This thesis examines how the theoretical assumptions of common pool resource (CPR) theory have contributed to the indifferent performance of community-based natural resource management (CBNRM) projects. Evidence is gathered from two CBNRM case studies in Zanzibar to show that CPR institutional design does not sufficiently acknowledge the politics or social complexity of project sites in its framing of beneficiaries as 'rational resource users'. Moreover, the thesis contends that these limitations reduce CPR theory’s explanatory power and adversely affect the functionality of CBNRM projects. It is shown that actor-oriented theory, with its focus on points of conflict and power, can provide insights into CBNRM pre-project conditions and emergent practice useful for explaining project interventions.

The Politics
of People

Not just mangroves and monkeys
A study of the theory and practice of community-based management of natural resources in Zanzibar

Fred Saunders

Södertörn Doctoral Dissertations 58
The Politics of People

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Södertörn Doctoral Dissertations 58

Södertörns högskola 2011
This book is dedicated to my dear
Mum, Dorothy May Saunders
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This thesis is based on the following papers, which are referred to in the text by their Roman numerals.


IV Saunders, F. The Robustness of CBNRM projects in view of the shortcomings of CPR theory (Manuscript).

I am the lead author in two of the four manuscripts presented and the sole author of the third and fourth. I undertook a significant part of the field work for Papers I and II and most of the data analysis, research design and writing. I was involved in designing and integrating the remote sensing data in Paper II, but did not perform the technical work. As the sole author of Papers III and IV, I completed all aspects of the work contributing towards these papers.

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**Abbreviations**

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<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>CARE</td>
<td>Cooperative for Assistance and Relief Everywhere</td>
</tr>
<tr>
<td>CBNRM</td>
<td>Community-Based Natural Resource Management</td>
</tr>
<tr>
<td>CCM</td>
<td>Chama cha Mapinduzi (current ruling political party in Zanzibar)</td>
</tr>
<tr>
<td>CNR-F</td>
<td>Commission for Natural Resources – Sub Commission Forest</td>
</tr>
<tr>
<td>CPR</td>
<td>Common Pool Resource</td>
</tr>
<tr>
<td>CUF</td>
<td>Civic United Front (current opposition political party in Zanzibar)</td>
</tr>
<tr>
<td>DCCFF</td>
<td>Department of Commercial Crops, Fruits and Forestry</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organization</td>
</tr>
<tr>
<td>FMCA</td>
<td>Forest Management and Conservation Act</td>
</tr>
<tr>
<td>GEF</td>
<td>Global Environmental Facility</td>
</tr>
<tr>
<td>ICDP</td>
<td>Integrated Conservation Development Project</td>
</tr>
<tr>
<td>IFAD</td>
<td>The International Fund for Agricultural Development</td>
</tr>
<tr>
<td>JCBCA</td>
<td>Jozani Chawka Bay Conservation Area</td>
</tr>
<tr>
<td>JCBNP</td>
<td>Jozani Chawka Bay National Park</td>
</tr>
<tr>
<td>JECA</td>
<td>Jozani Environmental Conservation Association</td>
</tr>
<tr>
<td>KCC</td>
<td>Kisakasaka Conservation Committee</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organisation</td>
</tr>
<tr>
<td>RUMA</td>
<td>Resource User Management Agreements</td>
</tr>
<tr>
<td>RGZ</td>
<td>The Revolutionary Government of Zanzibar</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nations Environment Program</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Program</td>
</tr>
<tr>
<td>VCC</td>
<td>Village Conservation Committee</td>
</tr>
<tr>
<td>WCED</td>
<td>World Commission on Environment and Development</td>
</tr>
<tr>
<td>WRI</td>
<td>World Resources Institute</td>
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</table>
Acknowledgements

I have been helped and inspired by many people while undertaking the research presented in this PhD thesis. The limitations of the thesis do not allow me to mention everyone who has played a part in the work presented, but rest assured that this does not diminish my appreciation of all contributions, great or small.

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This thesis would not have been possible without the support and cooperation from the many Kisakasaka and Pete-Jozani villagers who so generously gave up their time to discuss topics of interests to this thesis. This gratitude also extends to several Department of Commercial Crops, Fruits and Forestry employees who were willing to share their expertise and experience. In this regard, I would like to single out Mr. Ali Basha, who was particularly supportive and generous with his time.

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1. Introduction

Natural Resource Management in Transition in East Africa

In East Africa, as in many other parts of the world, there are numerous examples of groups of people living in and adjacent to forests that have cooperated in the use of these resources over a very long time. Indeed, in many circumstances forests have played the central role in the livelihoods of countless rural populations. This is not to say that through time biophysical, social, economic and political conditions have remained constant. Relations between people and forests have been subjected to many changes and adapted and coped with influences at various scales. Some of these relationships have perished or have been transformed beyond recognition, and some have persevered, albeit in attenuated forms. This is despite colonial and post-colonial governments adopting highly state-centred approaches that largely sought to exclude local populations from land and resource decision-making and use.\(^1\) The motivation for an exclusionist approach, or ‘coercive conservation’ (Dressler et al. 2010), was driven by the belief that this was the most efficient and effective means for the state to assert management control over resources and ultimately the people who rely on these resources for cultural and material nourishment (Neumann 1997). Over the past 20–25 years the region has seen a considerable shift from centralist natural resource management policy approaches to community-centred institutional arrangements (Hulme and Murphree 2001) with an associated range of different property rights arrangements under variations of communal management. In this process, localized institutional issues of democracy, land and resource security and accountability to achieve effective and beneficial forms of local level governance over forests have become prominent (Wily 2002).

\(^1\) I refer to these conservation and resource management approaches as state-centered because formal powers were divested in the State (tenure, responsibilities, decision-making, benefit sharing, enforcement, etc.), which largely sought to exclude local populations from resource decision-making and use. Somewhat paradoxically, centrally devised measures were often implemented through decentralised means, such as indirect rule in British Tanganyika (Goldstein 2004) and in Zanzibar also through the British via Omani rule (and their local representatives, Shehas (Sheriff 1991).
A number of interrelated factors and conditions have given rise to the transition to decentralized conservation in the East Africa region during the 1980s and 1990s. Amongst the most important are an assessment of inefficiency of a centralist approach, the broader renewal of regional democracies (Pinkney 2001), imposition of structural adjustment reforms, positive revisions of the idea and role of community as natural resource managers (Ostrom 1990), increased recognition of the value of local knowledge (Chambers 1983; Berkes 1993) and the more general rise of sustainable development (World Commission on Environment and Development (WCED) 1987).

CBNRM must also be seen as part of a larger push to decentralize and/or devolve juridical powers to ‘relatively autonomous’ community-based (representative) organizations as part of broader ‘good governance’ measures. Conceptually, CBNRM comfortably houses the buzzwords of development such as ‘participation’, ‘empowerment’, ‘social capital’, ‘sustainability’ and ‘good governance’. This has led to CBNRM projects becoming integral to contemporary mainstream development agendas and poverty alleviation strategies promoted by influential organizations including, the World Resources Institute (WRI), United Nations Environment Program (UNEP), United Nations Development Program (UNDP) and the World Bank (UNEP et al. 2002).

In early 1990s, Elinor Ostrom’s (1990) formulation of CPR theory, through the praxis-oriented institutional design principles, became influential for conservation policy.2 The design principles gave natural resource managers the means by which to craft CBNRM institutions,3 which increased the direction and confidence of community-based conservation policy interventions. CPR theory posits that resources users can cooperate to conserve common pool resources4 by designing and complying with rules suited to local environmental conditions (Johnson 1997). This policy oriented research of successful cases has been influential in transforming the notion of ‘harmonious’ relations between indigenous people and their resources into institutional design guidelines that are able to be transplanted and adapted through professionalized project interventions.

Also, on the ground at around this time, post colonial governments in East Africa struggling with credibility and the financial demands of managing their conservation estates saw opportunities to attract international non-governmental organisations (NGOs) and multilateral institutional donor support for

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2 Ostrom’s design principles have been adopted by influential organizations such as the United Nations (UN), World Bank and the Food and Agriculture Organization (FAO) as tools for crafting CBNRM institutions (Steins et al. 2000; Esmail 1997; Agrawal and Gibson 1999). This significant contribution was acknowledged recently when Ostrom was awarded the 2009 Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel.

3 Also called common property institutions.

4 Common pool resources are characterized by the subtractability and the difficulty to exclude others from their use. According to Ison et al. (2007) this subtractability causes them to be affected by conflict.
decentralized community-based conservation initiatives (Levine, 2007). Concurrently, international conservation and development interests were concerned about the linkages between poverty and the destruction of biodiversity and opportunities for rural development (Roe and Elliot 2005). These many and varied interest groups, including prominent international NGOs, were keen to establish a foothold of influence in so called ‘biodiversity hotspots’ areas in a way that promised the benefits of conservation with local development. Zanzibar, the thesis’ study area, was identified as a conservation hotspot because of its high rates of endemism and imminent threats to habitat and fauna seen to be caused by high levels of poverty (Myers et al. 2000; WWF-US 2003). Also important as a catalyst for conservation were long-held concerns about over-exploitation of forests for fuel-wood in Zanzibar (Masoud 1993). International recognition of conservation values, as well as the local fuel-wood supply concerns, have driven the flurry of conservation activity around both marine and forest values. CBNRM projects have taken varied forms. While small-scale CBNRM projects have been in the region for a considerable time, a recent trend has emerged where CBNRM institutions are becoming increasingly embedded in large-scale ecoregional projects (Garnett et al. 2007; Büscher and Dressler 2007; Murphree 2009).

Although in some areas states have ‘stepped back’ from a direct or centralized governance role in conservation (at least rhetorically), the ‘Zanzibar State’ continues to play a crucial role in mediating, supporting and controlling the transitions to devolved governance (Levine 2007).

The diverse interacting conditions described in this section have helped establish different formations of CBNRM as key means of rural development, resource management and conservation in the region during the past fifteen years. This experience makes it an ideal environment to study CBNRM projects.

Outline of the Thesis

The aim of the first part of the thesis is to contextualize, integrate, highlight and augment the work presented in the second part, where the four research papers are presented. The papers are referred to throughout the first part of the thesis, so the reader is directed to specific findings and arguments presented in each paper.

Chapter 1 has introduced the study by discussing the changing approaches to conservation in the East Africa region, culminating in the recent rise of community-based approaches. Chapter 2 presents the research problem and questions that structure the thesis, as well as a summary of the thesis’ contribution. Chapter 3 introduces the main theoretical perspectives that have been applied, analyzed and critiqued in this study. Chapter 4 describes recent trends and conditions in Zanzibar and how these relate to the development of CBNRM as a conservation and development strategy. It is in this context that the case study
sites are introduced towards the end of this Chapter. Chapter 5 describes how this study has addressed the research questions by arguing for a research design that uses qualitative methods to examine two different case studies. The methods used for collecting empirical material at the two case study sites are also presented in this Chapter. Chapter 6 discusses the results in relationship to the research problem and questions. Chapter 7 presents the research findings as well as suggested topics for future research in the area.

This Chapter has introduced the study by discussing the conditions that gave rise to CBNRM as a common approach to conservation policy, both within the region and more widely. It has also outlined the structure of the thesis. The next Chapter elaborates the central concerns of this study.
2. The Research Problem

Different Explanations of CBNRM Problems

Numerous commentators have noted the widespread failure of CBNRM projects. Many of these critics point to the mounting empirical evidence that the practice of CBNRM does not reflect what CPR theory advocates predict (see Cleaver 2000, 2002; Li 2002, 2007; Borrini-Feyerabend and Malinowski 2005; Blaike 2006; Shackleton et al. 2010). The main thrust of this criticism is that CBNRM, built upon CPR theory principles, commonly fails to make adequate allowances for the field complexities of CBNRM project environments (Duffy 2009).

Mainstream CPR theorists respond to this problem by seeking better explanations of the relationship between CPR principles for institutional design and CBNRM projects adapted to local conditions. Hence the main task of these researchers is to use and build on CPR theory to evaluate the functionality of local resource institutions. The ambition is to inform more efficient policy with which to build enduring CBNRM institutions for diverse conditions. These scholars are concerned with examining the past to infer general and predictive propositions about the future, largely focusing on the efficiency of institutional design (Ostrom 1990; IFAD 2006).

A second less prominent stream of CBNRM study, broadly labelled political ecology, pays attention to the role of historical conditions, the wider economy, the state and other influential actors in shaping environmental change and structuring the possibilities for local people’s livelihoods (Agrawal 2005; Li 2002; Robbins 2004). These commentators are less concerned about lessons to improve institutional efficiency and durability and instead focus on what they see as uneven power relations and social inequality operating at different scales.

A third theoretically rooted explanation, more rarely explored, is that there are substantive ‘problems’ with the underlying premise of the standardized assumptions inherent in CPR theory (Bardhan and Ray 2006; Blaike 2006; Johnson 2004). This view more profoundly problematises the behavioural assumptions of CPR theory.

These different perspectives have rarely (if ever) been examined and reflected on synergistically. This thesis seeks to fill this gap by bringing together different

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5 Influential contributors to this perspective include Baland and Platteau 1996; Bromley 1992; Ostrom 1990, while many others have been more concerned with isolated case studies.
strands of the existing research area in problematising the central role that CPR institutional theory has played in CBNRM projects, especially its inattention to conflict and power. This is particularly important given that there have been recent calls for more research on understanding political dynamics at the local level and the way these are shaped and influenced by CBNRM project interventions (Mukamuri et al. 2009; Duffy 2009). It does this by responding to the proposition that CBNRM projects, underpinned by CPR theory, do not adequately deal with contextual politics at different scales. The proposition presented here is that this is because the assumption of the ‘rational resource user’ in CPR theory too narrowly conceives the ‘resource user: resource’ relationship.

A Synergistic Response – The Research Questions

In response to the research problem and proposition, this thesis examines the assumptions, interests, techniques and power relations of CBNRM projects. The objective is to understand the role of theory for the explanation of empirical events relative to the functionality of CBNRM projects and the experience of beneficiaries. This task is guided by the following research questions:

1. What are the key features, assumptions and limitations of CPR theory and how do they influence the design and analysis of CBNRM projects?

There are two main components to this question: First, to understand the key arguments of CPR theory and its relationship to CBNRM (Papers I, II and IV); Second, to investigate how CPR theory is used in the design of CBNRM projects and analysis of practice (Papers I, II and IV). This question is addressed by reviewing CPR theory and CBNRM literature (Papers I, II and IV) and by using CPR theory to examine a CBNRM project at Kisakasaka, Zanzibar (Papers I and II).

2. How does actor-oriented theory represent CBNRM institutional change?

This question provides an opportunity to contrast and compare CPR theory with actor-oriented theory to see what this means for empirical representation of CBNRM practice. The aim of juxtaposing CPR theory and actor-oriented theory is to highlight epistemological differences and importantly the implications this has for the representation of empirical events (Papers II).

3. What role do project related conflicts play in different types of CBNRM projects?
This question focuses on the problematisation of CBNRM project interventions as sites of resource management and use conflicts. A response requires identification of sources of conflicts in different types of CBNRM projects, as well as, the adoption of a study methodology that is able to understand how power works to influence, instigate or quell conflict. Second, the question necessitates examination of at least two diverse case study settings. The two case-study projects selected were implemented at Kisakasaka (Papers I and II) and Pete-Jozani (Paper III) in Zanzibar. These sites were the targets of quite different CBNRM projects as discussed further in Chapter 5 Research Design and Methods.

Thesis Contribution

The major contribution of this thesis is to critically engage the interaction between CPR theory and CBNRM practice (or praxis) by highlighting the importance that theory has for the understanding of project and place dynamics in conservation interventions. While the empirical work of this thesis, to some extent, supported CPR theory predictions concerning functional institutional design (Paper I), it also revealed the limitations of CPR theory as an explanatory theory (Paper II). CPR theory ignores that resource users are enrolled in multiple projects, some of which conflict with CBNRM project ambitions. More specifically, the concept of the individual ‘rational resource user’, encapsulated in the CPR design principles, does not provide clear direction for meaningful consideration of local norms, values and interests. Participatory methods, often used to contextualize the design principles in projects, rarely deal with values, preferences and interests of beneficiaries. These techniques are more likely to be used to ‘map local knowledge’ to aid management planning in support of pre-conceived project goals. The focus in CPR theory on institutional efficiency and functionality also tends to overlook how local conditions are forged through interactive relations at multiple scales (Paper II and III). This reveals a serious flaw in CPR theory (or the design principles as the expression of its analytical end point) that reduces its explanatory power and therefore policy relevance and value (Paper II).

Actor-oriented theory revealed tensions between project efficiency and the democratic aspirations of CBNRM projects (Paper III). This highlights a more general tendency of how CBNRM projects and their related institutions are always susceptible to influence from extant and emergent power structures, which are often incongruent with its ‘good governance’ ambitions (Paper III). The ‘settlement’ of the monkey:farmer dispute at Pete-Jozani provides insights into how contests over knowledge claims can have significant material implications.

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6 As expressed in Ostrom’s (1990) collective choice arrangements. This is discussed in more detail in Chapter 3.
for local people who are the targets of conservation interventions. This work also shows that when local environmental knowledge is serving the interests of projects it is positively recognised as community participation, but when it conflicts with project ambitions it is easily discredited as parochial and swept aside by scientific knowledge (Paper III).

Overall this thesis makes a contribution to research in this area by demonstrating the limitations of CPR theory in explaining CBNRM institutional practice. This finding has significant implications for community conservation policy and scholarship given that CPR theory provides the analytical framework that underpins the design of CBNRM institutions. In reaching this conclusion, the study has also shown that actor-oriented theory can provide insights into CBNRM practice, especially in understanding and explaining conflict and power relations that emerge through these interventions.

This Chapter has described the central concerns of the thesis and provides a short summary of its contribution. Much of the thesis is concerned with the relationship between theory and practice, so it is important that the main theoretical influences of the study are elaborated. Chapter 3 does this by introducing CPR theory and actor-oriented theory and how both perspectives have been used in the study.
3. Theory

This Chapter briefly presents CPR theory and actor-oriented theory as the two major approaches to institutional analysis used in this thesis.

Common Pool Resource Theory – Designing CBNRM Institutions

The prominent position that CPR theory has played in underpinning CBNRM projects as a ‘good governance scheme’ to increase democracy while delivering sustainable resource management and rural development make it the focal point of this research. CPR scholarship has been at the forefront of forest commons research over the past two decades and continues to provide the bulk of theoretical support for participative forest policy (Agrawal 2007). Prior to this, people had been largely seen as an obstacle to efficient and rational organization of conservation. This problem of collective action was popularized by Hardin (1968), where he warned of the ‘tragedy of the commons’, asserting that communal ownership of natural resources leads to a conflict of interest between the group’s interest and that of the individual and it is the group’s interests that suffers. In support of Hardin’s argument, Olson (1965) described ‘free riding’ as a strategy that occurs when group benefits are shared, such as collective ownership of common pool resources. In this situation he argued that everyone has an incentive to ‘free ride’ on the efforts of others, which ultimately reduces the group’s interests because they incur the cost of the externalities. These assumptions led to the prediction that CPR users will not cooperate to achieve collective benefits (Menestrey Schwieger 2010:5) without either coercive intervention by a centralist State or through the incentives and protection of private property.

Research on CPR institutions conducted since the 1970s showed that Hardin (1968) had mistaken ‘open access’ situations (non-existent or unenforced access rules) with common property arrangements (enforced access rules). That is, local people in many situations have (and therefore could) developed enduring and adaptive rule-based common property arrangements7 that enable them to

7 What is often overlooked in this depiction of institutions, particularly in interventions, is that project norms and rules are underpinned by values and preferences, not necessarily embedded or aligned with those of the target communities (Bergström 2005).
manage their natural resources over time. As McCay and Jentoff (1998) note, there were often embedded moral and social relations and sanctions that inhibited the free-rider problem. During this period, the task then became to identify the conditions under which institutions could be designed to facilitate collective action of natural resource use in projects. Much of the research emphasis since this time has been on the identification of factors or principles that characterize effective commons institutions (Ostrom 1990). Elinor Ostrom’s work is of central importance in influencing this line of praxis oriented research on commons’ institutions. This is underlined by Ostrom being co-awarded the 2009 Noble Economic Prize for her work on the design of common property institutions for the management of natural resources.

To develop the design principles, Ostrom (1990) identified common rules in use across a broad range of CPR user communities and characterized each principle as a set of rules as opposed to particular rules (Cox 2008:4). The explanatory models underpinning the interpretation of the empirical data in this work were derived from rational choice and iterative game theory, where issues of trust and mutual assurance have been extensively examined in controlled experiments (Ostrom 1990). Generating behavioural models from laboratory experiments and scaling up from case studies was a way of generalizing specific findings and patterns (across case studies) into ideal principles (theory) for effective institutional design. According to Cox (2008:4), ‘Each design principle states general institutional conditions that make it more likely that a community will sustainably manage a common pool resource’.

This work, it is argued, provides a robust solution to the free rider problem discussed above (Marshall 2010). For CBNRM planning then, the challenge is to inject a local flavour into projects using these (ideal) institutional principles by allowing for specificities associated with each project’s contingent circumstances (Ostrom 1990). That is, that the cultural diversity of people and places should be reflected in universally derived design principles informing CBNRM projects. Ostrom argues that locally designed rules that reflect collective choice (Principles 1, 3, 6 and 7) and that are formalized and backed by effective monitoring and enforcement (Principles 4 and 6) are key features of controlling access and use of property rights over common pool resources, including CBNRM project situations. Stern et al. (2002:455) see the design principles as independent variables that affect outcomes of CBNRM interventions, including whether or not projects are successful in delivering on robust commons institutions, sustainable resource use, democratic control or equity of distribution. The CPR design principles are commonly used to guide the set up institutional arrangements through CBNRM project interventions (Paper IV). Ostrom (1990) argues that institutional adherence with the principles will facilitate ‘credible commitments’ to the

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8 This applies to all of the Principles, but particularly to Principle 2.
actors involved in reciprocal relations through mutual monitoring of rule compliance towards shared goals.

**Table 1. Ostrom’s Institutional Design Principles.**

<table>
<thead>
<tr>
<th>Design Principle</th>
<th>Description</th>
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<tbody>
<tr>
<td>1. Clearly defined boundaries</td>
<td>Membership involving rights to withdraw CPRs and physical boundaries of the resource(s) are clear</td>
</tr>
<tr>
<td>2. Congruence between appropriation and provision rules and local conditions</td>
<td>Rules are congruent with local conditions, including consideration of sustainable appropriation quotas</td>
</tr>
<tr>
<td>3. Collective choice arrangements</td>
<td>Individuals affected can participate in modifying operational rules</td>
</tr>
<tr>
<td>4. Monitoring</td>
<td>Monitors are accountable to the resource users</td>
</tr>
<tr>
<td>5. Graduated sanctions</td>
<td>Increasing sanctions apply for against repeat and/or serious rule violators</td>
</tr>
<tr>
<td>6. Conflict-resolution mechanisms</td>
<td>Ready access among resource users to low cost conflict resolution process</td>
</tr>
<tr>
<td>7. Recognition of rights to organize by external government authorities</td>
<td>Resource management institutions are recognised by government authorities</td>
</tr>
<tr>
<td>8. Nested enterprises</td>
<td>Governance activities are organized in multiple layers of nested enterprises for CPRs that are part of larger institutional systems. The subsidiary principle applies here with decision-making deference to the most decentralized level where efficient decisions can be made.</td>
</tr>
</tbody>
</table>

As mentioned earlier, an important principle in Ostrom’s (1990:52) thinking is the concept of collective choice arrangements (Principles, 1, 3, 6 and 7). In Ostrom’s CPR theory, institutions compromise at least three layers of rules constitutio-nal rules, collective choice rules and operational rules. Constitutional rules specify who is eligible to access and benefit from resource use as well as the rules to be used in crafting the collective choice rules. Collective choice rules stipulate how operational or working rules are made and who gets to make them. Operational rules are concerned with managing the day to day working rules that govern resource use (Ostrom 1990:52). Collective choice arrangements emphasise the importance of members’ participation in the design and operation of CPR.
institutions and provide a conceptual basis for the importance given to deliberation and achieving consensus in CBNRM projects.

The design principles have been widely used to underpin both CBNRM interventions by practitioners as well as to explain CBNRM experience by researchers (Paper IV). Researchers draw on these principles as a means to analyze and explain CBNRM project outcomes and to assess institutional effectiveness and/or functionality (Paper I). In project applications, practitioners in conjunction with beneficiaries and others, try to develop ‘localized’ working rules that meet the above criteria for enduring CBNRM institutions. This means that the design of CBNRM institutions commonly follow these guidelines (see Paper IV). The broad aspiration of CPR theory is to identify and enable the conditions to support effective and efficient organization of CBNRM projects in practice.

Actor-Oriented Theory – Exploring the Practice of CBNRM Interventions

Both CPR theory and actor-oriented theory are concerned with project interventions and institutional analysis. Whereas CPR theory focuses on the institutional design, actor-oriented theory is more concerned with examining what happens in institutional practice. This view takes account of the changing recursive relationship between actors and formalised project institutions. Long (1992) argue that it is in this way that struggles shape institutional structure. Actor-oriented theory sees actors as cognizant social agents who process information and strategize in their dealings with others (Long 1992). Human agency and social interaction processes are seen as ‘context dependant’, with a wide range of institutions playing a key role in shaping and enabling possibilities.

According to Long (2001), to reveal project practice requires tracing the trajectory of projects from inception to realization through the experiences of variously placed and affected social actors. This approach is concerned with capturing textured details of key events and assessing perceptions of respondents about these events (Mosse and Lewis 2006). To examine how CBNRM projects realign, supplement or sometimes conflict with existing networks and relations then becomes critical to revealing how CBNRM projects move from design to practice. The endeavour involves a mapping of interaction of not only actors’ strategies with the unfolding of key events, but also to understand the differing constraints that restrict actors possibilities for manoeuvre (Olivier de Sardan 2005). Therefore an actor-oriented theory analysis needs to identify actors involved in the struggle or conflict situation, understand their motives and interests, elaborate constraining and facilitating factors influencing actor behaviour, elaborate the strategies employed to gain their advantage and describe the synergies between actors in pursuit of these strategies (Long 1992). Capturing the explicit
context of decision-making and the decisions themselves may then shed light on broader issues of structures and power and situated actors’ responses. How are interpretations of interventions invoked, imposed, defended, attacked, made acceptable or adapted by negotiation or coercion between actors? What are the key moments (concrete events) in the trajectory of an intervention and how have actors as individuals or in alliances shaped these?

This study responded to these questions by drawing on different theories of power to complement actor-oriented theory. One approach was to assume that the distribution of relative power amongst actors is reflected in the ability of the different actors to shape agendas through key conflict events (Dahl 1957). Another was to focus on how agendas for formal decision-making have been delimited (Bachrach & Baratz 1962). To reveal how the CBNRM projects have tried to configure and stabilize diverse perspectives and interests therefore requires an examination of the concrete social interactions and events with focus on points of conjecture, controversy and mediated agreements between actors. The continuities and ruptures between institutional policy and practice provide insights into the strategies and aspirations of various actors and their roles in this process.

Actor-oriented theory warns against pre-empting this interactive mapping by not a priori attributing an all-powerful role to actors such as the state and international conservation NGOs or an overly passive role to the agency of local people in shaping the trajectory of such interventions (Long 2001). This is keeping in mind, the limits and constraints imposed on all actors in the process of the intervention. The diversity of interests involved in and affected by CBNRM requires that project planners build alliances with project aims. Actor-oriented theory then aims to reveal the diversity of agendas and strategies shaping implementation practices. Interventions such as CBNRM projects commonly result in unexpected or unanticipated outcomes, although the path to these outcomes may be difficult to detect as there is a tendency for project planners to screen or cover up the messy reality of practice (Mosse and Lewis 2006).

The main thread of this theoretical discussion is that CBNRM projects inevitably generate both cooperation and conflict due to unequal power relations and the clash of difference or values or interests. Important in elaborating this is to reveal how particular groups create space for themselves to pursue their own project positions, which may run parallel to or perhaps challenge interests and aspirations of other parties, including the project planners. Actor-oriented theory emphasizes the social processes and techniques of governing rather than the structural outcomes (unlike CPR theory) and acknowledges that social action always takes place within networks of relations. The focus of the empirical investigation on key strategies of the interveners and points of interplay between involved actors is a productive approach to gaining an insight into key points of rupture and transformation and goes beyond analysis of compliance with institutional attributes.
An actor-oriented theory approach, as it has been conceived within this thesis, focuses on key points of tension around CBNRM interventions. This extends possibilities to understand interventions beyond the primary CPR theory concerns of design and function. This means focusing on key points of contention amongst different actors groups and describing the trajectory of practice by examining the position taken, considering how successful different actors have been in getting their agendas formalized and then how these interactions have been accommodated in policy and practice. Examining conflict in this way offers vital leads to reveal different norms, aspirations and capacity to influence policy practice. This includes constraints to action that nests actors in relations to others operating at different scales. These realities may significantly shape subjective ideas and preferences and their conceptions and aspirations (Agrawal 2005). In a CBNRM project situation, how these actor dynamics shape natural resource access and implications for the condition of those resources also becomes a pertinent focus of such an approach.

**Bringing it together**

*Table 2. Institutional interaction – agency:structure in CBNRM projects.*

<table>
<thead>
<tr>
<th>Type</th>
<th>Formal (CPR theory)</th>
<th>Informal (Actor-oriented theory)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfomative</td>
<td>Individualized transactions governed by institutionalized resource management signals</td>
<td>Events, episodes, embedded interaction</td>
</tr>
<tr>
<td>Structural</td>
<td>Laws, policy, rules, regulation</td>
<td>Cultural institutions, norms, habits, interventional practices</td>
</tr>
<tr>
<td>Exercise of Agency</td>
<td>Government, resource management organizations, formal markets, actors are evenly situated</td>
<td>Government, social networks, different knowledges, embedded markets, actors have different capabilities</td>
</tr>
</tbody>
</table>

Table adapted from Alexander (2005:216).

Table 2. presents a map of institutional interaction, which captures relationships between design and practice and structure and agency in CBNRM projects. CPR theory is more concerned with formal institutional design to influence practice, whereas actor-oriented theory aims to elaborate practice through explanation and analysis. CPR theory could be considered as a basic institutional map for
CBNRM policy. Continuing the metaphor, on this map there are directions about how actors make decisions about resource use, i.e., weighing up costs/benefits, influence of internal norms and considerations of the future (Ostrom 1990). Actor-oriented theory, as it has been used in this thesis, is more concerned with understanding how subjective and group interests of actors coalesce, are mobilized and are expressed during controversies and conflicts in CBNRM project interventions. These separate aspects of institutional theoretical influence are not always mutually exclusive or complete, but Table 2, nevertheless, provides a useful map of the approach to institutional interaction used in this thesis. Actor-oriented theory has been used to compare, contrast and critique CPR theory, not to reform it. CPR theory, with its focus on institutional design, is interested in influencing the formal transactions of actors, whereas actor-oriented theory traces key episodes, events and issues that influence institutional transitions. CPR theory relies heavily on understanding and shaping the interaction between actors and resource management institutions in trying to influence resource use outcomes, whereas actor-oriented theory draws on a wider range of influences to analyze the power relations of actors in project interventions.

This Chapter has briefly outlined the major theoretical approaches drawn on in this thesis. Different aspects of theory are also discussed extensively in the thesis papers: Paper I applies CPR theory to a case-study CBNRM project at Kisakasaka. Paper II reflects on the shortcomings of CPR theory in Paper I, while drawing on actor-oriented theory to re-examine events around the Kisakasaka case-study. Paper III draws mostly on actor-oriented theory to examine the Jozani-Chawka Bay Conservation Area (JCBCA) intervention. Paper IV has a detailed discussion of CPR theory, scrutinizing its key assumptions and relationship to CBNRM. Chapter 5 Research Design and Methods elaborates further on how theory has been used to interpret the case study data as well as how these findings have been used to support analytical generalization to theory.

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9 There is considerable dispute amongst scholars from different disciplinary traditions over the definition and implications of setting up a binary category of informal and formal institutions. Anthropologists tend to see institutions quite broadly as patterns of different aspects of culture, some of which could be considered as informal, while ‘new institutionalists’ are more concerned with the role of signals that influence actor behavior from customs, laws, rules and procedures. That said, most ‘new institutionalists’ tend to focus on the role of formalized institutions. While the concept of ‘bounded rationality’ gives some scope for CPR theorists to consider the role of local norms, they tend to be more concerned in understanding or directing actor behavior through the cues of formal institutional design (Bratton 2007).
This section is a brief introduction to recent developments in Zanzibar that have given rise to ‘decentralized’ conservation.\textsuperscript{10} It is in this context that the two CBNRM project case studies at Kisakasaka and Pete-Jozani, introduced towards the end of this Chapter, came to realization. Zanzibar is a semi-autonomous entity\textsuperscript{11} within the United Republic of Tanzania. It is located in an archipelago in the Indian Ocean of the African East coast, just south of the equator, outside the Tanzanian mainland. It consists of 16 islands in total, with the main islands being Unguja (1464 sq. km) and Pemba (868 sq. km) (Chachage, 2000). Islam is the dominant religion. Kiswahili is the national language while English is the official language. Most rural dwellers in Zanzibar speak only Kiswahili.

Development strategies and conservation

Zanzibar has a long, rich and cosmopolitan history, however, this section is limited to a focus on recent events that have led to the current formation of the interrelationships between decentralized conservation and tourism as a development strategy.

Mearns (1995:103) argues that, ‘institutional constraints and potentials at local, national and international levels combine to shape the way that different people gain access to and control over natural resources’. The key to interpreting this contention in the Zanzibar context lies in understanding the relationship between development and conservation and how this formation has influenced the current distribution of opportunities.

\textsuperscript{10} The extent of decentralization achieved in practice has been questioned by Levine (2007). The discussion centres on, to what extent have politicians and ‘central’ government authorities ceded agenda-setting and decision-making and to whom. This is a recurrent discussion point throughout the thesis.

\textsuperscript{11} For example, Zanzibar has its own government and has responsibilities for environmental matters. Development policy is a little more complicated given that related issues such as immigration, international transport and communication, external affairs and trade, currency and foreign affairs are Union (Tanzanian) matters. What are considered Union and non-Union matters seem to be under perpetual debate and renegotiation between mainlanders and Zanzibaris (Othman 1995).
Figure 1. Regional Map of Zanzibar.

Adapted from CIA Zanzibar and Pemba Islands Political Map, sourced from: http://mapas.owje.com/maps/3800_zanzibar-and-pemba-islands-political-map.html
After 20 years of socialism, the economy of Zanzibar was opened up to foreign investment in the mid 1980s under the direction from the World Bank and the IMF (Myers 2002). Koponen and Siitonen (2001:7) describe some of the events that led to reform when world clove prices fell dramatically,

Gross national income per capita dropped from Tsh. 2000 in 1976 to Tsh. 875 in 1983. The real value of wages went down by 53 % between 1980 and 1985, and the same trend has continued. Zanzibar’s balance of trade was negative from 1981-1989. Exports outside Tanzania were US$ 64.9 million is 1980 and went down to US$ 2.9 million in 1987.\(^{12}\)

These reforms were facilitated through the Trade Liberalization Policy (1985) and the Investment Act (1986), which provided guidelines and incentives for investors. While still a one party state the Tanzanian Government, including Zanzibar, adopted the World Bank/IMF inspired Economic Recovery Program which aimed at fiscal austerity measures and stimulation of market mechanisms (World Bank 2001). A more recent expression of this shift is The Zanzibar Poverty Reduction Plan (The Revolutionary Government of Zanzibar (RGZ) 2002), which emphasizes good governance and partnership approaches among the Government, civil society and the private sector. The Poverty Plan is the first step towards implementing the Zanzibar Vision 2020, a development blueprint for the next two decades (RGZ 2000). Devolving responsibilities to the public and private sector that have previously been in the domain of government is a key part of this strategy.

According to the Zanzibar Vision 2020 the Government has prioritized the following areas: support for community projects, tourism development; improvement of health services for the poor, education, farm productivity, conservation and productive use of natural resources, and public service reforms (RGZ 2002). To put the current state of Zanzibar’s development in context, a 2004/05 Household Budget Survey found that, 49 percent of Zanzibaris live below the basic needs poverty line, while 13 percent live below the food poverty line (RGZ 2007). Much of the poverty occurs in rural areas, where this thesis focuses its attention.

The relatively recent democratization of the Zanzibar political system (or at least the introduction of multi-party politics within the last 18 years) has to some extent reiterated existing schisms within Zanzibari society between the revolutionary ruling party, Chama cha Mapinduzi (CCM) followers and those who favour the opposition party, the Civic United Front (CUF) (Chachage 2000). These schisms have their roots in the islands’ history of socio-economic, racial, and regional divisions and perhaps have been inflamed by in-migration from the

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\(^{12}\) These figures say nothing about the state of the informal economy, which I have been advised was thriving at the time (V.M. Loiske, personal communication, August 4, 2011)
mainland in recent times. This history of fractious relations led to outright violence during and after the elections in 1995 and 2000. It has been noted elsewhere that local political (and social) fractures are often present, but rarely considered in participatory natural resource management programs (Neumann 1997; Myers 2002; Vedeld 1997).

Tourism is seen as a high priority area in the Zanzibar Poverty Reduction Plan (RGZ 2002). The shifts that had taken place in the 1980s gave rise to the contemporary development redirection focused on leisure (i.e., beach holidays) and nature-based tourism in Zanzibar (Gössling and Schulz 2005; Levine 2007). However, it was not until the 1990s that Zanzibar fully realized that it had attractions suitable for tourism; the exotic nature of the islands, the unique character of its cultural history, the relatively unspoiled environment and its white sandy beaches and coral reef gardens (Johnstone and Suleiman, 1997). In Zanzibar, tourism, through the promotion of visitor experiences around these natural and cultural attractions, was considered to provide the best opportunities for economic growth and foreign export earnings.

Figure 2. A typically narrow lane in Stone Town, Zanzibar. Photo: Fred Saunders.
The impact of tourism and the slow shift away from export agriculture (e.g. cloves and coconuts) has also influenced a demographic\(^\text{13}\) and socio-economic shift (Gössling and Schulz 2005). In doing so, this transition has provided increased opportunities for some and narrowed choices for others. This transition has not occurred as swiftly as planned and agriculture still forms a large part of Zanzibar’s formal and informal economy (World Bank 2001). In coastal rural areas fishing, together with small-scale agriculture, coconut and spice growing still make up the bulk of Zanzibar’s economy (Levine 2007). For these community actors, who experience the highest poverty rates in Zanzibar, interacting factors, such as limited economic development opportunities from the tourism sector has resulted in further dependency on generating cash income from local resources such as fish and low value wood products.

Makame and Boon (2008) report that visitors to Zanzibar increased from 42,141 in 1990 to 113,237 in 2005 and that the tourism sector currently contributes around 35 percent to Zanzibar’s Gross Domestic Product. Over recent years several studies that have claimed that benefits from tourism have been unevenly distributed. Several commentators assert that patchy and relatively unregulated foreign investment in tourism has resulted in significant local leakage – both

\(^{13}\) This includes increasing urbanization and in-migration from the mainland.
from local areas in Zanzibar and outside Zanzibar. This is mainly attributed to the high degree of foreign ownership and control of tourism in Zanzibar (Chachage 2000; La Cour Madsen 2003; Lange and Jiddawi 2008). These factors, combined with alternative local preferences, cultural factors and lack of English language and tourism related competencies, make beneficial participation in the tourism industry difficult for many Zanzibaris (Gössling 2001). A report by La Cour Madsen (2003) commissioned by Action Aid entitled, *Islands of Development*, found that rapid growth of the tourism industry has brought very few benefits to Zanzabaris (particularly women), with foreigners or Tanzanian mainlanders taking up most of the direct and ancillary tourism opportunities. Supporting this claim, a recent peer reviewed article by Lange and Jiddawi (2009) found that around 33 percent of revenue from tourism activities is distributed to Zanzibaris. To some extent, these studies confirm an earlier claim by Chachage (2000) that 52 percent of benefit is repatriated to ‘non-Zanzibaris’. The Zanzibar Poverty Reduction Plan also recognizes that achieving a more equitable distribution of tourism revenues is critical to poverty reduction (RGZ 2002). According to Cleverdon and Kalisch (2000), the limitation of tourism in delivering benefits to Zanzibaris, and weakening their livelihoods, is typical of a broader pattern for developing countries with burgeoning tourism industries.

The political and economic liberalization reforms in the 1980s, as well as international trends, created the space for decentralized governance shifts in natural resource management, alongside a growth in tourism as a development strategy (Gössling and Schulz 2005; Levine 2007). However it is only recently that Zanzibar’s natural values have been recognized by international conservation interests, although development interventions to improve forestry practices are not new (Chachage 2000).

Important in lifting the global conservation profile of Zanzibar’s natural assets was the designation of The Northern Zanzibar-Inhambane Coastal Forest Mosaic (WWF-US 2003) as a global biodiversity hotspot. It was in the early 1990s that the Zanzibar Government began to support local participatory approaches to conservation in an effort to attract international expertise and financing to create more efficient management of natural resources and development opportunities. During this time there was also a growing concern over deforestation (due to the high dependence on wood fuel) and the despoliation of the marine environment through pollution, which are both concerns that could threaten the growing tourism industry. Deforestation was initially expressed in

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14 Lange and Jiddawi (2008:12) estimate that, ‘Local communities receive only 20 % of income from tourism, while 80 % of income goes to stakeholders outside local communities: other Zanzibaris (13 %), government (15 %), and non-Zanzibaris (52 %)’.

15 This figure considers multiplier effects.

16 Biodiversity hotspots are areas featuring exceptional concentrations of endemic species and experiencing exceptional loss of habitat (Myers et al. 2000).
terms of fuel-wood shortages, but more recently it has been represented as biodiversity loss.

Prior to the emergence of community-based conservation, natural resource management was centrally administered by the State (i.e., as government forest reserves) with no formal recognition of property rights of communities living in and around forests. This policy shift was given formal legal recognition in the passing of Zanzibar’s Environmental Management for Sustainable Development Act and the Forest Management and Conservation Act (FMCA). The FMCA enables and supports the delegation of resource management authority to institutions or individuals not employed by government, including communities, the private sector and NGOs (Levine 2007). This has opened up opportunities for foreign investment liberalization, which has meant more opportunities for international environmental NGO influence. This approach has been criticised by Levine (2007), who contends that unevenly distributed conservation with development assistance has also facilitated a mosaic of differentiated opportunities and livelihood outcomes in Zanzibar.

A key aim of the FMCA is to reorient control and benefit to those living in and around conservation sites. This potentially involves tensions between project proponents and beneficiaries as conservation imposes resource use constraints on people who practice extractive livelihood activities, such as fishing, agroforestry and shifting agriculture. These tensions are more likely to be heightened where conservation-based tourism or associated ‘alternative development’ initiatives (e.g., crab farming) are not realized. Conservation interventions are also likely to create or intensify existing schisms between village actors over resource control (Papers I and II). There are several existing projects that interlink strategies of conservation with tourism and mix forest conservation with marine area management. Several of these projects are community-based (e.g. Jozani, Ngezi and Kiwengwa) and have had international funding and expert involvement. There have also been numerous small-scale CBNRM projects, many focused on mangrove forests that have been mainly domestically driven and concerned primarily with sustainable use (e.g. Kisakasaka, Papers I and II).

The State has a key role in setting up new institutions with local rules to foster sustainable use of forests (Chachage 2000) by moving resource users away from extractive activities towards more ‘non-consumptive’ economic activities, such as tourism (Paper III). These changes should be considered as re-regulation of natural resource use, rather than de-regulation with civil control, as local environmental rules are directed by State:community management agreements in-

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17 It should be noted though, that there is widespread de facto use and tacit recognition of customary rights.
fused into local by-laws. The local government, Shehia institutions\textsuperscript{18} play an important role in formalizing resource rules in CBNRM projects. The Sheha is not democratically elected by the members of the village, but appointed by regional government officials and considered by some to be a political appointee (Tidemand 2003). This does not mean, however, that CBNRM agreements need to be constituted within this local government framework, just that it provides a mechanism to establish by-laws around resource use. These agreements do however need to be approved to by a representative village community conservation group elected by community members at a village meeting. Even though management agreements are enforced by village-based community conservation organizations, the State through agencies such as the Department of Commercial Crops, Fruits and Forestry (DCCFF) set the terms of resource use, including property rights. In this way new resource use rules are grafted onto existing institutional structures of local government and embedded in natural resource management bureaucratic structures.

Descriptions of Case Study Sites

Specific descriptions of the two case study sites, Kisakasaka and Pete-Jozani are presented in this section.

Kisakasaka

Kisakasaka village is located 15 km south west of Zanzibar town on Unguja island of Zanzibar, Tanzania (614031@ S, 3917034@ E) and (614031@ S, 3917011@ E), Fig. 4. As Figure 4. shows the Kisakasaka mangrove area, which was the focus of the CBNRM project, is situated within the inter-tidal area of Menai Bay, and is located within close proximity to the Kisakasaka Village. The Kisakasaka Village has an estimated population of 750 people many of whom before CBNRM project relied heavily on the mangrove forest (400 ha) for cash incomes from charcoal production (Paper 1). The mangrove forest is classified as a government forest reserve. During the CBNRM project the mangroves were used for several livelihood activities, other than charcoal production, including fishing, seaweed farming, tree planting, bivalve collection, livestock husbandry, and trade. The lack of piped water for irrigation and the poor quality limestone soils has restricted opportunities to practice seasonal agriculture beyond subsistence growing of seasonal vegetables. The poor road interconnections, particularly during the rainy season, also limit market access for produce. Kisakasaka

\textsuperscript{18} The Sheha heads the lowest level of government in Zanzibar called, Shehias. The Shehia Advisory Group is formed to advise the Sheha. All members of this Group are appointed by the Sheha and a third of the membership must include elders (Tidemand 2003).
has no direct tourism development or tourism attractions. There are also known CCM and CUF divisions in the village, which will be discussed at length later in the thesis in the context of the CBNRM project intervention.

**Figure 4. Kisakasaka Area Map.**

Pete-Jozani

The Pete-Jozani village area lies within the buffer zone of the JCBCA (Figure 5.). There are 1,435 inhabitants living in this village area according to the local census undertaken in March 2008. The Shehia is covered by seven different kinds of habitat, from terrestrial forest to grassland. Out of the approximately 1,250 ha land, 360 ha is mangroves, much of which has been extensively cut for charcoal production within the past 20 years. There have been a number of incursions in the Pete-Jozani territory over the past 50 years that has increased State control in this area. Commercial wood cutting activities at Pete-Jozani, started back in 1930s, where the forest was used by a privately owned sawmill. Subsequent to this, after years of commercial activities in the neighbouring areas, Jozani was officially declared a forest reserve in 1960, with relatively liberal regulations regarding access rights.

Villagers currently practice a broad range of economic activities, many of them relating to the different types of resources in the local area. These include in descending order of importance agriculture, livestock keeping, firewood cutting, petty trading and lime making respectively. Other less common activities include hunting, quarrying, seaweed farming, sea food collection, butterfly farm-
ing, making cultural products and Parks related and other administrative jobs. Like elsewhere in rural Zanzibar, farming in Pete-Jozani is dominated by rain-fed agriculture for direct use and local market produce. Prior to the establishment of the JCBCA, Pete-Jozani farmers practiced shifting cultivation, which was seen by the DCCFF as a threat to the biodiversity values of the area. DCCFF has argued for quite a long-time that population increase has resulted in an intensification of shifting agriculture thereby resulting increased deforestation (Masoud 1993).

Figure 5. Map of the Jozani Chawka Bay Conservation Area.

In the area, there has been longstanding conflict between farmers and red colobus monkeys (Procolobus kirkii) over crop damage. The red colobus monkey is a folivore that has a broad diet feeding on unripe fruit and leaves of common perennial crops such as bananas, guava and coconuts, which are grown as perennial crops in usually small kinship-based land holdings, known locally as
*shambas.* It has been suggested that this acrimony between farmers and the red colobus might also be exacerbated by superstitious beliefs towards the monkeys (Paper III).

**Figure 6.** Scene from Pete-Jozani village. Photo: Fred Saunders.

This Chapter has briefly discussed political reform, conservation and tourism development in Zanzibar and placed the case study sites within this formation. The next Chapter responds to the research questions, theory and empirical context by describing the logic of the research design and how it was conducted.
5. Research Design and Methods

This Chapter describes the research design by connecting the research problem and questions to the collection of empirical material and ultimately to the findings of the thesis. The intent is to capture and give life to the reflective approach adopted throughout research, with special attention to the relationship between theory and empirical data that has been so important in directing this thesis.

A Concise Map of the Research Process

An iterative process has been adopted throughout the work of the thesis, which is reflected in the progression of the papers, all of which are largely concerned with analyzing the institutional design and practice of CBNRM projects in response to the research questions. This section describes this process.

In the initial phase of the research the focus was on understanding the characteristics of CPR theory by reviewing the large body of literature it has generated and elaborating and applying this approach as an analytical tool to understand mangrove management and use at Kisakasaka. The aim was to identify what the CPR design principles could explain about the CBNRM project at Kisakasaka. This initial work suggested that the CPR design principles could provide some insights into the state of the CBNRM institutions at a particular point in time, but were less useful in explaining the power relations of institutional change.

Subsequent field work at Kisakasaka drew on insights from the less structured approach of actor-oriented theory (see Long 2001) to understand the shifting social and political conditions in the village affecting CBNRM. This work examined the roles, motivations and influences of key actors involved in tensions that arose in the village over mangrove project intervention. Remote sensing techniques were also used to track forest cover change from the early 1980s to 2005 to reveal how perceptions of resource availability and condition compared with this different source of data.

The findings of Papers I and II led to reflection and subsequently curiosity about how mechanisms of power operate in different types of CBNRM projects. In response, I decided to use actor-oriented theory to examine the Pete-Jozani case-study (Paper III). The analysis centred on actor strategies and responses in
their interaction around the JCBCA project intervention. The purpose of the additional case study was not to provide a direct comparison (with Kisakasaka), but to get insights into the socio-political relations of a different kind of CBNRM project, which had significant international influence, biodiversity conservation as a key goal and tourism as a development strategy. The paper drew extensively on actor-oriented theory to capture how this newly configured approach worked in practice.

Paper IV reflects a link back to theory from the empirical work undertaken in Papers I, II and III. The purpose was to highlight CPR theory assumptions that limit CBNRM’s effectiveness in both analysis and policy mode. The arguments in Paper IV, developed throughout the thesis work, were heavily influenced by the findings of the empirical work at Kisakasaka and Pete-Jozani, as well as, the broader experience of the relationship between CPR theory and CBNRM.

Why a Case Study Approach?

In this thesis, the unit of analysis is a CBNRM project. In the CBNRM literature there have been numerous calls for field-based examination of CBNRM in practice. The research questions, detailed earlier, shaped the case study research design presented here. Paper I, where CPR theory is ‘trialled’ in the field, provides a key departure point for the study. The remainder of the field work in the two case studies centred on capturing the specific political struggles that affect the normative aspirations of the CPR theory in underpinning CBNRM institutional design. A qualitative approach was adopted because of the view taken early in the research process that it was more important to clarify the deeper causes behind a given problem and its consequences than to describe the symptoms of the problem or measure how frequently they occur (Flyvbjerg 2001:78). Or, put more profoundly ‘in the study of human affairs there appears to exist only context dependent knowledge (rather than rules)’ (Flyvbjerg 2004:421). Thus, the context here becomes important to capture, given the research questions and that critics of CPR theory have claimed that it is commonly used in a blueprint fashion without adequate regard to particular project conditions (Li 2007; Agrawal 2005; Cleaver and Franks 2003; Quinn et al. 2007; Evans 2004; Steins and Edwards 1999).

The findings of this case study based research will become part of the cumulative understanding and explanation of CBNRM more generally. As Yin (1994:55-56) asserts, generalization of results, from either single or multiple designs, is made to theory and not to populations, which is often a point of confusion. Multiple cases can strengthen the results by providing insights about the mechanisms operating in different cases, which can then be related back to refine, support, question or reject different aspects of theory (Gomm et al. 2000).
Several aspects of theory, in light of CBNRM project practice, are scrutinized using this approach. Specifically these include CPR theory’s indifference to power and conflict (Papers I, II and IV), the ability of actors to manipulate CPR theory’s democratic rules in CBNRM practice (Papers II and III), the analytic limitations of the CPR design principles (Papers I and II), the implications of excluding socio-political relations that have a bearing on CBNRM practice both in terms of explanation and institutional viability (Papers I and II), the limitations of perceiving the interests and preferences of actors narrowly as ‘rational resource users’ (Papers I, II, III and IV), problems with the CPR theory assumptions of institutional evolution for CBNRM projects (Paper IV), and the usefulness of actor-oriented theory in tracing conflicts in CBNRM projects (Papers II and III).

Selection of the Two Case Study Sites

Papers I, II and III present detailed information about two quite different case studies of CBNRM projects in Zanzibar (see descriptions of case study sites above). Tanzania has been at the forefront of community conservation since the early 1990s (Levine 2004). Zanzibar provided opportunities to study CBNRM projects that have a clear resonance with the types of community conservation elsewhere, particularly in Southern and East Africa. This is not surprising given that ‘best practice’ community conservation models have been widely promoted and indeed replicated in the region by international NGOs and multilateral organizations since the early 1990s (Alcorn et al. 2002; Soeftestad 1999). These best practice models involve both institutional design elements, usually premised on CPR theory and comparative examples of CBNRM practice (see Barrow 1996; Barrow et al. 2000). A program of decentralized conservation has been underway in Zanzibar since the early 1990s. This relatively long implementation period provided good opportunities to study CBNRM project practice.

Kisakasaka and Pete-Jozani are by no means critical or extreme cases of their type; rather they are representatives of two types of CBNRM projects. To elaborate, loosely following Alcorn (2005), a heuristic contrast is drawn between two types of CBNRM conservation – big and little.19 ‘Big CBNRM conservation’ is characterized as being embedded in large scale (territory and resources) projects that have a significant degree of international involvement (expertise and resourcing), focus on biodiversity conservation and generating ‘alternative’ revenue through non-extractive industries, usually centred around tourism. ‘Small CBNRM conservation’ on the other hand is smaller in scale (resources and territory), is more explicitly concerned with sustainable resource use and involves a

19 Although Acorn (2005) also coins these categories, the distinctions I make for the purposes of this thesis are different.
greater degree of endogeneity (politically, administratively, resourcing and knowledge support). This imperfect distinction, which highlights the different features of these two types of CBNRM projects, suggests that different actor relationships might be driving project trajectories and outcomes and therefore provides useful clues for influencing the focus of the empirical research. This categorization then has implications for the selection of the case studies. Both types of projects are represented in Zanzibar and constitute the two case studies presented in this thesis.

The CBNRM project at Kisakasaka was a small-scale, domestically driven project concerned with sustainable mangrove management and use. This was a project, with little direct international involvement or tourism linkages, that had a focus on institutionalizing the sustainable use of mangrove resources. The CBNRM project at Pete-Jozani differed significantly from the Kisakasaka case. There was greater visibility of powerful environmental NGOs, because it was explicitly part of an international conservation and development project and because of the public conflict and controversy it incited. Arguably CPR theory has assumed relatively isolated, homogeneous and small-sized rural communities. CBNRM projects embedded in large scale Integrated Conservation and Development Projects (ICDPs) present another context to understand institutional design and practice.

The aim of the multiple case study approach was not to provide a direct comparison between case studies, but to provide insights into the dynamics of different kinds of CBNRM projects and support analytical generalization to theory as stated in the thesis’ research questions.

**Methods and Sampling**

This section describes how the field work was carried out at the two case study sites, Kisakasaka and Pete-Jozani in Zanzibar. The research has largely utilised what is known collectively as participatory methods (except for the remote sensing data, which is discussed more below). These methods, which focus on the views and experiences of affected actors, offered the best means to capture the opinions, strategies, actions and tensions around the CBNRM case study projects. Sampling issues were carefully considered to ensure that opportunities were optimised to obtain views from differently positioned actors, particularly around contentious issues. This sampling strategy is premised on the understanding that actors will interact with and be affected by institutional resource use rules variably depending on their individual capacities, interests, perceptions and social standings. The methods used, and the data collected at Kisakasaka and Pete-Jozani, are summarized in the Table 3 and elaborated in Papers I, II and III.
### Table 3. Summary of Methods.

<table>
<thead>
<tr>
<th>Method Description</th>
<th>Aim/Purpose</th>
<th>Kisakasaka</th>
<th>Pete-Jozani</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-structured Interviews</td>
<td>To discuss in depth issues of focus and to obtain the point of view and experience of the respondent. To get insights into the rationale and interests of actors involved in key CBNRM management and events</td>
<td>Semi-structured Interviews</td>
<td>To be able to interactively discuss in depth issues of focus and to obtain the point of view and experience of the respondent. Gave insights into the rationale and interests of actors involved in key CBNRM management and events</td>
</tr>
<tr>
<td>Wealth Ranking</td>
<td>To understand social stratification in the village to inform sampling and relation to access and equity of forest governance, management and use</td>
<td>The five informants were of mixed age, social position in the village, occupational groups and gender</td>
<td>Not undertaken, but the knowledge gained through the Kisakasaka case study helped to inform sampling strategies</td>
</tr>
<tr>
<td>Resource mapping (men and women separated)</td>
<td>To understand localized resource use within the village more generally and in terms of how work, resource use and knowledge is differentiated along gender lines</td>
<td>Six men and 10 women in gender split groups mapped a diverse range of local resource use strategies</td>
<td>Not required</td>
</tr>
<tr>
<td>Institutional mapping</td>
<td>To obtain an understanding of the relations and relative power of the various institutions (and their composition) and individuals within and without the village – generally, but with a focus on those affecting access, control and use of different resources.</td>
<td>Mixed gender group mapped the relationships and importance of organisations and their roles</td>
<td>Not required</td>
</tr>
</tbody>
</table>

*Continued on next page*
Method Description | Aim/Purpose | Kisakasaka | Pete-Jozani
--- | --- | --- | ---
Remote Sensing Data | To track change in mangrove forest cover over time | Satellite images: 1984, 1989 and 1994 and 1:10,000 air photos from 1977 to 2004. | Not required |
Community Meetings | To elicit discussion around the performance of CBNRM and to share and obtain feedback on preliminary findings | Two community meeting each attended by approx. 60 people | Not required |
Documentation | To examine formal policy and evaluative statements about the CBNRM projects and their context for formation and implementation | Incl. management plans, Acts, by-laws, evaluative assessments, maps | Incl. management plans, Acts, by-laws, evaluative assessments, other academic studies and maps |
Literature review | To examine academic and practical debate around CBNRM projects, research methodology, and theories of institutional analysis | CPR theory, CBNRM/ICDP implementation experience and critique, actor-oriented theory as well as concepts of power | CPR theory, CBNRM/ICDP implementation experience and critique, actor oriented theory as well as concepts of power |

Field work at Kisakasaka

The first round of field work at Kisakasaka was aimed at uncovering information directly related to the role and functioning of the CBNRM institutions. Data collected for Papers I and II was gathered during three rounds of field work in 2005, February-March 2007 and in November 2007. During the first round of interviews, questions were influenced by Ostrom’s design principles framework, so the focus was on understanding the formal institutional arrangements in place and their compliance in practice (Paper I).

The second round of field work, reflecting on the limitations of the results in Paper I, was influenced by actor-oriented theory. Accordingly, this field work centred around obtaining perspectives on points of conflicts, actor strategies,

20 While I was involved in designing the data collection instruments, this field work was conducted by Salim Mohamed and Narriman Jiddawi.
prevailing influences and the changing state of the mangrove forest. Several data collection methods were used (see Table 3.) involving a broad range of actors, including those largely deriving their livelihoods from local resources, in positions of local management responsibility and extra-local actors involved in the CBNRM project.

Approximately 45 semi-structured interviews were conducted in the village in Kiswahili, with key social actors identified by village elders (men and women). The sampling strategy was also influenced by the results of a wealth ranking exercise discussed below. Some actors were selected in the sample because they were involved in various economic and subsistence activities in and around the mangrove forests, including fishing, farming, seaweed farming, animal husbandry, wood cutting (for charcoal production), rope-making, farming, bivalve collection, and firewood collection.

Figure 7. Dr Narriman Jiddawi undertaking a Women’s Participatory Mapping Exercise at Kisakasaka. Photo: Fred Saunders.

The second and third round of field work focused on gaining elaborated explanations of events and activities related to the research questions, including identification of the key tensions that arose around mangrove management, the reasons for the tensions, how the direction of CBNRM arrangements was influenced, and how actors went about pursuing their interests. To enable a better contextual understanding of the policy and legal implications of the pro-
ject we also interviewed government actors within the CNR-F (N=4) and the Department of Fisheries (N=2). Besides in-depth interviews, a wealth ranking exercise was conducted to get an impression of the social stratification in the village to inform sampling. Gendered resource and institutional mapping exercises were also undertaken early in the second round of field work to get an understanding of the range of activities being undertaken in the village and how people were organized around these activities as well as their relationships to resource management and use. Aside from providing important contextual information, the purpose of using multiple methods was to identify cross institutional conflicts and how inequality might relate to differential resource management representation, influence and entitlements. Two community meetings were held to share and to obtain feedback on preliminary findings. Interviews followed interview schedules, (Appendix 1. Kisakasaka Interview Schedule (example) variably designed depending on the actor being interviewed and the stage of the research process. Although interview schedules were prepared in English, all of these data gathering exercises were undertaken in Kiswahili with the help of local translators and field guides. The results of the interviews were discussed amongst those present and records of interviews were generated and agreed to either in the field or shortly thereafter. This worked extremely well largely due to the knowledge, language and social skills of my Zanzibari colleagues and the respect and willingness to participate that they evoked in the respondents. Informal conversations and observations also enriched contextual understanding. This field work was complemented by using a time series of remote sensing based information to track mangrove cover changes over our period of interest (stretching from 1984 to 2005, with a particular focus on the CBNRM period, 1996-2001).

The use of a wide range of methods and data sources (see Table 3.) enabled a rich understanding of forest resource management and use over time, whilst also increasing reliability by providing more opportunities for triangulation. Important documents such as the FMCA and the Kisakasaka Community Forest Management Plan were translated from Swahili into English. In addition to the data collection methods described in Table 3., much time was spent with my Zanzibari and Södertörn University colleagues in informal discussion about life and times at Kisakasaka, Zanzibar and about CBNRM. These discussions were useful to gain insights, test ideas and to progressively contextualize empirical findings.

Not all of the data collected were used in Papers I and II, nor were the methods equally as useful for analyzing the research questions. For instance, in con-
ducting the wealth ranking exercise\textsuperscript{22} we expected to get an indication of how socio-economic stratification related to management and use of mangroves.\textsuperscript{23} Although the results were instructive about the livelihood strategies in the village, they did not provide any ready explanations concerning mangrove resource issues. The results of the wealth ranking exercise, however, did confirm that at the time of the CBNRM project charcoal production was a heavily relied upon strategy for generating cash income practiced by all, but the wealthy strata in the village. The wealth ranking exercise was also undertaken to inform the sampling strategy. That is, to ensure that differentially positioned groups within the village were included in sampling strategies, including those of different socio-economic and occupational groups.

At Pete-Jozani

The field work at Pete-Jozani was carried out with the assistance of a village field guide and translator during March-April in 2009. The range of data collection methods were not as extensive as those used at Kisakasaka. This does not indicate that this case study contributed less to the findings of the thesis. Rather, the experience of the first case study and the thesis research questions guided the use of actor-oriented to study this second case study.

All informants were asked about the key issues for them in the formation of the JCBCA. Included were questions around governance issues (representation, knowledge of Park regulations etc.), tensions and points of conflict as well as transformations related to personal livelihood initiatives and village life since the commencement of the project (Appendix 2. Pete-Jozani Interview Schedule (example)). Individual in-depth interviews, were held with villagers (N = 40). Sampling was also based on consideration of characteristics such as occupation, age, sex and socio-economic position. Interviews were also held with members from key village organizations, including the Village Development Committee (N = 3), Village Conservation Committee (N = 4) and the Sheha Advisory Group (N = 3). During the initial part of the field work there was some effort placed on

\textsuperscript{22} The wealth ranking exercise was carried out first of all by locating all village households on a recent aerial photograph from 2005 and then allocating them identifiers, then 5 informants of mixed gender, age and occupational groups were selected to first of all decide on what constituted wealth/power in the village context – the Swahili term, \textit{uwezo} was used to rank, which means capacity and capability. All of the households were ranked with cards (by sorting into piles that contained shared characteristics as determined by the separate informants) representing each household, so that could also spatially located in order to undertake following up verification interviews. These results were then consolidated by calculating the average score for each household and identifying where large gaps in scoring existed – these points designating strata transition points (see Gujit 1992). This data was used to assist with sampling as well as providing some understanding of what constitutes wealth and power in the village.

\textsuperscript{23} Also of course to understand what makes up power/wealth in its social, institutional and political context (Chambers 1983).
understanding what constituted power within the village to ensure the inclusion in the sample of differently stratified groups. Although a wealth ranking exercise was not undertaken here, the wealth ranking work previously carried out at Kisakasaka helped here to identify respondents with varying material and social power and how this related to both views towards, and decision-making influence in the JCBCA institutions. After each day’s field work emergent themes and issues were considered and this progressive reflection informed the sampling approach and questions of the subsequent field work. I needed ‘formal’ permission from the JCBCA Chief Park Ranger before I could interview DCCFF staff working at Jozani and Jozani Environmental Conservation Association (JECA) representatives. A further 15 interviews were conducted in English with actors selected because of their involvement in JCBCA management, operation or research, including DCCFF officers (Parks – local (N = 6) and central (N = 3), Cooperative for Assistance and Relief Everywhere (CARE) staff (N = 2), other researchers (N=2) and JECA board members (N = 2).

Figure 8. Research field guides walking on the Pete-Jozani Mangrove Boardwalk. Photo: Fred Saunders.

This Chapter described the iterative process that has informed the study design, the rationale for selecting the case studies and how the empirical material was collected. The next Chapter discusses the findings of the research – connecting the theoretical and empirical parts of the thesis.
6. Discussion of Findings

This Chapter discusses the results of the thesis. While CPR theory (Papers II and IV) and actor-oriented theory (Paper II and III) are the two central theories examined and used in the thesis, conceptualizations of power are also discussed and applied to interpret empirical events at Kisakasaka and Pete-Jozani. Just as importantly, findings from the Zanzibar case studies are also used to engage with theory.

Apolitical CPR theory and the ‘Rational Resource User’

This section discusses the epistemological differences between CPR theory and actor-oriented theory and the implications this has for understanding power and conflict in CBNRM projects. A central concern of the study has been to relate theory to practice to better understand CBNRM projects and to contribute to theory building. This is because CPR theory has been extremely influential in explaining and informing CBNRM projects (Papers I and IV). A key purpose of the mainstream CPR research program is to provide a theoretical basis to inform CBNRM research and project planning. Following Johnson (2004), Steins (2001) and Mehta et al. (1999), mainstream CPR theory relies heavily on models of individual decision making and rational choice (methodological individualism), a ‘scientific’ understanding of historical change and a normative interest in efficiency. This agenda is primarily concerned with CBNRM experience to understand and develop principles to support collective action for the conservation of common pool resources. It is in this way that CPR theorists aspire to provide knowledge useful for CBNRM project interventions (Papers I and IV).

The CPR design principles were used as a theory of explanation at Kisakasaka to analyze institutional design and practice. Paper I found that the Kisakasaka CBNRM project was failing, but the explanation provided little insight into the social relations of the key events that were causing this, or to put it in other terms, the ‘rationality’ underpinning the key actors’ behaviour involved in the drama (Paper II). This finding reflects critique from other commentators who see rationality as it is applied in CPR theory as too restrictive (Cleaver 2007; Johnson 1997, 2004; Steins 2001 and Mehta et. al. 1999). Particularly, the CPR theory depiction of targets of CBNRM projects – ‘community members’, as ‘ra-
tional resource users’ who can be subjected to norm changes through institutional design-based interventions (Paper IV).

Paper I showed that mainstream CPR research, with its functionalist and managerialist tendencies (Mehta et al. 1999), provides a first level explanation of the ‘state of institutions’ without embedding that explanation in the turmoil of multi-scaled social relations of project sites. This is because CPR theory adopts a narrow view of how resource decision-making affects the social behaviour of CBNRM institutions (Paper II and IV). A question that arises here is, does this matter? Well it certainly matters for CPR theorists’ ambitions of informing better CBNRM institutional design. The findings of Paper I and II (the Kisakasaka case study in its entirety) underlined this by revealing how theory can influence the representation of CBNRM practice. Paper I, using CPR theory to inform the collection of data and analysis, found that there were ‘disturbances’ to collective action in the CBNRM project at Kisakasaka, but was unable to describe why these disturbances had arisen or how relations had been mobilized during these interactions.

From a collective action viewpoint, these ‘disturbances’ led to unfavourable outcomes, including a dysfunctional CBNRM institution, conflict over resource management in the village, an exacerbation of party political conflict and a reduction in village resources available from the mangrove forest. Furthermore, there is the prospect of lasting effects, as the conflicts are likely to have negative ramifications for future conservation and development interventions and ongoing village relations.

These findings had at least two implications of interest for this research: First, that using Ostrom’s institutional design attributes in the field as an analytical tool failed to reveal the reasons behind the disturbance affecting the performance of the CBNRM institution at Kisakasaka; Second, that the cause of the perturbation – fractious party political dynamics – fell outside the categories of CPR theory (particularly the design principles) and therefore, not surprisingly, outside of the DCCFF planners’ scope of project consideration. The pre-project factionalism in the village among members of opposing political parties, which was later identified in Paper II as an underlying factor in the conflict, was not considered by the planners in organizing representation on the Kisakasaka Conservation Committee (KCC). This indicates a construction by the project planners of Kisakasaka as socially harmonious, despite the widespread and entrenched divisions that have characterised politics in Zanzibar since the inception of the multi-party system in 1992 (Chege 2007). The KCC, when it was established, consisted only of members from the ruling party. The opposition party did not have representation on the committee. This led to opposition party members feeling excluded from decision-making over resource use in the village and even persecuted by the ruling party dominated KCC (Paper II). Domination of the KCC allowed the ruling party to control the project, decide when to perse-
cute rule infringements and provide members with personal opportunities through the cultivation of relationships with DCCFF officers and other agencies. In response to feeling marginalized at Kisakasaka, some opposition party members acted to undermine the credibility of the KCC and by extension, the CBNRM project. In other words, as Levi (1990) notes, when writing about institutional change, that groups can ‘force’ change by withdrawing their consent from the existing institutional structures. Even once the conflict over the project at Kisakasaka became known to DCCFF officials, the sensitivity of multi-party politics in Zanzibar and their perception of CBNRM projects as technocratic projects ‘deterred’ any intervention to settle the dispute. The experience of this intervention displayed tensions between two recently introduced forms of democracy in Zanzibar, i.e., multi-party democracy (adversarial and majority rule) clashed with the more deliberative style of participative democracy (discursive and consensus seeking) aspired to in CBNRM projects. Mosse (2008), describing a case study in South India, provides another example where political parties have provided forms of associational activity that have weakened opportunities for collective action around CBNRM projects elsewhere. Moreover, the events at Kisakasaka also show how CBNRM institutions interact with and are influenced by other institutions and the importance of considering this in the project design and practice.

From a CBNRM planning perspective ignoring politics is problematic as it leads to badly informed and therefore ill-equipped policy. The Kisakasaka experience showed that CPR theory lacks the contextual subtlety to handle and explain ‘politics’ in either its policy or analytical mode. The overly stringent focus of CPR theory on resource management does not enable it to readily deal with the nuanced politics of discrete projects, which can lead to tumultuous outcomes like those that occurred at Kisakasaka (Paper II). In more general terms, this occurs because CBNRM planners see other institutions as ‘outside’ of the reductionist logic of resource user:resource interaction. Furthermore, it is not unusual for conservation planners to adopt a view that CBNRM projects are apolitical, or can be made apolitical. Thus, this view assumes that projects can be driven by technical and managerial means alone without considering existing conditions or power struggles that emerge through the intervention itself (Nelson and Agrawal 2008). This is a point that has also been observed in participatory development projects more generally (Chhotray 2004). For CBNRM projects, this is not surprising, given that these projects are largely driven by bureaucrats trained as foresters or in natural resource management where the role of the expert is emphasized and value of scientific knowledge predominate (Paper III). The practicalities of short-term project management constraints also prohibit planners from delving further into contextual factors impinging on resource use in any one setting. Regardless of the numerous factors that contrib-
ute to the technocratic tendencies of CBNRM projects, they result in a project approach that tries to disembend actors from other parts of their lives (Paper IV).

CPR theory has been accused before of being apolitical (Robbins 2004), but as the case study work at Kisakasaka demonstrated (Papers I and II) the act of CBNRM project intervention and establishing related institutional arrangements can be extremely political – albeit in unforeseen ways (Pierson 2000). However, when commentators such as Robbins (2004) say that CPR theory is apolitical, they are right to the extent that the use of CPR as an analytical theory is unlikely to reveal the politics of resource use, access and management. This is because CPR theory assumes that resource users will interpret and follow rules uniformly. Actively seeking consensus in support of projects also tends to result in understating political difference. If heterogeneous interests or preferences exist, these may not be exhibited publically by actors, who may give the surface appearance of consent. These arguments are discussed further in relation to the Pete-Jozani case study later in the thesis.

Paper IV more deeply probes the problem of interventionist planning as engineering. It provides an explanation why the assumptions of a ‘rational resource user’ and institutional evolution pose problems for CBNRM projects. Paper IV finds that mainstream CPR theorists fail to distinguish between analyzing long-enduring, endogenously evolving commons institutions with a social history (situations from which the design principles were derived) and their application into ‘new’ diverse and highly uncertain project environments. CBNRM projects are invariably initiated by government in collaboration with NGOs, sometimes with the active support of communities. They are rarely, if ever, entirely endogenously initiated or managed and usually involve formally institutionalized common property arrangements between government and local communities. These arrangements do not commonly involve ceding property rights to communities (Paper I and Paper III). They are projects that are commonly predetermined by actors beyond the target locale that impose a model of the ‘rational resource user’, without considering the politics of resource access, use and control in project environments (Papers I, II and III).

The ‘bounded rationality’ approach, adopted in CPR theory, fails to provide clear direction for CBNRM. This results in the adoption of a narrowly defined view of rationality where institutions are designed in isolation with an expecta-

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24 The acronym of CBNRM suggests that these projects should be a form of environmental management by the ‘project community’, for socio-environmental ends determined by the ‘project community’. The project planners’ role in this conception of CBNRM is to engage in a co-operative process to support community members to develop solutions to shared socio-environmental concerns. However critical commentators of CBNRM suggest that, commonly, projects are pre-determined in the sense that the key issues, questions and to some extent responses have already been identified unilaterally by project planners (Murphree and Taylor 2009).

25 In Ostrom’s (1990:37) concept of ‘bounded rationality’ the following interactive variables govern individual choice: expected costs, expected benefits, internal norms and discount rates.
tion that constraints and incentives will produce sustainable use or conservation norms. CBNRM institutional arrangements have a tendency to universalize in the way that they see people with fixed identities and related preferences and interests only as ‘rational resource users’, rather than people enrolled in multiple network relations with differentiated means of influence, interests and responsibilities (Paper IV).

Collective choice principles in CPR theory must give the opportunity for resource users to change the rules used to organize operational choices as well as the operational rules themselves (Ostrom 1990). It is a key tenant of how ‘contextualization’ of the CPR design principles should work in CBNRM projects. This seemingly democratic aspect of CBNRM projects often runs into problems in practice as participation is traded-off to ensure projects are grounded locally (Paper III) or because of the reluctance of conservation planners to devolve decision-making or grant secure tenure over property rights (Ribot et al. 2006). At Kisakasaka there were collective choice problems, discussed above, over control of resource decision-making and use. The limited property rights granted through the Kisakasaka project also most likely influenced the behaviour of some local actors. The Kisakasaka community’s common property rights related to mangrove management were limited to the project’s life of five years, during which time the DCCF had the unilateral right to revoke community management and use rights without consultation.

At Pete-Jozani, where the CBNRM was deliberately linked to the highly legitimate, but hardly democratic Shehia institution (Paper III), participation was a strategy employed by the planners to access local knowledge to support conservation zoning and to convert locals into entrepreneurs, rather than as deliberative partners in resource management governance. Deliberative decision-making in CBNRM projects is often sought (Ostrom 2007), but as Chhotray (2004) points out, the outcomes are often pre-determined and the similarity and differences of actors accommodated superficially in order to secure consensus. This process results in what she calls ‘a negation of politics’ in these projects (Chhotray 2004); at least on the surface. Other commentators have taken an even harsher view concerning participatory processes in CBNRM projects when they claim that these projects are commonly used instrumentally to impose agendas of powerful international organizations on the poor (Kothari 2001; Blaike 2006). Reflecting on this, Ribot (2006 et al.:47) describes how grassroots groups and NGOs despite having formalized community-based credentials may not be accountable to, or representative of local people in a systematic manner. Perhaps then it should not come as a surprise that at Jozani trans-local actors (CARE in conjunction with the DCCFF) co-opted the traditional institutional arrangements to forward the agenda of the conservation project, despite Ostrom’s collective choice requirements seemingly being met. It also seems inevitable, with this approach, that the participation of project target groups is limited.
to the scope of an agenda framed and organized elsewhere (such as in the Jozani case, international NGOs, forestry, tourism and parks departments setting the rules of the game). In concurring with this view, Cleaver (1999) argues that in the common occurrence of incongruity arising between the project goals of intervention and participatory aspirations to empower a wide range of ‘weak’ contributors, it is overwhelmingly likely that intervening actors’ goals will prevail. ‘Big conservation’ projects, like the Jozani intervention, may be particularly susceptible to greater forms of remote control given the scale of financing and international and national interests involved (e.g. development aid, foreign currency earnings). Although, as the Kisakasaka case study showed, ‘small’ CBNRM projects also need to be seen in a larger context of being embedded in multi-scale political, economic and development dynamics. How useful CPR theory is in revealing these dynamics with its focus on efficient local institutional design, even considering Ostrom’s ‘nested enterprises’ principle, is questionable. This principle seems to be only concerned with vertical institutional layers of the resource management bureaucracy rather than the myriad other institutions which influence actors’ decision-making over resources (McCay and Jentoff 1998).

This section has discussed empirical results, which highlight the problems associated with CPR theory’s depiction of project beneficiaries as ‘rational resource users’. The next section is a more in-depth discussion on what actor-oriented theory offers as another theory for understanding CBNRM projects.

The Implications of Different Theoretical Frames

Unlike CPR theory, actor-oriented theory is not a social theory in the sense of making predictions with some degree of certainty about social behaviour or causal relations. As it has been used in this thesis, it is more about how to approach an object of study (i.e. a CBNRM project) in an investigation. It provides a methodology of how to examine the multiple social realities of project interventions (Long 2003:48). Whereas CPR theory, as it is used in CBNRM projects, focuses quite directly on issues of institutional functionality and is highly structured,27 actor-oriented theory provides loosely conceived concepts to investigate how institutions maintain their shape or change. This requires much more interpretation and adaptation in the field than CPR theory, but it allows the researcher to take greater account of different actors’ capacity to influence the

26 ‘Another’ is a word chosen carefully here. Actor-oriented theory could not act an alternative, substitute or hybridize with CPR theory because of the different epistemologies and focuses of the two theories. CPR theory focuses on institutional design and actor-oriented theory on explaining the actor dynamics of project interventions. Furthermore, CPR theory adopts a positivist approach, whereas actor-oriented theory is constructivist.

27 Based on, is the resource institution working or not, and if not, how can it be fixed by designing attributes?
formal design of institutions and practice. Actor-oriented theory involves understanding conflicts in terms of the power, goals and information of the actors with interests in the intervention.

In project intervention terms, this approach focuses attention where social disruption occurs. Translating this intention meant that the focus in this study was on the conflicts or tensions that occurred during CBNRM project planning and operational phases. According to Long (2001:177), social disruption or discontinuities occurs where conflict or critical points of intersection arise between different values, interests, knowledge and power. McCay and Jentoff (1998:23) make the point that cooperation and conflict should not be seen as opposites. Conflict requires actors to take sides and to cooperate to forward their interests. This aside, the main point here is to reveal empirically whether or not actors (usually acting in interest groups) have been able to forward their interests in practice. This is rather than assume a linear relationship between policy and practice. Or indeed more controversially, whether actors’ interests have been subsumed or manipulated under the guise of the project giving the impression of consent. This is much more difficult and controversial to detect empirically, as discussed below in the case of Pete-Jozani in Paper III.

Unlike CPR theory, actor-oriented theory does not assume a stable approach to institutional formation and predict or promote a particular institutional design constellation. Although this is not to say that findings using this approach are uninteresting to CBNRM policy-makers or, for that matter, the project beneficiaries. In contrast to CPR theory, actor-oriented theory sees institutions and their performance as always contingent and dependent on the politics of relations of practice at different scales. This approach assumes a difference, which must be empirically established, between the formalization of institutional relations and the ever-changing practice of their operations.

Another key difference between CPR theory and actor-oriented theory, with a focus on the social interface concept, is how the two approaches frame research in relation to conflict. CPR theory is concerned with institutional design and how this motivates and contains what it defines as (‘boundedly’) rational resource users. Put differently, it asks the question, does the CBNRM institution fulfil its function and meet its goals\(^{28}\) and if not, why not? It answers this question by situating the explanation in a relationship between ideal institutional design principles and practice. It also considers actors rather narrowly in terms of the incentives and disincentives they face to comply with resource management goals. For example, in the Kisakasaka case, Paper I highlighted a dysfunctional CBNRM institution by analyzing practice using the CPR design princi-

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\(^{28}\) The goals of a CBNRM may well be in dispute, but one way of interpreting this is ‘collectively agreed to goals’, which form part of the contextualization process. The usual approach is far more concerned with the performance or compliance with various institutional functions, such as monitoring, enforcement etc.
plexes. Paper II reflected on this finding by arguing that an explanation using the same variables that inform the set-up of the institution in the first place provides a weak, inadequate explanation. Using CPR theory as an analytical frame at Kisakasaka did not answer the central empirical question, why was there institutional dysfunction and conflict over the CBNRM project? Rather, the design principles provided a weak, disembedded explanation because analytically it excluded the social relations and related events that led to the situation of institutional dysfunction. In other words, CPR theory is so analytically concerned with functionality that it screens out important empirical data relating to the causes of conflicts, even when the intervention itself is the catalyst of the conflict.

From a CBNRM practitioner’s perspective there are two obvious responses to this assertion: That understanding the social relations of such concerns and conflicts is important because this helps identify the possible implications of other factors beyond, but mixed up with resource use that might lead to better institutional design; That the substance of such conflicts or concerns are beyond the control of institutional design and it is just a matter of perceiving the actors as ‘rational resource users’ and getting the signals right to direct the desired behaviour. CPR theory informed CBNRM largely adopts the second approach (Papers I and II), often without ‘contextualizing’ or ‘localizing’ institutional signals (Papers II and IV). This is understandable given that the premise of a ‘rational resource user’ provides an efficient and predictive approach to policy development. That said, as a growing body of empirical evidence tells us, it is likely to fail in practice because it oversimplifies the task of harnessing collective effort for project interests (Papers I, II and IV). Of course institutional signals will influence users’ behaviour in some way, but perhaps not in the way envisaged by planners (Paper II). Using CPR theory in analytical mode has the same pitfalls. A weak explanation or understanding of conditions is likely to inform a weak, rather than a robust institutional design – the overarching aim of CPR theory.

Having a ‘thicker’ explanation,29 full of ‘context’, history and politics still does not mean easy translation into a parsimonious, effective or indeed a productive policy approach. However, what it might do is raise explanatory factors in the

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29 McCay and Jentoft (1998) discuss ‘thick’ and ‘thin’ approaches to problems of the commons. This discussion is reflective of a broader debate between ecology and anthropology about assumptions used in understanding and analyzing institutional behaviour (see Bardhan and Ray’s (2006) edited volume titled, Methodological Approaches to the Question of the Commons). A ‘thin’ approach, as conceived here, focuses its attention on CBNRM institutional design and rules and takes a literal approach to understanding the interaction between ‘rational self-interested’ resource users and resources. In contrast, a ‘thicker’ approach to understanding institutions in CBNRM projects does not delimit itself to this interaction. It seeks to provide a contextual explanation of the CBNRM intervention that considers a wide range of political, economic, social and historical issues with an eye to the workings of power relations.
messy life worlds of actors, their relations with each other and the resources in question that may help institutional design or suggest that a CBNRM intervention is unlikely to endure. That is, a ‘thicker’ explanation might provide more opportunity to inform policy-makers of salient a priori conditions, albeit not in any comprehensive or predictive way. This approach also has the advantage of not flattening actors to individualized, ‘rational resource users’; this, however, poses problems of its own making. This problem for the researcher, and the planner for that matter, is an old question in anthropology. If everything is related to everything else where does this description stop and second, how does one determine relevancy to a causal event in explaining CBNRM practice. Regardless of how this problem is approached by ‘the planner’, it still would not overcome the ‘planning as engineering’ problems highlighted in Paper IV or the ‘planning tyranny’ of the unpredictable future. Although this acknowledges that a ‘thicker’ approach has its limitations, the real challenge is whether CBNRM projects can deliver on their rhetorical promise by continuing to compile and configure generic lists of institutional design attributes and ‘suitable’ conditions (see Ostrom 1990; 2000).

Actor-oriented theory was used in both case studies as the ‘thicker approach’ to focus attention on key points of tension around CBNRM intervention (Papers II and III). Of course even ‘thicker’ accounts of complex empirical events are always still partial and incomplete. However, important in this thesis work was to identify important conflict events that tangibly influenced the practice of designed CBNRM institutions, including how actors pursued strategies and interests as well as their constraints to action and how successful they were in getting their agendas formalized and accommodated in policy and practice (Mosse 2005) at both Kisakasaka (Paper II) and Pete-Jozani (Paper IV). In this conception, actors never act in complete freedom, but within the constraints of the interactive social and institutional context in which they are taking part – this might be viewed by some as a ‘structural dimension’ (Hayward 2006). The research process required tracing the trajectory of projects from planning to practice through the experiences of variously placed and affected actors (Long 2001). According to Lewis and Mosse (2006) this involves not only interrogating the experiences of practice, but also, despite the remonstrations and turmoil of practice, explaining how conservation projects tend to maintain their rhetorical solidarity and appearance of consensus. Paper III described this tendency at Pete-Jozani, where a kind of constrained consent was apparent among many of the villagers. The capacity of this project to ‘hold its shape’, despite clear evidence of ‘local’ resentment directed towards it, was attributed to its scale of funding; the presence and rhetorical power of its advocates in resolving the monkey: farmer dispute; the ‘conditioning’ of locals to a conservation future; and because of its close linkages to the traditional Shehia governance arrangements (Paper III).
the Pete-Jozani case study, local interests were subjugated in the face of international experts, large scale resourcing and high profile political involvement.

These findings suggest that rather than treating community as pre-existing and cohesive local form of social organization, as CPR theory tends to do, it may be more fruitful to see it as less spatially and relationally bounded. That is, as a construction of relations between local and extra local actors who together collectively act in a particular project where opportunities and constraints are unevenly distributed (Vandegeest 2006). This approach demands the mapping of interaction, not only to describe actors’ strategies with the unfolding of key events, but also to understand their constraints that restrict their possibilities for manoeuvre or benefit (Olivier de Sardan 2005). The Pete-Jozani case study discusses some village actors’ behaviour in terms of the constraints that minimize opportunities to benefit from tourism because of poor infrastructure and structural exclusion or control by remote based tourism companies (Paper III). Tourism is often incorporated in CBNRM projects in this way as an ‘alternative income’ opportunity, without any real assessment of structural or local impediments inhibiting a transition situation that generates local involvement and benefit (Cleverdon and Kalisch 2000). This raises questions about assumptions about the easiness of livelihood or economic ‘substitution’ through ‘trade-off’ processes, which feature so prominently in CBNRM and ICDP projects. The Jozani case-study shows that ‘shifting’ livelihoods is much more complicated than planners’ short-term projects or vague notions of wider development interests. Constraints to action in the Jozani case, not only meant failure to benefit from the project, but resulted in actors being resigned to their fate – what was, and what was not, realistic or possible given their changed life circumstances and closed off possibilities. The actors’ response to this situation at Pete-Jozani meant limited support for the JCBCA project. This finding is consistent with Scott’s (1990:72) thin theory of false consciousness, which distinguishes between feelings of resignation and consent and maintains that the dominant ideology only achieves compliance, as opposed to overt support. This weak view of consent does not necessarily suggest that there is no resistance or dissent, but may be indicative of circumstances that ‘convince subordinate groups’ that the social order in which they live is natural and inevitable. The obstacles to résistance in Scott’s (1990) view are practical, rather than ideological. This point is discussed further below, where concepts of power are used to interpret the conflicts examined in this study.

Explanations of Power and Conflict

This thesis has shown that CBNRM projects are inherently political events where various actors have strong vested interests in the control and use of resources.
Indeed, the concept of decentralization ‘implies a shift of power’ that will have effects on how actors are positioned to take advantage of roles in new institutional arrangements. This struggle for influence is central to understanding the distribution of constraints and opportunities that come with such projects. This is why much of the work presented in this thesis has focussed on the relationship between institutions, conflict and actor strategies in CBNRM projects. It is not surprising then that the communicative and deliberative aspirations of CBNRM open up new spaces of civil society involvement and engagement in a complex layering of power relationships. CBNRM tries to avoid the trappings of ‘top down’ power associated with more overt instrumental planning approaches (Richardson 2005). However, this thesis shows that power is inescapable and failure to grapple with that inevitable reality poses problems for conservation planners and researchers unwilling to look beyond ‘off the shelf’ institutional fixes.

A key aim of CBNRM institutions, influenced by CPR theory, is to alter the structure of informal and formal constraints and incentives that actors face to cooperate to produce successful environmental outcomes. As Johnson (1997:29) rather banally points out, cooperation here simply means that everyone follows the rules. This view scopes actors as resource users who will uniformly respond in a rational way, i.e., predictably to positive and negative institutional signals. It is important to note that this approach not only seeks to affect behaviour, but direct it towards desired goals. Aside from the complexities of engineering a ‘suitably contextualized institution’, this approach still provides no opportunity to take account of social stratification. It assumes that all actors have equal opportunity to participate in and benefit from CBNRM projects. Political ecologists argue that effective management of resources requires explicit consideration of different interests, perceptions and roles (e.g. gender) within communities (Adams et al. 2003; Blaike and Brookfield 1987; Brown 1998; Neumann 1997; Robbins et al. 2005). Here the emphasis is on the way that individuals will interact with, and be affected by, institutional rules variably depending on their individual capacities and social standing. Because these differences are largely ignored in CPR theory, CBNRM projects commonly fail to adequately consider the contingency of projects (or context) and the importance of procedural fairness and equity in benefits sharing (Kumar 2002; Leach et al. 1999). The implication of not acknowledging the inherent heterogeneity of community perspectives and capacities are assumptions that communities are stable and homogeneous (Paper IV). These underpinning assumptions of community attributes fit well with the CPR theorists’ view that institutions can induce significant changes in behaviour by engendering trust and social learning through a mix of mutual assurance and financial incentives.

In response to the political ecology criticism of the overly consensual treatment of community, actor-oriented theory was useful in capturing the explicit context of decision-making and the decisions themselves. This then gave the
possibility of describing the exercise and constraints to power and its relationship to conflict in both case studies. As Haywood and Lukes (2008:17) remind us, this concrete observable behaviour by actors in decision-making represents a one dimensional view of power. This approach is close to rational choice in that it assumes that power is exercised in pursuit of known interests and that actors have opportunities to represent their interests. This conception leaves open whether power is viewed here as potential (capacity) or as a concrete observable act. How this is interpreted will have important implications for detecting power empirically. Dahl, the most famous exponent of this conception of power, has been interpreted as meaning the study of concrete observable behaviour by actors in decision-making (Lukes 2005:17).

The research task then involves elaborating which groups or actors prevail in decision-making in situations where overt conflicts or disagreements are manifestly detectable; the rationale being that in conflict or competitive political settings the workings of power are more easily revealed empirically as ‘influence’. This is clearly an actor centred view of power, even though it would be acknowledged that actors are reacting to structure of some sort in terms of their capacity to exercise power in the institutional field (Dowding 2008). This conceptualization of power was useful as an analytical approach in the Kisakasaka case study to reveal conflict between opposing political parties, which then led an understanding how power was mobilized and exercised to undermine the CBNRM project. However, it did not reveal the diversity of agendas and strategies that shaped implementation practices, including those that were left out or manipulated away. This was evident at both Kisakasaka (Paper I) and Pete-Jozani (Paper III). Despite the appearance of compliance with CPR theory’s collective choice principle, much of the tension that affected the CBNRM arrangements at Kisakasaka related to a conflict over the legitimacy of the KCC (Papers I and II). As discussed above, this was a critical event in the institutional formation of the Kisakasaka project that CPR theory in analytical mode was unable to help elaborate.

Legitimate power is a subjective term that takes on different meanings depending on who is defining it. It has been argued that it is inherently related to ideas of ‘good governance’ (Hyden 1992; UNDP 1997). Conflict can arise when two or more groups of people have different opinions over the legitimacy of a certain power, such as that of a village conservation committee that decides over resource extraction rights. There is no absolute that determines a certain ‘power’ legitimate. Clearly, using party political means at Kisakasaka to mobilize power to manipulate representation and possible action is a way to control the formal resource decision-making agenda. This strategy enabled the ruling party to define what subject or issues were considered through the KCC’s formal decision-

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30 ‘A has power over B to the extent that he can get B to do something that B would not otherwise do’ (Dahl as cited in Lukes, 2005:16).
making process. Questions of legitimacy arose when opposition party members, who had been prosecuted for breaking mangrove extraction rules for charcoal making, complained about both lack of representation on the KCC and project corruption (Paper II). Conflict between the two political party groups at Kisakasaka led to questions about the legitimacy of CBNRM institutional power, problems with collective action and ultimately to the termination of the project by DCCFF (Paper II). The CBNRM institutional dysfunction was clearly visible using a CPR theory analytical approach, however, detecting the exercise of power in institutional practice or what affected the trajectory of the project was more difficult. It required testimony from the actors directly involved in the conflict events, an understanding of their interests, strategies and constraints, as well as an examination of the membership of the community organization set up by the CBNRM project (the collective choice arrangements).

The lesson here is that power relations affecting institutional change were not somehow contained within the bubble of the CBNRM project, but worked through cross-institutional channels over space and time. The spatial dimension refers to how Zanzibar-wide political party dynamics influenced local actor behaviour in the CBNRM project, as did the limited economic opportunities available to locals. CPR theory captures a snap-shot of the institutional practice, whereas assuming a more dynamic approach over time enables a better understanding of the factors influencing institutional change.

The CBNRM intervention at Kisakasaka created opportunities for opposition party members to resist what they saw as an illegitimate use of power. In doing so they seized the ‘opportunity’ to voice more general concerns about the ‘corruption’ of the ‘democratic process’ and therefore taint the ruling party’s image. The claim of the CUF members’ was that the exclusivity of involvement of ruling party members in the governance of CBNRM project allowed control of the formal resource use agenda ensuring it was in line with the local and broader national interests of the ruling party’s constituency – effectively the reaching out of ‘control’ into village resource use.

So rather than seeing actors solely in relation to the resource or activity of specific interest, as CPR theory does, events at Kisakasaka suggest that actors should be conceived as complex individuals partly involved in their own affairs and partly enrolled in the projects of others (Long and Van Der Ploeg 1989). CBNRM project interventions will always interact with and be affected by local contingent circumstances that are embedded in broader scale political, economic and bureaucratic processes and interests. Assuming otherwise, or ignoring this part of the intervention, is likely to result in a default situation where local political wrangling overwhelms or diverts project goals. In terms of analysis, the experience of Kisakasaka suggests that we should not as researchers, a priori, prescribe which categories of difference are operating in any one case. This finding supports the actor-oriented theory view that divisions or loyalties (such as those
based on class, gender or indeed, political affiliation) and the significance of their roles in interface events must be empirically established; not just taken for granted (Long 1999:2).

Figure 9. Red colobus road warning sign near the Jozani Chwaka Bay National Park Visitor Centre. Photo: Fred Saunders.

A key strategy to shape or limit the politics of the formation of JCBCA was how the monkey:farmer conflict was handled. Effectively by privileging technical scientific knowledge over local knowledge (farmers’ claims) the path was cleared for the policy justification not to pay compensation to farmers for crop damage caused by monkeys – and a broader political controversy was able to be delimited from the agenda of the project (Paper III). This was a controversy that could have significantly disrupted the project or even led to its abandonment. The interaction over the monkey:farmer conflict may be typically thought of as part of the trade-off arrangements that feature so heavily in ICDP literature, usually with an emphasis on outcomes. The work presented in Paper III, responds to the recent call to deal not only with outcomes, but also with how these outcomes happen (Brosius and Campbell 2010), which then provides opportunities to illuminate the workings of power. In this exercise the pertinent question was, were the interests of the farmers served by the Jozani conservation project? Arguably, the subordinate actors, which in this case are the farmers, were prevented from acting on their interests – that is to protect their crops from red
colobus monkey damage or to receive compensation for not doing so. A number of factors made this politically possible. The role of scientific knowledge in appeasing international funders was important, as was the persuasive arguments of the prospect of red colobus-based tourism creating a brighter local future. The former created the political conditions that allowed the formation of the national park and the latter ensured that some farmers and the local population have an ongoing dependence on the JCBCA project.

![Jozani-Chawka Bay National Park Sign. Photo: Fred Saunders.](image)

**Figure 10.** Jozani-Chawka Bay National Park Sign. Photo: Fred Saunders.

Delivery of the project’s conservation goals largely hinged on the persuasiveness of the argument to a range of differently positioned actors that monkey-based tourism with local benefit was in the broader national development interests. Several participative and communicative strategies were used to create the favourable project conditions that eventuated. Ideas of community empowerment and the value of local environmental knowledge were applied through participatory resource mapping exercises to stake out zones of protection for high biodiversity values. These preservation zones were incorporated into a Resource User Management Agreement (RUMA), which became the formal controlling mechanism for ‘self-governance’ of resource use by villagers (Paper III). Acknowledgement of local environmental knowledge, drawn on by the planners in the participative mapping exercises, should not be confused with conservation knowledge, which rests more on applying biodiversity values and knowledge to
restrictions around resource use or perhaps, more aptly, ‘non-use’. To support the adoption of the project’s conservation values, conservation education and awareness programs were conducted, particularly early on in the project during 1995-1997 (Global Environmental Facility 2004). These programs were concerned with aligning and stabilizing conservation norms through awareness of the importance of biodiversity, and in this case, more specifically, red colobus monkeys. Those who were considered threats to conservation at Pete-Jozani were local farmers, which included most residents. As Instone (2003) points out, this approach assumes that locals lack the knowledge to guide the ‘right behaviour’ and need incentives to steward nature in the ‘proper’ way. ‘Business education’ training was also conducted to improve entrepreneurship and financial management amongst local actors. This is presumably so ‘locals’ would have better business skills to take advantage of project related tourism opportunities, although it hardly seemed to matter that these ‘opportunities’ were extremely limited (Paper III).

The community oriented techniques discussed above were clearly designed to positively engage local residents in the JCBCA project. The project combined a mixture of external change, through the imposition of institutional arrangements, and ‘internal’ learning. Stressing the benefits of participation, while understandable from a project planning perspective, was also a useful way to distract attention away from the substantive political concerns that many villagers held (and continue to hold) over monkey crop raiding and reduced resource access. The prospect of future local benefits through participation in this large scale, World Bank/Ford Foundation et al. founded project, clearly would have been enticing for local people. However, participation alone was not sufficient to settle discord over the JCBCA project. The ‘problem’ of the monkey:farmer conflict needed to be settled in a way that placated both locals and remote, social justice minded, donors.

A scientific study undertaken at the time by Siex and Struhsaker (1999), found that red colobus monkey browsing on coconut trees actually increased yields.31 This was a finding, which directly negated farmer claims about loss of income because of crop damage by red colobus monkeys. The DCCFF took rather an opportunistic view in interpreting Siex and Struhsaker’s (1999) findings, which were expanded in policy translation to a position that red colobus monkeys do not harm farmers’ crops. This immediately made the monkey:farmer dispute more manageable to the point where a ‘trade-off’ process became viable as a Jozani project manoeuvre. The option prior to this of administering a compensation scheme to 5,000 farmers in the area potentially affected by monkey crop damage would have been far too costly and administratively unwieldy. The trade-off process that was eventually undertaken through a bene-

31 Scientific, in the loose sense the results were published in a peer reviewed academic journal.
fit sharing agreement resulted in some villagers being ‘forced’ to relinquish rights to forest resources in exchange for promises of park generated tourism revenue and compensation packages. This could be considered an example of inducement or compulsion to act against their (some Pete-Jozani farmers) own interests. It brings us back to a more direct discussion of power and how, when exercised, it can ‘change preferences’ of those subjected to it (Lukes 2005). How to identify whether the Pete-Jozani actors in question complied with the new conditions voluntarily or whether their interests had been manipulated can only be assessed by making judgments about the relative inequalities between the protagonists and the likelihood in this case of realising the promises from tourism. Even more subtle was the task to unmask how power worked to constitute the desire and beliefs of actors who appeared to have ‘internalized’ the norms of the project, especially when the empirical evidence suggested that they had been disadvantaged (Paper III). I will return to Scott (1990) to make sense of this. As discussed above, Scott (1990) suggests that consent never occurs and quiescence should be regarded as a strategic act to changed circumstances – in other words, a practical strategy. This view is explored below by trying to understand how the JCBCA project governance arrangements constrained options for many of the villagers to express their views or to act out their frustration more openly and forcefully.

From the testimony of DCCFF actors, JCBCA project planners decided that it was a pragmatic strategy to graft the project onto the existing Shehia institutions, beyond just formalizing village resource use by-laws. This strategy highlights a tension between the project’s democratic aspirations and further empowering existing village elites with the new symbolic and material power of conservation. The JCBCA project largely ignored CBNRM’s aspirations for deliberative democracy, which in stronger or weaker forms, is based on notions of local actors’ developing preferences through public discussions and transforming decisions into action agendas (Dryzek 2000). It is a moot question how much scope or potential there is for this sort of decision-making in a situation where the project goals are largely pre-determined and where the existing elites are the project mediators. Generally, in Zanzibar, local government village level organizations tend to be dominated by the more affluent and powerful members of society, since they are avenues to the important revenues and political resources of outside agencies (Levine 2007). It is understandable then that elites in this case would be attracted to the project because of its international profile and what it promised – both for them as individuals and more generally for the village through better integration into the dominant Zanzibar development strategy of nature-based tourism. Elites in the village probably also pointed out to the JCBCA planners during initial discussions that their involvement would optimise the project’s legitimacy and chances of succeeding. This discussion has shown that the actions taken by both the project planners and the village elites
were driven by a number of factors, including self interest and pragmatism - both aligned to benefit a largely pre-determined conservation-based tourism project. The empirical data in Paper III indicates that ‘agency of poor people’ was constrained by the project focus on building consent through the co-option of traditional institutions (and the related project roles of village elites) and the largely pre-determined project agenda. This had the effect of reaffirming and reconstituting power structures rather than challenging existing relations of power and authority as the project rhetoric would have it.

Figure 11. A Red colobus monkey (Procolobus kirkii) in the Jozani Forest. Photo: Fred Saunders.

This is not to say that the project will or has not benefited some villagers. Views regarding the merits of the project and benefits flowing from it should not in any way be regarded as monolithic. However, in interpreting events at Pete-Jozani, the broader experience of ICDPs suggest that project interests are motivated primarily by remote conservation interests or state development potentialities rather than by grass-roots activists motivated by local development concerns. The weight of empirical evidence at Pete-Jozani certainly lends support to this position. These findings support the view that conservation planners (and some researchers) take an overly optimistic view of the transformative potential of participation when so much of this effort is placed on instilling development preferences and building conservation management organizations and
social capital in support of projects (see Nelson & Wright 1995; Cleaver 1999, 2000). The heterogeneity of interaction with projects discussed here though, suggests that regardless of the dominance of the change sought, actors will always find ways to resist and conform within the realms of what is feasible and plausible for them. Whether they do this in a strategically cunning way as Scott (1990) argues or because they become imbued with the values of the project either through some sort of genuine conversion or being misled by distraction needs to be subjected to case by case examination and argument.

Taking into consideration the broader experience and aims of ICDPs, I have argued here that in the case of Pete-Jozani there is evidence that the project planners’ opportunistically interpreted the findings of the red colobus browsing study (Siex and Struhsaker 1999) to suit their own policy interests. Furthermore, that the JCBCA governance arrangements that were established reproduced existing village power relations because these were friendly to the projects’ interests. These actions, however, have not led to the making of conservation subjects or dupes at Pete-Jozani, but have produced a significant number of locals who resent the project, but are not (yet) prepared to act out their frustration in public.

This Chapter has discussed the key findings of the thesis. The next Chapter will synthesize this discussion with the research questions to provide conclusions and to suggest further opportunities for research.
7. Concluding Remarks and Future Research

The findings of this thesis highlight the dissonance between the theoretical assumptions of community cooperation and consensus that so influence CBNRM project design and the politics of CBNRM practice. Notwithstanding that these findings have been mainly derived from two case studies in Zanzibar, they provide an empirical basis to question important theoretical assumptions that relate to a wider array of setting and conditions.

By contrasting CPR theory with actor-oriented theory, this study has shown that the theoretical view underpinning empirical work can have a significant effect on the representation of CBNRM projects. This underlines the point that theoretical choices can obscure significant explanatory events and social relations relevant to both the fate of CBNRM projects and their beneficiaries. Grossly over-simplifying socio-environmental relations results in a CBNRM planning tendency to see people only as ‘rational resource users’, rather than people enrolled in multiple network relations with differentiated means of influence, interests and responsibilities. This exercise of hubris by some CPR theorists leads them to too easily translate explanations of commons’ experiences into institutional predictions for policy application in highly differentiated and uncertain project environments. It would be better to accept the complexity of interventions by acknowledging that we can never completely a priori know project conditions because projects invariably alter what conditions there are to be known. The simplified response of CPR theory has also resulted in a tendency to conceive CBNRM projects as apolitical – as a form of ‘good governance’ that sets up a ‘neutral facilitating process’ to manage and use resources. This is also due to communitarian assumptions about ‘coherent communities’ bound solely as resource users. Contrary to these assumptions, the findings of the two case studies in Zanzibar indicate that CBNRM projects are highly politicized and that liberal notions of institutional neutrality are therefore extremely problematic.32

Put simply, if there is a large dependence on forest resources amongst the poorer

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32 As Chhotray (2004) writes, in the sense that liberals view individuals as evenly situated autonomous actors who are free to choose a course of action on the basis of their individual preferences. Here, contentions over resource use are resolved through politically neutral CBNRM institutions. This notion of liberalism conflates a normative view of what ought to be with what actual is and does not consider forms of power outside of Dahl’s first dimension of power.
parts of communities, how can a project that seeks to control resource use be apolitical?

There is, however, a deeper dimension to this question than merely acknowledging the ubiquity of local politics in CBNRM interventions. The world-wide importance of forests, threats to these forests, determination of the degree of the local dependency on these forests as well as the policy solutions to manage these forests are invariably decided ‘somewhere else’. This leaves little scope for people residing in and around these forests, which are commonly locally regarded as customary land, to make influential decisions over resources. In some cases local people may even feel ‘locked into’ a future as forest managers and users. Nevertheless, forests remain important for a multitude of reasons for many people living in, and around them, in Zanzibar and elsewhere.

The empirical work in this thesis shows how politics around CBNRM interventions takes different forms. A key misconception seems to be that relations within communities are based primarily on a generalized relationship between the local population and local resources. What actor-oriented theory has shown in this thesis is that relationships between people and resources are diverse and they must be understood in broader and contextually specific terms. This position sees village members not just as ‘rational forest users’ but people with complex and differentiated social and cultural interconnections that transcend the locality of the village and the rigidities of categories of CPR theoretical analysis.

A more fluid and ‘thicker’ approach to institutional analysis that reflects an embedded understanding of institutions – their interactions and implications – is needed. To do this, there first needs to be acknowledgement that people pursue various interests in spaces opened up by project interventions. Second, that some people are more constrained than others in pursuing these interests. Third, that project interventions will change the existing social and socio-environmental relations in some way. How these constraints are dealt with in CBNRM projects may well mean the difference in galvanizing support, delivering benefits, keeping the lid on simmering discontent or abject failure. The CPR theory arguments of parsimony and efficiency (largely borrowed from economics) are hard to sustain when CBNRM projects so often flounder. This is not to say that formalizing institutional signals in projects in many situations is not important in influencing peoples’ resource use behaviour, nor that government should not help steer CBNRM projects in cases like Kisakasaka. However, a strict interpretation of CPR theory exhibits an overly narrow and simplified view of peoples’ life worlds, and the way they interact with project interventions. This implies that analysis of commons must shift from an interest in correlating ideal institutional design factors with practice to understanding the social relations of institutional transitions.

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33 For example, for biodiversity, wood supply or, most recently, as carbon sinks.
This thesis has shown that more actor-oriented research could help to change the view of institutions as facilitators of functional action to one more concerned with understanding and dealing with the complexity and interactions of politics in CBNRM projects. However, more work is needed on how to handle the influence of multiple realms and the way that emergent conditions affect the decisions of resource users.

This thesis also discussed tensions between the CBNRM project goals of efficiency and participation. In CBNRM projects, the rhetoric of participation is used as a ‘place holder term’ for many specific kinds of project involvement and for that matter, outcomes, e.g., empowerment. This suggests that in some situations, participation is used instrumentally by planners to ground projects and to distract from the more substantive concerns of project target groups, i.e., as a means to control and quell politics. Additional research should aim to examine how rhetorical strategies around participation and empowerment are used to maintain the ‘shape of projects’ and with what implications. There are issues of accountability and social justice involved here, but also project function. Simmering discontent or constrained consent amongst project target groups does not build supportive constituencies, as shown in the Jozani case study. Related to this, there seems to be a widely held view of the complementarity between ‘local knowledge’ (garnered through participative strategies) and scientific or ‘expert’ knowledge in CBNRM projects. This is probably because of the largely unproblematised relationship between ‘local knowledge’ and ideas of participation and governance in CBNRM projects. This thesis has shown that ‘local knowledge’ can easily be discredited and dismissed if it conflicts with project or conservation goals. As Agrawal (1995) suggests developing anthropological methods to weigh and value the differing logics and epistemologies of local knowledges could help ‘even up’ the power politics of community conservation interventions.

CBNRM, as an approach to conservation, has recently been co-opted into large scale projects that are subject to greater international control in response to criticisms from biodiversity conservation advocates and professionals. The easy way that tourism and other ‘alternative income’ activities are promoted as ‘substitutes’ for local extractive livelihoods in these new hybridized CBNRM/ICDPs also needs closer scrutiny. Despite this trend to larger scale projects, CBNRM projects are still primarily and properly concerned with localized use and control of resources and it therefore remains important to study place-based dynamics and implications of projects. Future research should study the way that these project places interact with broader networks of relations and contextual factors (not in any strong structuralist sense) and how these interactions place constraints on, or provide opportunities to, differently situated actors.
References


International Program on Traditional Ecological Knowledge and International Development Research Centre.


Appendices

Appendix 1. Kisakasaka Interview Schedule (example)

Interview Schedule for Local Informants at Kisakasaka– the influences guiding institutional transitions

Explain that we are interested to find out why the KCC has gone through its several phases. Furthermore the task is to understand what has influenced the changes and the impact this has for local people and the mangroves. The questions below were used to guide the interview rather than be used word for word. Interviews were conducted during February-March 2007.

First gather basic information about respondent: age, education, sex, livelihood mix, i.e., what do they do to get by. Garner some more preliminary information about the role of the actor in mangrove management and use as well as in the village more generally.

1. Who or what process used to decide who could use the mangroves before the KCC (traditional or customary structures???)
2. How and why the KCC was first started? Why was it thought to be so successful in its 1st phase?
3. Why did KCC 1 disband or fold (key reasons)? What key people or organisations were involved in changing the situation (dissolving KCC1 and forming KCC2)?
4. What authorities or key people within the village have played a role in the changes in the KCC over the past few years? Outside the village?
5. What other village decision-making processes have affected decisions over access and control of resources?
6. Who has benefited and who hasn’t over the past 15 years through involvement in controlling and using the mangrove forest (some more than others)?
7. Do you think that there are less mangroves now than 20/10/5 years ago? What have been the major factors about use of the mangroves during these times?
8. Are you confident about the recent reformation of the KCC to manage the mangroves fairly and that the condition and resource availability in the mangroves will improve? Why?

9. What have you done to try and influence decisions about use of mangroves and other resources?

10. Some additional questions especially for KCC1 detractors (or equally to those that tried to maintain status quo):

11. Why did you think the KCC needed changing (or if they did)?

12. How did you personally go about trying to change things (important here to get details about specific strategies, resources and affiliations that were drawn on)?

13. Was it successful? Why, why not?

Reflection point: How are the KCC1 detractors connected? Is this by exclusion from KCC1 or by kin, socioeconomic strata or party political affiliation? What binds them?

Charcoal linkages to markets

14. How do you transport charcoal to market? Who do you pay and how much and how is it organised?

15. What price do you get and what is the current market price in Zanzibar Town? Has the price stayed the same and local share of it changed over the years – how and why?

Alternative Development: New Crab Farming Initiative

16. Are you involved? What has this involved? Has it being managed?

17. What do you think this venture offers you?

18. Is it likely to be important for villager livelihood into the future?
Appendix 2. Pete-Jozani Interview Schedule (example)

Interview Schedule for Pete/Jozani Community-based Actors regarding the JCBCA Project

This interview schedule was used a checklist for some initial interviews with community actors in Pete-Jozani during March-April 2009. The idea was to elicit specific information from villagers related to the conditions and dynamics around the set-up and operation of the JCBCP. It can be best seen as a way of directing and scoping discussions.

1. Collect personal details – name, title, role, occupation
2. Describe your role and activities in the JCBCP
3. What have been the good and bad things around this project?
4. Do you think that local people (describe which ones) had an opportunity to influence the project? How, and in what ways?
5. Has the time you have contributed to the JCBCP project been worth it? (Note: seek elaboration)
6. Were your affected by the land enclosure in the Park? Describe, including whether the process and compensation was fair/reasonable or not?
7. How else has the JCBCP affected your living conditions? (Note: also get a more general view regarding the Pete village)
8. Do you support the project or not? (Note: seek elaborations/reasons)
9. Describe the most important good and bad things about JCBCP? Have these changed over time?
10. Have Pete villagers been able to cooperate around the JCBCP? What have been the key points of conflict and cooperation? What has affected this and how could it have been done better?
11. How are relations (have they changed or..?) with the other villages involved in the project?
12. Has this ecotourism project or other alternative development projects provided benefit to you (others)? Which ones/ how/why? (Note: get a view on the benefits sharing scheme) Have they reduced your dependence on local resources (extractive use)?
13. Describe the mangrove management project? What happened here and why (also conditions of mangroves??)
14. Do you access forestry products/resources (discuss how important they are for the respondent and get a list of products/resources)? If so, has the availability of forest products increased or decreased? Has your dependence of forest products increased or lessened since the JCBCP?
15. Do you use the Pete mangroves or involved in their management in any way? Note: describe specific involvement.

16. Describe your role/relations with the Pete-Jozani Village Conservation Committee

17. Are you involved? Has this changed over time (How? Why?)? Do you know the members personally? Do you think that they doing a good job? Why, why not? Do they consult with the villagers (all or some)? Are there party political tensions? Do they provide good representation of your interests? (gender, socio-economic strata, occupational) Do you trust the VCC? Is it good at enforcing rules? Is it able to resolve conflicts? What could they do better?

18. How influential do you think was the community’s role (via the VCC and broader pop. and those directly affected) in setting the agenda for co-management?

19. Has the condition of the mangroves improved or worsened over the past 15 years? What have been the main drivers or cause of this change?

20. Has the Forestry Dept. and others (NGOs) adequately supported the project? What could they have done better? Note: seek examples of suggestions and positive and/or negative assessments and separate out the actors.

21. What is your biggest fear? What do you do to anticipated possible difficulties? What could you do?

22. What recently introduced economic strategies are working (or have the potential to work) for the village (who introduced them and how)? Also why do they work? Note: rank in order of relative suitability – important not to lead suggestions here (e.g. boardwalk, butterfly farming etc..)
This thesis examines how the theoretical assumptions of common pool resource (CPR) theory have contributed to the indifferent performance of community-based natural resource management (CBNRM) projects. Evidence is gathered from two CBNRM case studies in Zanzibar to show that CPR institutional design does not sufficiently acknowledge the politics or social complexity of project sites in its framing of beneficiaries as ‘rational resource users’. Moreover, the thesis contends that these limitations reduce CPR theory’s explanatory power and adversely affect the functionality of CBNRM projects. It is shown that actor-oriented theory, with its focus on points of conflict and power, can provide insights into CBNRM pre-project conditions and emergent practice useful for explaining project interventions.