

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

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I. 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; World Bank 2011). Especially corruption has been described as an evil with ecological implications. Plenty of anecdotal evidence suggests 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 corruption is associated with measures of over-exploitation of natural resources (Messer 2000; Welsch 2004; Esty et al. 2005; Walpole and Smith 2005; Pellegrini and Gerlagh 2006; Wright et al. 2007; Leader-Williams et al. 2009). Yet, our understanding of this relationship still contains certain gaps of knowledge.

The 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.

A theoretical framework of citizens' willingness to comply with laws identifies corruption as one of several aspects that undermine compliance (Levi et al. 2009). Though this framework contributes richly, it still leaves some questions unanswered and two puzzles are here identified. Firstly, the literature present a slightly contradictory narrative related to the role of trust and trustworthiness of government officials. Corruption is generally said to corrode authorities' trustworthiness and hence affect citizen's law abidance (Levi and Stoker 2000). 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 (Robbins 2000; Akpalu et al. 2009; Shikora 2011). This puzzling role of trust warrants a thorough investigation. Secondly, from the framework by Levi and colleagues (2009) it is unclear whether the scale of corruption matters for the effect on compliance. That is – referring to the established distinction between petty and grand corruption – it is not discussed nor investigated if corruption at both segments of society would affect compliance.

Given these gaps of knowledge, the present article investigates why the corruptibility of enforcing authorities affects resource users' compliance intentions. 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. The article reaches theoretical as well as empirical insights. The interviews shed some light on the puzzling role of trust and trustworthiness of public officials. While resource users often know inspectors personally – and uphold discretion necessary for bribery to continue – they depict them as dishonest and describe how corrupt acts decrease their trustworthiness. Moreover, 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 affect respondents' willingness to comply. Hence, both petty and grand types of corruption seem to corrode compliance intentions.

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.

2. Corruption and the environment

Hardin's (1968) seminal contribution cautioned that corruption threatens the management of the commons. Accordingly, the maxim of *quis custodiet ipsos custodes* illustrates that the enforcing authority 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). In line with this conviction, Agrawal (2007) highlights that the scholarship on the commons often has had a narrow focus on property rights and in order to increase its scope, this literature "therefore [needs] to incorporate more explicitly issues related to ... the extent to which corruption and violence may undermine the sustainability of resource governance" (p. 130).

A body of empirical research has demonstrated a pattern where national levels of corruption affect loss of biodiversity, success of conservation and correlate negatively with aggregate measures of sustainability (Carter 1997; Lopez and Mitra 2000; Damania et al. 2003; Fredriksson and Svensson 2003; Meyer et al. 2003; Damania et al. 2004; Ferreira 2004; Fredriksson et al. 2004; Welsch 2004; Walpole and Smith 2005; Pellegrini and Gerlagh 2006; Morse 2006; Cole 2007; Wright et al. 2007; Leader-Williams et al. 2009; Koyuncu and Yilmaz 2009).¹ A few but notable qualitative studies have examined the impact of corruption on deforestation in some national settings (Robbins 2000; Smith et al. 2003; Miller

¹ The use of the Ecological Sustainability Index (ESI) 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 Footprint (EF) approach, the effect of corruption is insignificant.

2011; Pellegrini 2011). With regards to the marine environment, some studies report that national capacity of governance – a concept where the occurrence of corruption is included – seem to correlate negatively with levels of illegal fishing (Agnew et al. 2009; Österblom et al. 2010).

The theoretical accounts for why corruption harms the environment are quite vague, mainly consisting of two strands of explanations. One is focused on the content of rules, arguing that corruption affect the substantial stringency of environmental regulations, as bribery shapes policy in corrupt societies (Damania et al. 2003, 492; Fredriksson and Svensson 2003, 1385; Fredriksson et al. 2004, 208; Welsch 2004, 685). Another explanation instead focuses on that corruption hampers law enforcement, thus allowing emitters to evade responsibility of pollution or encouraging the overexploitation of resources (Messer 2000, 55; Robbins 2000, 427; Esty et al. 2005, 304; Smith and Walpole 2007, 251–252; Leader-Williams et al. 2009, 297; Miller 2011, 51). Interestingly, these studies do not advance the 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 An example of petty corruption in CPR management is when a fisherman is asked, or offer, to bribe a public official to evade sanctions for noncompliance. Grand corruption is, for instance, when industrial fishing companies are asked, or offer, to bribe decision-makers to abstain from regulating their sector. CPRs 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). It has been stated that noncompliance potentially has a serious environmental impact (Robbins et al. 2006). The rationale to focus on compliance of CPR users is based on the assumption that attempts to regulate CPRs are “worthless without compliance” (Keane et al. 2008, 75).³

3. Corruption and compliance

The literature on compliance has been described as containing two theoretical perspectives, one instrumental and one normative (Kuperan and Sutinen 1998). The more rationalist view focuses on individual behavior as calculating between

² This distinction refers to the level and on which magnitude corruption takes place: “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).

³ An assumption is that willingness to comply eventually will translate into actual behavior (Levi et al. 2009). Studies on compliance indicate that intentions are a valid proxy for actual compliance (e.g. Esseks et al. 1997).

costs and benefits (Becker 1968). 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, stressing 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

Several authors have discussed the relationship between corruption and compliance. According to the rationalist approach corruption weakens enforcement measures through the effect on risk assessment: “Bribery dilutes deterrence because it results in a lower payment by an offender than the sanction for the offense” (Polinsky and Shavell 2000, 2). As a contrast, the perspective focusing on trust heuristics have pointed towards the corroding impact of corruption on trust. Levi et al. (2009) present a model of compliance where two factors, trustworthiness of government and procedural justice, are 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 – 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 officials to levels of trust in the authorities but also towards other people in general (Rothstein 2011). Furthermore, it has been said that people often evaluate other individuals’ behavior when deciding 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. The first puzzle relates to the role of trust. Given the discussion above there seem to be reasons to believe that corruption diminishes the trustworthiness of government. However, some scholars argue that corrupt transactions at the local level are facilitated by trust among the involved citizens and officials (Akpalu et al. 2009). Robbins (2000) states in his 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. This trust ... 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” (p. 436). Similarly, it has recently been argued that “the transaction between a client and a corrupt official depends on trust and

⁴ In writings on fisheries compliance this approach focuses on norms (Gezelius 2004; Hatcher and Gordon 2005). Among these norms, procedural justice and legitimacy has been given a central part (Jentoft 2000).

⁵ 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).

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.

Secondly, it is unclear if the scale of 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 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 states: “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: “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, 176).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 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 in a corrupt setting relate to regulatory compliance among CPR users?
- Does corruption of both petty and grand types affect CPR users’ willingness to comply with regulations?

4. Methodology

Aiming to answer these two questions this article uses primary data from interviews with South African small-scale fishermen. 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.⁷ As will be described below, both petty and grand corruption has taken place in this sector. Resource users from this context will likely have

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

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.

opinions in this matter compared to a setting where bribery is rare. Hence, if we are interested in the nuances of CPR users' perceptions on this topic, this case provides ample opportunities for a thorough inquiry.

Interviews are used since this conduct is particularly useful for accessing individuals' perceptions (Byrne 2004, 182). In-depth talks were held with twelve carefully selected respondents.⁸ These participants were small-scale fishermen from the southern and western part of the marine coast. They were selected after a larger number of fishermen – almost two hundred – had been approached with probing questions, aiming at finding important differences between the persons. Respondents were thus chosen through maximum variation sampling, aiming to maximize diversity among respondents relevant to the research question (Marshall 1996; Cohen and Crabtree 2006). Relevant parameters were, amongst other, the type of sector, socio-economic patterns, attitudes to regulations and perceptions of the enforcing officials (see Table 1). Care was taken to include fishermen known to engage in poaching.⁹

The interviews were mostly performed in the respondent's homes, regularly in English. When they preferred to speak in Afrikaans an interpreter was present. The respondents could speak at length on issues related to fisheries regulations. Although no firm structure was used, the author ensured that the interviews touched upon the topic of compliance and perceptions of inspectors. Confidentiality was promised 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 details of their violations of regulations and participation in bribery of fisheries officers.

Rather than factual information the interviews seek an understanding of the respondents' perceptions on non-compliance and the perceived corruptibility of fisheries officers. Given the sampling strategy no attempt is made to quantify the results. Respondents talked at length on their perceptions surrounding fisheries politics, views that have been edited.

4.1. South African small-scale fisheries

The diverse fisheries in South Africa indirectly employ approximately 43,000 individuals (FAO 2010). The Marine Living Resources Act was enacted in 1998 and the fisheries now employs a broad set of management measures, including

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.

Table 1: List of respondents – variables considered for maximum variation sampling

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
2	18	M	Chr	Line	Low	Crew	Yes	No	No	No
3	20	M	Mus	RL	Low	Crew	No	Yes	Yes	Yes
4	10	M	Chr	Net	Low	Crew	No	No	Yes	Yes
5	6	M	Chr	Line	Low	Skipper	No	No	No	Yes
6	18	M	Mus	Abalone	High	Right holder	No	No	Yes	No
7	13	M	Chr	Line	High	Boat owner	Yes	No	Yes	Yes
8	7	M	Chr	Line	Medium	Crew	No	No	Yes	No
9	10	M	Rasta	RL	Low	Crew	Yes	Yes	No	No
10	15	M	Chr	Line	Low	Skipper	Yes	No	Yes	Yes
11	40	M	Mus	RL	Low	Crew	No	No	No	Yes
12	6	F	Chr	RL	Medium	Crew	No	No	Yes	No

Comments: “Exp” refers to year of experience as a fisherman. “RL” means rock lobster, “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.

controls for capacity, catches, gears as well as protected areas (Cunningham and Bodiguel 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).

Although the above-mentioned institutions have been put in place, the small-scale fisheries face numerous challenges related to abundance of regulations. 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 of having been estimated to US\$ 815 million annually (Pitcher et al. 2006). Illegal fishing is especially widespread in lobster, linefish and abalone fisheries (Pramod 2011, 181). The harvesting of abalone (*Haliotis*, or perlemoen as this edible mollusk is also known) has a long and controversial history in South Africa, evolving from a local conflict between poachers, police and commercial divers in the 1990s, to an organized international trade (Hauck and Kroese 2006, 76). With the presence of new actors, refined harvesting methods and increasing profits, illegal catches rose rapidly in the 2000s (Raemaekers et al. 2011, 439). The harvest of abalone was declared illegal and the resource was put on the CITES list in 2007. Under this period the authority responsible for enforcing fisheries regulations 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 business of poaching abalone remains a big issue and is the most profitable illegal fishery in the country (Auditor-General of South Africa 2009).

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 2500 shucked abalone worth about R390,000 in plastic bags (Cape Argus 2009). Moreover, the law enforcement capacity of the fisheries management is described by some authors as being hampered by corruption (Hauck and Hector 2000, 120; Hauck 2009, 119). There are also occasions where fisheries officers

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

have been found guilty and fined for taking bribes. For instance, a case which attracted some attention a decade ago resulted in that 18 fisheries officers were convicted after a paper trail revealing illegal payments was uncovered (Hauck and Kroese 2006, 79).

5. Results

A striking pattern in the interview data is the negative attitudes towards the enforcing authority and its inspectors.¹¹ 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 in 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, also fishermen are described as initiating these transactions.

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

5.1. The role of trust

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).¹²

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).

¹¹ The authority is commonly named as "MCM" or "The department" by respondents.

¹² Cray fish is here the local name for the West Coast rock lobster (*Jasus Lalandii*).

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 directly describes how this leads to 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).¹³

Besides these accounts of distrust the material illustrate that the act of bribery between fishermen and officials often is clouded within social ties. 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, currently 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).¹⁴

5.2. 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 the role of bribery in this decision. Interestingly, the initiatives to conduct the illicit transaction seem to come from the community, rather than the inspector:

‘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

¹³ 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.

¹⁴ 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.

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 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. 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 users find themselves in a situation where it is rational to choose noncompliance although its 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).

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 harbor]. The inspectors get money or favors. 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).

This account 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).

5.3. The corrosion of compliance from grand corruption

The accounts above indicate that petty corruption corrodes compliance intentions. 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).

There are further illustrations of the corroding impact from grand types of corruption. The following quote, from a fisherman in the line fishing sector, display a perception that industrial actors get away with actions that small-scale fishermen does not. This, he argues, decreases his own compliance intentions:

‘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).

6. Discussion

Accounts by respondents suggest that their confidence in 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 is manifest in the material. Fishermen have informal ties with inspectors where bribery is the expected behavior and willingness to comply is low. 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 respondent describes an inspector as a “dishonest man” but still indicate that he knows the person. This implies that a resource user can have social ties to an inspector yet not trust him to enforce regulations honestly. It has been said that citizens apply one ethical set of values to public servants and another one to the family (Lundqvist 2010). Here, the division is clearly fuzzier. During the interviews “knowing an officer” was a reoccurring expression for knowing which inspectors that were corrupt and who were not.

Moreover, the accounts also demonstrate the corroding effects on compliance from different types of corruption. The literature has presented opposing views on whether petty corruption affects trust and hence compliance. In the empirical investigation respondents state that not only small-scale bribery involving inspectors, but also grand corruption involving politicians, decrease compliance intentions. Thus, this study adds to our understanding by illustrating that corruption at both segments of society seems to affect resource users’ willingness to comply.

This study contributes with insight for scholars and practitioners interested in South African fisheries, illuminating how bribery needs to be addressed in order to increase compliance. However, some aspects of these findings can be expanded

to other settings. Being a regime with complex context and a corrupt enforcing authority, the South African fisheries does inhibit special features. Perceptions of the enforcing authority might have a different meaning in a setting in which CPRs are governed without formal regulations or an enforcing authority. However, most countries do have formal regulations governing their CPRs, though with varying degree of effectiveness. Therefore, the findings from this article could arguably be expanded to have relevance also in other corrupt settings. Though the respondents were not large in numbers, they were selected in order to maximize their diversity in relevant aspects. A next step for researchers could be to broaden the sample, including CPR users from other settings.

7. Conclusions

The aim in this article has been to develop the understanding of why corruption affect common pool resource (CPR) users' compliance to regulations 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. Accounts from confidential interviews with South African small-scale fishermen 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 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. Secondly, results from this article illustrate how both grand and petty types of corruption affect compliance intentions of CPR users and hence, hamper the effectiveness of regulations.

The implications for policy from these results are quite straightforward as they should be further evidence in the case of not making corruption – and especially small-scale bribery – to an issue of low priority. In order to improve the effectiveness of regulations of natural resources in states where corruption is a widespread malady, policy-makers and practitioners alike increasingly need to shift attention to public officials involved in everyday bribery. Moreover, 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 – and CPR management in general – needs to be addressed with renewed strength.

Literature cited

- Agrawal, A. 2007. Forests, Governance, and Sustainability: Common Property Theory and its Contributions. *International Journal of the Commons* 1(1): 111–136.
- Agnew, J. D., J. Pearce, G. Pramod, T. Peatman, R. Watson, J.R. Beddington, and T.J. Pitcher. 2009. Estimating the Worldwide Extent of Illegal Fishing. *PLoS ONE* 4(2):1–8.
- Akpalu, W., H. Eggert, and G. K. 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.
- Becker, G. 1968. Crime and Punishment: An Economic Approach. *Journal of Political Economy* 76:169–217.
- Branch, G. M. and B. M. Clark. 2006. Fish Stocks and Their Management: The Changing Face of Fisheries in South Africa. *Marine Policy* 30(1):3–17.
- Byrne, B. 2004. Qualitative Interviewing. In *Researching Society and Culture*, eds. C. Seale, 2nd edition. London: Sage.
- Cape Argus. 2009. ANC Man Arrested in Abalone Bust. April 7, 2009.
- Carter, T. S. 1997. The Failure of Environmental Regulation in New York. *Crime Law and Social Change* 26(1):27–52.
- Cohen, D. and B. Crabtree. 2006. Maximum Variation Sampling. *Qualitative Research Guidelines Project*, Robert Wood Johnson Foundation.
- Cole, M. A. 2007. Corruption, Income and the Environment: An Empirical Analysis. *Ecological Economics* 62(3–4):637–647.
- Cunningham, S. and C. 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, R., P. G. Fredriksson and J. A. List. 2003. Trade Liberalization, Corruption, and Environmental Policy Formation: Theory and Evidence. *Journal of Environmental Economics and Management* 46(3): 490–512.
- Damania, R., P. G. Fredriksson, and M. 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. D., S. E. Kraft, and E. J. Furlong. 1997. Why Targets of Regulations do not Comply. *Journal of Soil and Water Conservation* 52(4):259–264.
- Esty, D., M. Levy, T. Srebotnjak, and A. de Sherbinin. 2005. *Environmental Sustainability Index*. New Haven: Yale.

- Ewers, R. M. and R. 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.
- Ferreira, S. 2004. Deforestation, Property Rights, and International Trade. *Land Economics* 80(2): 174–193.
- Fredriksson, P. and J. Svensson. 2003. Political Instability, Corruption and Policy Formation: the Case of Environmental Policy. *Journal of Public Economics* 87(8):1383–1405.
- Fredriksson, P. G., H. R. J. Vollenberg, and E. Dijkgraaf. 2004. Corruption and Energy Efficiency in OECD Countries: Theory and Evidence. *Journal of Environmental Economics and Management* 47(2): 207–231.
- Gezelius, S. S. 2004. Food, Money, and Morals: Compliance Among Natural resource Harvesters. *Human Ecology* 32(5):615–634.
- Hardin, G. 1968. The Tragedy of the Commons. *Science* 162:1243–1248.
- Hatcher, A. and D. Gordon. 2005. Further Investigations into the Factors Affecting Compliance with U.K Fishing Quotas. *Land Economics* 81(1):71–86.
- Hauck, M. 2008. Rethinking Small-scale Fisheries Compliance. *Marine Policy* 32:635–642.
- Hauck, M. 2009. *Rethinking Small-scale Fisheries Compliance: From Criminal Justice to Social Justice*. Unpublished doctoral dissertation. Cape Town, South Africa: The University of Cape Town.
- Hauck, M. and M. Kroese. 2006. Fisheries Compliance in South Africa: A Decade of Challenges and Reform 1994–2004. *Marine Policy* 30:74–83.
- Hauck, M. and M. Sowman. 2001. Coastal and Fisheries Co-management in South Africa: an Overview and Analysis. *Marine Policy* 25:173–185.
- Hauck, M. and R. Hector. 2000. *An Analysis of Operation Neptune: Government's Response to Marine Poaching*. Occasional Paper Series. South Africa: University of Cape Town.
- Jentoft, S. 2000. Legitimacy and Disappointment in Fisheries Management. *Marine Policy* 24:141–148.
- Keane, A., J. P. G. Jones, E. G. Jones, and E. J. Milner-Gulland. 2008. The Sleeping Policeman: Understanding Issues of Enforcement and Compliance in Conservation. *Animal Conservation* 11(2):75–82.
- Kleinschmidt, H. 2007. *Report on the Legislative, Policy and Governance Frameworks in the BCLME Region*. Cape Town: FEIKE.
- Kolstad, I. and T. Søreide. 2009. Corruption in Natural Resource Management: Implications for Policy Makers. *Resources Policy* 34:214–226.
- Koyuncu, C. and R. Yilmaz. 2009. The Impact of Corruption on Deforestation: Cross-country Evidence. *The Journal of Developing Areas* 42(2):213–222.
- Kuperan, K. V. and J. G. Sutinen. 1998. Blue Water Crime: Deterrence, Legitimacy and Compliance in fisheries. *Law and Society Review* 32(2):309–338.

- Kvale, S. 1996. *Interviews: An Introduction to Qualitative Research Interviewing*. London: Sage.
- Leader-Williams, N., R. D. Baldus, and R. J. Smith. 2009. The Influence of Corruption on the Conduct of Recreational Hunting. In *Recreational Hunting, Conservation and Rural livelihoods: Science and Practice*, eds. B. Dickson, J. Hutton, and W. M. Adams. Hoboken, NJ: Wiley-Blackwell.
- Levi, M. 1989. *Of Rule and Revenue*. Berkeley: University of California Press.
- Levi, M. 1997. *Consent, Dissent and Patriotism*. Cambridge: Cambridge University Press.
- Levi, M. and L. Stoker. 2000. Political Trust and Trustworthiness. *Annual Review of Political Science* 3:475–507.
- Levi, M., A. Sacks, and T. Tyler. 2009. Conceptualizing Legitimacy, Measuring Legitimizing Beliefs. *American Behavioral Scientist* 53(3):354–375.
- Lopez, R. and S. Mitra. 2000. Corruption, Pollution, and the Kuznets Environment Curve. *Journal of Environmental Economics and Management* 40(2):137–150.
- Lundqvist, L. 2010. Etik i Offentlig Förvaltning. In *Politik som organisation*, ed. B. Rothstein. Stockholm: SNS Förlag.
- Marshall, M. N. 1996. Sampling for Qualitative Research. *Family Practice* 13:522–525.
- Messer, K. 2000. The Poacher's Dilemma: The Economics of Poaching and Enforcement. *Endangered Species Update* 17(3):50–56.
- Meyer, A.L., G. C. van Kooten, and S. Wang. 2003 Institutional, Social and Economic Roots of Deforestation: a Cross-country Comparison. *International Forestry Review* 5(1): 29–37.
- Miller, M. 2011. Persistent Illegal Logging in Costa Rica: The Role of Corruption Among Forestry Regulators. *The Journal of Environment & Development* 20(2):50–68.
- Morse, S. 2006. Is Corruption Bad for Environmental Sustainability? A Cross-national Analysis. *Ecology and Society* 11(1):1–22.
- Murphy, K. 2004. The Role of Trust in Nurturing Compliance: A Study of Accused Tax Avoiders. *Law and Human Behavior* 28(2):187–209.
- Österblom, H., R. U. Sumaila, Ö. Bodin, J. Hentati-Sundberg. (2010). Press Adapting to Regional Enforcement: Fishing Down the Governance Index. *PLoS ONE* 5(9):1–8.
- Ostrom, E. 1998. A Behavioral Approach to the Study of Rational Choice Theory of Collective Action. *American Political Science Review* 92(1):1–22.
- Ostrom, E. 2008. The Challenge of Common-Pool Resources. *Environment: Science and Policy for Sustainable Development* 50(4):8–21.
- Pellegrini, L. 2011. *Corruption, Development and the Environment*. Springer: Dordrecht.
- Pellegrini, L. and R. Gerlagh. 2006. Corruption, Democracy, and Environmental Policy: An empirical Contribution to the Debate. *Journal of Environment and Development* 15(3):332–354.

- Pitcher, T. J., D. Kalikoski, and G. Pramod. 2006. *Evaluations of Compliance with the FAO (UN) Code of Conduct for Responsible Fisheries*. Fisheries Centre Research Reports 14, No. 2, Canada: UBC.
- Polinsky, A. M. and S. Shavell. 2000. Corruption and Optimal Law Enforcement. *Journal of Public Economics* 81:1–24.
- Pramod, G. 2011. *Evaluations of Monitoring, Control and Surveillance in marine fisheries of 41 countries*. MCS Case Studies Report, Fisheries Centre, Canada: UBC.
- Raemaekers, S., M. Hauck, M. Bürgener, A. Mackenzied, G. Maharajd, É. E. Plagányie, P. J. Britz. 2011. Review of the causes of the rise of the illegal South African abalone fishery and consequent closure of the rights-based fishery. *Ocean & Coastal Management* 54:433–445.
- Republic of South Africa. 1998. Marine Living Resources Act. Act No. 18 of 1998, Government Gazette, South Africa 1998; 395 (18930).
- Robbins, P. 2000. The Rotten Institution: Corruption in Natural Resource Management. *Political Geography* 19:423–443.
- Robbins, P., K. McSweeney, T. Waite, and J. Rice. 2006. Even Conservation Rules are Made to be Broken. *Environmental Management* 37(2):162–169.
- Rothstein, B. 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. SADC: Namibia.
- Scholz, J. 1998. Trust, Taxes and Compliance. In *Trust and Governance*, eds. V. Braithwaite and M. Levi. New York: Russel Sage Foundation.
- Shikora, J. 2011. *Four Essays on Corruption and Cooperation: Theory and Evidence*. Unpublished doctoral thesis. Ludwig-Maximilians-Universität München: Germany.
- Smith, R. J. and M. J. Walpole. 2007. Should Conservationists Pay More Attention to Corruption? *Oryx* 39:251–256.
- Smith, J., K. Obidzinski, S. M. Wood, and S. I. Suramenggala. 2003. Illegal Logging, Collusive Corruption and Fragmented Governments in Kalimantan, Indonesia. *International Forestry Review* 5:293–302.
- Standing, A. 2008. Corruption and Industrial Fishing in Africa. U4 Anti-Corruption Resource Centre, U4 Issue 2008:7.
- Treisman, D. 2000. The Causes of Corruption: A Cross-National Study. *Journal of Public Economics* 76:399–457.
- Tyran, J.-R. and L. P. Feld. 2006. Achieving Compliance When Legal Sanctions Are Non-deterrent. *The Scandinavian Journal of Economics* 108(1):135–156.
- Uslaner, E. 2008. *Corruption, Inequality, and the Rule of Law*. Cambridge: Cambridge University Press.
- Walpole, M. J. and R. J. Smith. 2005. Focusing on Corruption: a Reply to Ferraro and Katzner. *Oryx* 39:263–264.

- Welsch, H. 2004. Corruption, Growth, and the Environment: a Cross-country Analysis. *Environment and Development Economics* 9:663–693.
- Wilson, J. and R. Damania 2005. Corruption, Political competition and Environmental Policy. *Journal of Environmental Economics and Management* 49(3):516–535.
- World Bank. 2011. *Corruption and the Environment*, Washington, DC.
- Wright, S. J., A. Sanchez-Azofeifa, C. Portillo-Quintero, and D. Davies. 2007. Poverty and Corruption Compromise Tropical Forest Reserves. *Ecological Applications* 17:1259–1266.