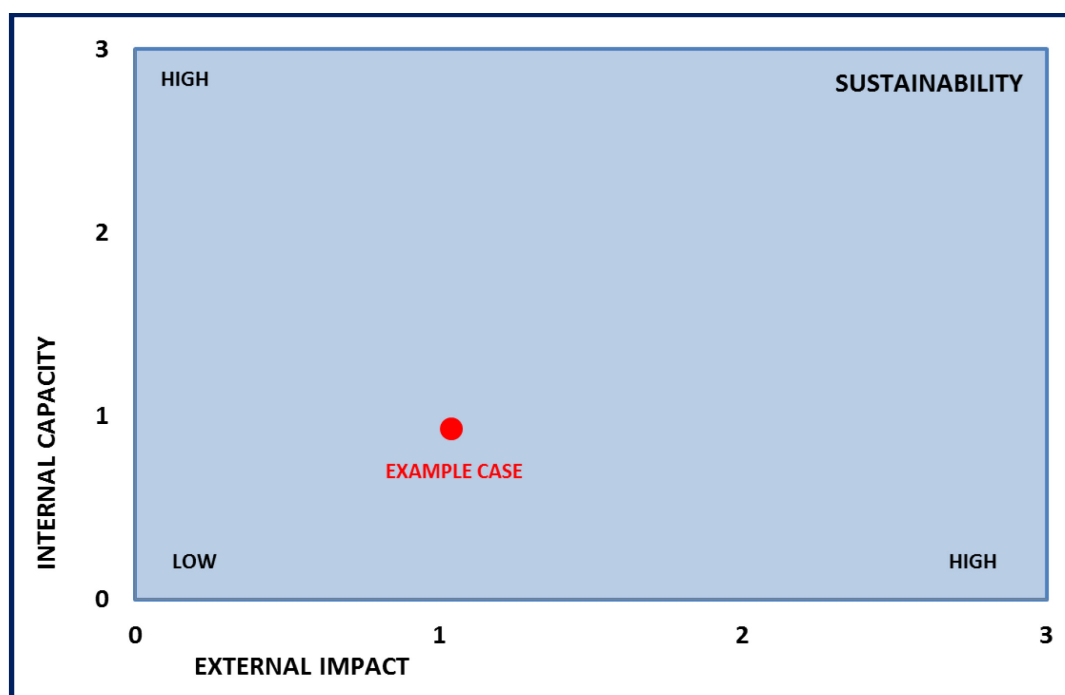


Figure 6.4: Two dimensions of sustainability

Source: Author

6.3.3. Assessment collective participation

The scaling of influence can be traced back to the models of Sherry Arnstein and her successors (Arnstein 2007; Wilcox 1994; Rowe, Frewer 2005) and the dimension of inclusion and maximisation of participation links the ideas of collective action and participation and is inspired by Aristotle's typology of regimes (Aristoteles, Schwarz 1989; Lauth, Wagner 2009, p. 110) and Heike Walk's starting points for the analysis of participative governance (Walk 2008, p. 118):

Table 6.1: Classification of inclusion - dimension of collective participation

Grading	Translation	Definition
3 Points	Comprehensive Group	All of the most affected stakeholders are included in the decision-making process
2 Points	Representative Group	Representatives from all subgroups of the most affected stakeholders are included in the decision-making process
1 Point	Elite Group	Only a small group of the most affected stakeholders is involved in the decision-making process
0 Points	One Leader	Only one leader is actually making the decisions
Narrative		
Explanation of classification via comments and documents, including references to the supporting or limiting roles of social capital and individual resources		

Table 6.2: Classification of influence - dimension of collective participation

Grading	Translation	Definition
3 Points	Leading Influence	All of the most affected stakeholders have decisive impact on the project/output
2 Points	Co-determination	All of the most affected stakeholders have co-determining impact on the project/output and their views are incorporated
1 Point	Consultation	All of the most affected stakeholders get noticed but do not have any impact
0 Points	No Influence	The views of all of the most affected stakeholders are neglected
Narrative		
Explanation of classification via comments and documents, including references to the supporting or limiting roles of social capital and individual resources		

6.3.4. Conjoint assessment of collective participation

For the conjoint assessment of collective participation incorporating both dimensions (inclusion and influence) we employ a 7er scale summarising and arranging the values of the two dimensions. This step goes along with a considerable loss of information reflected in the scaling because the scales represent different combinations of the two dimensions. This loss increases the meaning of our narratives which supplement the scale.

Table 6.3: Conjoint classification of collective participation

Grading	INCLUSION of stakeholders	INFLUENCE of stakeholders
6	Comprehensive Group	Leading Influence
5	Comprehensive Group	Co-determination
	Representative Group	Leading Influence
4	Representative Group	Co-determination
	Comprehensive Group	Consultation
	Elite Group	Leading Influence
3	Comprehensive Group	No Influence
	Representative Group	Consultation
	Elite Group	Co-determination
	One Leader	Leading Influence
2	Representative Group	No influence
	Elite Group	Consultation
	One Leader	Co-determination
1	Elite Group	No Influence
	One Leader	Consultation
0	One Leader	No Influence
Narrative		
Explanation of classification via comments and documents, including references to the supporting or limiting roles of social capital and individual resources		

6.3.5. Assessment of the sustainable character of decisions

The ordinal scaling along the two dimensions of sustainability results from Konrad Hagedorn's considerations on integrative institutions and his regard for the costs and benefits of decisions and transactions (Hagedorn 2008). However, our scaling does not strictly follow his concept. Hagedorn concentrates on the antithesis of the internalisation versus the externalisation of costs and benefits. We concentrate on the antithesis between benefits and costs along both the internal and the external dimensions. Costs are supposed to contradict resilience and sustainability along both dimensions and benefits are supposed to consolidate them.

Table 6.4: Classification of external impact - dimension of sustainability

Grading	Translation	Definition
3 Points	Prominence of Benefits	Benefits of the decision for others and the environment are more prominent than the costs
2 Points	Balance of Benefits and Costs	The costs and benefits of the decision for others and the environment are largely balanced
1 Point	Prominence of Costs	Costs of the decision for others and the environment are more prominent than the costs
0 Points	Only Costs	Others and the environment only suffer from the decision and lack any benefits
Narrative		
Explanation of classification via comments and documents		

Table 6.5: Classification of internal coping capacities - dimension of sustainability

Grading	Translation	Definition
3 Points	Prominence of Benefits	Benefits of the decision for the respective group of actors are more prominent than costs. The decision enhances the group's coping capabilities.
2 Points	Balance of Benefits and Costs	The costs and benefits of the decision for the respective group are largely balanced. The decision does not increase or reduce the group's coping capabilities.
1 Point	Prominence of Costs	The costs of the decision for the respective group of actors are more prominent than the benefits. The decision reduces the group's coping capabilities.

0 Points	Only Costs	The respective group of actors only suffers from the decision and lacks any benefits. The decision threatens the group's coping capabilities.
Narrative		
Explanation of classification via comments and documents		

6.3.6. Conjoint assessment of sustainability

Policies and decisions can be declared as more or less sustainable and can likewise be compared. Here our assessment approach offers an alternative to quantitative and large-scale approaches. For the conjoint assessment of sustainability we also employ a 7er scale summarising and arranging the values of the two dimensions. This step also goes along with a considerable loss of information because the scales here, too, represent different combinations of the two dimensions. Narratives, therefore, are equally essential here to ensure transparency and reliability.

Table 6.6: Conjoint classification of sustainability

Grading	External impact	Internal coping capacities
6	Prominence of external benefits	Prominence of internal benefits
5	Prominence of external benefits	Balance of internal benefits and costs
	Balance of external benefits and costs	Prominence of internal benefits
4	Prominence of external benefits	Prominence of internal costs
	Balance of external benefits and costs	Balance of internal benefits and costs
	Prominence of external costs	Prominence of internal benefits
3	Prominence of external benefits	Only internal costs
	Balance of external benefits and costs	Prominence of internal costs
	Prominence of external costs	Balance of internal benefits and costs
	Only external costs	Prominence of internal benefits
2	Balance of external benefits and	Only internal costs

	costs	
	Prominence of external costs	Prominence of internal costs
	Only external costs	Balance of internal benefits and costs
1	Prominence of external costs	Only internal costs
	Only external costs	Prominence of internal costs
0	Only external costs	Only internal costs
Narrative		
Explanation of classification via comments and documents		

6.3.7. Pooling the assessments - the interrelation between collective participation and sustainable decisions

By matching and comparing the previous results the assessment procedure explores whether the degree of collective participation and the degree of sustainability are rather synchronic or rather opposite. Because this last step is based on several abstracting pre-steps it allows no more than the evaluation of trends. Both graphs are combined and matched; for single cases the graph shows whether both phenomena resemble each other or contradict each other in their tendencies. Cases in the lower left and upper right boxes rather indicate that more collective participation goes along with a higher degree of sustainability in the decisions and that less collective participation goes along with a lower degree of sustainability. Cases in the upper left and lower right boxes rather contradict a harmonious occurrence of the two phenomena. However, the graph does not document any causal relationships or the direction of relations. Any further and more concrete assessment of single cases has to revert to narratives. The narratives will refer to the roles of the intermediate concepts of integrative institutions, subsidiarity and social learning and how these influence the synchronicity or a-synchronicity of tendencies. The more cases that are evaluated along our assessment approach and classified in the graph, the more concrete statements on the synchronicity or a-synchronicity of collective participation and sustainability of decisions can be made. However, more cases do not automatically provide information on causalities. Narratives remain an essential part of the assessment procedure for cross-case comparisons as they are for single case studies.

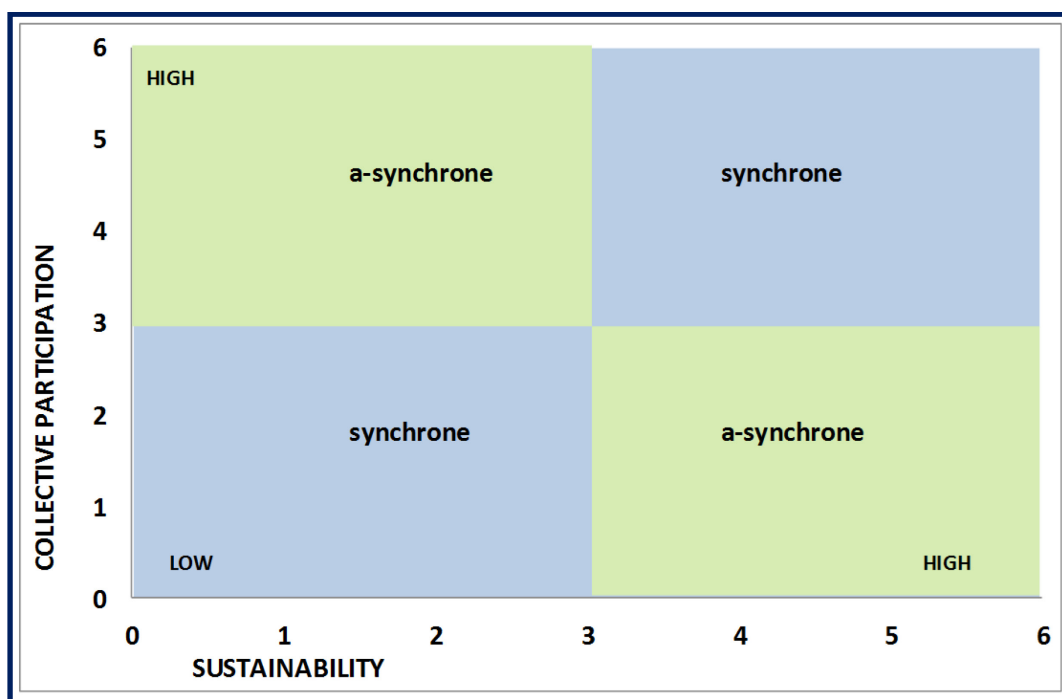


Figure 6.5: The interrelation between collective participation and sustainable decisions

Source: Author

6.4. Exemplification: The agitation for green spaces and slum eviction in Golkunagar, Hyderabad

The qualitative assessment approach is applicable to diverse cases of direct decision- or policy making. We exemplify the assessment approach through an example of local level non-governmental neighbourhood governance in India. We review the agitation for green spaces and slum eviction in Golkunagar, Hyderabad. The presented information is based on field research within the Megacity Hyderabad Project between 2009 and 2012.¹³

6.4.1. The case

Resident welfare associations (RWAs) are gaining enhanced political and scientific prominence in India (Coelho, Venkat 2009, p. 361) as associations of residents in houses' or apartment buildings' RWAs care for the maintenance and security of their housing and neighbourhood and for the proper allocation of public services. Activities vary from bargaining and monitoring public authorities to self-help activities e.g., garbage collection or organising day-care (Coelho, Venkat 2009, p. 361; Harriss 2005, pp. 12, 16, 32; Huchon, Tricot 2008, p. 89; Kamath, Vijayabaskar 2009, p. 369; Kennedy 2009, p. 67;

¹³ Megacity Hyderabad Project (Climate and Energy in a Complex Transition Process towards Sustainable Hyderabad) funded by the German Federal Ministry of Education and Research (BMBF): <http://www.sustainable-hyderabad.de/>. All data and the protocols of the interviews utilised for the present study can be requested directly from the author.

Tawa Lama-Rewal 2007). Several critical arguments are mentioned with regards to RWAs, their internal structures and their increasing significance. The concentration on small groups of people and the frequent substitution of internal elections by ‘internally negotiated settlements’ (Coelho, Venkat 2009, p. 361) is a commonly criticised feature of many RWAs (Kamath, Vijayabaskar 2009, p. 368). These democratic shortcomings have to be accounted for alongside of the increasing political engagement and influence of RWAs (Harriss 2010; Tawa Lama-Rewal 2007). Also, a high dominance of the middle class in RWAs is critically highlighted (Harriss 2005, p. 32; Tawa Lama-Rewal 2007, p. 5). Even though middle-class interests are far from homogenous (Kamath, Vijayabaskar 2009, p. 368) and RWAs can be found in slums too, especially regarding their political influence RWAs remain a middle-class phenomenon (Coelho, Venkat 2009, p. 358; Harriss 2010, p. 11). These critical issues are also reflected in the presented case study on the Standing Committee of the Tarnaka Resident’s Welfare Associations (SCOTRWA) in Hyderabad and the Golkunagar Welfare Association as one of SCOTRWA’s member RWAs.

SCOTRWA is a federation of 19 colony welfare associations and 220 apartment-building welfare associations in Tarnaka and its surroundings in the South Indian urban agglomeration of Hyderabad. It was registered in 2002 but most of its member RWAs have been in existence much longer. SCOTRWA is heavily assisted and influenced by the International Foundation for Human Development (IFDH), an NGO, and by the IFDH’s president, who is a political activist striving for enhanced civic participation. SCOTRWA as a federation is responsible for matters of comprehensive interests whereas smaller grievances are tackled by the respective member RWAs independently. The member RWAs differ widely with regard to their degrees of participation and scope of activities. The Golkunagar Welfare Association is one RWA belonging to SCOTRWA.

The Golkunagar Welfare Association undertakes a lot to make its neighbourhood green and pleasant. Activities involve planting trees, building parks and equipping them with children’s facilities. There are three parks in Golkunagar. One park was occupied by slum dwellers more than a decade ago. By going to court the Golkunagar Welfare Association arranged for the eviction of the huts in the year 2000 but was not able to organise a complete relocation of the dwellers. All this was done without the slum dweller families’ consent. The slum dweller families have been living in Golkunagar for several decades now. The evicted families immediately occupied another site in Golkunagar, which was

either yet not utilised or under roof space. Since then the Golkunagar Welfare Associations has been trying to evict the dwellers again. In the observed meetings and interviews of the Golkunagar Welfare Association, slum dwellers were perceived to be a threat and disturbance to the community. The Golkunagar Welfare Association intends to use the occupied site for community facilities such as a community hall and further green spaces. The concerned slum area consists of about 50 huts surrounded by two streets and several residential buildings. The slum does not have any water connection but does have illegal electricity connections. Approximately 50 families, each with three to four family members, including children, are living there. The Golkunagar Welfare Association in comparison has approximately 280 members with several family members each.¹⁴

6.4.2. Application of the qualitative assessment approach

6.4.2.1. First analytical step: Assessment collective participation

Table 6.7: Classification of inclusion Case: Agitation for green places and slum eviction in Golkunagar

Grading	Translation	Definition
1 Point	Elite Group	Only a small group of the most affected stakeholders is involved in the decision-making process
Narrative		
<p><i>Role of individual resources and inclusion:</i></p> <p>Membership in the Golkunagar Welfare Association is limited to owners or tenants of houses or apartments in Golkunagar who have to pay an annual membership fee. The membership fee and particularly the requirement of ownership or rent limit the access to the welfare association and thereby its decision-making processes. These requirements exclude the group of slum dwellers who lack the legal status of ownership or rent or the money necessary to acquire this status.</p>		

¹⁴ Source: Field research in Tarnaka from 2009 to 2012, interviews, observations and document analysis. For reasons of anonymity particular data has to be requested from the corresponding author.

Within the association the executive committee constitutes the decision-making body. For the members of the association time seems to be a resource restricting their attendance at executive committee meetings and therewith prevents them from direct participation in the decision-making process. Caste and sex are two further individual characteristics which are controversially reported to limit the access to the active decision-making processes in the meetings. Observations reveal that female members rarely participate actively in the decision-making. Participation rates for the annual meetings of the general body or for elections to the executive committee which are scheduled every two years are not documented. However, among the executive committee members, participation rates are high and the discussions during these meetings are livid and balanced. Decisions are made by consensus during the meetings. The implementation of decisions largely rests on the general secretary.

Role of social capital and inclusion:

The bonding character of the Golkunagar Welfare Association's social capital is distinctive and consolidates its exclusiveness. Among the executive committee members relations seem to be strong and multilayered. With one another the executive committee members show high levels of trust and high norms of reciprocity. Vis-à-vis the excluded slum dwellers trust and norms of reciprocity are missing and apart from the employment relations (household help) there seem to be no relations. In this direction bridging social capital is missing.

Assessment inclusion:

The restrictions on membership and the bonding mode of social capital make the decision-making process within the Golkunagar Welfare Association a quite exclusive process in which only a small elite group of befriended, elder male legal residents participates directly. Due to the dominance of the executive committee and its closure with regard to the lack of frequent elections as well as the reported general lack of member participation and the limited access to the association which excludes all slum dwellers in the beginning, we classify 'inclusion' within Golkunagar as the 'Elite Group' and rate the decision-making process with only one point along our four-point ordinal scale.

Table 6.8: Classification of influence Case: Agitation for green places and slum eviction in Golkunagar

Grading		Translation	Definition
Members of Golkunagar Welfare Association	2 Points	Co-determination	All of the most affected stakeholders have co-determining impact on the project/output and their views are incorporated
Slum Dwellers	0 Points	No influence	The views of all of the most affected stakeholders are neglected
Narrative			
<p><i>The role of social capital and influence:</i></p> <p>The influence of the Golkunagar Welfare Association as a whole on policies regarding the use of its neighbourhood territory can be assessed as high. The Golkunagar Welfare Associations benefits from its bridging social capital linking it to SCOTRWA and to political and administrative authorities. The activities for a new slum eviction are continuing and supported by SCOTRWA. Additionally, the police, the corporater, the commissioner and the mayor have been approached on the issue. The current corporator for the Tarnaka division is living in Golkunagar. She held the position of the first directly elected mayor of Hyderabad from 2009 to 2011 and is herself well-connected in the realm of Hyderabad politics. She can be directly approached by the association.</p> <p><i>Assessment influence:</i></p> <p>However, because the Golkunagar case is only rated with one point along the dimension of inclusion, this high degree of influence of the association itself does not reflect the influence of all the most affected stakeholders. Only those groups of stakeholders who are members of the association execute any kind of influence at all. The majority of the regular members of the association are reported to argue for the eviction of the slum and for the building of more green spaces and community facilities instead. The views of this subgroup of affected stakeholders are at least taken into account in the decision-making process. Therefore, for the subgroup of members of the Golkunagar Welfare Association we classify the ‘influence’ dimension as ‘co-determination’ and rate the decision-making process with two points along</p>			

our four-point ordinal scale of influence. However, the slum dwellers' views are not taken into consideration at all. Their views and interests are not even noticed and totally neglected in the decision-making process. For this particular subgroup of stakeholders we classify the 'influence' dimension as 'no influence' and rate the decision-making process with zero points along our four-point ordinal scale of influence. The problem of unequal distribution of powers which is a central issue in theories of participation (Fung, Wright 2003; Walk 2008) becomes apparent here. The dimension of inclusion takes into account the limitations on access and illustrates the elitist character of the decision-making process. How to classify the dimension of influence in summary? Because a conjoint classification and rating covering both subgroups is not convertible without losing information and manipulating the results, we keep both classifications in parallel.

The graphical illustration needs to allow for the different classification and rating of the two subgroups of stakeholders along the second dimension. In consequence, the graph does not illustrate a punctual grading but reflects an interval.

Table 6.9: Conjoint classification of collective participation **Case: Agitation for green places and slum eviction in Golkunagar**

Grading	INCLUSION of stakeholders	INFLUENCE of stakeholders
3	Elite Group	Co-determination (of members)
1	Elite Group	No influence (for slum dwellers)
Narrative		
The conjoint assessment of collective participation emphasises the shortcomings of our assessment procedure. Because the scaling differs at looking at the association's members or at the excluded slum dwellers, a conjoint assessment is hindered. This diversity within the conjoint assessment needs to be reflected in the evaluation of the interrelation between collective participation and sustainability in the end.		

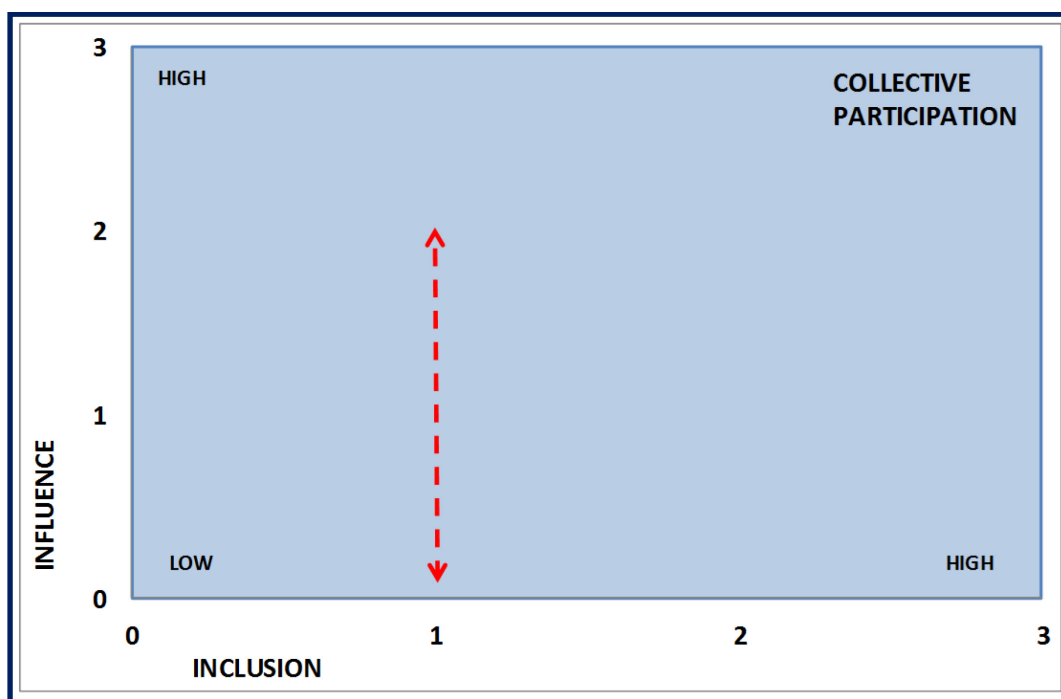


Figure 6.6: The degree of collective participation in the case of Golkunagar

Source: Author

6.4.2.2. Second analytical step: Assessment sustainable decision-making

Table 6.10: Classification of external impact Case: Agitation for green places and slum eviction in Golkunagar

Grading	Translation	Definition
2 Points	Balance of Benefits and Costs	The costs and benefits of the decision for others and the environment are largely balanced
Narrative		
Building parks and establishing green spaces in Tarnaka at a first glance involves only benefits for the natural environment and for the health of the overall city population. However, the slum eviction which goes ahead with the establishment of green spaces has social costs and makes the slum dwellers suffer considerably. The slum dwellers have been living since decades in Tarnaka and for years on the occupied sites. They have jobs in Tarnaka, often working in the households of the members of the Golkunagar Welfare Association. Their children go to nearby schools. Thus, the agitation for green spaces and for the eviction of slum settlements in Golkunagar displays conflicting interests of the		

different urban strata.

Worldwide studies report how the ever-growing problem of urban slums and illegal settlements (Davis 2006) goes along with an increasing polarisation between the different urban strata. Dirk Bronger points to a strong polarisation between the affluent middle class and slum dwellers who do not fit into the former's image of a modern India (Bronger 2004, p. 166) and in his article on slum development in Hyderabad and Kolkata, Archana Gosh highlights that slum dwellers have themselves little influence on the urban policies that affect their lives (Gosh 2009, p. 239). In a study in 1961 on residential satisfaction in U.S. slums Marc Fried and Peggy Gleicher refer to the fact that forced relocation policies neglect social networks within slum settlements (Fried, Gleicher 1961, p. 315). Michael Cernea, in his World Bank Discussion paper, discusses different aspects of harm to slum dwellers caused by their displacement ranging from the loss of their homes and the loss of informal networks to the loss of jobs and other income-generating assets (Cernea 1993).

Against this background of ecological benefits and health-related benefits for the overall city population in contrast to the harm involved for the directly affected slum dwellers, we evaluate the external impact of the agitation for green spaces and slum eviction in Golkunagar to be balanced in costs and benefits and rate it with two points on our four-point ordinal scale in the first dimension of 'sustainable development'. In this classification the limitations and scopes of our assessment procedure become obvious. The assessment procedure does not provide any mechanism as how to weigh and accumulate the costs and benefits of decisions along ecological, economic and social spheres and does not address the question of the distribution of costs and benefits adequately.

Table 6.11: Classification of internal coping capacities Case: Agitation for green places and slum eviction in Golkunagar

Grading	Translation	Definition
3 Points	Prominence of Benefits	Benefits of the decision for the respective group of actors are more prominent than costs. The decision enhances the group's coping capabilities

Narrative
<p>With regard to the coping mechanism of Golkunagar's middle-class population and the members of the Golkunagar Welfare Association we evaluate the benefits of the agitation for green spaces and slum eviction in Golkunagar, Hyderabad to be by far more prominent than the costs. These benefits not only cover enhanced space for leisure activities but also primarily long-term health benefits. In our assessment we revert to a large-scale study in Tokyo on the interrelation between the longevity of senior citizens and the existence of greenery-filled public areas nearby a residence of senior citizens, which reveals how these walkable green spaces positively influence the longevity of urban senior citizens (Takano et al. 2002). Another large-scale study in the Netherlands shows the positive interrelation between the percentages of green space in people's living environment and their perceived general health (Maas et al. 2006).</p>

Table 6.12: Conjoint classification of sustainability

Case: Agitation for green places and slum eviction in Golkunagar

Grading	External impact	Internal coping capacities
5	Balance of external benefits and costs	Prominence of internal benefits
Narrative		
<p>Regarding both dimensions and all stakeholders the agitation for green spaces in Golkunagar can be assessed as rather sustainable and rated with five points. However, this rating alone does not reflect the concentration of costs faced by one single subgroup of stakeholders, the slum dwellers.</p>		

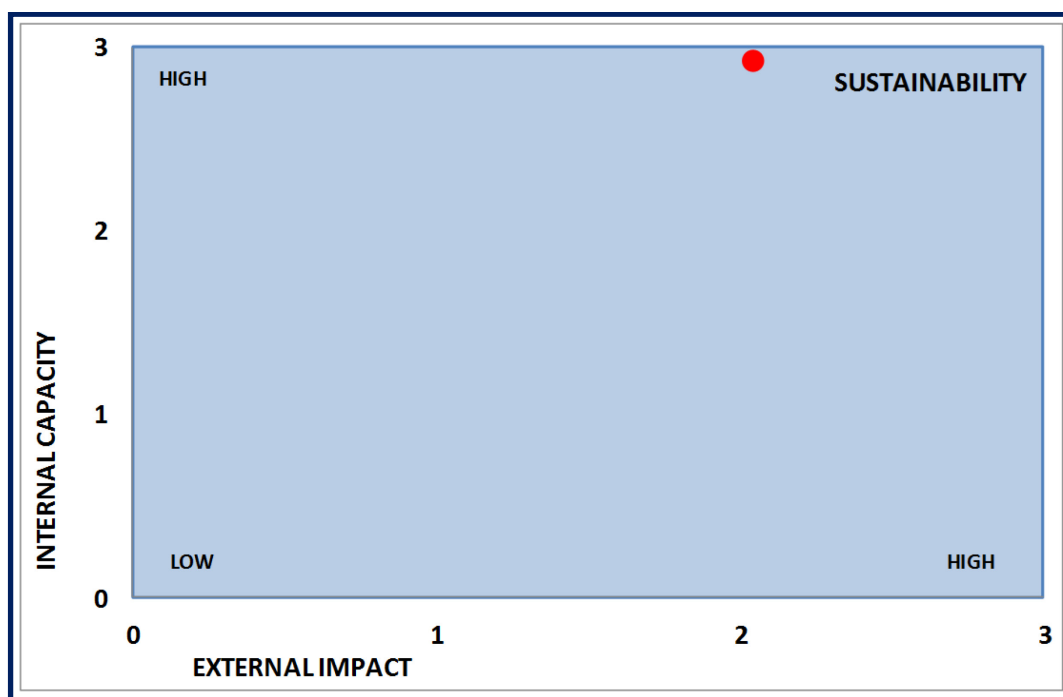


Figure 6.7: The degree of sustainability in the case of Golkunagar
Source: Author

6.4.2.3. Third analytical step: pooling the assessments. The interrelation between collective participation and sustainable decisions

The last step of our assessment procedure, the matching and comparison of the previous results, reveals that our case shows a rather a-synchronic trend of the phenomena of collective participation and sustainable decisions. One distinct group of affected stakeholders is excluded from directly participating and influencing the decision. Besides, this group bears the observable costs of the decisions which are not trivial but pertain to their livelihoods, their homes and their jobs.

This exclusive character of the decision-making process with its lack of downward-bridging social capital to the lower strata of the society limits positive effects of collective participation on sustainability. This becomes apparent when looking at the intermediate concepts of integrative institutions, subsidiarity and social learning which are assumed to interlink collective participation and sustainability. The exclusion of slum dwellers from the decision-making process as from the solicitude of the association's members reflects an institutional setting which internalises the benefits and externalises most of the costs of the decisions. Even though the decision-making process takes place at the affected neighbourhood, the exclusion of the group of slum dwellers from the decision-making process limits the positive effects of subsidiarity, such as the adjustment to the specific

ecological, social and cultural environment, the regard for stakeholders' needs and capacities and the identification with the decisions of the association's members. The slum dwellers are affected stakeholders whose interests, needs and capacities are completely ignored. Besides, the members of the association are retrained from social learning due to their lack of bridging social capital with the slum dwellers. Social learning, in which the members of the association could learn to regard the slum dwellers, would demand personal networks resulting in trust or norms of reciprocity in this direction. But with reference to the slum dwellers the association's social capital shows its dark side.

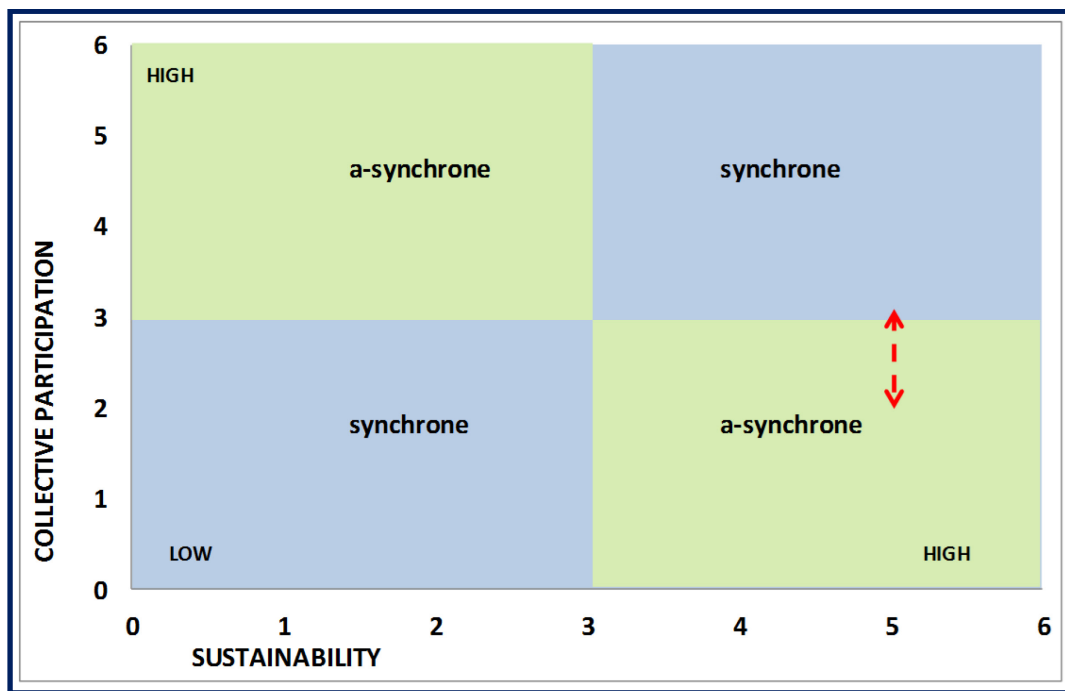


Figure 6.8: The interrelation between collective participation and sustainability in the case of Golkunagar

Source: Author

6.5. Conclusion

Our attempt is the formulation of a systematically and theoretically based approach to empirically account for the interrelation between collective stakeholder participation and sustainable decision-making. We do not aim to prove causalities but tendencies. The approach combines an abstracting point-based scaling system with explanatory narratives which we apply step-wise. In a first step we assess collective participation via the dimensions' inclusion and influence, and we assess sustainability via the dimensions' external impact of decisions and internal capacity. In a second step, the dimensions are pooled and each concept is accessed with a cumulative evaluation. The third step pools the

evaluation of collective participation and sustainability and reveals whether both concepts cultivate with even or opposite tendencies.

Empirically, the employed case of the agitation for green places and slum eviction in Golkunagar, Hyderabad records the disadvantage of slum dwellers in the decision-making process as well as in its outcome. This result reflects similar studies on the polarisation of urban strata and the neglect of the slum dwellers' interests and of any entitlement for co-termination (Bronger 2004, p. 166; Gosh 2009, p. 239).

On theoretical grounds regarding the interrelation between the degrees of collective participation and sustainability no distinct statement can be made on the basis of this case. But looking at the ratings and the narratives simultaneously, two aspects seem to be of prominent importance for the interrelation between collective participation and sustainability: the inclusiveness of ALL affected stakeholders and the amount of bridging social capital. These two aspects should be analysed further.

Methodologically, the empirical application of our approach reveals the need for its refinement: The disregard of the methodological scaling for any diversity among stakeholders especially in the dimension of influence is a shortcoming of the approach in its current status. This disregard makes it difficult to classify cases in this dimension if certain groups of stakeholders have very different impacts and powers as in the Golkunagar case. A further methodological and theoretical shortcoming lies in the cost-benefit assessment of sustainability. So far, the approach retrains theoretically and methodologically from certain core questions: Do ecological, social and economic costs and benefits have the same values? Can one type of benefit or cost outperform another? And what about the distribution of costs? The importance of these questions is highlighted by the convergence of almost all social costs on one group of stakeholders in our case. We have to rethink our theoretical concept which generates our methodological approach. We need to define whether equity among stakeholders in the distribution of costs and benefits matters for sustainability and whether one sort of cost or benefit can outperform the other.

The inductively identified theoretical and methodological insights from the case in Golkunagar stimulate an advancement of the presented qualitative assessment approach. The conceptualization and methodological operationalization of both collective participation as well as sustainability need to be extended with a third dimension each. A third dimension of collective participation would need to account for the missing dialogue

with the slum dwellers and the disregard of their interest in the observed case. Similar to Archon Fung's democracy cube and other three-dimensional conceptualizations of participation, the advanced conceptualization would need to include a dimension for the "communicative mode" of the decision-making process (Fung 2006, p. 70; Newig 2011, p. 488). This dimension would have to answer in how far deliberative debates and an exchange of communications include stakeholders in the periphery. A third dimension of sustainability would need to frame the distribution of a decision's costs and benefits among the affected stakeholders. The inductive insights from the Golkunagar case encourage including the question how equal or unequal the distribution of costs and benefits turns out.

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7. CONCLUSIONS AND RESEARCH OUTLOOK

Pursuing its bi-partite research agenda and striving for theoretical and empirical findings, the dissertation targets two research aims. The first aim comprises an advancement of the theoretical debate on the operational mechanisms between participatory governance and sustainable outcomes, thereby incorporating considerations on collective action. The second aim covers empirical insights on cases of collective participatory stakeholder governance in Hyderabad, India.

Both research aims are accomplished whereby the theoretical and empirical findings fructify each other on the way. The dissertation's bi-partite approach, which combines deductive and inductive reasoning, results in three types of scientific output. Theoretically, the dissertation designs a framework on the interrelation between collective participation and sustainable decision-making identifying and correlating the core variables and categories. Empirically, the dissertation generates first insights on the willingness for collective participation in the field of water governance in Hyderabad, second insights on the cooperative sector in Hyderabad and on its degree of collective participation and third insights on SCOTRWA as an example of neighbourhood associations, with a special focus on collective participation within SCOTRWA and examining the degree of sustainability of one decision-making example. An additional scientific output produced by this mutual interplay of theoretical and empirical research is a first matrix for a methodological tool for systematic empirical research on the interrelation between collective participation and sustainable outcomes. Reverting to this methodological tool, the dissertation does not close with a final appraisal or result but with indications for further research.

The following concluding sections point out the individual and joint contributions of each paper to the bi-partite research agenda. Then, some limited policy recommendations are summarised on the basis of the empirical insights. After that, the limitations of the thesis are elaborated on. The final section presents first ideas on how to advance and complement the methodological tool in order to continue on the research path.

7.1. Key results and contribution

7.1.1. Paper 1: “Participatory water and sanitation planning in urban India: a theoretical framework and empirical insights from a household survey in Hyderabad”

In the explorative paper, Jens Rommel and I analyse the prospects for more inclusive water planning in Hyderabad in the context of marketisation and governance reforms. Problems in water provision and quality especially hit the urban poor, who lack exit and bargaining powers. We look for the prospects for collective action at the neighbourhood level as a mode to strengthen the population’s adaptive capacities. Here, we especially look at the role of social capital.

The paper is based on a household survey of 502 completed questionnaires conducted in Hyderabad between December 2009 and January 2010 which target overviews the water and sanitation services in the city. The survey reveals that slum households are most severely affected by water stress and that their highest concern is on water quality issues. To elicit their willingness to organise with their neighbours, respondents are asked whether they would be generally willing to contribute time and money to address water problems collectively. About one-third of the respondents are willing to address their water problems in a collective way and to organise with their neighbours. Hyderabad’s slum population and the more educated population are especially willing to act collectively. Concerning social capital especially norms of reciprocity and norm following show a statistically significant effect on willingness to ally. Informal networks, namely shared activities with neighbours, have a smaller effect whereas formal networks, namely membership in associations and party membership, decrease the willingness to organise.

The findings further reveal that household characteristics are not able to fully explain the willingness for collective action. The effect of location, meaning being located in a specific city zone, is as large.

Our findings result in the following case-specific empirical knowledge:

The paper generates system knowledge and contributes to a better understanding of the water and sanitation services in Hyderabad and the needs and concerns of the population with special regard to differences between the different urban strata. The paper highlights the water-related stress faced by the slum population and their focus on water quality issues and therewith also generates target knowledge contrasting the middle class exit

options with the stress faced by the slum population. In analysing the prospects for participatory water planning and collective action approaches, the paper provides transformation knowledge. Education and existing informal networks are exposed as potential starting points of more inclusive planning and management approaches. In addition, the need to regard for the location when initiating more inclusive planning and management is exposed. The prospects for participatory and collective approaches differ between Hyderabad's districts.

The paper also delivers first theoretical insights on the preconditions of collective participation in urban settings and provides first insights on the role of different household characteristics and context factors. The survey results help in refining the definition and operationalisation in the socio-cultural context of urban Hyderabad. The need to account for informal networks was highlighted. The paper additionally contributed to research on collective action in urban areas. Moreover, the paper's results underline the need to incorporate more variables than social capital when explaining collective participation. The findings emphasised the impact of cultural and economic capital (Bourdieu 1983, pp. 184–185) and the impact of the context (here: location) on the willingness for collective participation.

In summary, this paper responds to the dissertation's first empirical research goal and assesses the general willingness for participatory and collective self-help approaches in resource management in Hyderabad and also responds partly to the first theoretical research goal in contributing to the identification of basic requirements for the realisation of collective participation. The paper also discloses the need to broaden the theoretical work and to look for more variables influencing collective participation rather than social capital. Empirically, the paper broaches the issue of the willingness for collective participation. The following empirical work looked for actual collective participation of resource users in Hyderabad.

7.1.2. Paper 2: “A theoretical framework for exploring the capability of participatory and collective governance in sustainable decision-making — literature review”

Aiming at clear conceptual and theoretical definitions and at a clear heuristic model when attending the dissertation's core question around the interrelation between collective participation and sustainable decision-making, this paper compiles a research matrix and

designs a distinct theoretical framework. This is done through an extensive literature review.

The framework's design is oriented on the system theoretic input-output logic of David Easton (Easton 1965; Easton 1966) and Gabriel A. Almond (Almond, Powell 1966, 2003) and the composition of its variables is oriented at categories of the actor-centred institutionalist approach of Renate Mayntz and Fritz Scharpf (Mayntz, Scharpf 1995; Scharpf 2006). Sustainability as the framework's dependent variable is reviewed, allowing for the Brundtland definition (World Commission on Environment and Development 1987) but grounding it with reference to theories on institutions. Sustainability is defined with reference to Harmut Bossel, Franz Gatzweiler, Konrad Hagedorn and others who define sustainability as the adjustment of the social (human) system and the ecological system (Bossel 1999, p. 2; Gatzweiler, Hagedorn 2002). The framework claims that economic prosperity, social development and the evolution of resource use, emphasised by the Brundtland report, have to be considered when this adjustment shall be achieved. The framework claims more explicitly that the social and ecological system can only be adjusted when behaviour and decisions are more beneficial than costly along two dimensions: The first dimension accounts for the maintenance and enhancement of the livelihood prospects and the subsistence of fellow humans and of the ecological system, and the second dimension accounts for maintenance and enhancement of the livelihood prospects of the respective actors themselves (Chambers, Conway 1992, p. 9). The framework's independent variables are identified and defined reviewing literature on participation and participatory governance and collective action theory. Thereby, the preconditions for collective participation are considered too. To specify the interrelation between collective participation and sustainable decision-making intermediary concepts on integrative institutions, subsidiarity, participative theories of democracies and social learning are reviewed.

The framework contributes a theoretical research heuristic for the examination of the prominent claim for more participatory governance in order to achieve sustainable outcomes. The framework can serve as a research heuristic for the generation of system knowledge when classifying real-world phenomena along the framework's variables and categories. With its exemplifications on the preconditions for collective participation and on the intermediating variables, the framework and the associated analytical matrix can also assist in generating target knowledge and transformation knowledge in this field.

Thereby, the framework is applicable on different levels of governance. The dissertation itself focuses on local governance but the framework can be applied to regional, national and even supranational levels too. In addition, the framework works for different organisational forms. The dissertation employs it for registered civil society organisations but it can be applied to formal political organisations or to informal and spontaneous associations too.

Within the dissertation's bi-partite research approach, this paper forms the basis of the theoretical cornerstone. Using the literature review and the distinct framework design it addresses the core theoretical research questions in a deductive way. The paper defines and pools concepts of participatory governance and collective action (collective participation) and identifies the basic requirements for their realisation (theoretical research goal 1). It defines sustainability and sustainable decision-making (theoretical research goal 2) and it theoretically lays down the main aspects and components of the interrelation between collective participation and sustainable decision-making with its distinct framework design (theoretical research goal 3).

7.1.3. Paper 3: "Improving autonomy in Indian cooperatives - the Hyderabad experience"

This paper, which rests upon joint research with Sophia Opperskalski, gives a general overview of the cooperative sector in urban Hyderabad and investigates its degree of collective participatory governance.

The case study first explores size and sectorial distribution of the cooperative sector. Thereby, the differences between two parallel existing legal acts are highlighted, which allow for very different degrees of member participation and autonomy. Most of the cooperatives in urban Hyderabad are registered under the APCS Act of 1964, which limits the decision-making powers and autonomy of its cooperative members on legal grounds (Andhra Pradesh Legislative Assembly 1964). At the same time the APMACS Act of 1995 allows for more member participation and autonomy (Andhra Pradesh Legislative Assembly 1995). However, those cooperatives which are registered under the more liberal APMACS Act of 1995 still do not use their legal space for participation and show an on-going lack of participation and autonomy and rely on external supervision by non-governmental organisations. Those cooperatives are independent from governmental control but are now often under external supervision by non-governmental organisations. They rely on external guidance and financial as well as administrative support. These

results underline the need to account for rules-in-use next to the formal institutions when investigating collective participation.

The outline of the cooperative sector reviewing the sector-wise distribution and the legal registration provides comprehensive system knowledge. The analysis of the legal and actual prospects for member participation offer target knowledge and underline the mismatch of the APCS Act of 1964 legal act as well as of the APMACS Act of 1995 cooperatives' actual performance with the cooperative principles of democratic member control or autonomy represented by the International Co-operative Alliance (ICA) (International Co-operative Alliance). Two insights form the key transformation knowledge generated by this paper: To implement the cooperative principles, more legal space for autonomy and member participation is needed. Either the APCS Act of 1964 needs to be reformed or the cooperatives registered under this act need to be transformed to another act. Second, the paper points out the need to effectively implement the regulatory framework of the APMACS Act of 1995 and recommends members' empowerment and broadening of participation with shifting the focus from leadership and NGOs to the members.

In summary, this paper follows the dissertation's second and third empirical research objectives. Looking for cases of participatory collective governance of affected stakeholders in resource management in Hyderabad, the paper addresses and reviews the cooperative sector in Hyderabad, including its scope in membership and the covered economic sectors and with a special emphasis on the cooperatives' degree of collective participation. The paper discloses that the cooperative sector in Hyderabad does not exemplify collective participation in resource governance. Another case study of collective participation in resource governance is needed, and the author reverts to neighbourhood associations in Hyderabad.

7.1.4. Paper 4: “Social capital as an effective means against medical exploitation: What civil society can do”

The conjoint paper with Marko Meyer argues for social capital as a tool in the hands of civil society to fight against medical exploitation. Thereby, the article pictures the concept of social capital, which is used throughout the dissertation and defines social capital with reference to Robert Putnam as comprising cultural and structural aspects, “features of social organization, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated actions” (Putnam et al. 1993, p. 167). When discussing

the effects of social capital the article already concentrates its line of sight in one direction: how social capital is able to advance collective action and “enable(s) participants to act together more effectively to pursue shared objectives” (Putnam 1995). This functional chain points out a core precondition for collective participatory governance in the dissertation’s theoretical framework. Aside from this, this article introduces and pictures SCOTRWA (Standing Committee of Tarnaka Resident’s Welfare Associations) the federation of neighbourhood associations in Hyderabad, which serves as the dissertation’s second case study recurring in paper 5.

With regards to content, the paper presents medical exploitation as an increasing problem, especially for societies such as India which lack adequate health insurance systems. With the term medical exploitation, we cover the phenomenon of the unnecessary prescribing of drugs and treatment by the medical industry which causes financial problems for all strata of society. The article describes in its case study how SCOTRWA uses its bonding forms of social capital for collective action and awareness building in the community. Herewith, SCOTRWA generates collective pressure on the medical industry. Additional bridging forms of social capital and SCOTRWA’s relations with doctors and clinics which provide linkages between civil society and the medical profession equip SCOTRWA with necessary medical knowledge. Acknowledging that collective action and participation depend also on various further variables such as individual resources, group characteristics or resource characteristics, the article encourages civil society to employ its social capital for its empowerment.

The paper contributes to the scientific discussion on social capital with a literature review which also accounts for criticism on the concept and pools literature on public health and social capital. In addition, it applies the concept to a narrow, real-world issue, thereby exemplifying observable implementations of the concept’s characteristics. This application exposes conceptual benefits of the disputed concept.

In terms of the problem of medical exploitation the article generates system knowledge-collecting information on this phenomenon in India. When exposing the costs this phenomenon implies for Indian civil society the article also tackles target knowledge. The emphasis of this article is, however, on transformation knowledge. The article uses the case of SCOTRWA as a template on how civil society can use existing bonding and bridging forms of social capital in counteracting medical exploitation.

In the line of the dissertation's research objectives, this paper attends the fourth empirical research objective and pictures SCOTRWA thereby highlighting one field of collective participation. Aside, the focus on social capital tackles parts of the first theoretical research objective and addresses one factor influencing collective participation.

With SCOTRWA a case of collective participatory governance in resource management is identified. The fifth paper is dedicated to empirical investigation of the interrelation between collective participation and sustainability.

7.1.5. Paper 5: “The interrelation between collective participation and sustainable decisions – a qualitative assessment approach”

Supplementing the dissertation's theoretical framework and aiming at scientific evidence for the interrelation between collective participation and sustainable outcomes, this paper joins other recently emerging approaches. Thereby, it tries to fill the methodological gap on how both the phenomena of collective participation and sustainability and their interrelation can be assessed by qualitative means. In contrast to other emerging approaches, the presented assessment approach is thereby not restricted to the governance of environmental resources but applicable to participatory decision-making on a more general level. It is applicable to diverse cases of direct decision-making. It can be used for the meta-analysis and comparison of existing case studies as well as for the analysis of primary qualitative data. The application on primary qualitative data is presented in the paper.

The approach combines an abstracting point-based scaling system with explanatory narratives. Thereby, the complex interlinkage between collective participation and sustainability is refined by assessing the value of the two concepts separately before looking for synchronic or a-synchronic tendencies. Both concepts, collective participation and sustainability, are split into two dimensions and the scaling and assessment is done via these dimensions. The application of the approach is exemplified on a case of non-governmental neighbourhood governance in Golkunagar, a part of Tarnaka, in Hyderabad. The application reviews how the located neighbourhood association runs a campaign to evict a slum settlement in order to construct a green park with trees and leisure facilities on the respective spot.

In accordance with similar studies on the polarisation of urban strata, the exemplified case highlights the neglect of the slum dwellers' interest and voices.

Methodologically, the application of the assessment approach reveals several remaining challenges and the need to refine the current version: The disregard of the methodological scaling for any diversity among stakeholders hampers a classification of cases along the dimension of influence when stakeholders differ in their impacts and powers. The cost-benefit assessment of sustainability in the approach is oversimplified. It ignores several conceptual questions: Do ecological, social and economic costs and benefits have the same values? Can one type of benefit or cost outperform another? And what about the distribution of costs? In the exemplified case, almost all costs are merged into one subgroup of stakeholders, the slum-dwellers. For a reliable assessment approach, the relevance of the distribution of costs and benefits needs to be addressed.

In its application, the paper outlines the shortcomings of the current version of the assessment approach. The paper's conclusion suggests extending the conceptualisation and methodological operationalisation of both collective participation as well as sustainability with a third dimension. Regarding collective participation, the third dimension needs to account for a mutual and comprehensive exchange of communication and the degree of deliberation, including stakeholders in the periphery. Authors such as Archon Fung (Fung 2006) and Jens Newig (Newig 2011) might serve as examples here. For sustainability the third dimension needs to account for the distribution of costs and benefits and assess equality or inequality in this regard.

In summary, the paper supplements the theoretical framework of the second paper and inductively shows the need to amplify the concepts of collective participation and sustainability (theoretical research goals 1, 2 and 4). In addition and foremost, the paper contributes the matrix of a new and widely applicable methodological approach to qualitatively assess collective participation, sustainability and their interrelation. The approach is capable of development and can be combined with other methods such as the case survey method (see below). In doing so, the presented approach can be used for generating scientifically reliable empirical data on the interrelation between collective participation and sustainable outcomes. After refinement the approach can be used for the generation of target and transformation knowledge delivering empirical data on whether and how collective participation goes ahead with sustainable decision-making. Empirically, the paper already contributes a single case study on collective participation and its prospects for sustainable decision-making and pictures the modes of decision-

making in SCOTRWA and one of its neighbourhood associations (empirical research goal 3).

7.1.6. Joint contribution

Following a bi-partite design combining deductive reasoning and inductive reasoning, the dissertation generates mutually interacting theoretical and empirical knowledge on collective participation, sustainability and their interrelation in an urban context. Based on inductive reasoning, paper 5 reveals the need to refine the deductively compiled concepts from paper 2. Second, within this interacting process of knowledge generation, the dissertation designs a first methodological matrix for systematic empirical research on the interrelation between collective participation and sustainable outcomes.

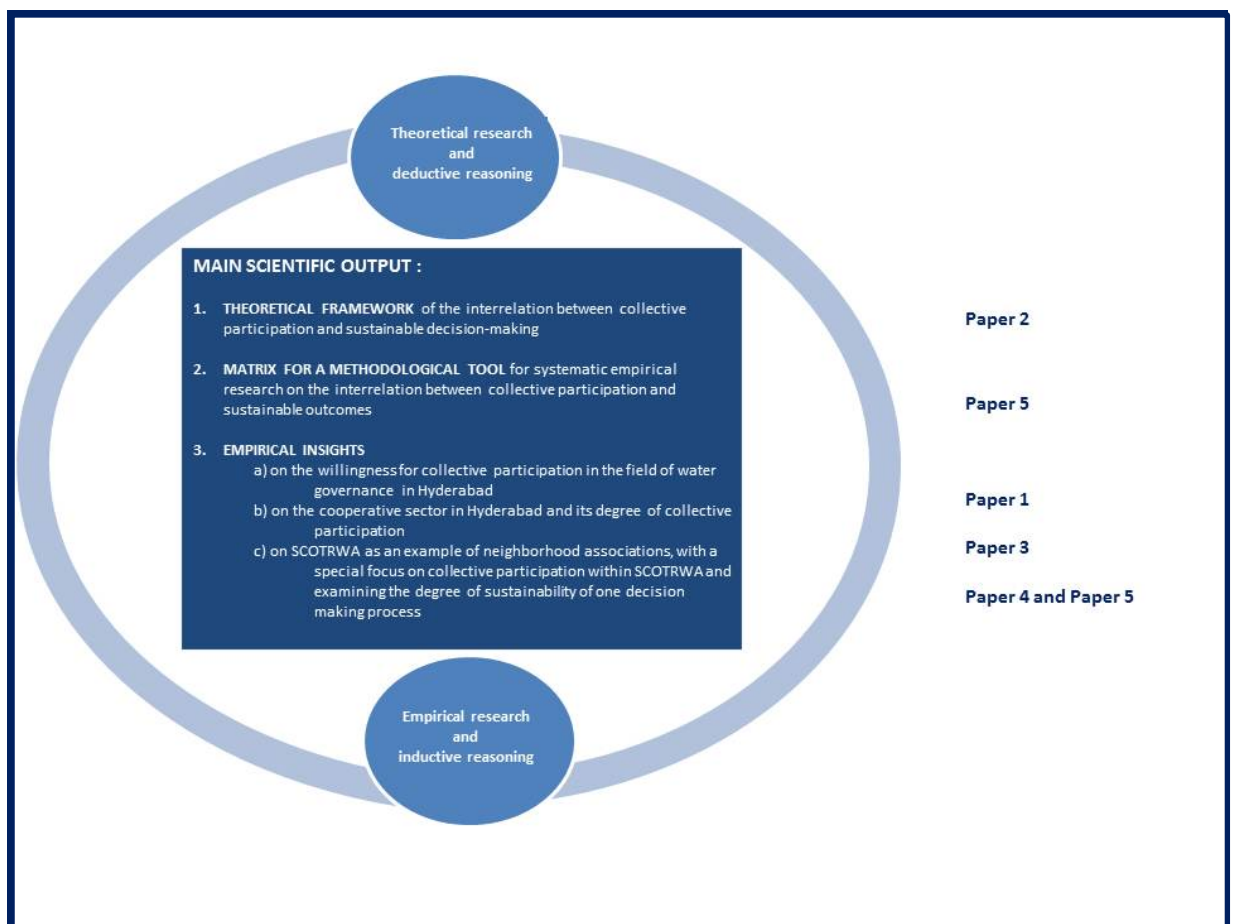


Figure 7.1: The dissertation's scientific output

Source: Author

7.2. Policy recommendations

With regard to the general relation between participation and sustainability, the dissertation provides only first and preliminary target- and transformation knowledge with an advisory

character. However, the dissertation's theoretical and methodological findings work as first steps for reliable policy recommendations. The theoretical framework and the matrix of the qualitative assessment tool can be employed to generate respective policy recommendations.

Beyond the dissertation's core topic on the relation between participation and sustainability, various direct policy recommendations can be generated based on the empirical research in Hyderabad.

7.2.1. Implications for urban planners and political authorities

The dissertation's explorative paper alerts urban authorities in Hyderabad to the water stress faced by the slum population and to water quality as their main concern. In the case of more inclusive and participatory water planning initiatives the authorities are advised to focus on education and to consider training and education in their initiatives. Furthermore, it is recommended to provide for the setting of the potential initiative. Inclusive and participatory water planning seems to be easier to conduct in some districts (e.g., central Hyderabad) than in others. Thereby, the planning authorities are advised to resort to exiting informal networks and relations between neighbours.

The dissertation's survey results provide the policy planners in Hyderabad with additional empirical evidence on the status quo and the shortcomings of water and sanitation services in the city. Beyond that, the analysis recommends some concrete starting points for more inclusive and participatory water-planning initiatives.

When recommending more inclusive and participatory strategies of urban governance, the dissertation's case study results provide additional, relevant findings. The case of SCOTRWA in Tarnaka especially underlines the need to factor inclusion and equality when increasing civil society involvement. Here the dissertation agrees with the alerts of other authors to exclusionary empowerment (Harriss 2010, p. 5; Kundu 2011, p. 25).

7.2.2. Implications for the cooperative sector

The dissertation's study of the cooperative sector in Hyderabad results in approving the formal and quantitative extension of the APMACS Act of 1995, accompanied by a stronger regard for the ICA's cooperative principles in its implementation. However, recent trends in Hyderabad's cooperative sector angle off. A committee appointed by the current government of Andhra Pradesh prepared a draft of a new cooperative law called "Draft

Andhra Pradesh Co-operative Societies Act, 2010” (Government of Andhra Pradesh 2010). The draft runs contrary to the call for enhanced member participation and autonomy. A respective bill has not been passed yet and further progress needs to be observed.

7.2.3. Implications for resident welfare associations

The dissertation’s identification of an inclusive tendency in its study on SCOTRWA which corresponds with other studies on Indian resident welfare associations (Harriss 2010; Kundu 2011) calls for more bridging social capital accounting for other social strata. The neighbourhood associations’ method of governance and organisation not only affects their members but also other fellow citizens. The increasing power of resident welfare associations in the urban power structure involves increased responsibilities. Resident welfare associations have the potential of actualising the virtues of subsidiary decision-making but only if they have a regard for the other intermediary variables which are identified in the dissertation as lining collective participation and sustainable decision-making: integrative institutions and social learning. Next to social class, the case study also reflected caste and gender as further Indian cleavages with regard to equality and participation (Drèze, Sen 2002, p. 11). Resident welfare associations are invited to open up and counteract these divisions in order to bail out their potential.

7.3. Limitations of the thesis

The dissertation investigates how collective and participatory modes of decision-making relate to sustainable decisions, especially in local and small-scale resource management. However, the dissertation acknowledges that the impacts of participation are interlinked with other institutions and that context matters. These influencing factors have already been exposed in the field of rural development decades ago; see inter alia (Chambers 1997; Cohen, Uphoff 1980; Gow, Vansant 1983). Even though the focus of the dissertation is on the mode of the decision-making process, the dissertation’s theoretical framework accounts for the impacts of context and other factors, such as the problem stake or the actors and their constellation as categories. The framework accounts primarily for the influence of these factors on the decision-making process. However, those factors already influence the degree of sustainability directly and along other lines. Research on these other additional tracks is highly valuable and also recommended by the author. The dissertation is seen to supplement these lines of research.

Thereby, the author points out that the dissertation's results and findings have to be reviewed and utilised, taking into account the context and research setting. The author shares the assumption of Melanie Lombard that "contextual factors in particular settings may be critical in determining how participation is understood and implemented at the local level" (Lombard 2012, p. 2). The author assumes a similar influence of contextual factors on sustainability and its elements.

The dissertation's empirical research is limited to the local level and small-scale resource governance in an urban setting in the global south. The findings of the dissertation on collective participation, on sustainability and on their interrelation have to be assessed in the light of these contextual factors. Other and bigger studies *inter alia* conducted by D. Narayan (Narayan 1995) and J. Sara and T. Katz (Sara, Katz 1997) for the World Bank research the impact of participation on sustainability on different scales. These studies observe a positive impact but also reveal that the scope of the participatory projects as decisive for their success, and that bigger projects need external existence (Kleemeier 2000, p. 931).

The small-scale participatory decision-making processes and their implications for sustainability which are at the core of the dissertation project can be integrated into more comprehensive polycentric approaches (Ostrom et al. 1961, p. 831; Ostrom 1999, p. 52). Elinor Ostrom argues for polycentric analytical approaches to research climate change and counteractive measures (Ostrom 2010, p. 552, 2012). Ostrom points out the eligibility and necessity of incorporating small- and medium-scale approaches when tackling climate change: "Global policies are indeed necessary but they are not sufficient" (Ostrom 2012, p. 366).

The dissertation accredits that collective participation is no panacea for sustainability. It accounts for findings in the development literature which expose negative effects of participation on development and psychological limits of participatory development (Cooke 2001; Cooke, Kothari 2001; Newig et al. 2011, p. 31). In addition, the author warns about drawing neoliberal conclusions from the dissertation's research on collective participation and sustainability. The dissertation's last paper especially shows the need to account for the distribution of powers and costs and benefits of decision-making processes. Next to formal participation, empowerment and equal inclusion of the marginalised population have to be regarded (Lombard 2012, p. 3).

7.4. Indications for future research

7.4.1. Advancement and supplementation of the methodological tool

As already indicated in paper 5, the dissertation's methodological approach of a qualitative assessment of the interrelation between collective participation and sustainable decision-making needs to be refined and advanced. The two-dimensional assessment of both collective participation as well as sustainability is not sufficient to account for both phenomena. Therefore, the dissertation recommends adding a third dimension for each phenomenon. The dissertation refers here to the approaches of Archon Fung, Jens Newig and others who have conceptualised participation along three dimensions (Fung 2006; Newig 2011, p. 488). The empirical results in paper 5 inductively underline the need for a dimension accounting for the missing incorporation of the slum dwellers' interests in the observed case. Therefore, a third dimension of collective participation needs to regard how far the mode of communication includes stakeholders in the periphery. For sustainability, paper 5 points to the meaning of equality in the distribution of costs and benefits when conceptualising and later operationalising sustainability. In this regard an inductive refinement of the definition and whole conceptualisation of sustainability is needed. Further case studies and an enhanced literature are recommended to consolidate these first ideas for refinement. The current suggestions to refine the conceptualisation of sustainability and the operationalisation of collective participation and sustainability are summarised in the figures below:

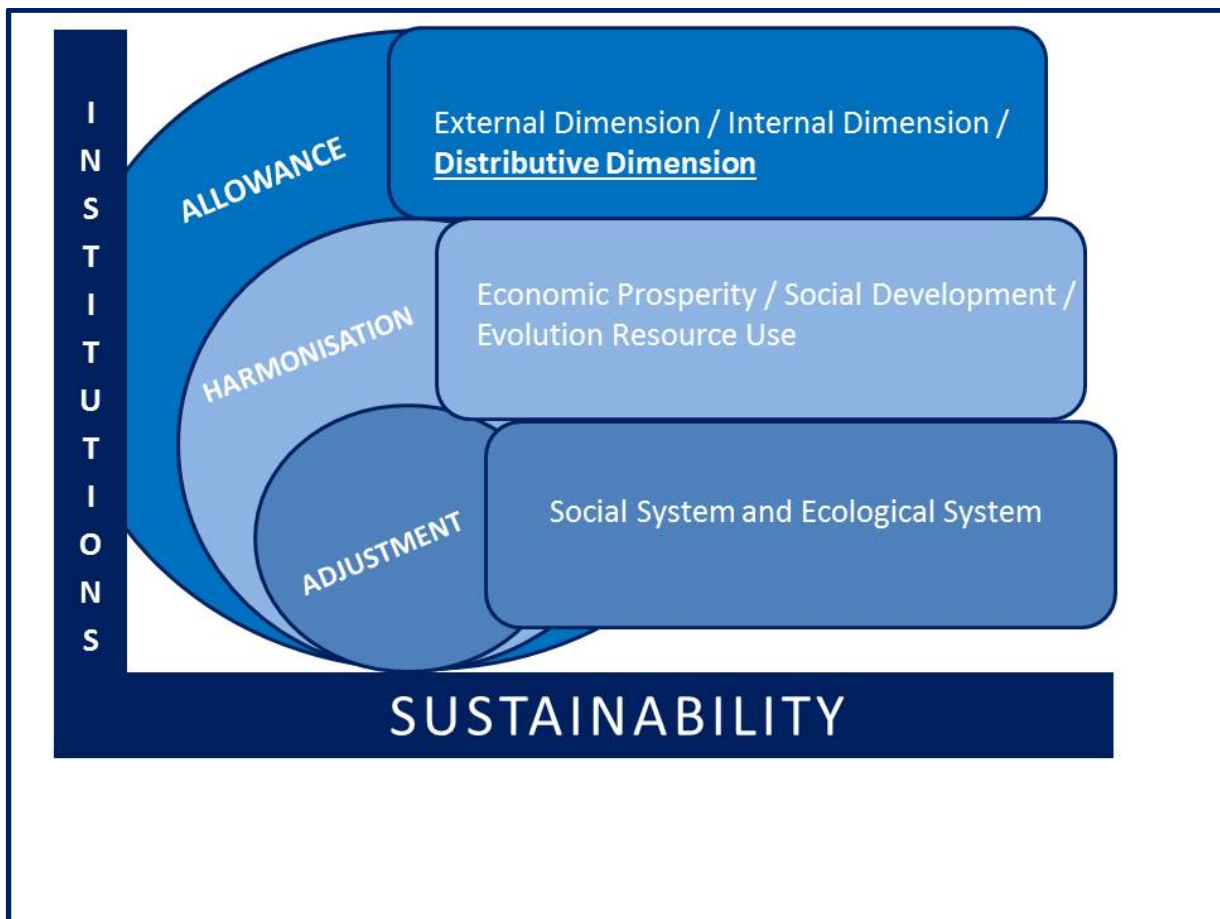


Figure 7.2: Revised conceptualisation of sustainability

Source: Author

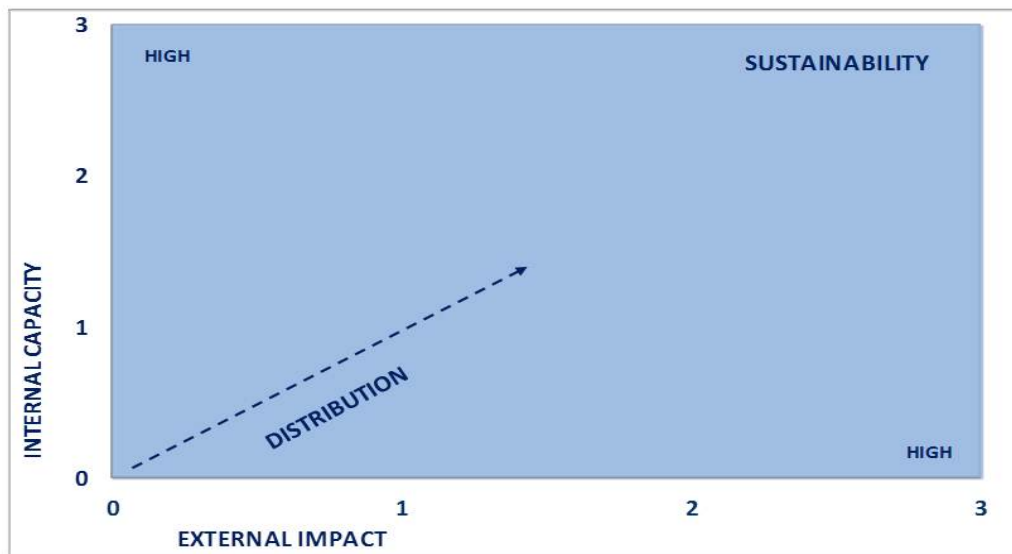


Figure 7.3: Supplemented dimensions of sustainability

Source: Author

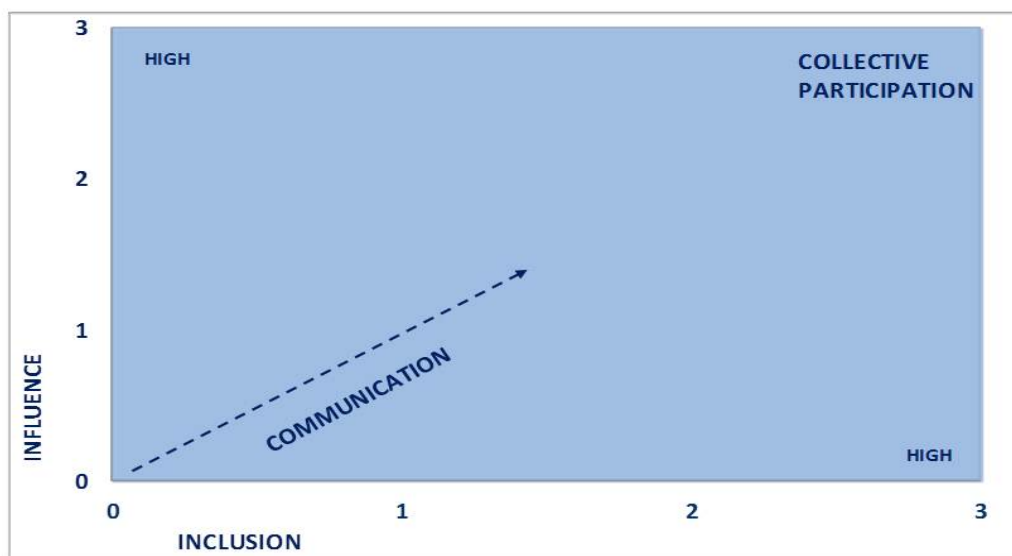


Figure 7.4: Supplemented dimensions of collective participation

Source: Author

7.5. Complementing the methodological approach with the case survey method

After its refinement the use and application spectrum of the methodological approach could be increased by complementing it with the case survey method. The ECOPAG project at the Institute for Environmental and Sustainability Communication at the Leuphana University of Lüneburg applies the case survey methodology in its research on the environmental consequences of participatory governance; however, it has a different conceptual and theoretical background than the dissertation (INFU-Institute for Environmental Communication). The case survey method fits to the dissertation's simultaneous pursuit of both nomothetic and idiographic research ideals (Larsson 1993, p. 1543). The dissertation tackles collective participation not only in environmental issues but also in resource use and management in general. The dissertation thereby accounts for a broad definition of resources, including drinking water (paper 1), organic food (paper 3), green spaces (paper 5) and even public health (paper 4). Therefore, a complementary approach, combining the dissertation's qualitative assessment approach with the case survey method, could generate insights on the interrelation between collective participation and sustainable outcomes in various policy fields, even beyond environmental politics. What is conceivable is the application of this combined approach e.g., in urban planning. Moreover, the combined approach would be applicable for the analysis of case studies at various political and administrative levels. The dissertation focuses on the local level, but the combined approach could also analyse case studies at the regional, national or supranational and global level.

The author reviews the dissertation's theoretical framework and the matrix for a qualitative approach to assess the interrelation between collective participation and sustainable decision-making as its most fruitful scientific output. Further empirical applications are estimated to be of a generative character for the production of new scientific insights on the issue. Thereby, new empirical findings should always be considered to further advance the theory and methodology. A combined methodological approach, incorporating the case survey method, would be a useful way to continue and amplify the mutual interaction between theoretical and empirical knowledge in search of the interrelation between collective participation and sustainable outcomes.

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APPENDIX

Appendix 1: Effect of current political disturbance around the Telangana movement

In 2009 the longstanding political movement for a separate state, Telangana, which has roots going back to Andhra Pradesh's state formation in 1956 and climaxed in 1969 gained in importance again. Hyderabad is largely affected as one major contentious issue and as a major place of unrest and protest (Srikanth 2011, p. 785). Despite different standings in the previous decades and even though most parties have not achieved inner-party consensus in this issue, ahead of the national general elections in 2009 representatives of major parties in the state expressed their support for a separate Telangana. After the accidental death of Congress Chief Minister Y. S. Rajasekhara Reddy (YSR), the Telangana movement gathered further momentum (Srikanth 2011; Maringanti 2010). Hunger strikes by political leaders, resignations of members of Parliament, student unrest and suicides characterised November and December 2009 and January 2010 and have been recurring since then (Deccan Chronicle, December 8, 2009; Outlook India, December 10, 2009; Outlook India, December 21, 2009; BBC South Asia, January 18, 2010; Deccan Chronicle, March 5, 2010). A commission appointed by the Union government, the Srikrishna Committee, delivered its report on the Telangana issue in December 2010. The report does not make a decision but speaks out in favour of a united Andhra Pradesh with constitutional-statutory guarantees for the socio-economic development of the Telangana region. Pro-Telangana parties and activists reject the report (Srikanth 2011, pp. 786f). In December 2012, the Indian Union home minister announced that the Centre should make a decision on the Telangana issue within one month (The Times of India, December 29, 2012). Unrest still erupts occasionally (BBC News India, October 1, 2012) and when the federal government deferred a final decision by the end of January 2013 Telangana supporters have clashed with the police in Hyderabad again (BBC News India, January 28, 2013).

These events and the public mood concerning the Telangana movement circumstance affected the research situation in Hyderabad, especially during the second field visit in winter 2009 and 2010. Several bandhs (general strikes), for example, retarded the implementation of the household survey. In addition, data generation and data evaluation had to account for a potential impact on the research results. Water and irrigation are, for example, contested issues in the tensions between the Telangana and the Andhra region. To account for these problems, the survey included a control question inquiring about a change of political awareness and discussions to check the respondent's concern. With

regard to the case study of the cooperative sector in Hyderabad and the case study of SCOTRWA as an example of a federation of neighbourhood associations, the research design prevented bias as much as possible and avoided tackling contested issues or researching divided communities.

Appendix 2: Employed quantitative and qualitative methods

Household survey

Household surveys are most commonly employed for analysing policy effects (Deaton 1997, pp. 2–3). The quantitative and standardised household survey in the explorative study (paper 1) generally aims to collect information on drinking water and sanitation policies in Hyderabad. Scientifically, it aims to get information on the willingness of the households to organise with their neighbours. The household survey of 502 completed questionnaires was conducted between December 2009 and January 2010. The sampling strategy involved two stages. First, based on the 2001 census data, electoral wards were sampled with probability proportionate to size, and then the sample was stratified on the ward level by neighbourhood type (slum neighbourhoods versus middle-class neighbourhoods, based on the UN Habitat definition of 2007 (United Nations Human Settlement Programme (UN-Habitat) 2007)). In each stratus an equal number of households were sampled. For more information on the survey design and sampling, see paper 1. The survey's questionnaire is attached in the annex.

Quantitative logistic regression

For the data analysis of the household survey data a logistic regression model is deployed, which is the standard method for analysing relations between a discrete dependent and one or more independent variables (Hosmer, Lemeshow 2000, pp. 1ff). Our dependent variable in focus is the respondents' willingness to organise with their non-family neighbours. Several explanatory variables are deployed, e.g., the type of neighbourhood (middle-class versus slum), education, geographical location in Hyderabad, and social capital variables like having trust in neighbours, norm following, formal memberships in organisations and informal shared activities. For more information on the regression results, see paper 1.

Case studies

Since the epistemological logic underlying this dissertation rests upon a mechanism approach (Glennan 1996; Brady 2008) aiming to explore the mechanism(s) linking collective participation and sustainable decision-making the empirical work of the dissertation focuses mainly on the case study approach. Case studies are suited to “how” and “why” questions if contemporary phenomena are investigated which cannot be controlled easily (Johnson, Reynolds 2012, p. 85; Speier-Werner 2006, p. 57; Yin 2009, p.

8). A case study deals with spatial and timely bounded research units with a closed set of dependent and independent variables (Lauth, Winkler 2002, p. 45).

Single case studies allow for detailed analysis (Speier-Werner 2006, p. 57) and regard for context and people (Miles, Huberman 1994, p. 10). Since the dissertation's field research is located in a foreign environment this regard is necessary to gain in-depth and accurate insights undistorted by incorrect culturally biased assumptions. Besides, as previously noticed for qualitative methods in general, this regard for context and people complies with the dissertation's actor-centred research heuristic. However, single case studies hamper attempts for generalisation (Lijphart 1971, p. 691; Speier-Werner 2006, p. 57). Yet here the author argues that case studies do have their own logic of generalisations, just that they are different from quantitative surveys. Even though they cannot provide for statistical generalisations, they are "generalizable to theoretical propositions" and provide analytic generalisations (Yin 2009, p. 10). The dissertation deploys this logic when striving for the inductive modification and supplementation of its theoretical framework.

Most cases are complex and embedded settings that consist of several subunits that enable even deeper insights (Yin 2009, p. 44). Incorporating more than one case into the research design and employing a multiple case study enhances the evidence and robustness of results (Yin 2009, p. 45). The dissertation employs single case studies in several cases. The first case study is on the cooperative sector in Hyderabad, including several cases of cooperative societies (paper 3) and the second case study is on SCOTRWA and several member organisations as well as certain initiatives and decision-making processes as within case studies (papers 4 and 5).

Due to its bi-partite and iterative approach in which the elaboration of the theoretical framework and the empirical work evolve partly simultaneously, the dissertation deploys theory-building case studies devoid of major theoretical assumptions (paper 3) next to theory-informing case studies resting on the dissertation's theoretical framework and hypothesis (paper 4 and paper 5). The exploration of the cooperative sector in Hyderabad corresponds to the logic of theory-building case studies. Theory-building case studies need at least a preceding research question (Eisenhardt 1989, p. 536). The most important research questions guiding the research on Hyderabad's cooperative sector are on the participatory character of governance in Hyderabad's cooperatives.

The dissertation's case studies of neighbourhood associations in Tarnaka (SCOTRWA) are of a theory-confirming/informing type, according to Lijphart's definitions (Lijphart 1971, p. 691; Speier-Werner 2006, p. 54) and are conducted after the elaboration of the drafted theoretical framework. Theory-informing case studies have a theoretical basis and hypotheses that are to be confirmed and strengthened, contradicted and weakened, or proved to need supplementations. The dissertation's case studies on SCOTRWA reveal the need to supplement and modify the dissertation's theoretical framework and its methodological approach for data analysis. This identification of the need for theoretical modifications underlines the high explanatory power of single case studies (Rueschemeyer 2003, pp. 307, 310).

Theoretical sampling

All included case studies have been conducted on the basis of theoretical sampling. Theoretical considerations maintain case selection and defining the research questions and later on allow certain generalisations of results (Yin 2009, p. 6). According to the theoretical sampling, only those cases are included that provide more evidence (confirming or contradicting) or additional insights for the research questions (Yin 2009, p. 45). Following this logic, paper 3 highlights one case of cooperatives with strong values on collective participation. In this way, the deployed theoretical sampling follows the replication logic (Miles, Huberman 1994, pp. 27, 29). Based on the theoretical framework, the sampling of the second phase of case studies on neighbourhood associations in Tarnaka is conducted "to choose cases which are likely to replicate or extend the emergent theory" (Eisenhardt 1989, p. 537). Here, the campaign against medical exploitation is presented as one case underlying the meaning of social capital for collective self-help approaches. The campaign for green spaces and slum evictions reviews the whole theoretical framework and the qualitative assessment approach and reveals impreciseness in the definition of sustainability and in defining stakeholder participation (see papers 4 and 5).

Interviews

The empirical study of the cooperative sector in Hyderabad has been conducted without the complete theoretical framework in mind and conducted on the background of the concepts of participatory governance, collective action and sustainability, and the cooperative principles. Respectively, the qualitative expert interviews in this study are of a very exploratory character, generating descriptive knowledge (Bogner, Menz 2009, p. 64;

Lamnek 2008, p. 330). The interview techniques correspond strongly to ideal qualitative interviewing. The study restricts itself to a limited number of interviews. The interviews are conducted in the interviewees' daily environments and importance is attached to an atmosphere of mutual trust. The interviews are not standardised and use open questions (Lamnek 2008, p. 356).

The empirical study of SCOTRWA, its RWAs and initiatives is conducted on the basis of the dissertation's theoretical framework. Accordingly, problem-centred interviews are conducted here (Lamnek 2008, pp. 368f; Witzel 2000). Problem-centred interviews use deductive and inductive techniques in an iterative process, combining interview manuals with open questions and narrations. They leave the primal theoretical consideration open for modifications (Lamnek 2008, p. 368; Witzel 2000, p. 2). The problem-centred interviews in Tarnaka are supplemented by various means: additional exploratory interviews of slum dwellers in Tarnaka, focus groups and observations.

A list of the interviewees and the interview guidelines can be found in the annex.

Focus groups

The investigative focus groups (Lamnek 2005, pp. 30ff) which supplement the interviews in Tarnaka serve two research interests: First, they review and control for the information gathered through the individual interviews and second, they generate additional insights on group-specific behaviour.

A list of the focus groups and their guidelines and designs can be found in the annex.

Observations

Through the participatory observations (Mayring 2002, pp. 80f) which further supplement the interviews and focus groups in Tarnaka, the actual decision-making processes in one RWA and in the umbrella organisation SCOTRWA are grasped first hand. Since the first field research in Tarnaka started in 2009, relations were cemented up to 2012 and provided access, which often is critical for observations (Girtler 2001, p. 72). The observations are of crucial importance for the research project since they provide material for the verification and review of partly contradicting or ambiguous interviews.

A list of the observations and their guidelines is attached in the annex.

Document analysis

The dissertation also includes secondary data and document analysis in its research. In the cooperative sector, the document analysis encompasses primarily statistical data on the number of the registered cooperative societies in the city and the surrounding districts as well as the most important legal acts (APCS Act of 1964 and APMACS Act of 1995) and some bylaws of cooperatives. In Tarnaka, the document analysis encompasses the bylaws and minutes of SCOTRWA and its RWAs as well as several editions of the monthly newsletter Tarnaka Times from 2009 to 2012.

A list of the incorporated documents and the guidelines for document analysis are listed in the annex.

Transcription

The author deploys a shortened transcription of interviews and focus groups. Shortened transcription is a neologism by the author for a transcription process which does not fully transcribe all conversation and discussion but ignores those parts that are not translated word by word or deal with irrelevant topics (such as statements about the interviewees' jobs or the lives of their family members abroad). Only where those aspects seem to be relevant for the overall topic and research question in mind are they noted. Those parts of the conversation and discussion that happen in Hindi or Telugu are not literally transcribed, mainly due to financial restrictions. However, here the relevant information is noted minute wise. The parts of the conversation and discussion that are transcribed follow the rules of naturalised transcription and do not reflect any harrumphs (Buchholtz 2000, p. 1461). However, on a continuum between denaturalised transcriptions reflecting the oral language with all stammering, breaks etc. (Buchholtz 2000, p. 1461) on the one hand and simple summarising minutes on the other hand (Mayring 2002, p. 94), the deployed type of transcription can still be classified nearer to the first pole. The main assertive reason militating in favour of a shortened transcription is the interviews' language. The language of the interviews and focus groups occasionally switches between English (here the author has a command of the language), Hindi (here the author has only very limited command), and Telugu (here the author has no command of the language at all and is totally dependent on her local translator). The dissertation's research goal is the exploration of collective participation, sustainable decision and their interrelation with regards to contents, not with regard to people's perceptions or emotions. Therefore, a shortened transcription is a

justifiable choice. The dissertation corresponds with Mary Bucholtz's finding that "the transcription of a text always involves the inscription of a context. The conditions of the transcribing act are often visible in the text: the transcriber's goals; her or his theories and beliefs about the speakers; her or his level of attention to the task and familiarity with the language or register of the discourse; and so on" (Buchholtz 2000, p. 1463). Still, the evaluation of the dissertation's interviews and focus groups accounts for the chosen method of transcription as the method of transcription determines the scope of data interpretation and evaluation and affects possible mistakes (Mayring 2002, p. 88). The computer program ATLAS.ti is used for the transcription.

Qualitative content analysis

Qualitative content analysis is "an approach of empirical, methodological controlled analysis of texts within their context of communication, following content analytical rules and step by step models, without rash quantification" (Mayring 2000, pp. Paragraph 5). According to the rules of qualitative content analysis, the dissertation's textual material (documents and transcriptions) is analysed with its theoretical framework and the research questions in mind (Mayring 2000, Paragraph 12). On the basis of this theoretical background and the research question, categories are deduced and, if necessary, inductively revised on the ground of the material (Mayring 2000, Paragraph 12). A coding agenda is devised which defines, according to specific coding rules, when a certain text phase is to be coded with a certain category (Mayring 2000, pp. Paragraph 15). The main analytical step is the assignment of categories to specific phases and paragraphs of the text (Mayring 2000, Paragraph 13). The deployed qualitative content analysis approach takes into account the origin of the material, including inter alia the author, the target audience, the concrete action situation, and the emotional and socio-cultural background (Mayring 2010, pp. 52–53). The dissertation employs a structural form of qualitative content analysis aiming to structure the material and to evaluate it along defined criteria (Mayring 2010, p. 65). Specifically, the dissertation uses a structuring approach with regards to content (Mayring 2010, p. 66) extracting and summarising the material along certain areas of content.

The concrete coding agendas employed for the study of the cooperative sector in Hyderabad and of SCOTRWA in Tarnaka are attached in the annex.

Qualitative data evaluation

The lack of persuasive and approved approaches for measuring sustainability or sustainable development (Parris, Kates 2003, p. 559) and the shortcomings in conceptualising and surveying the interrelation between participation and sustainability (Newig 2007, pp. 57–58) motivate the dissertation's elaboration of a distinct data evaluation approach for assessing the interrelation between collective participation and sustainable decisions (see paper 5). The elaborated approach applies an abstracting point-based scaling system in conjunction with explanatory narratives. Thereby, the approach assesses the value of the two concepts separately before looking for mutual or opposite trends. The current version of the qualitative assessment approach is still a work in process (see paper 5) and the author calls for the refinement and supplementation of the approach subsequent to this dissertation.

Appendix 3: Interview guideline survey on water resources and social capital

Survey on water resources and social capital

Hannah Janetschek and Jennifer Meyer-Ueding

Humboldt-University Berlin/ Germany

Dec 2009/ Jan 2010

Panel Identification

Code: _____ Investigator: _____ Date: _____ Starting
time: _____

Supervisor: _____ Location: _____ Zone: _____

Category (Middle Class /Slums):

Introduction

Selection of head of household

Interviewer Instruction: Try to interview the (female or male) head of the household

Interviewer Instruction:

Namaste, my name is: _____ from Hyderabad. I am working for the Project “Sustainable Hyderabad” which is concerned with water supply and sewerage and social interactions and self-help groups. This project is a research project conducted by the German Humboldt-University. The aim of the project is to provide Hyderabad with better water supply and sewerage services and to strengthen the social capacities and power of its citizens. This is done in order to make Hyderabad more sustainable and adaptive to future climate change impacts on the city.

The information you may give us, will help us to identify certain problems and devices so that we can jointly with local actors in Hyderabad develop solution strategies for your problems. We will treat your information confidential and it will not be shared with other people. The data will only be used in aggregate und your name will not be mentioned in any stage of the study.

If there are any problems or clarification issues, please contact us: h.janetschek@web.de. If there are any other questions, we would very much appreciate if we can come back to you.

*Interviewer Instruction: Note the respondent's sex: **Female** ☐ **Male** ☐*

Questionnaire Water and Social Capital

12/12/2009

Page 1/13

Authors: Jennifer Meyer-Ueding (IfG)

Hannah Janetschek (RESS)

Part A: Information

Please tell me, taking all people who live in this household (including men, women and children), how many members are there in your household? <i>(By household I mean all the people who usually live in this house and eat from the same kitchen and regularly consume water as you do)</i>			Number
	a. Men		
	b. Women		
	c. Children (below 14 years)	Boys	
		Girls	
d. Total			

1. Are you the head of this household? YES ☐ NO ☐

1.1. If No then, what is your relationship with him/her?

1.2. What is the occupation of the head of the household:

Quarter, _____

Colony

Address: _____

2. Description of the Living space: Independent House ☐ Apartment Building ☐ Shared Housing ☐ Kutscha ☐ Pucca ☐ Other: _____
Own house ☐ own flat ☐ on rent ☐ Other: _____

Number of Rooms: _____

Interviewer Instruction: All rooms in which people sleep

3. How many vehicles are normally available to use for your household?

Interviewer please note respective number for each category and type if car or two-wheeler (interviewer, please fill in 0, if vehicle type does not exist)

Vehicles	Specify owner status	Total number
Car	owned	
	rented	
Three-Wheeler (Auto, Trollier)	owned	
	rented	
Two-Wheeler	owned	
	rented	
Bicycle	owned	
	rented	
Don't know		
Others, please specify		

WATER AND SEWERAGE SERVICE DELIVERY:

5. Please specify your water source and tell us where you get your water from

(multiple answers possible)

- ☐ municipal water, public tap: duration for fetching: _____
- ☐ shared bore well
- ☐ individual bore well/ hand pump
- ☐ individual tap
- ☐ owners tap/well
- ☐ community well: duration for fetching: _____
- ☐ community pond/river/canal: duration for fetching: _____
- ☐ supply through government water tanker
- ☐ supply through private water tanker
- ☐ Don't know
- ☐ Refuse
- ☐ Other: _____

6. How do you pay for water services? How much did you pay last month?

(interviewer instruction: cross appropriate options and give amount)

- ☐ metered price: _____ Rs.
- ☐ Municipal tax: _____ Rs.
- ☐ don't pay for water services
- ☐ fixed price: _____ Rs.
- ☐ Included in the rent: _____ Rs.
- ☐ Extra Sewerage Bill: _____ Rs.
- ☐ Don't know
- ☐ Refuse
- ☐ Other: _____

7. Can you please provide us some information on water availability in your household?

(Interviewer instruction: exact amount: put an X; range of units: mark the range ← →)

Season	a. How many days a week do you have water supply?						
	1 day	2 days	3 days	4 days	5 days	6 days	7 days
Summer (Mar-Jun)							
Monsoon (Jul-Sep)							
Winter (Oct-Feb)							

	b. How many hours per day on these days do you get water?																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Summer (Mar-Jun)																									
Monsoon (Jul-Sep)																									
Winter (Oct-Feb)																									

☐ not applicable
 ☐ Don't know
 ☐ Refuse
 ☐ Other: _____

8. Is water supply sufficient for your household?

☐ Yes, always
☐ No, never
☐ it is only sufficient in: ☐ summer ☐ winter ☐ monsoon
☐ Don't know
☐ Refuse
☐
 Other: _____

9. Do you have water tanks or storage facilities in your household?

☐ YES, number of tanks: _____ with a total capacity of: _____ Litres
☐ No
☐ Don't know
☐ Refuse
☐ Other: _____

10. Please provide us some information on your water consumption (sum in buckets of all household members)

Water use activity	Average amount of water in buckets (big=b; small=s):	Please indicate frequency: Daily, Weekly, Alternate
Daily baths		
Average toilet uses with water		
Kitchen and cooking water use		
Dishwashing		
Laundry/ Cloth washing		
Cleaning the house		
Watering the lawn/ flowers		
Watering the courtyard		
Washing the car/bike		
Other, please specify:		

11. What are your main problems and reasons for complaining?

(multiple answers possible)

- ☐ Water Quality Problems
☐ Problems with water leakages
☐ Problems with wastewater disposal (inside the house)
☐ Problems with sewerage pipeline (outside the house)
☐ Problems with septic tank disposal
☐ Problems with water tanker
☐ No Problems
☐ Don't know
☐ Refuse
☐ Other: _____

12. Did you ever place a consumer complaint related to the above mentioned problems?

(if Yes, continue with Q13)

If No, continue with Q14)

- ☐ Yes: to whom? _____
☐ No
☐ Don't know
☐ Refuse
☐ Other: _____

13. How long did it take to get the problem fixed?	
	<input type="checkbox"/> Same day <input type="checkbox"/> 1 – 3 days <input type="checkbox"/> 4 – 6 days <input type="checkbox"/> Longer than a week <input type="checkbox"/> not responsive <input type="checkbox"/> Don't know <input type="checkbox"/> Refuse <input type="checkbox"/> Other: _____
14. Please provide us some information on your household's sewerage connection:	
a. How is your wastewater and sewerage disposed?	<input type="checkbox"/> Public sewerage pipe <input type="checkbox"/> Septic Tank <input type="checkbox"/> Don't know <input type="checkbox"/> Refuse <input type="checkbox"/> Other: _____
b. What type of toilet facility do you have?	<input type="checkbox"/> outside, no toilet facility <input type="checkbox"/> individual household toilet <input type="checkbox"/> shared household toilet <input type="checkbox"/> public toilet <input type="checkbox"/> Pay and use toilet (Sulabh toilet) <input type="checkbox"/> Don't know <input type="checkbox"/> Refuse <input type="checkbox"/> Other: _____
c. Are there open sewerage canals in your neighbourhood?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Refuse <input type="checkbox"/> Other: _____
15. Please provide us some information on your household's water conservation activities:	
a. Do you conserve or reuse water in your daily work? (e.g.: water of washing the dishes is used for watering flowers afterwards) If Yes continue with Q15b If NO continue with Q15d	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Refuse <input type="checkbox"/> Other: _____
b. Why do you conserve/reuse water? Please specify:	<input type="checkbox"/> Water is precious <input type="checkbox"/> Environment is important to me <input type="checkbox"/> Water amount is not sufficient <input type="checkbox"/> Don't know <input type="checkbox"/> Refuse <input type="checkbox"/> Other: _____
c. How many buckets do you recycle every day? Please specify number of buckets: (approximately amount)	
d. Do you have any rain water collection structures installed in your home?	<input type="checkbox"/> Yes, please specify: _____ <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Refuse <input type="checkbox"/> Other: _____

Part B: Attitudes and Perceptions

16. How important are the following aspects for your daily life?

Please attach the following three categories to each aspect:

1 = highly important

2 = slightly important

3 = important

Low cost water supply for my household

24/7(around the clock) water supply for my household

good quality of drinking water

Now we are asking you for your attitude on water issues

Degree of Agreement

1=don't agree

2= slightly agree

3= agree

4= agree much

5=agree strongly

Don't know

Refuse

	1	2	3	4	5	Don't know	Refuse
17. Water charges are fair for the amount of my water use							
18. Many neighbouring households are not charged for water supply							
19. Water stress has increased during the last 5 years							
20. Heavy rainfall has increased during the last 5 years							
21. Pooja or praying helps to overcome severe water shortages							
22. My grandchildren are affected by the amount of water I use							
23. Water supply has improved during the last 5 years							
24. Sewerage System has improved during the last 5 years							
25. Only technological solutions can overcome water scarcity problems							

26. Which are the most urgent problems in your daily life? Please attach the problems to one of these attributes:

1 = low urgency

2 = slightly urgent

3 = urgent

4 = very urgent

5 = critical urgent

Problems of sufficient water supply

Problems with the sewerage system

High number of electricity shortages

Bad condition of health

Polluted environment

II: COOPERATIVE AND SELF-HELP GOVERNANCE SOLUTIONS:

	Yes	No	Don't know	Refuse
27. Did you and your neighbours ever arrange anything in regard to your household's water supply or sewerage together in a joint effort with the contribution of own labour or money?				
If yes, can you specify what you jointly did? (open question)				
28. Did you and your neighbours ever arrange anything in regard to your household's energy supply together in a joint effort with the contribution of own labour or money?				
If yes, can you specify what you jointly did? (open question)				

29. Are you aware about the Right to Information Act (RTI Act)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Refuse
<i>If Yes, continue with Q30</i>	
<i>If No, continue with Q31</i>	
30. Did you ever need to claim your right to information?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Refuse
31. Do you discuss with your neighbours political issues?	<input type="checkbox"/> Yes, at least once a week <input type="checkbox"/> Yes, once a month or less <input type="checkbox"/> Any other, please specify: _____ <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Refuse
<i>If Yes, continue with Q32</i>	
<i>If No continue with Q33</i>	
32. If yes, do you discuss political issues more often since the last few weeks?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Refuse

33. Do you follow the news?						
	Daily	Weekly	Now and Then	No, never	Don't know	Refuse
Newspaper						
Radio						
TV						
Internet						
Any Other, please specify:						

Part C: Willingness to Pay Questions and Social Capital

*This part of the study is not about asking you for real money, it is about getting a picture of how urgent certain problems are for you. We are interested in how you personally value improvements of water supply. Understanding of how important those improvement in your daily live is, will help us to find solutions for better water supply in Hyderabad's future. We now ask you how much you would be willing to contribute financially for improvements in water supply. We will use the average values of the entire survey to calculate how Hyderabad's citizens value improvements in water supply. This gives us a picture on urgency of problems you are facing with water supply. **Please imagine that this payment will reduce your budget available for any other consumption up to the amount you would be willing to pay.***

Willingness to pay for improvements of Water Supply:

34. Are you, in general, willing to pay for improvements of 12 hours drinking water supply daily?

☐ Yes ☐ No

(Interviewer instruction: if YES continue with question Q35, if NO go to question Q36)

35. If YES: How much are you willing to pay for improvement of 12hours drinking water supply?

Option	improvement	Please tick one amount of payment in Rs. per month for each option	
1	How much are you willing to pay in addition for daily water supply of 12 hours?	<input type="checkbox"/> 1 Rs – 10 Rs <input type="checkbox"/> 10 Rs – 50 Rs <input type="checkbox"/> 100 Rs – 150 Rs <input type="checkbox"/> 200 Rs – 250 Rs <input type="checkbox"/> 500 Rs – 1000 Rs	<input type="checkbox"/> 10 Rs – 50 Rs <input type="checkbox"/> 50 Rs – 100 Rs <input type="checkbox"/> 150 Rs – 200 Rs <input type="checkbox"/> 250 Rs – 500 Rs

36. If NO: Why are you not willing to pay? Please tell me your main reason:

Interviewer instruction: only one answer possible

- ☐ No improvement needed
☐ The government has to pay for this improvements
☐ I have no money to pay for improvements
☐ I have no trust in appropriate use of my payment
☐ Don't know
☐ Other: _____

37. Are you, in general, willing to pay for improvements in reliably good drinking water quality?

☐ Yes ☐ No

(Interviewer instruction: if YES continue with question Q38, if NO go to question Q39)

38. If YES: How much are you willing to pay for improvements in reliably good drinking water supply?

Option	improvement	Please tick one amount of payment in Rs. per month for each option
1	How much are you willing to pay in addition for reliably good drinking water supply?	<input type="checkbox"/> 1 Rs – 10 Rs <input type="checkbox"/> 10 Rs – 50 Rs <input type="checkbox"/> 10 Rs – 50 Rs <input type="checkbox"/> 50 Rs – 100 Rs <input type="checkbox"/> 100 Rs – 150 Rs <input type="checkbox"/> 150 Rs – 200 Rs <input type="checkbox"/> 200 Rs – 250 Rs <input type="checkbox"/> 250 Rs – 500 Rs <input type="checkbox"/> 500 Rs – 1000 Rs

39. If NO: Why are you not willing to pay? Please tell me your main reason:

Interviewer instruction: only one answer possible

- ☐ No improvement needed
- ☐ The government has to pay for this improvements
- ☐ I have no money to pay for improvements
- ☐ I have no trust in appropriate use of my payment
- ☐ Don't know
- ☐ Other: _____

Willingness to participate:

40. Are you willing to ally with your neighbours and work together to jointly self-improve the water supply in your community? YES <input type="checkbox"/> NO <input type="checkbox"/>		
<i>Interviewer instruction: if YES continue with question Q40, if NO go to question Q41</i>		
41. If YES, in what terms do you like to participate?		
<input type="checkbox"/> In terms of contributing money alone	<input type="checkbox"/> In terms of labour alone	<input type="checkbox"/> In terms of both money and labour
42. If NO: Why are you not willing to ally with your neighbors and work together to jointly self-improve the water supply in your community? Please tell me your main reason:		
<i>Interviewer instruction: only <u>one</u> answer possible</i>		
<input type="checkbox"/> No improvement needed <input type="checkbox"/> The government has to work for this improvements <input type="checkbox"/> I have no time to participate for improvements <input type="checkbox"/> I have no trust in appropriate participation of all community members <input type="checkbox"/> Don't know <input type="checkbox"/> Other: _____		

Questions on Social Capital:

43. To what extent do you agree with the following statements?	Yes	No	Don't know	Refuse
a. People in this neighborhood look after mainly the welfare of themselves and are not much concerned about the welfare of their non-family neighbors. <i>Interviewer: Norms of Reciprocity</i>				
b. In an emergency would you leave your children with your non-family neighbours for a couple of days ? <i>Interviewer: Ask if they have children and note</i> <i>Interviewer: Trust</i>				
c. If your non-family neighbor would run out of drinking water for a couple of days and you would have sufficient but limited drinking water (you need to operate economically with the water) would you offer him/her some water on your own initiative? <i>Interviewer: Norms of Reciprocity</i>				

44. Generally speaking, would you say that most of your non-family neighbors can be trusted or that you need to be very careful in dealing with neighbors?

- ☐ Most neighbors can be trusted ☐ You can never be too careful when dealing with neighbors
☐ Don't know ☐ Refuse

Part D: Personal Data Part

45. How old are you (in years)?

- ☐ Don't know ☐ Refuse

46. Would you please tell me where you were born?

State:

District:

- ☐ Don't know ☐ Refuse

47. For how long have you been living at exactly this place?

- ☐ _____ Years ☐ Don't know ☐ refuse
 months
 weeks

48. What is the highest educational qualification of a member of this household? And which household member holds this highest qualification?

- ☐ Illiterate
- ☐ Primary
- ☐ SSC
- ☐ Intermediate
- ☐ Graduate
- ☐ Post Graduate
- ☐ Other, please specify: _____

Household Member with the highest qualification: _____

☐ Don't know ☐ Refuse

49. How many wage earners are there in your household?

☐ Number : _____ ☐ Don't know ☐ Refuse

50. Would you please tell me the last months income of each wage earner

Interviewer: If respondent does not know exactly, he/she shall estimate

☐ Monthly income Wage earner 1 (Rs.): _____ ☐ Don't know ☐ Refuse

☐ Monthly income Wage earner 2 (Rs.): _____

☐ Monthly income Wage earner 3 (Rs.): _____

☐ Monthly income Wage earner 4 (Rs.): _____

☐ Monthly income Wage earner 5 (Rs.): _____

51. Other no wage monthly income of your household (like from renting home, agriculture, etc.)

☐ Other monthly income (Rs.): _____ ☐ Don't know ☐ Refuse

52. What is your mother tongue?

☐ Telugu

☐ Urdu

☐ Hindi

☐ English

☐ Tamil

☐ Kannada

☐ Other (please

☐ Don't know

☐ Refuse

specify): _____

53. Is anyone in this household a formal member in any of the following groups?

Interviewer: A group is a number of defined people who meets regularly on certain issues. To be a member of a group means to regularly participate in meetings and activities

Group	Membership				Specify number			Any of your non-family neighbours also members of this group?			
	Yes	No	Don't know	Refuse	Number	Don't know	Refuse	Yes	No	Don't know	Refuse
a) community organizations or neighbourhood associations <i>Interviewer Example: Resident Welfare Association</i>											
b) finance, credit or saving groups; including self-help groups <i>Interviewer Example: Mahila credit groups</i>											
c) co-operative <i>Interviewer Example: Cooperative bank, Housing Cooperative, Consumer Cooperative, etc.</i>											
d) groups that support weaker sections of the society <i>Interviewer Example: support of SC/ST, support of orphans, support of homeless, etc.</i>											
e) awareness activities /human rights groups <i>Interviewer Example: groups mobilizing people for Right to Information Act, etc.</i>											

f) professional associations <i>Interviewer Example: teachers, doctors, engineers, and lawyers associations</i>											
g) political parties or any other groups											
h) sports group <i>Interviewer Example: Registered Cricket Group</i>											
i) religious or spiritual groups											
j) Student group, youth group											
k) Any Other: Please name:											

54. Does your household share any of the following activities with your non-family neighbours?

- ☐ Looking after your children
- ☐ Jointly attending celebrations and events
- ☐ Puja, Prayers
- ☐ Daily conversations
- ☐ Grocery shopping
- ☐ Sports
- ☐ Any Other, please specify: _____

☐ Don't know ☐ Refuse

Closure of Interview

Thank you for sparing your valuable time!

All the information you have provided will be kept confidential and anonymous and will be used for research purposes.

Would you please be so kind and provide us your name?

Full name? _____

☐ Don't know

☐ Refuse

Would you kindly tell us your landline phone number or mobile number? _____

☐ Don't know

☐ Refuse

**Ending Time of the
Questionnaire:** _____

Appendix 4: Sampling case studies

Figure 1: Sampling in the study of the cooperative sector in Hyderabad

CASE SAMPLING			INTERVIEW SAMPLING		HIGHLIGHTED DECISION-MAKING	
Cases		Sampling logic	Interviews	Sampling logic	Elaborated case	Sampling logic
CASE	Cooperative Sector Hyderabad	Theoretical sampling + allowing for academic void	Administration and political actors Scientific actors NGO actors	Aiming diversity + allowing for access		
SUB-CASES	Housing cooperatives under housefed	Theoretical sampling + aiming diversity	Cooperative Members Cooperative staff Cooperative directors and managing board	Aiming diversity + allowing for access	Operation of Sahaja Aharam Mutually Aided Cooperative Federation Ltd (PAPER 3)	“Best practice”: The case found with the highest degree of participation and the highest compliance with characteristics of integrative institutions and principles of subsidiarity
	Producer cooperative BROMACS					
	CDF promoted seed producer cooperative					
	AP State Co-op. Bank					
	Roshan Vikas SHGs and cooperative					
	CSA promoted Sahaja Aharam Mutually Aided Cooperative Federation Ltd					

Source: Author

Figure 2: Sampling in the study of SCOTRWA in Tarnaka, Hyderabad

CASE SAMPLING			INTERVIEW SAMPLING				HIGHLIGHTED DECISION-MAKING	
Cases		Sampling logic	Interviews	Focus Group	Observation	Sampling logic	Elaborated case	Sampling logic
CASE	SCOTRWA	Theoretical sampling + allowing for academic void	Office holders (3)	Focus group with three participants	-	Aiming diversity + allowing for access	“Social capital as an effective means against medical exploitation” (PAPER 4)	Theoretical sampling - Independent variable (collect. participation)
SUB-CASES	RWA1 : Golkunagar Welfare Association	Theoretical sampling + aiming diversity	Office holders and members (each case 2-3)	Focus group with 3 participants each for RWA1 and for Consumer Council	Observation RWA 1	Aiming diversity + allowing for access	„Agitation for green spaces and slum eviction in Golkunagar” (PAPER 5)	Theoretical sampling - dependent variable (sustainability) and relation with independent variable
	RWA2: Shantinagar RWA							
	Horizontal organisation1: Consumer Council							
	Horizontal organisation 2: Community Radio Group							

Source: Author

Appendix 5: List of interviews for the case studies

List of interviews in the case study of the cooperative sector in Hyderabad

Table 1: List of explorative interviews in the cooperative sector Hyderabad

Topic	Interviewees	Location	Date	Interviewers
Cooperative sector Hyderabad	Commissioner for Cooperation and Registrar for Cooperative Societies, two Indian friends of the Commissioner, Additional Registrar	Commissioner's office, opposite Gandhi Bhavan, Hyderabad	November 11th, 2009: 4pm-4:45pm	Jennifer Meyer-Ueding, Sophia Opperskalski
Cooperative sector Hyderabad	District Cooperative Officer (Hyderabad District); Dr. C. Sreedhan, District Cooperative Officer (Ranga Reddy District) E.V. Narsimha Reddy; Assistant of Commissioner	Commissioner's office, opposite Gandhi Bhavan, Hyderabad	November 12th, 2009: 11:15am-12:30pm	Jennifer Meyer-Ueding, Sophia Opperskalski
Cooperative sector Hyderabad	Mr. Ravi Raju, AP Coop Union	AP Coop Union Building, Hyderabad	November 14th, 2009: 4:30pm-5pm	Jennifer Meyer-Ueding, Sophia Opperskalski, (Julian Sagebiel, Enno Mewes also present)
Cooperative sector Hyderabad	Mr. H.S.K. Tangirala, Principal of Institute of Cooperative Management, Hyderabad	ICA (Institute of Cooperative Management) Rajendra Nagar	November 16th, 2009: 2:30pm-3:30pm	Jennifer Meyer-Ueding, Sophia Opperskalski
Cooperative sector Hyderabad	Mr. Sreedhan, Hyderabad District Cooperative Registrar	Registrar's office, near Punjagutta, Hyderabad	November 17th, 2009: 12:30pm-1:30pm	Jennifer Meyer-Ueding, Sophia Opperskalski
Cooperative sector Hyderabad	Mr. Reddy, Ranga Reddy District Cooperative Registrar	Office CDF, Hyderabad	November 19th, 2009: 11am-4:30pm	Jennifer Meyer-Ueding, Sophia Opperskalski
Cooperative sector Hyderabad and CDF (Cooperative Development)	Rama Reddy, former head CDF	Office CDF, Hyderabad	January 19th 2010: 2pm-3:30pm	Sophia Opperskalski

Foundation)				
Case: AP State Co-op. Bank, cooperative sector Hyderabad	Mr. Suresh Turaga, Director AP State Co-op. Bank Ltd., Co-operative Training Institute, Hyderabad	Co-operative Training Institute, Hyderabad	November 16th, 2009: 1:00pm-1:30pm	Jennifer Meyer-Ueding, Sophia Opperskalski
Case: Roshan Vikas: SHGs and cooperative	Ali Asghar, president Roshan Vikas	Office Roshan Vikas, near Charminar, Hyderabad	December 3rd, 2009: 4pm-6pm	Jennifer Meyer-Ueding, Sophia Opperskalski
Case: CSA (Centre for Sustainable Agriculture) and promoted cooperatives (Sahaja Aharam Mutually Aided Cooperative Federation Ltd) and cooperative sector Hyderabad	Mr. Ramajaneyulu, Executive Director, CSA	Office CSA, Hyderabad	December 11th, 2010: 9am-9:40am	Sophia Opperskalski
Case: CSA (Centre for Sustainable Agriculture) and promoted cooperatives (Sahaja Aharam Mutually Aided Cooperative Federation Ltd) and cooperative sector Hyderabad	Mr. Ramajaneyulu, Executive Director, CSA	Office CSA, Hyderabad	January 20th, 2010: 12am-1pm	Sophia Opperskalski, Nina Osswald
Case: Housing co-operatives under housefed	Krishna Murthy, Joint Registrar/Managing Director, A.P. Housefed	Housefed Bhavan, Bagh Lingampally, Hyderabad	March 4th, 2010: 3pm-4pm	Sophia Opperskalski
Case: CSA (Centre for Sustainable Agriculture) and promoted cooperatives	Mr. Ramajaneyulu, Executive Director, CSA	Office CSA, Hyderabad	March 9th, 2010: 10am-11pm	Sophia Opperskalski, Zakir Hussein, Markus Hanisch

(Sahaja Aharam Mutually Aided Cooperative Federation Ltd) and cooperative sector Hyderabad				
Case: Producer cooperative BROMACS	Anonymous members and staff of BROMACS	Office BROMACS, Hyderabad	March 12th, 2010: 9am-2pm	Sophia Opperskalski, Zakir Hussein, Markus Hanisch
Case: CDF promoted SED Producer Cooperative	Anonymous staff, CDF, Seed Producer Cooperative	Office, Seed Producer Cooperative, Godaveri	March 13th, 2010: 11am -12am	Sophia Opperskalski, Zakir Hussein, Markus Hanisch

List of interviews, Focus Groups and Observations in the Case Study of SCOTRWA, Tarnaka, Hyderabad

Table 2: Exploratory interviews SCOTRWA, Tarnaka

Topic	Interviewees	Location	Date	Interviewers
SCOTRWA	Members SCOTRWA: Ohm Praksah, Dr. Rao Chelikani (former president SCOTRWA), Mr. Murthy	SCOTRWA office in Tarnaka, Hyderabad	November 24th, 2009: 2:00pm-3:30pm	Jennifer Meyer-Ueding, Sophia Opperskalski, Julian Sagebiel

Table 3: List of Interviews SCOTRWA, Tarnaka

Topic	Interviewee	Position	Location	Date	Interviewers
RWA	N.S. Prasad, male, 66 years, consultant in engineering	Advisor Golkunagar Welfare Association	Golkunagar in Tarnaka, Hyderabad: Interviewee's house	Monday, February 6 th , 2012: 10:05 am-11:00 am,	Jennifer Meyer-Ueding and Kiran Kumar for translation
RWA	T. Kotaiah, male, 72 years, retired administrative account officer in the Management Institute, GoI	Vice president Golkunagar Welfare Association	Golkunagar in Tarnaka, Hyderabad: Interviewee's house	Monday, February 6 th , 2012: 12:15 am-1:10 pm	Jennifer Meyer-Ueding and Kiran Kumar for translation
RWA	Ingrid Khurana, female, 46 years, social worker	Member Golkunagar Welfare Association	Golkunagar in Tarnaka, Hyderabad: Outside the interviewee's flat	Tuesday, February 7 th , 2012 : 2.20pm-3.05pm	Jennifer Meyer-Ueding and Kiran Kumar for translation
RWA	G. A. Ravinder, male, 65 years, retired upper division clerk Electricity Department	General secretary Shantinagar RWA	Shantinagar in Tarnaka, Hyderabad: Interviewee's house	Monday, February 6 th , 2012: 5:10pm - 6:00 pm	Jennifer Meyer-Ueding and Kiran Kumar for translation
RWA	Mohammed Ismail, male, 73 years, retired superintendent railway accounts	Chief advisor Shantinagar RWA	Shantinagar in Tarnaka, Hyderabad: Interviewee's house	Monday, February 6 th , 2012: 6:20-7:00 pm	Jennifer Meyer-Ueding and Kiran Kumar for translation
RWA	I. S. Surya Bai, female, 49 years, tailor, ward member, local leader associated with congress party	Did not herself know but was reported to be secretary Shantinagar RWA	Shantinagar in Tarnaka, Hyderabad: Tailoring shop of the interviewee	Tuesday, February 7 th , 2012: 10:15-11:20am	Jennifer Meyer-Ueding and Kiran Kumar for translation
SCOTRWA	Syed Khaled Shah Cristi Hussaini, male, 31 years, social worker	Joint secretary SCOTRWA and member Consumer Council	SCOTRWA office Tarnaka in Tarnaka, Hyderabad	Wednesday, February 8 th , 2012: 2:30pm-3:10pm	Jennifer Meyer-Ueding and Kiran Kumar for translation
SCOTRWA	D.S.N. Murthy, male, 80 years, retired physical education lecturer, Railway Degree College	Vice-president SCOTRWA and secretary Vijayapuri Colony	Tarnaka in Tarnaka, Hyderabad: Interviewee's house	Thursday, February 9 th , 2012: 11:30 am-12:40pm	Jennifer Meyer-Ueding and Kiran Kumar for translation

SCOTRWA	T. Balaswamy, male, 68 years, retired central government officer	Joint secretary SCOTRWA	Golkunagar in Tarnaka, Hyderabad: Interviewee's house	Thursday, February 9 th , 2012: 1:30 pm-2:40pm	Jennifer Meyer-Ueding and Kiran Kumar for translation
Horizontal organization: Community Radio	Rajesh Kota, male, 30 years, engineer	Undefined position in the Community Radio group, SCOTRWA regular member	SCOTRWA office Tarnaka in Tarnaka, Hyderabad	Thursday, February 9 th , 2012: 3:10pm-4:00 pm	Jennifer Meyer-Ueding
Horizontal organization: Community Radio	Arun Kumar, male, consultant	Undefined position in the Community Radio group, SCOTRWA regular member	Tarnaka in Tarnaka, Hyderabad: Interviewee's office	Thursday, February 9 th , 2012: 4:15pm-4:55 pm	Jennifer Meyer-Ueding and Kiran Kumar for translation
Horizontal organization: Consumer Council	Mrs. Sujatha, female, approximately 40 years, ward member and house wife	Secretary Consumer Council, SCOTRWA regular member	Tarnaka in Tarnaka, Hyderabad: Interviewee's house	Sunday, February 5 th , 2012: 2:30pm-3:50pm	Jennifer Meyer-Ueding, Jens Rommel and Kiran Kumar for translation
Horizontal organization: Consumer Council	A.S. Jayakumus, male, 67 years, advocate	President Consumer Council and joint secretary SCOTRWA	Tarnaka in Tarnaka, Hyderabad: Interviewee's house	Thursday February 9 th , 2012: 10:00am-10:55am	Jennifer Meyer-Ueding and Kiran Kumar for translation
Horizontal organization: Community Radio	Dr. Sivajii Vadrevu, male, approximately 50 years, head of a NGO working for rural-urban linkage	Undefined position in the Community Radio group, SCOTRWA regular member	Tarnaka in Tarnaka, Hyderabad: Interviewee's office	Thursday, February 9 th 2012: 5:10pm-5:40 pm	Jennifer Meyer-Ueding and Kiran Kumar for translation
Green spaces / slum eviction	Anonymous women (20-30) living in illegal settlement	No membership or position	Illegal slum settlement in Golkunagar in Tarnaka, Hyderabad	Thursday, February 9 th , 2012: 6:30-6:40pm	Jennifer Meyer-Ueding and Kiran Kumar for translation
Green spaces / slum eviction	Anonymous women (20-30), living in illegal settlement	No membership or position	Illegal slum settlement in Golkunagar in Tarnaka, Hyderabad	Thursday, February 9 th , 2012: 6:40-6:55 pm	Jennifer Meyer-Ueding and Kiran Kumar for translation
Green spaces / slum eviction	Anonymous man (below 20), living in illegal settlement	No membership or position	Illegal slum settlement in Golkunagar in Tarnaka, Hyderabad	Thursday, February 9 th : 7:10-7:20 pm	Jennifer Meyer-Ueding and Kiran Kumar for translation

Table 4: List of Focus Groups SCOTRWA, Tarnaka

Topic	Participants and background	Location	Date	Moderator	Remarks
Shantinagar RWA	<p>1. Participant: Mohammed Ismail, chief advisor Shantinagar RWA, 73 years, retired superintendent railway accounts, no position at SCOTRWA and no membership at any SCOTRWA committee</p> <p>2. Participant: G. A. Ravinder, general secretary Shantinagar RWA, 65 years, retired upper division clerk Electricity Department, no position at SCOTRWA and no membership at any SCOTRWA committee</p> <p>3. Participant: Mohammed Khan, regular member executive committee Shantinagar RWA, 65 years, trader, no position at SCOTRWA and no membership at any SCOTRWA committee</p>	Shantinagar in Tarnaka, Hyderabad: House of Participant 1	Tuesday February 7 th , 2012: 4pm-6pm	Jennifer Meyer-Ueding and Kiran Kumar	Focus Group conducted in Telugu language. Co-moderator and translator: Kiran Kumar. The group was dominated by Participant 1 and Participant 2 who largely shared the conversation. Participant 3 did not say much, just agreed to the statements of his fellow participants. No recording: Recording refused by Participant 1 (“no record needed”)
Golkunagar Welfare Association	<p>1. Participant: T. Kotaiah, vice president Golkunagar Welfare Association, 72 years, retired administrative account officer in the Management Institute, GoI, no position at SCOTRWA, SCOTRWA member</p> <p>2. Participant: N. S. Prasad, advisor Golkunagar Welfare Association, 66 years, consultant in engineering, no position at SCOTRWA, SCOTRWA member</p> <p>3. Participant: Anonymous</p>	Golkunagar in Tarnaka, Hyderabad: House of participant 1	Wednesday February 8 th , 2012: 10:15 am-12am	Jennifer Meyer-Ueding	Focus Group conducted in English, partly Telugu. Translator: Kiran Kumar. The group discussed equally. No recording: Recording refused by all participants

SCOTRWA	<p>1. Participant: Syed Khaled Shah Cristi Hussaini, 31 years, joint secretary SCOTRWA, social worker, member in SCOTRWA's Consumer Council</p> <p>2. Participant: T. Balaswamy, 68 years, joint secretary SCOTRWA, retired central government officer, vice-president Golkunagar Welfare Association and member in its Legal Cell and member in SCOTRWA's Consumer Council</p> <p>3. Participant: Dr Rao Chelikani, former president SCOTRWA and now member of the executive committee, initiator of SCOTRWA, political and social scientist, community leader, president of U-FERWAS and president of UFHD</p>	SCOTRWA office Tarnaka in Tarnaka, Hyderabad	Wednesday February 8 th , 2012: 4:15 pm-5:30pm	Jennifer Meyer-Ueding	Focus Group conducted in English, partly Telugu. Moderator: Jennifer Meyer-Ueding. Translator: Kiran Kumar. The group discussed largely equally but participant 2 and 3 dominated over participant 1. No recording. Recording refused by participant 2
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Table 5: List of observations SCOTRWA, Tarnaka

Observed event	Location	Date	Observer
Meeting of the Executive Committee, Golkunagar Welfare Association in Tarnaka	Office of the Secretary General Golkunagar Welfare Association, Golkunagar in Tarnaka, Hyderabad	Sunday, February 5 th , 2012: 10:30-12:30	Jennifer Meyer-Ueding, Jens Rommel

Appendix 6: Documents included in document analysis

Table 6: Documents

Study of cooperatives in Hyderabad
Andhra Pradesh Legislative Assembly (1964) Andhra Pradesh Cooperative Societies Act, 1964. APCS Act of 1964
Andhra Pradesh Legislative Assembly (1995) Andhra Pradesh Mutually Aided Cooperative Societies Act, 1995. APMACS Act of 1995
Study of SCOTRWA
Tarnaka Times, Vol. 2, Issue 72, January 2011
Tarnaka Times, Vol. 5, Issue 3, September 2011
Tarnaka Times, Vol. 6, Issue 3, October 2011
Tarnaka Times, Vol. 8, Issue 3, December 2011
1st Tarnaka Ward Sabha Souvenir, August 9th, 2002
2nd Tarnaka Ward Sabha Souvenir, November 9th, 2003
3rd Tarnaka Ward Sabha Souvenir, November 6th, 2004
5th Tarnaka Ward Sabha Souvenir, March 1st, 2009
Handwritten protocol, SCOTRWA meeting, January 26th, 2008
Golkunagar Welfare Society Annual Report 2010-2011

Appendix 7: Coding guides case studies

Table 7: Coding Guide for the Case Study of Cooperative sector in Hyderabad

Dimension / Concept	Code	Sub-Code	Definition
Collective Action	CA		Information on joint collective actions
Participation	Participation		Information on member participation
Heterogeneity	Heterogeneity		Degree of heterogeneity in income, assets, education, occupation, religious affiliation, origin or caste between the members of the cooperative
Seize	Seize		Information on the number of members
Foundation	Foundation		Information when and how the cooperative was established
Entry and Exit	Entry and Exit		All formal and informal institutions affecting the entry and exit of members
Business area / sector	Sector		Information on the business area, the economic sector of the cooperative
Competitiveness	Competitiveness		Ability and performance of the cooperative to sell and supply goods and services in a given market, in relation to the ability and performance of other firms and cooperatives in the same market
Structure and Process	Structure Process		Internal structure, formal and actual division of work
Members	Members		Information on the members of the cooperative (gender, income, assets, education, occupation, religious affiliation, origin or caste)
Service	Service		Information on services provided to the cooperative members
Leadership	Leadership		Formal and informal role of leadership in the cooperative. Information on leading actors
Cooperative Principles	Cooperative Principles		Information on cooperative principles
		Voluntary and Open Membership	Whether voluntary organization, open to all persons able to use the services and willing to accept the responsibilities of membership, without gender, social, racial, political, or religious discrimination.

		Democratic Member Control	Whether democratic organization controlled by its members, who actively participate in setting their policies and making decisions. Whether Men and women serving as elected representatives are accountable to the membership. In primary cooperatives members have equal voting rights (one member, one vote) and cooperatives at other levels are organized in a democratic manner.
		Member Economic Participation	Whether members contribute equitably to, and democratically control, the capital of their cooperative. At least part of that capital is usually the common property of the cooperative. Whether they receive limited compensation, if any, on capital subscribed as a condition of membership. Whether Members allocate surpluses for any or all of the following purposes: developing the cooperative, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with the cooperative; and supporting other activities approved by the membership.
		Autonomy and Independence	Whether autonomous, self-help organizations controlled by their members. Whether they enter into agreements with other organizations, including governments, or raise capital from external sources, whether they do so on terms that ensure democratic control by their members and maintain their cooperative autonomy.
		Education, Training and Information	Whether the cooperative provides education and training for its members, elected representatives, managers, and employees so they can contribute effectively to the development of their cooperative. Whether it informs the general public - particularly young people and opinion leaders - about the nature and benefits of cooperation
		Cooperation among Cooperatives	Whether the cooperatives serve their members most effectively and strengthen the cooperative movement by working together through local, national, regional, and international structures.
		Concern for Community	Whether, while focusing on member needs, cooperatives work for the sustainable development of their communities through policies accepted by their member

Social Capital	SC		All information on the cooperative's and its members' social capital (networks, norms of reciprocity and trust)
		Networks	All formal and informal networks and relations among members of the cooperative
		Norms of reciprocity	All information on the norms of reciprocity among members of the cooperative
		Trust	All information on the level of trust among members of the cooperative
Acts and Laws	Act		Information on the legal act under which the cooperative is registered
Sustainability	Sustainability		Information on sustainability: environmental care, ecological and social care, care for the members and care for others

Table 8: Coding Guide for the Case Study of SCOTRWA, Tarnaka, Hyderabad

Dimension / Concept	Code	Sub-Code	Definition
Collective Action/ Inclusion	CA / Inclusion		Information on coverage of stakeholders included in the decision-making process
		Comprehensive group	(Almost) all affected stakeholders are included in the decision-making process
		Representative group	Representatives from (almost) all subgroups are included in the decision-making process
		Elit group	Only a small group of people is involved in the decision-making process
		One leader	Only one leader is making the decisions
Influence	Influence		Information on the actual influence which stakeholders have on the respective decision/policy/project/output
		Leading influence	Stakeholders have decisive impact on the decision/output
		Co-determination	Stakeholders have co-determining impact on the decision/output and their views are incorporated

		Consultation	Stakeholders' interests get noticed but do not have any impact
		No influence	Stakeholders' interests are neglected
External dimension of sustainability	External sustainability		Information on costs and benefits of decision/policy/project/output for others and the environment
		External sust_benefits > costs	Benefits of the decision for others and the environment are more prominent than the costs
		External sust_balance benefits+ costs	Costs and benefits of the decision for others and the environment are largely balanced
		External sust_costs > benefits	Costs of the decision for others and the environment are more prominent than the benefits
		External sust_only costs	Others and the environment only suffer from the decision and lack any benefits
Internal dimension of sustainability	Internal sustainability		Information on costs and benefits of decisions for the respective group of decision-makers and information on the effect on their coping capabilities
		Internal sust_benefits > costs	Benefits of the decision for the respective group of actors are more prominent than costs. The decision enhances the group's coping capabilities.
		Internal sust_balance benefits+ costs	Costs and benefits of the decision for the respective group are largely balanced. The decision does not increase or reduce the group's coping capabilities.
		Internal sust_costs > benefits	Costs of the decision for the respective group of actors are more prominent than the benefits. The decision reduces the group's coping capabilities.
		Internal sust_only costs	The respective group of actors only suffers from the decision and lacks any benefits. The decision threatens the group's coping capabilities
Context	Context		All information on the context and on formal and informal institutions
		Devolution of powers	Information on formal and effective powers (decision-making powers) assigned to the society and /or information on powers exercised by the society

		Members' empowerment	Information of formal and effective powers (decision-making powers) assigned to regular members of the respective society and/or powers exercised by regular members
		Centralized supervision	Formal and effective degree of centralized supervision and coordination of society by various authorities and or other agencies
		Internal command	Formal and effective supervision and coordination of regular members by society's leadership
		Formalization of institutions	External and internal degree of formalization of institutions of decision-making (institutions of decision-making related to society and within society)
Actors	Actors		All information on actors and combination of actors
		Number_actors	Number of members and/or office bearers of a society
		Criteria_inclusion_decision-making	All formal and informal criteria of the inclusion and exclusion of actors in the society's decision-making processes
		Entry_exit_rules	All formal and informal institutions affecting the entry and exit of members
		Power structures_society	All formal and informal power structures and hierarchies, dominance of particular groups and interests and /or degree of equity of powers
		Leadership	Formal and informal role of leadership in society. Information on leading actors
		Heterogeneity_members	Degree of heterogeneity in income, assets, education, occupation and religious affiliation between members of the society
		Education	All information on members' education
		Income_assets	All information on members' income and assets
		Occupation	All information on members' occupations
		Religious affiliation	All information on members' religious affiliation
		Time resources	All information on the time resources which the members of the society can spend for the society
		Skills	All information on members' skills (civic, administrative and technical)

		Communication	All formal and informal and all used and neglected channels of communication between members
		Trust	All information on the level of trust among members of the society
		Norms_reciprocity	All information on the norms of reciprocity among members of the society
		Networks_relations	All formal and informal networks and relations among members of the society
		Bridging social capital	All external formal and informal networks and relations of the society. Trust and norms of reciprocity between the society/ members of the society and the external environment
		Congruence_interests	All information on congruent interests, conflicting and differing interests among members of the society
		Commitment	All information on the degree of members commitment to the society
		Knowledge_past actions	All information on the members' knowledge of their fellow members and their past actions
		Dependency_society	All information on the members' dependency on the society's existence
		Connection_society	All information on the members' connection with the society, intensity of the relation between member and society
Problem/ Issue	Problem/ Issue		All information on the problem or issue at stake
		Tangibility_topics	Tangibility of the society's topics for its members. In how far and to what degree do the members conceive and relate to the society's topics and purpose
		Balkanization_issues	Balkanization of the issues and topics the society is dealing with: information on how many different topics are dealt with. Information on the diversity of the topics.
		Subtractive share	Whether benefits are subtractive or fully shared (i.e., public goods vs common-pool resources)
		Production function	Information whether first and sooner or last and later contributions (members' money/time efforts) matter more or less

		Mobility_resource	Information on the mobility of the resources/ problems and tasks dealt with by the society
		Scarcity_manageability	Productivity of the resource system (how scarce and manageable are the resources/ problems and tasks dealt with by the society)
		Predictability	Information on the predictability of the issues and problems dealt with by the society. Information whether resources/ problems and tasks are highly calculable or not
Process	Process		All information on the process of the decision-making
		Input_demand	Information which services and benefits members demand and expect from their society
		Input_support	Information on all support, contributions and services provided by the members to their society
		Interest articulation	Information how interests are articulated and aggregated within the society. Information who articulates an idea on a new project at the beginning. Information who is involved: who is in charge, who is actively involved, who is passively involved and who is not relevant
		Decision-making	Information how the decision-making process (on how a project should look like, what should be done) is organized within the society. Information who is involved: who is in charge, who is actively involved, who is passively involved and who is not relevant
		Implementation	Information how the implementation of decisions and projects is organized. Information who is involved: who is in charge, who is actively involved, who is passively involved and who is not relevant
		Evaluation	Information how the projects and the society's performance is evaluated. Information on minutes and transparency
		Output	Information on output and services provided by the society. Information on extractions conducted by the society, information of regulations done by the society and information on distribution conducted by the society

		Autonomy	Information on society's autonomy along all phases of the decision-making process and operation. Information on any external interference in the decision-making process and operation
		Character_participation	Character of members' participation in the decision-making process (direct democracy / co-governance / deliberative procedures)
		Modes_participation	Information on all formal and actual modes of members' participation in the society's activities: information on voting, donating money, spending time and else
		Ladder_participation	Information on the ladder of participation: Information on members' non-participation, informing, consulting, delegation and control and on the steps in between
		Input legitimacy	Information on the participation of affected stakeholders in the decision-making process
		Throughput-legitimacy	Information on process of participation – on the degree of transparency and fairness
		Deliberative legitimacy	Information on the degree of rational and non-hierarchical participation of members and stakeholders
		Monitoring_sanctioning	All information on internal and external monitoring and sanctioning of the society's activities, information on record-keeping, information on publicity of decisions
		Communication_negotiation	Information on all formal and actual structures of communication and negotiation in the decision-making process
		Conflict-resolution	All information on formal and informal conflict-resolution mechanisms during the process of decision-making
Outcome	Outcome		All information on the decision's outcome
		Socialization	Information on all formal and actual mechanisms of members' socialization and on the actual relationship and binding between members and the society
		Recruitment	Information on formal and actual mechanisms for member recruitment, information on success and failures of member recruitment (recruitment for membership and recruitment for certain tasks)

		Communication	Information on formal and actual mechanism for communication of the society with its members. Information on success and failures in communication, on misconceptions.
		Participatory governance norm	General and summing up information whether all those stakeholders affected by a policy are incorporated into the respective decision-making processes and act in a joint afford or not
		Effectiveness_participation	Information whether participation and collective action advance or impede desirable outputs, information on successes and failures of the society and their relatedness to participation
		Bonding social capital gain	Information whether society produces bonding forms of social capital (networks, trust and norms among members)
		Bridging social capital gain	Information whether society produces bridging forms of social capital (networks, trust and norms between society and the external environment)
		Civic skills gain	Information whether society produces civic skills (that members regard for common welfare)
		External dimension_ sustainability	Information on the external impact of the society on inner and intergenerational alters
		Internal dimension_ sustainability	Information on the society's impact on its members' internal capacity to face pressures and maintain an adequate and decent livelihood
		Economic sustainability	Information on the society's impact on the economic wellbeing of its members and alters
		Social sustainability	Information on the society's impact on the social harmony and social care within and outside the society
		Ecological society	Information on the society's positive and negative impact on the natural environment, on natural resources (like water, energy and green spaces) and on climate change.
Subsidiarity	Subsidiarity		All information on the degree of subsidiarity of the decision-making process/ of the society's operation
		Regard_local conditions	Information whether the society's operation and output regard for the specific local ecological, social and economic conditions

		Regard_stakeholders needs	Information in how far the society's operation and output regard for the needs of the affected stakeholders
		Regard_local capacities_resources	Information in how far the society's operation and output regard for the given local capacities and resources
		Adjustment_rules_environment	Information in how far the society's operation and output adjust to the environment and its conditions
		Identification_rules	Information in how far the members of the society identify with its rules
		Internalization_costs_benefits	Information in how far of the society's operation and output are absorbed by its members
Integrative institutions	Integrative institutions		Information on the degree of internalization of the transactions costs of decision-making plus on the internalization of the positive and negative effects of decision plus on protection against transaction costs resulting from the activities of other agents
Segregative institutions	Segregative institutions		Information on the externalization of the transactions costs of decision-making plus on the externalization of the positive and negative effects of decision plus on the suffering from transaction costs resulting from the activities of other agents
Social learning collective rational	Social learning_collective rational		Information whether individual interest are accumulated and transformed into a collective rationale
Issue: Green space	Green Space		All information about parks and green spaces
Issue: Encroachment/eviction	Encroachment/Eviction		All information about encroachment of land, about slum dwellers and their eviction or re-settlement
Issue: CampaignGreen&Clean	CampaignGreen&Clean		Award by GHMC for RWAs to promote clean and green Hyderabad
Gender	Gender		Issues related to gender questions, e.g. inclusion and exclusion due to gender
Caste	Caste		Issues related to caste questions, e.g. inclusion and exclusion due to caste
Golkunagar Background	Golkunagar Background		Information on Golkunagar and the Golkunagar Welfare Association
Slum Eviction	Slum Eviction		Information on the case of slum eviction in Golkunagar

Health Exploitation	/Medical	Health Exploitation	/Medical		Information on the campaign for medical fairness in Tarnaka
RWA		RWA			All information on RWAs, on acts and realities

Appendix 8: Interview guideline SCOTRWA

Interview Guidelines Case Study of SCOTRWA, Tarnaka, Hyderabad

Interviews SCOTRWA

Introduction

Thank you very much for taking the time for this interview! We appreciate it a lot.

The results of this interview shall benefit research which is dealing with participative and collective ways of organizing and decision-making and its socio-economic and ecological impacts. My name is Jennifer Meyer-Ueding and I am a researcher from the Humboldt-University in Berlin, Germany, working for the Megacity Hyderabad project. The information that you give us in this interview will be handled confidentially and will be used for scientific purpose only. It will be summarized in scientific articles. The data will be published anonymously. We will refer to SCOTRWA as a case study, but it will be impossible to know which person gave us which statement unless you explicitly allow us to refer to your name. If you are interested in the results of the analysis, we would be happy to send them to you. In the following we will ask open questions on some topics of interest for our research. Please feel free to skip a question if you do not want to talk about a topic.

Interviewee Data

Date and place:

Your position at SCOTRWA:

Membership in any RWA and Committee of SCOTRWA:

Age (optionally):

Occupation (optionally):

Sex (optionally):

Name (optionally):

Can we refer to your name in our scientific work? Yes ____ No, I want to stay anonymous ____

Context

SCOTRWA and its relations with local politics

How much freedom of action does SCOTRWA have to act on its territory?

How much and when do politicians /administration intervene?

Are there any financial dependencies?

Are politicians or administration consulting SCOTRWA?

SCOTRWA and its relations with other organizations like the International Foundation for Human Development (IFHD) or United Federation of Residents' Welfare Associations (U-FERWAS)

How much and when do IFHD or U-FERWAS intervene in SCOTRWA's work?

Are there any financial dependencies?

Are IFHD or U-FERWAS consulting SCOTRWA?

Distribution of power between SCOTRWA and RWAs or Committees

How much and when does SCOTRWA intervene in the RWAs' and Committees' work and vice versa?

Are there any financial dependencies?

Is one side consulting the other?

SCOTRWA's members

Members and participation

How do you rate members' participation in SCOTRWA elections? In its meetings? In its projects?

How do your members participate in your activities: by voting? By donating money? By spending free time?
Please give details

Entry and Exit

How do people become members of RWAs? Can everybody become a member? Can they exit?

How do people become members of the committees /horizontal organizations? Can everybody become a member? Can they exit?

Power structures and hierarchies/ Leadership

Are some people /groups of people /RWAs/ Committees more important for SCOTRWAS functioning?

Do some people /groups of people /RWAs/ Committees have more to say?

How would SCOTRWA work without Dr. Rao Chelikani?

Members' resources and skills and their heterogeneities

Do you have any information on the individual skills and resources of SCOTRWA's members (education, income, occupation, time, money, civic skills, administrative skills, technical skills)?

Information whether these skills and resources are homogeneously distributed?

How is the cultural/ religious/ ethnic homogeneity or heterogeneity within SCOTRWA?

Communication and social capital

How are the interrelations between SCOTRWA's members beyond official meetings and events? Of what kind?

Any joint activities?

"People in this neighborhood look mainly after the welfare of themselves and are not much concerned about the welfare of their non-family neighbors." Does this statement hold true?

Generally speaking, would you say that most of the neighbors trust each other/ trust non-family neighbors or that they are very careful in dealing with neighbors?

Do the interests of all SCOTRWA members always agree or are there any conflicting interests?

How much do the SCOTRWA members know about each other? Do they know each other for long?

Dependencies and Commitment

How important are the topics SCOTRWA is dealing with to the members/people?

Are they equally important to all members?

How informed are the members/people about the topics? Are they equally informed?

How loyal and committed do you estimate the SCOTRWA's members?

Are there big differences in commitment among members?

Are there changes in the commitment?

How do you think the individual members of SCOTRWA do estimate their own impact?

Are they aware about their own impact or do they over- or underestimate their own impact?

Projects, problems and issues**Climate, environment, natural resources and future generations**

Can you give examples of SCOTRWA projects which deal with the environment and natural resources (like water) or climate issues?

How to SCOTRWA projects affect the lives of future generations? Can you give examples?

Boundaries of projects and problems

Are the issues SCOTRWA is dealing with limited to Tarnaka?

Where do and how do they cross the local boundaries?

Who is concerned with the problems?

Who does profit from the solutions and activities? (Only Tarnaka residents)?

Do the benefits for one group limit the benefits for another? Does anyone suffer from the measures?

On how many different issues is SCOTRWA operating? Is it easy or difficult to keep track?

Project Management

When SCOTRWA is starting a new project, which are the main difficulties and the major hurdles for success?

Looking at the ongoing projects, which are the difficulties to keep them running? How important is the engagement of the people for SCOTRWA's activities?

SCOTRWA operation

Articulation of ideas and interests

Who articulates a problem /idea that SCOTRWA should deal with at the beginning?

Does SCOTRWA ask its members? How?

How exactly is the process of brainstorming organized? Discussion during meetings? Voting? Else?

How do you deal with conflicting interests?

Are all affected stakeholders involved in the process of articulating a problem /issue? How? Why not?

Decision-Making

When it comes to decisions on what to do and how projects should look like, who is actually involved in the process of decision-making?

Is there anybody in authority or does everybody have a say?

How exactly is the process of decision-making organized? Discussion during meetings? Voting? Else?

How do you deal with conflicting interests?

Are all affected stakeholders involved in the process of decision-making? How? Why not?

Project Implementation

Who is actually involved in the process of implementing a project?

How is it done?

Do you anyhow assess how successful your measures are?

Are all affected stakeholders involved in the process of implementing a project? How? Why not?

Are any other organizations / people or politicians involved in the process of implementation? How?

Course of a SCOTRWA project

	People /groups in charge	People /groups participating actively	Only passively involved people/groups	Not relevant people /groups
Articulating an idea/new project				
Decision-making what to do and how project should look like				
Implementation of project				
Evaluation of the project				

Legitimacy / accountability and record keeping / monitoring /sanctioning

Does SCOTRWA have protocols of the decision-making processes / meetings?

Are SCOTRWA's meetings /decision-making processes public?

Do SCOTRWA's members monitor and sanction its activities? How?

Does anybody from outside (politicians or media, etc.) monitor and sanction the activities? How?

Goals and Values / Output**Socialization and communication and recruitment**

How does SCOTRWA communicate with its members/ with the population (Tarnaka Times, else)?

How does SCOTRWA recruit new members?

When the bylaws of SCOTRWA have been designed have the residents been included in this process? How? Why not?

Do you think Tarnaka residents identify with SCOTRWA and its rules?

Generating Social Capital

We hypothesize that collective participation generates trust and norms of reciprocity. Do you think this happens in SCOTRWA? Can you give examples?

We hypothesize that via collective participation people learn to regard not just for their own interests but for common welfare. Do you think this learning process and this transformation from individual to collective interests happens in SCOTRWA? Can you give examples?

Sustainable development

How do SCOTRWA's activities affect the local ecological conditions?

How do SCOTRWA's activities affect the local socio-economic conditions?

Does SCOTRWA use the skills and knowledge of the people in Tarnaka? How?

Do you think SCOTRWA enhances the capacities of Tarnaka's inhabitants to face environmental, economic and social pressures and "maintain an adequate and decent livelihood"? How? Why not?

How do SCOTRWAs activities affect future generations? Give examples

Additional Comments

Thank you very much for your time and effort!

Interviews RWA Tarnaka

Introduction

Thank you very much for taking the time for this interview! We appreciate it a lot.

The results of this interview shall benefit research which is dealing with participative and collective ways of organizing and decision-making and its socio-economic and ecological impacts. My name is Jennifer Meyer-Ueding and I am a researcher from the Humboldt-University in Berlin, Germany, working for the Megacity Hyderabad project. The information that you give us in this interview will be handled confidentially and will be used for scientific purpose only. It will be summarized in scientific articles. The data will be published anonymously. We will refer to your RWA and SCOTRWA as a case study, but it will be impossible to know which person gave us which statement unless you explicitly allow us to refer to your name. If you are interested in the results of the analysis, we would be happy to send them to you. In the following we will ask open questions on some topics of interest for our research. Please feel free to skip a question if you do not want to talk about a topic.

Interviewee Data

Date and place:

Name of your Resident Welfare Association (RWA):

Your position at your RWA:

Membership in any Committee of SCOTRWA:

Position at SCOTRWA:

Age (optionally):

Occupation (optionally):

Sex (optionally):

Name (optionally):

Can we refer to your name in our scientific work Yes ____ No, I want to stay anonymous ____

Context

Your RWA and its relations with SCOTRWA

How much freedom of action does your RWA have to act on its territory?

How much and when does SCOTRWA intervene?

Are there any financial dependencies?

Is SCOTRWA consulting your RWA somehow?

How to you assess your RWA's relation with SCOTRWA: is it rather forced or rather deliberate?

RWA's members

Entry and Exit

How do people become members of your RWA? Can everybody become a member? Can they exit?

Members and participation

How do you rate members' participation in your RWA's elections? In its meetings? In its projects?

How do the members of your RWA participate in the RWA activities: By voting? By donating money? By spending free time? Please give details

Power structures and hierarchies/ Leadership

Are some people more important for your RWA's functioning than others?

Do some people have more to say?

How do you think would your RWA and SCOTRWA work without Dr Rao Chelikani?

Members' resources and skills and their heterogeneities

Do you have any information on the individual skills and resources of your RWA's members (education, income, occupation, time, money, civic skills, administrative skills, technical skills)?

Information whether these skills and resources are homogenously distributed?

How is the cultural/ religious/ ethnic homogeneity or heterogeneity within your RWA?

Communication and social capital

How are the interrelations between RWA's members beyond official meetings and events? Of what kind?

Any joint activities?

"People in this neighborhood look mainly after the welfare of themselves and are not much concerned about the welfare of their non-family neighbors." Does this statement hold true?

Generally speaking, would you say that most of the neighbors trust each other/ trust non-family neighbors or that they are very careful in dealing with neighbors?

Do the interests of all members of your RWA always agree or are there any conflicting interests?

How much do the members of your RWA know about each other? Do they know each other for long?

Dependencies and commitment

How important are the topics your RWA is dealing with to the members/people?

Are they equally important to all members?

How informed are the members about the topics? Are they equally informed?

How loyal and committed do you estimate your RWA's members?

Are there big differences in commitment among members?

Are there changes in the commitment?

How do you think do the individual members of your RWA estimate their own impact?

Are they aware about their own impact or do they over- or underestimate their own impact?

Projects, problems and issues**Climate, environment, natural resources and future generations**

Can you give examples of projects initiated by your RWA which deal with the environment and natural resources (like water) or climate issues?

How do your RWA's projects affect the lives of future generations? Can you give examples?

Boundaries of projects and problems

Are the issues your RWA is dealing with limited to Tarnaka?

Where do and how do they cross the local boundaries?

Who is concerned with the problems?

Who does profit from the solutions and activities? (Only Tarnaka residents)?

Do the benefits for one group limit the benefits for another? Does anyone suffer from the measures?

On how many different issues is your RWA operating? Is it easy or difficult to keep track?

Project Management

When your RWA is starting a new project, which are the main difficulties and the major hurdles for success?

Looking at the ongoing projects, which are the difficulties to keep them running? How important is the engagement of the people for your RWA's activities?

RWA operation**Articulation and Aggregation of ideas and interests**

Who articulates a problem /idea that your RWA should deal with at the beginning?

Does your RWA ask its members? How?

How exactly is the process of brainstorming organized? Discussion during meetings? Voting? Else?

How do you deal with conflicting interests?

Are all affected stakeholders involved in the process of articulating a problem /issue? How? Why not?

Decision-Making

When it comes to decisions on what to do and how projects should look like, who is actually involved in the process of decision-making in your RWA?

Is there anybody in authority or does everybody have a say?

How exactly is the process of decision-making organized? Discussion during meetings? Voting? Else?

How do you deal with conflicting interests?

Are all affected stakeholders involved in the process of decision-making? How? Why not?

Project Implementation

Who is actually involved in the process of implementing a project?

How is it done?

Do you anyhow assess how successful your measures are?

Are all affected stakeholders involved in the process of implementing a project? How? Why not?

Are any other organizations / people or politicians involved in the process of implementation? How?

Course of project executed by your RWA

	People /groups in charge	People /groups participating actively	Only passively involved people/groups	Not relevant people /groups
Articulating an idea/new project				
Decision-making what to do and how project should look like				
Implementation of project				
Evaluation of the project				

Legitimacy / accountability and record keeping / monitoring /sanctioning

Does your RWA have protocols of its decision-making processes / meetings?

Are your RWA's meetings /decision-making processes public?

Do your members monitor and sanction your activities? How?

Does anybody from outside (politicians or media, etc.) monitor and sanction your activities? How?

Goals and Values / Output

Socialization and communication and recruitment

How does your RWA communicate with its members/ with the population (Tarnaka Times, else)?

How does your RWA recruit new members?

When the bylaws of your RWA have been designed have the residents been included in this process? How? Why not?

Do you think the members identify with your RWA and its rules?

Generating Social Capital

We hypothesize that collective participation generates trust and norms of reciprocity. Do you think this happens in your RWA? Can you give examples?

We hypothesize that via collective participation people learn to regard not just for their own interests but for common welfare. Do you think this learning process and this transformation from individual to collective interests happens in your RWA? Can you give examples?

Sustainable development

How do your RWA's activities affect the local ecological conditions?

How do your RWA's activities affect the local socio-economic conditions?

Does your RWA use the skills and knowledge of the people in your area? How?

Do you think your RWA enhances the capacities of its members to face environmental, economic and social pressures and "maintain an adequate and decent livelihood"? How? Why not?

How do your RWA's activities affect future generations? Give examples

Additional Comments

Thank you very much for your time and effort!

Interviews Consumer Council

Introduction

Thank you very much for taking the time for this interview! We appreciate it a lot.

The results of this interview shall benefit research which is dealing with participative and collective ways of organizing and decision-making and its socio-economic and ecological impacts. My name is Jennifer Meyer-Ueding and I am a researcher from the Humboldt-University in Berlin, Germany, working for the Megacity Hyderabad project. The information that you give us in this interview will be handled confidentially and will be used for scientific purpose only. It will be summarized in scientific articles. The data will be published anonymously. We will refer to SCOTRWA as a case study, but it will be impossible to know which person gave us which statement unless you explicitly allow us to refer to your name. If you are interested in the results of the analysis, we would be happy to send them to you. In the following we will ask open questions on some topics of interest for our research. Please feel free to skip a question if you do not want to talk about a topic.

Interviewee Data

Date and place:

Your position and role at the Consumer Council:

Membership in further Committees of SCOTRWA :

Position at SCOTRWA:

Age (optionally):

Occupation (optionally):

Sex (optionally):

Name (optionally):

Can we refer to your name in our scientific work Yes ____ No, I want to stay anonymous ____

Context

The Consumer Council and its relations with SCOTRWA

How much freedom of action does the Consumer Council have to act?

How much and when does SCOTRWA intervene?

Are there any financial dependencies?

Is SCOTRWA consulting you somehow?

How do you assess the Consumer Council's relation with SCOTRWA: is it rather forced or rather deliberate?

Consumer Council's members

Entry and Exit

How do people become members of the Consumer Council? Can everybody become a member? Can they exit?

Members and participation

Does the Consumer Council have any internal elections?

How do you rate members' participation in your elections? In your meetings? In your projects?

How do your members participate in your activities: By spending free time (for which activities)? By donating money? By voting? Please give details

Power structures and hierarchies/ Leadership

Are some people more important for the Consumer Council's functioning than others?

Do some people have more to say?

How do you think would the Consumer Council and SCOTRWA work without Dr. Rao Chelikani?

Members' resources and skills and their heterogeneities

Do you have any information on the individual skills and resources of The Consumer Council's members (education, income, occupation, time, money, civic skills, administrative skills, technical skills)?

Information whether these skills and resources are homogeneously distributed?

How is the cultural/ religious/ ethnic homogeneity or heterogeneity within the Consumer Council?

Communication and social capital

How are the interrelations between Consumer Council's members beyond official meetings and events? Of What kind?

Any joint activities?

"People in this neighborhood look mainly after the welfare of themselves and are not much concerned about the welfare of their non-family neighbors." Does this statement hold true?

Generally speaking, would you say that most of the neighbors trust each other/ trust non-family neighbors or that they are very careful in dealing with neighbors?

Do the interests of all the Consumer Council's members always agree or are there any conflicting interests?

How much do the Consumer Council's members know about each other? Do they know each other for long?

Dependencies and commitment

How important are the topics the Consumer Council is dealing with to the members?

Are they equally important to all members?

How informed are the members about the topics? Are they equally informed?

How loyal and committed do you estimate the Consumer Council's members?

Are there big differences in commitment among members?

Are there changes in the commitment?

How do you think do the individual members of the Consumer Council estimate their own impact?

Are they aware about their own impact or do they over- or underestimate their own impact?

Projects, problems and issues

Climate, environment, natural resources and future generations

Can you give examples of projects initiated by the Consumer Council which deal with the environment and natural resources (like water) or climate issues?

How do the Consumer Council's projects affect the lives of future generations? Can you give examples?

Boundaries of projects and problems

Are the issues the Consumer Council is dealing with limited to Tarnaka?

Where do and how do they cross the local boundaries?

Who is concerned with the problems?

Who does profit from the solutions and activities? (Only Tarnaka residents)?

Do the benefits for one group limit the benefits for another? Does anyone suffer from the measures?

On how many different issues is the Consumer Council operating? Is it easy or difficult to keep track?

Project Management

When the Consumer Council is starting a new project, what are the main difficulties and the major hurdles for success?

Looking at the ongoing projects, which are the difficulties to keep them running? How important is the engagement of the people for the Consumer Council's activities?

Health project

Can you tell us something about the health related initiatives of the Consumer Council? What are the topics you are dealing with? Which projects and measures related to health do you organize?

How are the health related initiatives working? How is the participation?

Are there any outputs yet? Can you give examples of things achieved / done?

Are there any difficulties with the health related initiatives? What are they about?

Consumer Council operation

Articulation of ideas and interests

Who articulates a problem /idea that the Consumer Council should deal with at the beginning?

Does the Consumer Council ask its members/ the Tarnaka residents? How?

How exactly is the process of brainstorming organized? Discussion during meetings? Voting? Else?

How do you deal with conflicting interests?

Are all affected stakeholders involved in the process of articulating a problem /issue? How? Why not?

Decision-Making

When it comes to decisions on what to do and how projects should look like, who is actually involved in the process of decision-making?

Is there anybody in authority or does everybody have a say?

How exactly is the process of decision-making organized? Discussion during meetings? Voting? Else?

How do you deal with conflicting interests?

Are all affected stakeholders involved in the process of decision-making? How? Why not?

Project Implementation

Who is actually involved in the process of implementing a project/measurement?

How is it done?

Do you anyhow assess how successful your measures are?

Are all affected stakeholders involved in the process of implementing a project? How? Why not?

Are any other organizations / people or politicians involved in the process of implementation? How?

Legitimacy / accountability and record keeping / monitoring /sanctioning

Does the Consumer Council have protocols of its decision-making processes /of its meetings?

Are the Consumer Council's meetings /decision-making processes public?

Do the Consumer Council's members monitor and sanction its activities? How?

Does anybody from outside (politicians, media, etc.) monitor and sanction the Council's activities? How?

Course of a project executed by the Consumer Council

	People /groups in charge	People /groups participating actively	Only passively involved people/groups	Not relevant people /groups
Articulating an idea/new project				
Decision-making what to do and how project should look like				
Implementation of project				
Evaluation of the project				

Goals and Values / Output**Socialization and communication and recruitment**

How does the Consumer Council communicate with its members/ with the population (Tarnaka Times)?

How does the Consumer Council recruit new members?

When the bylaws of the Consumer Council have been designed have its members or the Tarnaka residents been included in this process? How? Why not?

Do you think the members identify with the Consumer Council's rules? Do you think the Tarnaka residents identify with the Consumer Council and its rules?

Generating Social Capital

We hypothesize that collective participation generates trust and norms of reciprocity. Do you think this happens within the Consumer Council? Can you give examples?

We hypothesize that via collective participation people learn to regard not just for their own interests but for common welfare. Do you think this learning process and this transformation from individual to collective interests happens in the Consumer Council? Can you give examples?

Sustainable development

How do the Consumer Council's activities affect the local ecological conditions?

How do Consumer Council's activities affect the local socio-economic conditions?

Does the Consumer Council use the skills and knowledge of the people in its area? How?

Do you think the Consumer Council enhances the capacities of its members to face environmental, economic and social pressures and "maintain an adequate and decent livelihood"? How? Why not?

How do the Consumer Council's activities affect future generations? Give examples

Additional Comments

Thank you very much for your time and effort!

Interviews Community Radio Group

Introduction

Thank you very much for taking the time for this interview! We appreciate it a lot.

The results of this interview shall benefit research which is dealing with participative and collective ways of organizing and decision-making and its socio-economic and ecological impacts. My name is Jennifer Meyer-Ueding and I am a researcher from the Humboldt-University in Berlin, Germany, working for the Megacity Hyderabad project. The information that you give us in this interview will be handled confidentially and will be used for scientific purpose only. It will be summarized in scientific articles. The data will be published anonymously. We will refer to SCOTRWA as a case study, but it will be impossible to know which person gave us which statement unless you explicitly allow us to refer to your name. If you are interested in the results of the analysis, we would be happy to send them to you. In the following we will ask open questions on some topics of interest for our research. Please feel free to skip a question if you do not want to talk about a topic.

Interviewee Data

Date and place:

Your position and role at the Community Radio Group:

Membership in further Committees of SCOTRWA:

Position at SCOTRWA:

Age (optionally):

Occupation (optionally):

Sex (optionally):

Name (optionally):

Can we refer to your name in our scientific work Yes ____ No, I want to stay anonymous ____

Context

The Community Radio Group and its relations with SCOTRWA

Has SCOTRWA any authority to give directives to the Community Radio Group?

Are there any financial dependencies?

Is SCOTRWA consulting you somehow?

How do you assess the Community Radio Group's relation with SCOTRWA: is it rather forced or rather deliberate?

The Community Radio Group and its relations with local politics

When and how have politics and administration intervened during the process of setting up the Community Radio?

Community Radio Group's members

Entry and Exit

How do people become members of the Community Radio Group? Can everybody become a member? Can they exit?

Members and participation

Does the Community Radio Group have enough members to operate effectively?

How do people participate in the Community Radio project? What are their different activities?

How do you rate members' participation in your projects?

Does the Community Radio Group have any internal elections? How do you rate members' participation in your elections?

Power structures and hierarchies/ Leadership

Are some people more important for the Community Radio Group's functioning than others?

Do some people have more to say?

How do you think would the Community Radio and SCOTRWA work without Dr Rao Chelikani?

Members' resources and skills and their heterogeneities

Do you have any information on the individual skills and resources of the Community Radio Group's members (education, income, occupation, time, money, civic skills, administrative skills, technical skills)?

Information whether these skills and resources are homogeneously distributed?

How is the cultural/ religious/ ethnic homogeneity or heterogeneity within the Community Radio Group?

Communication and social capital

How are the interrelations between the Community Radio Group's members beyond official meetings and events? Of what kind?

Any joint activities?

"People in this neighborhood look mainly after the welfare of themselves and are not much concerned about the welfare of their non-family neighbors." Does this statement hold true?

Generally speaking, would you say that most of the neighbors trust each other/ trust non-family neighbors or that they are very careful in dealing with neighbors?

Do the interests of all the Community Radio Group's members always agree or are there any conflicting interests?

How much do the Community Radio Group's members know about each other? Do they know each other for long?

Dependencies and commitment

How will you select the topics the Community Radio will deal with?

How loyal and committed do you estimate the Community Radio Group's members?

Are there big differences in commitment among members?

Are there changes in the commitment?

How do you think the individual members of the Community Group estimate their own impact?

Are they aware about their own impact or do they over- or underestimate their own impact?

Projects, problems and issues**Climate, environment, natural resources and future generations**

Can you give examples of projects/ topics intended by the Community Radio which will deal with the environment and natural resources (like water) or climate issues?

How will the Community Radio's projects affect the lives of future generations? Can you give examples?

Boundaries of projects and problems

Will the issues the Community Radio is dealing with be limited to Tarnaka?

Where and how might they cross the local boundaries?

Who is concerned with the problems the Community Radio wants to tackle?

Who will profit from the Community Radio? (Only Tarnaka residents)?

Is there anyone or any group of people against initiating a Community Radio in Tarnaka? Why?

Project Management

When the Community Radio Group was initiated, which were the main difficulties and the major hurdles for success?

Which are the difficulties to keep the Community Radio running? How important is the engagement of the people for the Community Radio's activities?

On how many different issues is the Community Radio Team operating to initiate the Radio? Is it easy or difficult to keep track?

Community Radio operation

Initiation of the Community Radio –the Decision-Making process

Who has articulated the idea of initiating a Community Radio in Tarnaka at the beginning?

Have the Tarnaka residents been asked whether they want a Community Radio? How? Which response did you get?

During the process of organizing the Community Radio who was actually involved in the process of decision-making? Was there anybody in authority or did everybody in the Community Radio Group have the same influence?

How exactly was the process of decision-making organized? Discussion during meetings? Voting? Else?

How did the Community Radio Group deal with conflicting interests?

Have all affected stakeholders been involved in the process of decision-making? How? Why not?

Project Implementation

When the Community Radio is operating how will decisions on the program be made? Discussion during meetings? Voting? Else? Who will have the last word?

When the Community Radio is operating which actors will be involved and how?

Legitimacy / Accountability and record keeping / Monitoring /Sanctioning

Do you have protocols of the initiation process /of your meetings?

Have the meetings of the Community Radio Group been public?

Have the Tarnaka residents monitored and sanctioned your activities? How?

Has anybody from outside (politicians or media etc.) monitored and sanctioned your activities? How?

Will the Community Radio Group have protocols on its meetings in the future?

Course of initiating the Community Radio

	People /groups in charge	People /groups participating actively	Only passively involved people/groups	Not relevant people /groups
Articulating the idea of the Community Radio for Tarnaka				
Decision-making what to do and how the Community Radio should look like				
Implementation of the Community Radio				
Evaluation of the Community Radio				

Goals and values / output**Socialization and communication and recruitment**

How has the Community Radio idea been communicated with the population (Tarnaka Times, else)?

How do you recruit new members for the Community Radio?

When the bylaws of the Community Radio have been designed have its members or the Tarnaka residents been included in this process? How? Why not?

Do you think the members identify with the Community Radio and its rules? Do you think the Tarnaka residents identify with the Community Radio?

Generating Social Capital

We hypothesize that collective participation generates trust and norms of reciprocity. Do you think this happens within the Community Radio Group? Can you give examples?

We hypothesize that via collective participation people learn to regard not just for their own interests but for common welfare. Do you think this learning process and this transformation from individual to collective interests happens in the Community Radio Group? Can you give examples?

Do you think the Community Radio, once operating, will generate trust and norms of reciprocity among the Tarnaka residents? How?

Do you think the Community Radio, once operating, will initiate a learning process from individual to collective interests among the Tarnaka residents?

Sustainable development

How can the Community Radio affect the local ecological conditions?

How can the Community Radio affect the local socio-economic conditions?

Will the Community Radio use the skills and knowledge of the people in your area? How?

Do you think the Community Radio will enhance the capacities of Tarnaka's inhabitants to face environmental, economic and social pressures and "maintain an adequate and decent livelihood"? How? Why not?

How will the Community Radio affect future generations? Give examples

Additional comments

Thank you very much for your time and effort!

Guideline

Focus Group SCOTRWA

Date	
Place	
Attendees	
Remarks	

Introduction

Thank you very much for taking the time for this group discussion! We appreciate it a lot.

Our names are Jennifer Meyer-Ueding and Kiran Kumar, we are researcher from the Humboldt-University in Berlin, Germany, working for the Megacity Hyderabad project.

The results of this interview shall benefit research which is dealing with participative and collective ways of organizing and decision-making and its socio-economic and ecological impacts.

All statements given during this discussion will be handled confidentially and will be used for scientific purpose only. The information will be summarized in scientific articles. The data will be published anonymously. We will refer to SCOTRWA as a case study, but it will be impossible to know which person gave us which statement. If you are interested in the results of the analysis, we would be happy to send them to you.

Please be aware that there will be no wrong answers to our questions. I (J. M-Ue) am going to moderate this discussion and pose questions to the whole group. It would be helpful for our analysis when everyone takes part in the discussion. Please do not hesitate to interrogate if I did not express myself clearly!

Do you mind if we record the discussion?

Opening Questions

Could you please introduce yourselves, one by one:

Name

Occupation (Enquiry: retired?)

Position at SCOTRWA

Membership in any RWA and Committee of SCOTRWA

Impulse

A graphical illustration of the supposed interrelation between community participation and sustainable solutions

Introductory Questions

Members and participation

How do you rate members' participation in SCOTRWA elections? In its meetings? In its projects?

How do your members participate in your activities: By voting? By donating money? By spending free time? Please give details

Do you think Tarnaka residents identify with SCOTRWA and its rules? How loyal and committed do you estimate the SCOTRWA's members?

Are there big differences in commitment among members?

Are there changes in the commitment?

Power structures and hierarchies/ Leadership

Are some people /groups of people /RWAs/ Committees more important for SCOTRWAS functioning?

Do some people /groups of people /RWAs/ Committees have more to say?

How would SCOTRWA work without Dr. Rao Chelikani?

Communication and social capital

How are the interrelations between SCOTRWA's members beyond official meetings and events?

Of what kind?

Any joint activities?

How much do the SCOTRWA members know about each other? Do they know each other for long?

Do the interests of all SCOTRWA members always agree or are there any conflicting interests?

"People in this neighborhood look mainly after the welfare of themselves and are not much concerned about the welfare of their non-family neighbors." Does this statement hold true?

Generally speaking, would you say that most of the neighbors trust each other/ trust non-family neighbors or that they are very careful in dealing with neighbors?

We hypothesize that collective participation generates trust and norms of reciprocity. Do you think this happens in SCOTRWA? Can you give examples?

We hypothesize that via collective participation people learn to regard not just for their own interests but for common welfare. Do you think this learning process and this transformation from individual to collective interests happens in SCOTRWA? Can you give examples?

Transition Questions

Climate, environment, natural resources and future generations

Can you give examples of SCOTRWA projects which deal with the environment and natural resources (like water) or climate issues?

Boundaries of projects and problems

Are the issues SCOTRWA is dealing with limited to Tarnaka?

Where do and how do they cross the local boundaries?

Who does profit from the solutions and activities? (Only Tarnaka residents)?

Does anyone suffer from the measures?

Project Management

When SCOTRWA is starting a new project, what are the main difficulties and the major hurdles for success?

Course of a SCOTRWA project

	People /groups in charge	People /groups participating actively	Only passively involved people/groups	Not relevant people /groups
Articulating an idea/new project Who articulates a problem /idea that SCOTRWA should deal with at the beginning? Does SCOTRWA ask its members? How? How exactly is the process of brainstorming organized? Discussion during meetings? Voting? Else? How do you deal with conflicting interests? Are all affected stakeholders involved in the process of articulating a problem /issue? How? Why not?				

	People /groups in charge	People /groups participating actively	Only passively involved people/groups	Not relevant people /groups
<p>Decision-making what to do and how project should look like</p> <p>When it comes to decisions on what to do and how projects should look like, who is actually involved in the process of decision-making?</p> <p>Is there anybody in authority or does everybody have a say?</p> <p>How exactly is the process of decision-making organized? Discussion during meetings? Voting? Else?</p> <p>How do you deal with conflicting interests?</p> <p>Are all affected stakeholders involved in the process of decision-making? How? Why not?</p>				

	People /groups in charge	People /groups participating actively	Only passively involved people/groups	Not relevant people /groups
Implementation of project Who is actually involved in the process of implementing a project? How is it done? Are all affected stakeholders involved in the process of implementing a project? How? Why not? Are any other organizations / people or politicians involved in the process of implementation? How?				

Sustainable development

If you look at the three dimensions: 1. Economy/welfare dimension 2. Social dimension and 3. Ecological dimension, how do residents, how do other Hyderabadis and how does the natural environment benefit from SCOTRWA's existence?

	Economy/welfare dimension	Social dimension	Ecological dimension
Tarnaka Residents			
All Hyderabadis			
Natural environment			

Ending Questions

SCOTRWA and outside interference /assistance / hazards

How much and when do local politics, IFDH or U-FERWAS intervene in SCOTRWA's work? (Positive and negative interventions: pressure, financial dependencies, assistance, consultancy)

	Local politics	IFDH (Internat. Foundation for Human Development)	U-FERWAS (United Federation of Residents Welfare Associations)	Others
Interference /assistance / hazards				

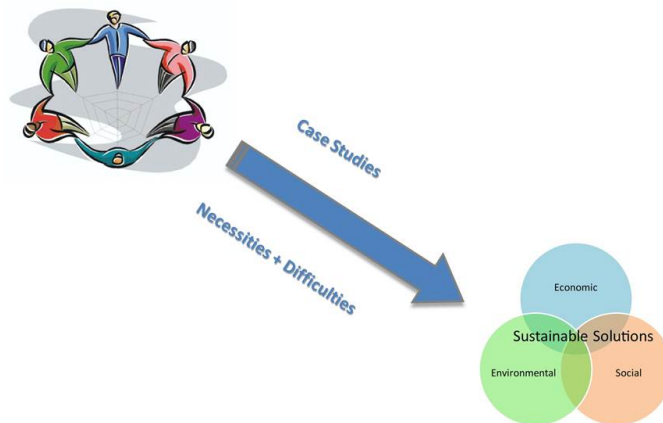
Distribution of power between SCOTRWA and RWAs or Committees

How much and when does SCOTRWA intervene in the RWAs' and Committees' work and vice versa? (Positive and negative interventions: pressure, financial dependencies, assistance, consultancy)

	RWAs	Committees
How much and when does SCOTRWA intervene? Are there any financial dependencies? Is one side consulting the other?		

Thank you very much for your time and effort!

Community Participation and Sustainable Solutions



Members' Participation



Participation in elections



Participation in meetings



Participation in projects

Communication and Social Capital



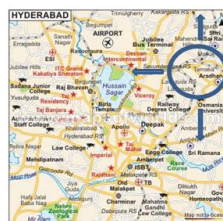
Power structures / Hierarchies / Leadership



Climate, Environment, and Future Generations



Boundaries of projects and problems



Project Management: Difficulties and Hurdles



Articulating an Idea / New Project



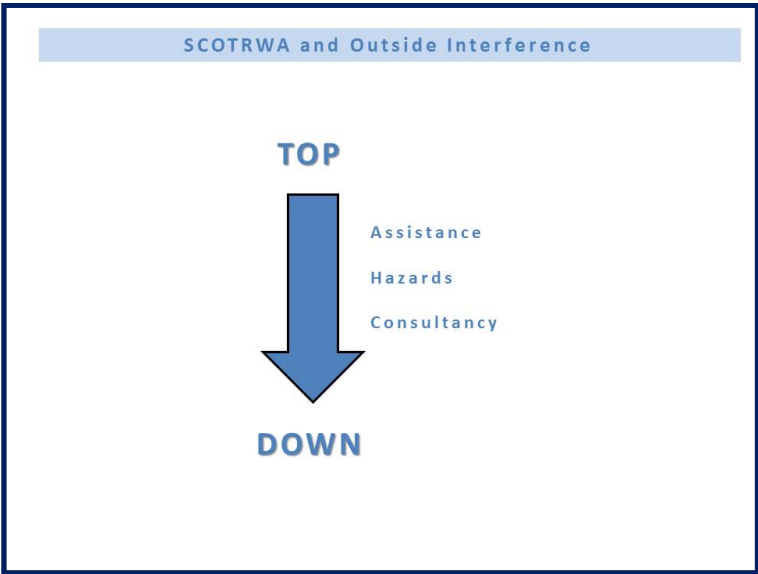
Decision-Making: How a project should look like





Sustainable Development

	Economy/Welfare	Social	Ecological
Tarnaka Residents			
All Hyderabadis			
Natural environment			



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DECLARATION

I declare that this dissertation is the result of my own, unaided work and that it has not been presented previously as a dissertation at this university or elsewhere. Furthermore,

I declare that all sources have been duly acknowledged and that no other sources and applications have been used besides those that are listed in the references.

Berlin, 17.02.2013