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CORRUPTION IN THE COMMONS:

Why Bribery Hampers Enforcement of Environmental Regulations in South African Fisheries

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ABSTRACT

Few studies have explored on the micro-level why corruption hampers environmental regulations. The relationship between corruption and regulatory compliance is here investigated through confidential in-depth interviews with South African small-scale fishermen. Respondents describe how the expected behavior of inspectors and other resource users to ask for or accept bribes are vital in their compliance decisions. The interviews also shed some light on the puzzling role of trust and trustworthiness of public officials. While resource users often knows inspectors personally – and uphold discretion necessary for bribery to continue – they depict them as dishonest and describe how corrupt acts decrease their trustworthiness. The findings from the South African case illustrate the importance of curbing both grand and petty corruption to increase the effectiveness of regulations in natural resource management.

Keywords: regulatory compliance, corruption, bribery, common pool resources, small-scale fisheries, South Africa

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Introduction

In recent decades it has become evident that environmental degradation is a growing problem with implications for poverty reduction as well as for the health of ecosystems. Following the institutional turn within much of the social sciences, research today emphasizes that this degradation often stems from institutional failures (e.g Ostrom 1998). Weak institutions, poor enforcement of environmental laws and corruption are widely recognized among policy makers and alike as worsening the management of natural resources (World Bank 2011).

Especially corruption has been described as an evil with ecological implications. There exists plenty of anecdotal evidence suggesting that corruption harms the environment: bribery assists poaching of rhinos in protected savannas and enables the illegal logging of timber in tropical forest reserves. Systematic empirical studies find that also on an aggregated level is corruption associated with various aspects of over-exploitation of natural resources (Walpole and Smith 2005; Leader-Williams et al. 2009; Wright et al. 2007; Esty et al. 2005; Welsch 2004; Messer 2000; Pellegrini; Gerlagh 2006). Yet, our understanding of this relationship still contains certain gaps of knowledge.

The field of research studying the effect of corruption on the environment has suffered of limitations from relying on aggregate measures of environmental degradation, rarely performing empirical studies focused on the micro-level. Moreover, the literature has paid insufficient interest to the causal mechanisms producing this outcome. This article builds upon an existing argument, suggesting that corruption affects the environment negatively by hampering law enforcement. I argue that researchers now need to focus on the micro-level to understand nuances related to why corruption affects enforcement and compliance dynamics. More specifically, focusing on the compliance behavior of Common Pool Resource (CPR) users, the article addresses certain gaps – described below – in this body of research.

Recently a theoretical framework of citizens' willingness to comply with laws identifies corruption as one of several aspects that undermine compliance (Levi et al. 2009). Although this framework contributes richly, the argument still leaves some questions unanswered and two puzzles are here identified. Firstly, it is unclear whether or not the scale of corruption matters for the effect on compliance. That is – referring to the established distinction between petty corruption and grand corruption – it is not discussed nor investigated if corruption at both segments of society would affect compliance. Secondly, the literature present a slightly contradictory narrative related to the role of trust and trustworthiness of government officials. Some scholars have argued that corruption corrodes authorities' trustworthiness and hence affect citizen's willingness to obey the law

(Levi and Stoker 2000; Levi et al. 2009). However, corruption in natural resource management at the local level is also described as being facilitated by trust among the involved citizens and public officials (Shikora 2011; Robbins 2000; Akpalu et al. 2009). This puzzling role of trust in the relationship between corruption and compliance warrants a more thorough investigation.

Given these gaps of knowledge, the present article is interested in investigating why the corruptibility of enforcing authorities affects resource users' willingness to comply. More specifically, the aim is to explore how nuances of trust and trustworthiness of public officials and the scale of corruption are related to compliance among CPR users. An empirical investigation is employed using primary data from confidential in depth interviews with South African small-scale fishermen. By exploring CPR users' perceptions towards corruption and compliance on the micro-level the paper reaches theoretical as well as empirical insights. Respondents describe how the expected behavior of inspectors and other resource users to ask for or accept bribes are vital in their compliance decisions. Also corruption involving politicians and industrial actors seem to affect respondents' willingness to comply. Moreover, the interviews shed some light on the puzzling role of trust and trustworthiness of public officials. While resource users often knows inspectors personally – and uphold discretion necessary for bribery to continue – they depict them as dishonest and describe how corrupt acts decrease their trustworthiness.

The structure of this paper is organized as follows. Section 2 discusses previous research on how corruption affects the environment. Section 3 outlines the theoretical relationship between corruption and regulatory compliance and section 4 deals with the methodology. Section 5 analyzes the accounts from the qualitative investigation. Section 6 discusses these findings and section 7 concludes.

Corruption and the Environment

The focus on the relationship between corruption and the environment is far from new. Even in Hardin's (1968) seminal contribution it is cautioned that corruption threatens the management of the commons. Accordingly, the old maxim of *quis custodiet ipsos custodes* illustrates that the authority responsible for enforcing regulations risks becoming corrupted: "...administrators, trying to evaluate the morality of acts in the total system, are singularly liable to corruption, producing a government by men, not laws" (p. 1246). A body of empirical research has since then demonstrated a pattern where national levels of corruption affect loss of biodiversity, success of conservation, deforestation rates, and also correlate negatively with aggregate measures of sustainability (Walpole and Smith 2005; Morse 2006; Leader-Williams et al. 2009; Wright et al. 2007; Koyuncu and Yilmaz

2009; Fredriksson and Svenson 2003; Pellegrini and Gerlagh 2006; Carter 1997; Lopez and Mitra 2000; Cole 2007).[1] The few but notable examples of related studies using a more qualitative approach have studied the impact of corruption on deforestation in some national settings (Miller 2011; Robbins 2000; Smith et al. 2003; Pellegrini 2011).

The theoretical accounts for causal mechanisms in this literature are quite vague, mainly consisting of two strands of explanations for why corruption harms the environment. One is focused on the content of rules, arguing that corruption affect the substantial stringency of environmental policy, as bribery and lobbying shapes policy in corrupt societies (Damania et al. 2004, 493; Welsch 2004, 685; Fredriksson and Svenson 2003, 1385). A more commonly held explanation instead focuses on that corruption hampers law enforcement, thus allowing emitters to evade responsibility of pollution or encouraging the overexploitation of resources (Smith and Walpole 2007, 251-252; Esty et al. 2005, 304; Leader-Williams et al. 2009, 297; Robbins 2000, 427). Interestingly, these studies do not advance this theoretical reasoning much further. This paper follows the vein of the latter type of explanation, on how corruption affects enforcement and compliance dynamics.

Corruption is here defined as "the misuse of public office for private gain" (Treisman 2000, 399). It is said that "corruption in monitoring institutions can usually be separated from political decisions" (Kolstad and Søreide 2009, 223) and bureaucratic or petty corruption is often contrasted to political or grand corruption.[2] Both types of corruption are analyzed in this article. An example of petty corruption in CPR management is when a fisherman is asked, or offer, to bribe a public official responsible to enforce existing regulations to evade sanctions for noncompliance. Grand corruption is, for example, when industrial fishing companies is asked, or offer, to bribe decision-makers to abstain from regulating their sector. CPR are here non-excludable and under rivalry and CPR users are broadly defined as the people involved in the harvesting of the specific resources (Ostrom 2008, 11). With regards to CPR, there is a risk that individually rational decisions and socially optimal outcomes for the community do not coincide: "if 'everyone' sees only to his own self-interests and exploits the resource to the maximum, it will soon be exhausted" (Rothstein 1996, 148). Thus, it has been stated that noncompliance potentially has a serious environmental

[1] The use of the Ecological Sustainability Index as an aggregate measurement of ecological sustainability by Morse (2006) has been criticized. Ewers and Smith (2007) argue that when using a different measurement of aggregate sustainability, the Ecological Footprints approach, the effect of corruption is insignificant.

[2] This established distinction generally refers to the level in the state (involving politicians, or involving public administrators) and on which magnitude corruption takes place (World Bank 2000). "The former is defined as an attempt to influence the setting of policy by making payments to politicians, while the latter reflects payments made in an attempt to avoid the consequences of a given policy" (Wilson and Damania 2005, 517).

impact (Robbins et al. 2006). The rationale of choosing to focus on compliance of CPR users in this article is based on the assumption that attempts to regulate CPR are "worthless without compliance" (Keane et al. 2008, 75).[3]

Corruption and Compliance

A crucial question is why people obey the law. The literature has been described as containing two theoretical perspectives on compliance, one instrumental and one normative (Kuperan and Sutinen 1998). The more rationalist view focuses on individual behavior as calculating between costs and benefits (Becker 1968; Polinsky and Shavell 2000). This approach assumes people to "assess opportunities and risks and disobey the law when the anticipated fine and probability of being caught are small in relation to the gains from noncompliance" (Murphy 2004, 188). The other view suggests that attitudes and moral obligations are important in explaining compliance behavior. This perspective stresses that people often use trust heuristics when deciding to comply or not (Scholz 1998, 139).[4] Scholars form this strand of the literature states: "the more trustworthy citizens perceive governments to be, the more likely they are to comply with or even consent to its demands and regulations" (Levi and Stoker 2000, 491).[5]

In the literature on regulatory compliance several authors have discussed the role of corruption. According to the rationalist approach corruption weakens enforcement measures since this malady affects the risk assessment of getting caught: "Bribery dilutes deterrence because it results in a lower payment by an offender than the sanction for the offense" (Polinsky and Shavell 2000, 2). The perspective focusing on trust heuristics have pointed towards the corroding impacts of corruption on trust. A recent theoretical contribution by Levi, Sacks and Tyler (2009) presents a model of compliance where trust is given a central role. Two factors, trustworthiness of government and procedural justice, are in this model seen as fostering law abidance: "compliance rates should further rise to the extent citizens judge government as administratively competent to (…) control corruption, and generally enforce laws by punishing those – be it citizens or government officials –

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[3] A delimitation is here to study willingness to comply. Based on Levi et al. (2009) an assumption is that this eventually will translate into actual behavior. Previous studies on compliance indicate that compliance intentions are an empirically valid proxy for actual compliance (e.g. Esseks et al. 1997).

[4] In the literature on compliance in fisheries this approach focuses on norms (Hatcher and Gordon 2005; Gezelius 2004). Among these norms, procedural justice has been given a central part as well as its relation to the wide concept of legitimacy (e.g Jentoft 2000).

[5] Compliance stem from different rationales and distinctions have been made between coercive, ideological and quasi-voluntary compliance (Levi 1989, 40-55). The sources for citizens' acquiescing to unfavorable decisions are described as diverse (Levi 1997, 19).

who break them" (Levi et al. 2009, 356-357). Other authors have proposed that there is a direct negative effect from the knowledge of corruption among public officials to levels of trust in the authorities but, importantly, also towards other people in general (Rothstein 2011). Although this view does not explicitly deal with compliance their contribution of how corruption relates to trust can be connected to the previous discussion on corruption and trustworthiness. Furthermore, one can find support in this literature for assuming that CPR users evaluate others users' behavior in their decision to comply or not (Tyran and Feld 2006, 137).

I will here argue that there exist two important theoretical puzzles that are in need of a thorough examination. Firstly, it is unclear if the scale of corruption, referring to the distinction between petty and grand corruption, matters for the effect on compliance. The reasoning of Rothstein (2011) stands in sharp contrast to the one proposed by Uslaner (2008). While Uslaner describe corruption of a grand kind as negative for trust he assigns a different role for bureaucratic, or small-scale, corruption: "No measure of petty corruption – be it the education system, custom officials, giving gifts, or being asked to by workers in the education or medical systems – leads ordinary citizens to be less likely to trust their government" (Uslaner 2008, 177). Furthermore he also proposes: "petty corruption is largely unrelated to trust in other people" (Uslaner 2008, 20). The view can be contrasted to aforementioned scholars' account of this relationship in which petty corruption involving public officials will indeed affect trust among citizens: "Citizens will be able to see that most people in a society with corrupt officials must take part in corruption and similar practices… They will therefore make an inference that most other people cannot be trusted" (Rothstein 2011).[6] This difference has important implications as the former view could imply that countering petty corruption in CPR management should be less prioritized than policies addressing "grand thefts". Theoretically this difference is also important as it is left unsaid in the framework by Levi and colleagues (2009) if the scale in which corruption occurs matters for the effect on compliance.

The second puzzle relates to the role of trust. Given the discussion above we seem to have theoretical reasons to believe that trustworthiness of government is diminished by corruption. However, some scholars argue that corrupt transactions at the local level are facilitated by trust among the involved citizens and public officials (Akpalu et al. 2009). Robbins (2000) states in his influential model of corruption in natural resource management: "Officials and illicit resource users must establish trust that contracts will be honored and that no one will invoke legal restrictions.

[6] These authors do not discuss compliance, but make important and contrasting assumptions regarding the impact on interpersonal trust from petty corruption.

This trust, either amongst officials or between officials and those who would bribe them, must pass a subjective threshold for mutual action to occur" (Robbins 2000, 427-428). Rather than its corroding impact on trustworthiness, Robbins is here discussing "trust in corruption" (Robbins 2000, 436). Similarly, it has recently been argued "the transaction between a client and a corrupt official depends on trust and reciprocity which may be fostered for example by repeated interaction" (Shikora 2011, 2). Hence, we here have an inconsistent narrative where trust on the one hand is said to facilitate corruption on the local level, and where corruption on the other hand is said to corrode authorities' trustworthiness.

The main research problem guiding this article is thus how we can understand why the corruptibility of enforcing authorities affects CPR users' willingness to comply. In order to gain additional knowledge related to the above described puzzles the following two questions need to be answered:

- In what way does nuances of trust and trustworthiness of public officials relate to regulatory compliance among CPR users?
- Does corruption of both petty and grand types affect CPR users' willingness to comply with regulations?

Methodology

Aiming to answer these two questions this article uses primary data from confidential in depth interviews with South African small-scale fishermen.[7] This case is chosen on the basis that the sector is governed by a regime with challenges of low compliance and high levels of corruption among its enforcing authority. As will be described below, both petty and grand corruption has taken place in this sector. Resource users from this context will likely have opinions in this matter compared to a setting where bribery involving inspectors are rare. Hence, if we are interested in the nuances of CPR users' perceptions on this topic, this case provides ample opportunities for an in-depth inquiry.

Interviews are used since this conduct is particularly useful for accessing individuals' perceptions and can "achieve a level of depth and complexity that is not available to other, especially survey-based, approaches" (Byrne 2004, 182). In-depth interviews were performed with twelve

[7] The term "small-scale" is used here to encapsulate the categories of "artisanal", "traditional" and "subsistence" fishermen (Hauck 2008, 637). Industrial actors are active in a completely different type of resource harvesting.

carefully selected respondents.[8] These respondents were small-scale fishermen from the southern and western part of the South African marine coast. The respondents were selected after a larger number of fishermen – almost two hundred – had been approached with probing questions, aiming at finding important differences between the selected persons. The respondents were thus chosen by the principle of maximum variation sampling, aiming to maximize diversity among respondents relevant to the research question (Cohen and Crabtree 2006; Marshall 1996). Relevant parameters were, amongst other, the type of sector, socio-economic patterns, attitudes to regulations and perceptions of the enforcing officials (see Appendix 1). Care was taken to include fishermen known to engage in poaching.[9]

The interviews were most often performed in the respondent's homes. The language regularly used was English. When the respondents preferred to speak in Afrikaans an interpreter was present. The respondents could speak at length and freely on issues related to fisheries regulations and harvest compliance. Although no firm structure was used, the author ensured that the interviews touched upon the topic of compliance and perceptions of inspectors and fellow fishermen. Confidentiality was promised to the respondents and sensitive information was discussed that put the author in the position of having to keep the promises of discretion to respondents rather than informing law agents of criminal acts (Kvale 1996, 115). The sensitive nature of corruption potentially puts respondents in risk when interviewed. Yet, the impression is that the degree of "correctness" in respondents' accounts is low, as they casually discussed their violations and experience of bribery.

Rather than factual information the interviews seek a deep understanding of the respondents' perceptions on the topic. Given the sampling strategy no attempt is made to quantify these results. Respondents talked at length on their perceptions of the politics surrounding fisheries, views that here have been edited. In the analysis of this data, the strategy used is similar to one where the researcher uses a narrative technique guided by an analytical framework (Wolcott 1994, 33).

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[8] Interview data was collected during March and April 2011.

[9] Only one of the respondents is female. South African fisheries do have a large amount of women. However, these women often make a livelihood on landing sites, responsible for the stage in the process after the catching of fishes. Since the focus here is on compliance, it is argued that mainly the persons catching the fish make this choice.

South African Small-scale Fisheries

The diverse fisheries in South Africa directly and indirectly employ approximately 43 000 individuals (FAO 2010). The Marine Living Resources Act (MLRA) was enacted in 1998 and the fisheries now employs a broad set of management measures, including controls for capacity, catches, gears as well as time restrictions and protected areas (Cunningham and Botilde 2005, 77) Small-scale fishermen hence have a number of regulations affecting them during harvesting. Enforcement measures are carried out under the Fisheries Management branch of the Department for Agriculture, Forestry and Fisheries (DAFF 2010).[10] The violation of fisheries laws is treated as a criminal offense and the authorities are entitled to revoke, suspend, or decrease the fishing rights of convicted actors (Republic of South Africa 1998, 28). Besides this approach of deterrence there also exist attempts to create moral foundations for compliance, including measures to create trust, cooperation and delegation of authority (Hauck and Sowman 2001). This however seem to have had limited effect as fishermen are described as mistrusting the regime, creating a "'culture of non-compliance' in which there is little moral obligation to comply" (Branch and Clark 2006, 7). Levels of illegal fishing remain significant, the cost having been estimated to US$ 815 million annually. Poaching of abalone is the most profitable illegal fishery (Pitcher et al. 2006).[11]

When monitoring measures were evaluated a decade ago corruption within the enforcing authority was identified as a problem (SADC 2002, 13). Since then, the administration is described as having a strategy of "anti-corruption techniques – directed to corruption among officials within the MCM" (Hauck and Kroese 2006, 79). Yet, numerous scandals have indicated that problems persist. For example, in 2009 an ANC district treasurer was stopped in his car by policemen in a roadblock. In the backseat of his car – which was plastered with ANC branding, including a poster of president Jacob Zuma – the policemen found nearly 2 500 shucked abalone worth about R390 000 in plastic bags (Cape Argus 2009). The law enforcement capacity of the fisheries management is generally described as being tainted by corruption (Hauck and Hector 2000, 120; Hauck 2009, 119).

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[10] Management of fisheries was previously delegated to the MCM in Cape Town (Kleinschmidt 2007:8).

[11] The harvesting of abalone (*Haliotis*), or perlemoen as this edible mollusk is also known, was declared illegal and put on the CITES list in 2007. Under this period the MCM is described as becoming economically dependent on selling confiscated abalone. During 2010 abalone fishing was again declared legal, yet imposed heavy restrictions on permissions. The lucrative business of poaching abalone remains a big issue (Auditor-General of South Africa 2009).

Results

A striking pattern in the interview data is the trait of negative attitudes towards the enforcing authority and its inspectors.[12] The respondents' contact with officials from this authority takes place foremost when being inspected or applying for licenses. Respondents touch upon an experience of corruption among the department, portraying this as a "common knowledge". An example of corruption mentioned by respondents is the giving of bribes to inspectors. This is mostly done at landing sites, if caught for violating regulations, but also in other situations to establish a mutual relationship. These bribes are mainly monetary but consist sometimes of gifts such as fish-catches. As will be discussed below, also fishermen are described as initiating these transactions.

Although most respondents in this diverse sample admit that they have broken fisheries regulations, few have the image of themselves as "a poacher". The overall impression from the interviews is that the fishermen voice how the corruption in the sector negatively affects their willingness to comply.

The Complex Role of Distrust and Discretion

When respondents account for experiences and perceptions of the payment of bribes to inspectors, this conduct often seems to invoke strong feelings. According to one respondent, the corrupt act of an inspector has a direct negative impact on his own attitudes towards regulations:

'Asking me for bribes make me feel sickened of this community. I have been asked to give the inspector here a box of Cray Fish so that he will look the other way if my crew or I catch crays under the minimum size this year. Now my confidence for this man is ruined. He is not interested in preserving the resource' (IP 8).[13]

Important to note here is that the respondent clearly speaks of the corrosion of confidence to the behavior of this official following from his proposal of bribery. A similar description is given from a skipper active in the line fishing sector since fifteen years:

'We have special inspectors in [name of the landing site] and it is their behavior which concerns me. I know this man [a certain inspector from the department]. He is not an honest man. (…) He also asks for money if you are caught breaking rules. So, few people on the boat I work on will follow rules carefully' (IP 10).

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[12] The authority is still commonly named as "MCM" or "The department" by respondents, though it has changed its name to Fisheries Management (FM) and is now a branch of DAFF (DAFF 2010).

[13] Cray Fish is here the local name for the West Coast Rock Lobster (*Jasus Lalandil*).

Various narratives from respondents deal with the lack of trust towards inspectors and how their habit to ask for bribes renders the respondents to describe them as "dishonest". Another account gives an even more direct description of the relationship between the behavior of inspectors and noncompliance:

'I understand why people don't trust the inspectors. It's easy to get away with everything. First they make you feel afraid, saying that you will lose your license. Then they say that something can be done. So you pay them. That's why people know that on a bad day it's ok to take some of the crays under the minimum-size' (IP 8).[14]

Besides these accounts of distrust the material illustrate that the act of bribery between fishermen and officials often is clouded within social ties, which enables the discretion and bribery to continue. A respondent, active since 40 years in the Rock Lobster sector, explain:

'I give him [the inspector at a certain landing site] a fish from time to time so why should I be careful with the minimum size. He is not in the position to give me fines. We are friends' (IP 11).

Another fisherman gives a similar explanation, expanding on how fishermen in his community normally reason. The respondent, who currently is a right holder active in the line fishing sector, elaborates on this topic:

'I don't poach during night. But sometimes I take more than allowed. Most people do. It's not very difficult. (…) With this inspector it's special. He knows me. I am certain that he would not make me pay fines. Sometimes I give his family fish. So why would he?' (IP 5).[15]

The Corrosion of Compliance from Petty Corruption

The above descriptions illustrate that corruption of the petty kind seem to decrease respondents' willingness to comply. Accounts from other respondents indicate how widespread corruption has made noncompliance an everyday opportunity for an extra income. A respondent, active in the Rock Lobster sector, explain his rationale for not complying and how important the role of bribery is in this decision. Interestingly, the initiatives to conduct the illicit transaction seem to come from the community, rather than the inspector:

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[14] The quote refers to a regulation which stipulates that a Rock Lobster has to be at least of a certain size to be allowed to be caught. Catching "under the minimum size" thus refers to a common violation of regulations.

[15] In this context "poaching during the night" refers to abalone fishers making huge sums on illegal activities that many of the other fishermen perceive as illegitimate poaching.

'If I get caught for overcatch by inspector the fine is maybe 5000 Rand. This I will not pay. Instead I will pay 1000 Rand to the inspector. It is common knowledge. We regularly give to inspectors so that he will keep a good eye to me if something happens. The inspector lives in our community. He moved here a while ago and did not know how we used to do with the previous officer. We took the new inspector and instructed him that we will overcatch to survive and he have to understand this. The inspector now understands our agreement and turns a blind eye. We give him Rocklobsters or Snoeks. And this also makes us less willing to follow regulations' (IP 3).

Apart from firsthand experience of bribery and the perceived behavior of officials, the respondents repeatedly touch upon the behavior of the other fishermen, illustrating how important the evaluation of their perceived actions is for law abidance. The opinion from a crewmember shows how this can manifest itself:

'I don't like the MCM policy. But yes I would follow it if everybody else did. Then the crays would last longer. Now everybody knows that you can bribe if you get caught, so it's like a battle when the weather is good and the season is right. …You take as much as you can, and rules do not matter anymore' (IP 11).

Moreover, accounts illustrate how resource user find themselves in a situation where it is rational to choose noncompliance, even though the respondent relates this issue to a predicament of long-term consequences.

'…and I don't know why I should be the one following difficult rules when I have heard that he [a corrupt inspector] has made the same offer to [name of another fisherman]. This creates a problem in the community' (IP 8).

It is interesting to note that perceptions of fellow fishermen's behavior could possibly be different with regards to fishermen active in other parts of the country. According to some respondents, corruption involving inspectors and fishermen in a community distant from the individual herself is different compared to bribery taking place in the own community. One respondent, involved with net fishing since ten years, voice his opinion on corruption involving inspectors in other locations than his own:

'I know that it's common with bribery in [name of harbour]. The inspectors get money or favours. So they look away. But it does not really affect me. I will still follow the rules. Here, in this community we try to be honest. Let them bribe how much they want to. We are not like them' (IP 4).

Stating that corruption in the other location does not affect him, the respondent implies that the perception of corruption affects the willingness to follow rules differently depending on

where the corruption takes place. However, it is also visible in the material that some respondents do make a connection between corruption in the own community and corruption taking place in other communities:

'We know now that we can pay this inspector. So why should we comply? And we know that this is the case in other areas as well. So people do not want to be the only guy, poor but following rules. (…) Since I know that I will be able to bribe him [name of inspector], I know that my neighbor can. And they know as well' (IP 3).

The Corrosion of Compliance from Grand Corruption

The accounts above indicate that petty corruption seem to have a corroding impact on compliance. Moreover, respondents also describe how corruption of the larger scale would affect their attitudes to regulations. This respondent, himself having the legal right to harvest abalone, explains:

'There have been scandals. The ANC people and trawling companies have a common interest. They want to see people employed. (...) So inspectors know that they should not be too hard. And I think they get money to be soft. But this big game of money, I don't like it. The trawlers take our fish before it comes near shore. And then we are supposed to be honest, we who are poor. (…) It makes me feel that our regulations are just a new apartheid. Why should I follow the rules when trawling companies can pay the MCM to take our fish?' (IP 6).

In the interview material there are further illustrations of the corroding impact on compliance from this grand type of corruption. The following quote, from a fisherman in the line fishing sector, display how the respondent believe that industrial actors get away with actions that small-scale fishermen does not. This, he argues, decreases his own motivation for conforming to regulations:

'There is also corruption in the offshore sector. The big boat owners give bribes to inspectors. But we, the small-scale fishermen are more forcefully enforced, almost harassed. (…) Everybody works for something. Money talks. And it is the big actors who can pay' (IP 2).

Discussion

The interviews shed light on the complex role of trust and trustworthiness related to corruption in natural resource management. Accounts by respondents suggest that their trust towards inspectors is diminished by bribery and that this decrease their willingness to comply. This would support the narrative in the literature of the corrosion of trustworthiness from corruption. Similarly, the puzzling role of trust given in the literature is manifest in the material. Fishermen have informal ties

with inspectors where bribery is the expected behavior and their willingness to comply therefore is low. The insight that bribery is intertwined in social relations with public officials at the local level has been mentioned in earlier accounts of corruption in natural resource management (Akpalu et al. 2009). However, the fact that these respondents know an inspector do not necessarily exclude that the corruptibility of the same person corrodes fishermen's trust towards his or her intention to enforce regulations. One fisherman quoted above describes an inspector as a "dishonest man" but still indicate that he knows the person. This is important theoretically as it implies that a resource user can have social ties to an inspector yet not trust him to enforce regulations honestly. One way to understand this relationship is to analyze it in the light of findings from the literature on public administration, arguing that citizens apply one ethical set of values to public servants and another one to the family (Lundqvist 2010). Here, the distinction is clearly fuzzier. During the interviews "knowing an officer" was a reoccurring expression for knowing which inspectors in the area that were corrupt and who were not.

This study contributes with insight for scholars and practitioners interested in South African fisheries, illuminating that the behavior of enforcing officials needs to be addressed in order to increase compliance. However, the ambition is here to be able to expand the theoretical findings on corruption and compliance to other settings. The context in which the data was collected sets certain boundaries to the results of this study. Being a regime with an existing, albeit corrupt, enforcing authority, the management of South African fisheries does inhibit some special features. One could imagine that the perceived corruptibility of the enforcing authority might have a different meaning in a setting in which CPR are governed by neither formal regulations nor an enforcing authority. However, this hypothetical example would be an exception: after all, most countries do have formal regulations governing their natural resources, though with varying degree of effectiveness. For this reason the findings from this article could arguably be expanded to have relevance also in other settings where corruption is prevalent. Though the respondents participating in the confidential in depth interviews were not large in numbers, they were carefully selected in order to maximize their diversity regarding aspects relevant for attitudes towards compliance. A next step for researchers interested in expanding this theme of research could be to broaden the sample, including CPR users from other settings.

Conclusions

Why does corruption affect common pool resource (CPR) users' compliance to regulations? It has previously been shown that national levels of corruption correlates with aggregate measures of

environmental degradation. However, the departure for this article has been that this literature seldom has explored the causal mechanisms on the micro-level producing this outcome. The aim in this article has been to develop the understanding of why corruption affect compliance and, more specifically, to explore how nuances of trust and trustworthiness of public officials and the scale of corruption are related to compliance decisions among CPR users. An empirical investigation was employed using primary data from confidential in-depth interviews with a diverse sample of South African small-scale fishermen. Accounts from respondents illustrate how the widespread corruption within the enforcing authority makes noncompliance compelling despite its long-term negative effects.

The article contributes to our theoretical understanding of the relationship between corruption and compliance of CPR users in two distinct ways. Firstly, this investigation adds to our understanding of the impact of corruption of different scales and segments of society. The literature has presented opposing views on whether or not petty corruption affects trust and hence regulatory compliance. Results from this article illustrate how both grand and petty types of corruption affect resource users' willingness to comply and hence, hamper the effectiveness of regulations. Secondly, this study elucidates the complex role of trust and trustworthiness. Respondents describe how the bribery involving inspectors have resulted in a diminished trust towards their behavior and hence a decreased willingness to comply. Interestingly, some respondents also know the local inspector personally but still perceive him as dishonest and know him to be corruptible. Thus it seems that distrust can coexist with discretion as corrupt transactions and noncompliant behavior are sustained.

The implications for policy from these results are quite straightforward as they should be further evidence in the case of not making small-scale bribery to an issue of low priority. In order to improve regulations of natural resources in states where corruption is a widespread malady, policy makers and practitioners alike increasingly need to focus their attention to the everyday bribery involving administrators responsible for enforcing policies on sustainability. It has been stated that "corruption in fisheries management has not received the same scrutiny or public awareness as corruption in other resource sectors. This remains a key obstacle for reform, and it is important that more is done to place corruption in fisheries on the international agenda" (Standing 2008, 22). The findings from this study should serve as a reminder that corruption in fisheries management needs to be addressed with renewed strength.

REFERENCES

Akpalu, Wisdom, Håkan Eggert, and Godwin Kofi Vondolia. 2009. *Enforcement of Exogenous Environmental Regulation, Social Disapproval, and Bribery*. Journal of Socio-Economics *38 (6): 940-945*.

Auditor-General of South Africa. 2009. Report of the Auditor-General to Parliament on performance audit of the handling of confiscated abalone at the Department of Environmental Affairs and Tourism. /http://www.environmental-auditing.org/Portals/0/AuditFiles/SouthAfrica_f_eng_Handling%20of%20Confis cated%20Abalone.pdfS

Becker, Gary. 1968. Crime and Punishment: An Economic Approach. *Journal of Political Economy* 76: 169-217.

Branch, George M., and Bary M. Clark. 2006. Fish Stocks and Their Management: The Changing Face of Fisheries in South Africa. *Marine Policy* 30 (1): 3-17.

Byrne, Bridget. 2004. Qualitative interviewing. In *Researching Society and Culture*, edited by Clive Seale, (2nd ed.). London: Sage.

Cape Argus. 2009. ANC Man Arrested in Abalone Bust. April 7 2009. http://allafrica.com/stories/200904070674.html

Carter, Thomas S. 1997. The Failure of Environmental Regulation in New York: the Role of Co-optation, Corruption, and a Co-operative Enforcement Approach. *Crime Law and Social Change* 26 (1): 27-52.

Cohen, Deborah, and Benjamin Crabtree. 2006. Maximum Variation Sampling. *Qualitative Research Guidelines Project*, Robert Wood Johnson Foundation.

Cole, Matthew A. 2007. Corruption, Income and the Environment: An Empirical Analysis. *Ecological Economics* 62 (3-4): 637-647.

Cunningham, Steve, and Clotilde Bodiguel 2005. Subregional Review: Southwest Indian Ocean. In *Review of the state of world marine capture fisheries management: Indian Ocean*. FAO. Fisheries Technical Paper No. 488. Rome: FAO.

Damania, Richard, Per G. Fredriksson, and Muthukumara Mani. 2004. The Persistence of Corruption and Regulatory Compliance Failures: Theory and Evidence. *Public Choice* 12: 363-390.

DAFF. 2010. Briefing to the Portfolio Committee on Agriculture, Forestry and Fisheries. Department of Agriculture, Forestry and Fisheries, South Africa. http://www.pmg.org.za/files/docs/100601daff.ppt#294,18,Current functional arrangements

Esseks, J. Dixon, Seven E. Kraft, and Edward J. Furlong. 1997. Why Targets of Regulations do not Comply: The Case of Conservation Compliance in the Corn Belt. *Journal of Soil and Water Conservation* 52 (4): 259-264.

Esty, Daniel, Marc Levy, Tanja Srebotnjak, and Alexander de Sherbinin. 2005. Environmental Sustainability Index. New Haven: Yale Center for Environmental Law and Policy.

Ewers, Robert M., and Robert J. Smith. 2007. Choice of Index Determines the Relationship Between Corruption and Environmental Sustainability. *Ecology and Society* 12 (1): 1-20.

FAO. 2010. Fishery and aquaculture country profiles: SouthAfrica. /http://www.fao.org/fishery/countrysector/FI-CP_ZA/enS, 2010.

Fredriksson, Per and Jakob Svensson. 2003. Political Instability, Corruption and Policy Formation: the Case of Environmental Policy. *Journal of Public Economics* 87 (8): 1383-1405.

Gezelius, Stig S. 2004. Food, Money, and Morals: Compliance Among Natural resource Harvesters. *Human Ecology* 32 (5): 615-634.

Hardin, Garret. 1968. The Tragedy of the Commons. *Science* 162: 1243-1248.

Hatcher, Aaron, and Daniel Gordon. 2005, Further Investigations into the Factors Affecting Compliance with U.K Fishing Quotas. *Land Economics* 81 (1): 71–86.

Hauck, Maria. 2008. Rethinking Small-scale Fisheries Compliance. *Marine Policy* 32: 635-642.

Hauck, Maria. 2009. Rethinking Small-scale Fisheries Compliance: From Criminal Justice to Social Justice. Unpublished doctoral dissertation, The University of Cape Town, Cape Town, South Africa.

Hauck, Maria, and Marcel Kroese. 2006. Fisheries Compliance in South Africa: A Decade of Challenges and Reform 1994-2004. *Marine Policy* 30: 74-83.

Hauck, Maria, and Merle Sowman. 2001. Coastal and Fisheries Co-management in South Africa: an Overview and Analysis. *Marine Policy* 25: 173-185.

Hauck, Maria, and Renée Hector. 2000. An Analysis of Operation Neptune: Government's Response to Marine Poaching. Occasional Paper Series. South Africa: University of Cape Town.

Jentoft, Svein. 2000. Legitimacy and Disappointment in Fisheries Management. *Marine Policy* 24: 141–148.

Keane, Adrian, Julia P. G. Jones, Edward G. Jones, and Eleanor J. Milner-Gulland. 2008. The Sleeping Policeman: Understanding Issues of Enforcement and Compliance in Conservation. *Animal Conservation* 11 (2): 75-82.

Kleinschmidt, Horst. 2007. Report on the Legislative, Policy and Governance Frameworks in the BCLME Region. Cape Town: FEIKE Natural Resource Management advisors.

Kolstad, Ivar and Tine Søreide. 2009. Corruption in Natural Resource Management: Implications for Policy Makers. *Resources Policy* 34: 214-226.

Koyuncu, Cuneyt, and Rasim Yilmaz. 2009. The Impact of Corruption on Deforestation: Cross-country Evidence. *The Journal of Developing Areas* 42 (2): 213-222.

Kuperan, K. Viswanathan, and Jon G. Sutinen. 1998. Blue Water Crime: Deterrence, Legitimacy and Compliance in fisheries. *Law and Society Review* 32 (2): 309-338.

Kvale, Steinar. 1996. *Interviews: An Introduction to Qualitative Research Interviewing*. London: Sage.

Leader-Williams, Nigel, Roland D. Baldus, and Robert J. Smith. 2009. The Influence of Corruption on the Conduct of Recreational Hunting. In *Recreational Hunting, Conservation and Rural livelihoods: Science and Practice*, edited by Barney Dickson, Jon Hutton, and William M. Adams. Hoboken, New Jersey: Wiley-Blackwell.

Levi, Margaret. 1989. *Of Rule and Revenue*. Berkeley: University of California Press.

Levi, Margaret. 1997. *Consent, Dissent and Patriotism*. Cambridge: Cambridge University Press.

Levi, Margaret, and Laura Stoker. 2000. Political Trust and Trustworthiness. *Annual Review of Political Science* 3: 475-507.

Levi, Margaret, Audrey Sacks, and Tom Tyler. 2009. Conceptualizing Legitimacy, Measuring Legitimizing Beliefs. *American Behavioral Scientist* 53 (3): 354-375.

Lopez, Ramón, and Siddharta Mitra. 2000. Corruption, Pollution, and the Kuznets Environment Curve. *Journal of Environmental Economics and Management* 40 (2): 137-150.

Lundqvist, Lennart. 2010. Etik i Offentlig Förvaltning. In *Politik som organisation*, edited by Bo Rothstein. Stockholm: SNS Förlag.

Marshall, Martin N. 1996. Sampling for Qualitative Research. *Family Practice* 13: 522-525.

Messer, Kent. 2000. The Poacher's Dilemma: The Economics of Poaching and Enforcement. *Endangered Species Update* 17 (3): 50-56.

Miller, Michael. 2011. Persistent Illegal Logging in Costa Rica: The Role of Corruption Among Forestry Regulators. *The Journal of Environment & Development* 20 (2): 50-68.

Moolla, Saheen. 2010. Illegal Fishing of Marine Resources in South African Waters: in Search of Solutions. Draft article. Institute for Security Studies: Cape Town.

Morse, Stephen. 2006. Is Corruption Bad for Environmental Sustainability? A Cross-national Analysis. *Ecology and Society* 11 (1): 1-22.

Murphy, Kristina. 2004. The Role of Trust in Nurturing Compliance: A Study of Accused Tax Avoiders. *Law and Human Behavior* 28 (2): 187-209.

Ostrom, Elinor. 1998. A Behavioral Approach to the Study of Rational Choice Theory of Collective Action. *American Political Science Review* 92 (1): 1-22.
Ostrom, Elinor. 2008. The Challenge of Common-Pool Resources. *Environment: Science and Policy for Sustainable Development* 50 (4): 8-21.
Pellegrini, Lorenzo. 2011. Corruption, Development and the Environment. Springer: Dordrecht.
Pellegrini, Lorenzo, and Reyer Gerlagh. 2006. Corruption, Democracy, and Environmental Policy: An empirical Contribution to the Debate. *Journal of Environment and Development* 15 (3): 332-354
Polinsky, A. Mitchell, and Steven Shavell. 2000. Corruption and Optimal Law Enforcement. *Journal of Public Economics* 81: 1-24.
Pitcher, Tony J., Daniela Kalikoski, and Ganapathi Pramod. 2006. *Evaluations of Compliance with the FAO (UN) Code of Conduct for Responsible Fisheries*. Fisheries Centre Research Reports 14, No. 2, Canada: University of British Columbia.
Robbins, Paul. 2000. The Rotten Institution: Corruption in Natural Resource Management. *Political Geography* 19: 423-443.
Robbins, Paul, Kendra McSweeney, Thomas Waite, and Jennifer Rice. 2006. Even Conservation Rules are Made to be Broken. *Environmental Management* 37 (2): 162-169.
Rothstein, Bo. 1996. Political Institutions. An Overview. In *A New Handbook of Political Science*, edited by Robert E. Goodin, and Hans-Dieter Klingemann. Oxford: Oxford University Press.
Rothstein, Bo. 2011. *Quality of Government: Corruption, Social Trust and Inequality in an international perspective*. Chicago: University of Chicago Press.
SADC. 2002. *SADC Monitoring, Control and Surveillance of Fisheries Activities Programme*. Working article no 9, the SADC- EU MCS programme. South African Development Community: Namibia.
Scholz, John. 1998. Trust, Taxes and Compliance. In *Trust and Governance*, edited by Valerie Braithwaite, and Mararet Levi. New York: Russel Sage Foundation.
Shikora, Jan. 2011. Four Essays on Corruption and Cooperation: Theory and Evidence. Unpublished doctoral thesis, Ludwig-Maximilians-Universität München: Germany.
Smith, Joytee, Ketty Obidzinski, Subarudi M. Wood, and Samsu I. Suramenggala. 2003. Illegal Logging, Collusive Corruption and Fragmented Governments in Kalimantan, Indonesia. *International Forestry Review* 5: 293–302.
Smith, Robert J., and Matthew J. Walpole. 2007. Should Conservationists Pay More Attention to Corruption? *Oryx* 39: 251-256.
Standing, André. 2008. Corruption and Industrial Fishing in Africa. U4 Anti-Corruption Resource Centre, U4 Issue 2008:7.
Treisman, Daniel. 2000. The Causes of Corruption: A cross-national Study. *Journal of Public Economics* 76: 399-457.
Tyran, Jean-Robert., and Lars P. Feld. 2006. Achieving Compliance When Legal Sanctions Are Non-deterrent. *The Scandinavian Journal of Economics* 108 (1): 135-156.
Uslaner, Eric. 2008. *Corruption, Inequality, and the Rule of Law*. Cambridge: Cambridge University Press.
Walpole, Matthew J., and Smith, Robert. J. 2005. Focusing on Corruption: a Reply to Ferraro and Katzner. *Oryx* 39: 263-264.
Welsch, Heinz. 2004. Corruption, Growth, and the Environment: a Cross-country Analysis. *Environment and Development Economics* 9: 663-693.
Wilson, John K., and Richard Damania 2005. Corruption, Political competition and Environmental Policy, *Journal of Environmental Economics and Management* 49 (3): 516-535.
Wolcott, F. Harry. 1994. *Transforming Qualitative Data: Description, Analysis, and Interpretation*. London: Sage.
World Bank. 2000. *Anticorruption in Transition - A Contribution to the Policy Debate*, Washington D.C.
World Bank. 2011. *Corruption and the Environment*, Washington D.C.

Wright, S. Joseph, Arturo Sanchez-Azofeifa, Carlos Portillo-Quintero, and Diane Davies. 2007. Poverty and Corruption Compromise Tropical Forest Reserves. *Ecological Applications* 17: 1259–1266.

APPENDIX

TABLE 1.

LIST OF RESPONDENTS - VARIABLES CONSIDERED FOR DIVERSITY OF MAXIMUM VARIATION

	Exp	Sex	Religion	Sector	Economic	Type	Poacher	Trust fishermen	Trust MCM	Right to regulate	Want sanctions
1	15	M	Chr	Line	Medium	Skipper	No	Yes	Yes	Yes	Yes
2	18	M	Chr	Line	Low	Crew	Yes	No	No	No	No
3	20	M	Mus	RL	Low	Crew	No	Yes	Yes	Yes	Yes
4	10	M	Chr	Net	Low	Crew	No	No	No	Yes	Yes
5	6	M	Chr	Line	Low	Skipper	No	No	No	No	Yes
6	18	M	Mus	Ab	High	Right holder	No	No	No	Yes	No
7	13	M	Chr	Line	High	Boat owner	Yes	Yes	No	Yes	Yes
8	7	M	Chr	Line	Medium	Crew	No	No	No	Yes	No
9	10	M	Rasta	RL	Low	Crew	Yes	No	Yes	No	No
10	15	M	Chr	Line	Low	Skipper	Yes	Yes	No	Yes	Yes
11	40	M	Mus	RL	Low	Crew	No	No	No	No	Yes
12	6	F	Chr	RL	Medium	Crew	No	Yes	No	Yes	No

Comments: "Exp" refers to Year of experience as a fisherman. "RL" means Rock Lobster, "Ab" means Abalone, "Line" means Line Fishing, all indicating the type of sector the respondents is involved in. "Economic" is a measurement of the perceived economic status in relation to other individuals in the community. "Type" is referring to the sort of fishermen the respondent is, if she is a right holder, a skipper or a crewmember. "Poacher" is the category stating if the fishermen see herself as a poacher or not. "Trust fishermen" and "Trust MCM" are a measurement of whether or not the fishermen trust other fishermen or the department responsible for enforcing regulations. "Right to regulate" is a measurement on whether or not the respondent believes that the government has the right to regulate fisheries resources. "Want sanctions" measures if the respondent wants violators to face sanctions.