

Community Attitude About the Effects of Corruption on Forest Governance--A Case of Malakand District of Khyber Pakhtunkhwa Pakistan

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Abstract

This research paper focused on finding links between poor forest governance and corruption. A sample size of 357 respondents was proportionally allocated to each union council and then randomly selected. Chi-square test was used to test the association between the variables. The result shows that forest governance had a significant association with the power elite get illegal management benefits from the forest ($P=0.000$). Moreover, the political influence on the distribution of benefits received from forest productivity was found significantly associated with forest governance, in addition, the association of the inter-connection of corruption mafia was found significant ($P=0.000$) with forest governance. Depoliticizing the forest department, establishing rule of law and implementation of the laws in its true spirit without any discrimination can improve forest governance.

Keywords: Community perception, Corruption, Timber Mafia, Poor Forest Governance, Malakand, KP Pakistan.

1. INTRODUCTION

Corruption is defined by Transparency International (2010) as the misuse of delegated power for reserved gain. The level and magnitude of corruption vary from society to society and institution to institution; therefore, the researchers and international institutions differentiate corruption as bureaucratic and petty corruption [Hellman, *et al.* (2000) and World Bank (2000)]. Bureaucratic corruption is an attempt to affect the formulation of policies to favour a few people whereas petty corruption is payments to avoid consequences of policies [Wission and Pamina, (2005)]. Paying bribes for getting timber permit or cutting trees in access to permissible limits are the

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example of petty corruption. On the contrary, approving a policy to cut trees from reserve areas and national parks is an example of grand corruption [Collister (1999)].

Smith (2003) identified two subtypes of corruption in the forestry sector, i.e., collusive corruption and non-collusive corruption. The collusive corruption involves those actors (officials and harvesters) that conspire to allow illegal behaviour go unnoticed. Whereas bribes paid to access legal services and documents are termed as non-collusive corruption.

A relativistic approach understands corruption as based on anthropological and political ecological context. The relativistic concept is based on the perception and action of the community in how they see corruption in their socio-cultural context. Therefore, some societies have traditional authorities and cultural norms that create acceptance for certain diagnostic practices [Gore *et al.* (2013)].

Corruption increases environmental problems and pollution. The grand corruption is used as a tool to shape the policies, laws, and regulations that favour illegal cutting of forest and subsequently adding to the environmental problem [Welsh (2004)]. In addition, some researchers believe that petty corruption hampers the enforcement of law and allows the loggers to evade the penalties under the rules and overexploit the forest [Smith *et al.* (2005); and Tacconic (2007)] Also, the amount allocated for environmental improvement activities is embezzled where corruption is widespread. Therefore, despite governmental spending on environmental activities, there are meager environmental returns [Leversen, *et al.* (2006) and Cavanagh (2012)].

Theoretical Framework of the Study

The current study is designed in light of Max Weber's theory of bureaucracy. The approach has its application in politics, business, and other social institutions that have legal authorities. The theory of bureaucracy is based on the principles of specialization, hierarchical structure, formal selection, and formal rules. Bureaucracy and modern capitalism have a healthy relationship. Rational Legal institutions are the institutions in which the authority of the institutions is secured to its legal legitimacy and legal rationality. Rational legal institutions concept comes from Weber's multi-lateral classification of authority. The rational legal authority is authorized by a formalistic belief in the gratified the law (legal) or natural law (rationally). Conformity is not given to any individual leader but a set of undeviating principles. The most excellent example of this kind of institution is a political or economic bureaucracy. Such type of authority is frequently found in the modern state, city government,

private and public corporations, and various voluntary associations. The primary intent of Weber is to eliminate the chances of corruption from the organizational structure, and he felt the need for legality with a rational basis. Corruption weakened good governance and the rule of law. Corruption in forestry further degrades the environment, threatens rural communities and robs the public of billions of dollars each year. According to him, efficiency and governance could be improved by devising a useful model to ease the flow of activities on the rational ground by drawing a clear line between legal and illegal. For such purpose Weber finally designed his model of rational-legal bureaucracy that is predominantly used in several administrative settings of government and private sectors [Weber (1958)]. In the proposed study, various dimensions of corruption were considered that influenced forest governance negatively. Similarly, several research studies have found a direct association of corruption with poor forest governance [Robbins (2000), Poprawe (2015), Maina (2018)]. Therefore, Weber suggested reforms in the forestry sector in his bureaucratic model to combat corruption and empower the forestry department [Weber (1958)].

The Rationale of the Study

Forests are believed to be environmental prerequisites for life on earth. Forests are considered as the earth's lungs. Their environmental benefit ranges from the purification of air, erosion control, regulation of water cycle and biodiversity conservation. Besides, forests provide livelihood support to local communities in terms of meeting their timber firewood, grazing, and other non-timber products related needs. Sale and export at a commercial level have put some social groups, out of their greed, to manipulate laws, exercise illegalities, promote corruption, and encourage bribery to get maximum benefits out of these finite natural resources. The obvious effects of these illegal activities are forest degradation and deforestation on one hand and the unmet legal needs of the local communities on the other. This research study is an effort to find out the perception of local communities regarding corruption related to forest governance in the studied area.

Research Questions

Whether poor forest governance is associated with forest staff's corrupt practices?

Whether political interference plays a role in poor forest governance?

2. LITERATURE REVIEW

Globally, the governance of forests remains a challenge. According to Greenpeace, report corruption is the root cause of poor forest governance. The report further elaborated that in Amazonas timber is converted into legal paper from illegal logging through flourishing corruption in government officials. Regarding the description estimating that approximately 80 percent of the wood ecstatic from a specific Brazilian state is comprehensively refuted illegally [The Guardian (2014)].

Similarly, it indicated that corruption is the prime cause of an increase in illegal cutting of trees in the Amazonas. Accordingly, harvested timber is transported by paying the bribe. Smith *et al.* (2005) examined for a long time, environmentalists would tribute much attention to corruption. Similarly, some studies debated how to measure or conceptualize the relationship of corruption in government officials with how to protect biodiversity [Halkos *et al.* (2015)].

The problem of corruption is multifaceted and sometimes it is very difficult to measure and control. Corruption negatively forest policies and transparency of forest governance. According to Transparency International, it is noticeable that illicit acts also negatively affect natural and environmental resources. The amount of corruption varies from state to state, institution to institution, therefore, there is no such definition for corruption as it is a wide concept. It depends on the situation and identifies the effect and level of corruption on different repercussions [Barrett *et al.* (2006)]. From now, the researcher and international institutions want to identify the accumulated intensities of corruption amid countries.

The international societies and research studies have highlighted that corruption is the major challenge faced by forest departments in the way to good governance and protection of biodiversity. They reported that the problem of corruption is widespread in South Asian, Southeast Asian, and Central Asian countries where the protection of natural resources has always been highlighted at different forums by different agencies and organizations [Transparency International (2011)]. Likewise, Trfon (2010) stated that in Congo Basin condense forest tropical is the world's second-largest forest after Amazon, that are also worse affected due to the menace of corrupt-tion. Therefore, the word corruption is an important term since those actions which seem to be obnoxious may differ depending on the perspective of an observer's. Hence, a "relativistic" analysis from the political ecology and fields of anthropology clench that traditional authorities and cultural norms may lead to or create an acceptance of a convinced political practice, this statement was an opinion of [Gore *et al.* (2013)]. Though, conceding that such protection of forestry is

important to promote afforestation, the researchers must not engage in such discussion. In behalf of that, Researcher's assume that there are some of the acts which promote corrupt acts like bribes, financial as well as non-financial, are one such type of conduct.

A theoretical causal mechanism describes how corruption effects on forest governance, and how corruption tends to increase pollution and environmental externalities. Hence, such theoretical writings consist of two main elements of an explanation. One of them is focused on the large scale (grand corruption) or bureaucratic corruption and the other is petty corruption. The large scale corruption is an attempt to hinder the proper implementation of policies while the petty corruption is the corruption of the individuals like taking and giving bribes or gifts which leads to illegal practices of the forest officials. Both of the above could shape decision making in corrupt societies which directly affects the environmental degradation and also affects the ample inflexibility of forest policy [Fredriksson *et al.* (2004)]. Although Smith (2003) explained and focused on petty corruption hindering forest law enforcement, allowing harvesters and loggers to avoid sanctions for rules violations and encourages the overexploitation of forest resources and promoting illegitimate practices [Tacconi *et al.* (2007)]. Therefore, it has highlighted three indirect effects. The first is corruption which affects economic development and general harm on forests from industrial activities [Damania *et al.* (2003)]. Second, political or grand corruption making a bridge between forest officials and a politician that is where politicians grant resources users lax enforcement during electoral times to maintain or gain power [Golden (2014)]. Similarly, third one is corruption, corruption is widespread, forest government funds get distributed to protect natural forest resources but unfortunately, it is misappropriated. Hence, that money which is used to distribute for the conservation of natural forest resources does not meet to protect forest resources need Hence, forest resources are most vulnerable to the risk of overexploitation [Cavanagh (2012)].

3. MATERIALS AND METHODS

Area Selected for the Study: The area selected for this study comprised three Union Councils of Tehsil Batkhela District Malakand, Khyber Pukhtunkhwa, Pakistan namely Union Councils Pir Khail, Agra, and Totae.

Sample Size and Respondents Characteristics: As per the official record of the Election Commission of Pakistan at Batkhela, the study area comprises of 5776 households. A total of 357 community members were interviewed out of the total population of 5776 on the basis of the Sekaran sample distribution

table [Sekaran (2003)]. Furthermore, Sample was proportionally allocated to each union council of the study universe [Cochran (1977)]. Proportionally, 140 respondents were selected from union council Pir Khel, 153 were proportionally allocated to union council Agra, and 64 to union council Totai. Household heads of the elected Union Councils were the impeding respondents for this research study.

Data Collection Tool: Data were collected through a simple random sampling technique on a well structure interview schedule.

Data Analysis Procedures: For calculation of percentage proportion of dependent and independent variables along with frequency distribution of respondent's Univariate analysis was used as a tool. Furthermore, the dependent variable (forest governance) was indexed and cross-tabulated with the independent variable (illegality).

To measure the association between two variables chi-square test was used as a tool. The statistical procedure was implemented to sort out the value of the chi-square test [Tai (1978)]. The formula for proportionate sampling and chi-Square test are given as under. Proportional allocation formula.

$$n_h = (N_h / N) * n \quad \dots (1)$$

where, n_h is the sample size for stratum h , N_h is the population size for stratum h , N is total population size, and n is total sample size

Chi square test formula is

$$\chi_{obs}^2 = \sum_{j=1}^r \sum_{k=1}^c \frac{(O_{jk} - E_{jk})^2}{E_{jk}}$$

where, O_{jk} stand for the observed frequency in the cell corresponding to the intersection of the J^{th} row and K^{th} column, “ r ” represents the number of rows and “ c ” represents the number of columns.

4. RESULTS ANALYSIS

Frequency and Percentage Distributions Regarding Illegality in Forest Management: Political power is unequally distributed inside a particular society. Those with access to political power corridors are more likely to enjoy the resource uses out of the law than ordinary citizens. The perception of respondents about corruption in forest management is given in Table 1 and explained below. The table showed that 51.0% of the respondents were of the view that the Powerful segment is in a better position to get management benefits from forests. However, 35.0% of the

respondents did not agree while 14.0% of the respondents were uncertain whether the Powerful segment is in a better position to get management benefits from forests or not. This statement is supported by Bosocolo *et al.* (2016) and Dimant and Schulte (2016), stating that Forestry is one of the corrupt sectors in Pakistan therefore powerful individuals can quickly get better benefits from the management.

Additionally, 44.3% of the respondents accepted that political influence affects the distribution of forest use rights. While 51% of the respondents did not agree with it and 4.8% of the respondents were uncertain about it. This statement was supported by Bettinger (2015) studied a National Park in Southern Sumatra, where encroaching farmers challenged protected land. Using one year of fieldwork around 2012 (ethnographic and archival research methods and interviews with informants such as village heads, elected officials, park officials, and forest police), the study finds that local politicians face electoral incentives and are compelled not to evict encroachers. Due to decentralization reforms the local vote is influential on the decision to forest use in protected land continue.

Furthermore, 42.6% respondents disagreed with the statements that people near and dear to ruling political parties are more entitled to forest use than others. Followed by 47.3% respondents who were uncertain about it while 10.1% respondents agreed with it. Likewise, 36.4% of the respondents disagreed with the statements that the relatives of the political leaders get maximum benefits of the forest. While 21.1% of the respondents did not know about the relatives of political leaders, got maximum benefits of the forest, and 42.0% of the respondents agree to this. This statement was supported by Collister (1999) and Eggert and Lokina (2008) who stated that there is a clear association exists between politicians and government officials. Both the political and government officials use their offices for personal benefits and take advantage of illegal practices and misuse of their authorities.

Moreover, 27.7% of respondents neglected that the distribution of forest benefits is more of a political decision. 25.2% of the respondents that were uncertain about it; however, 47.1% of the respondents agreed to it. Furthermore, 33.9% of the respondents denied that communities are unable to

Table 1. Frequency and Percentage Distributions Regarding Illegality in Forest Management

Statements	Powerful segment is in better position to get management benefits from forests.	Politician influence affects the distribution of forest use rights to local.	People nearer and dearer to ruling political party are more entitled to forest use than others.	The relatives of political leaders get maximum benefits of the forest.	Distribution of forest benefits is more like a political decision.	Communities can not do anything in stopping corruption.	Honest forest officers can not do anything in stopping corruption.	The corruption mafia is strongly connected with each other	Corruption helps timber mafia to avoid legal punishments
Yes	182(51)	158(44.3)	152(42.6)	150(42)	168(47.1)	121(33.9)	106(29.7)	200(56)	132(37)
No	125(35.0)	182(51.0)	169(47.3)	130(36.4)	99(27.7)	191(53.5)	231(64.7)	122(32.2)	109(30.5)
Uncertain	50(14)	17(4.8)	36(10.1)	77(21.6)	90(25.2)	45(12.6)	20(5.6)	35(9.8)	116(32.5)
Total	357(100)	357(100)	357(100)	357(100)	357(100)	357(100)	357(100)	357(100)	357(100)

Note: Numbers in table represent frequencies and number in parenthesis represent percentage proportion of respondents.

stop corruption, followed by 53.5% of the respondents who did not know about the statement while 12.6% of the respondents agreed that communities cannot do anything about stopping corruption. Also, 29.7% of the respondents accepted those honest forest officers could not do anything to prevent crime. While 64.7% of the respondents negated it and 29.7% of the respondents did not know about the statement. These results were supported by Guardian (2014) by reported that corruption is the major source for the current increase of illegal cutting of trees in the Amazonas. Boscolo and Vincent (2000) also stated that due to the lack of policies and rules the local communities and honest forest officers could not do anything to curb corruption.

Additionally, 56% of the respondents agreed that the corruption mafia is strongly connected with each other; 32.2% of the respondents contradicted the statement whereas 9.8% of the respondents were uncertain about the corruption mafia's connection with each other. This statement was supported by The Guardian (2014). It is stated that corruption is the major source for the current increase of cutting down of trees in the Amazonas.

Furthermore, 37% of the respondents were of the view that corruption helps timber mafia to avoid legal punishments while 30.5% of the respondents negated that Corruption helps timber mafia to avoid legal penalties. Similarly, 32.5% of the respondents were uncertain about it. The results concluded that there is a relationship between a state actor and a non-state actor. The network operates formal and informal ties between actors. Formal ties are interdepartmental while casual are relatives and friends. These relations are based on the reciprocity of the state and non-state actors. The payments of favours are made in anticipation of exchange.

Association between Forest Governance and Corruption

One of the primary concerns of forest governance is the distribution of benefits that occurred from forest resources among the beneficiaries. There are several hurdles in monetary and non-monetary benefits distribution among forest dependents communities. Political and economic power has its role in getting maximum benefits from forest resources use by involving in corrupt practices to test the association of forest governance and corruption. The perception of corruption was limited to a few statements as given in Table 2.

The results show that forest governance has a highly significant ($P=0.000$) association with getting maximum management benefits from the forest by the dominant segment. Similarly, a highly significant ($P=0.000$) association was found between forest governance distribution of forest use right to the locals under political influence. Also, forest governance had a highly

significant ($P=0.000$) association with more entitlement to forest use authorized to kith and kin of the ruling political party. These results are supported by collister (1999) that there are strong links of the political leaders, government officials, and smugglers to form a strong influential group that facilitates the corruption process in terms of changing the law in favour of one's self and dependents. In this way, the forests are destroyed for personal gains and resulting in poor forest governance. Eggert and Lokina (2000) further added that nepotism is responsible for the distribution of forest benefits among the nearer and dearer due to the illegal use of political power. The result further shows that forest governance had a highly significant ($P=0.000$) association with relatives of political leaders who get maximum benefits from the forest. Furthermore, forest governance had a highly significant ($P=0.000$) association with the distribution of forest benefits and is more like a political decision. Additionally, a highly significant ($P=0.000$) association is established between forest governance and the inability of the community to stop corruption.

Corruption in Pakistan has its strong deep roots in the political, economic, and other sectors of the social and economic life of the communities. The corruption is organized by joining hands with politicians and administrative dependents to benefit the dominant segment of the society and the effort from the community side to curb corruption, therefore, remain futile. The Gurdian (2014) stated that irrational cutting of forest has its connection to political corruption. The corrupt politicians join hands with corrupt officers and contractors to destroy forests. Bascolo and Vincent (2000) further reported that due to strong connections between corruption mafia, government policies and weak implementation, the control of corruption has become virtually impossible and imperfect underdeveloped countries. The result further shows that forest governance has a highly significant relation ($P=0.000$) with honest forest officer's inability to stop corruption. Likewise, forest governance had a highly significant ($P=0.000$) association with strongly interconnected corruption mafia. Furthermore, the forest had a highly significant ($P=0.000$) association with avoiding legal punishment by using corrupt practices. They have infused political and legislative structures and paralyzed the entire system in favour of crime in a manner that it has almost become impossible for honest officers to stop crime and punish the forest offenders for the sake of proper forest management. Collins (2010) stated that there is a relationship between state actors and mafia to enhance their financial benefits at the cost of forest destruction while corruption is used as a tool.

Table 2. Association between Forest Governance and Corruption

Statement	Perception	Forest Governance			Total	Chi-Square(x2)
		Yes	No	Uncertain		
Corruption helps timber mafia to avoid legal punishments	Uncertain	2(0.6)	79(22.1)	35(9.8)	116(32.5)	X2=40.546 P=0.000
	No	8(2.2)	93(26.1)	8(2.2)	109(30.5)	
	Yes	25(7.2)	87(24.4)	20(5.4)	132(37.0)	
The corruption mafia is strongly connected with each other	Uncertain	7(2.0)	16(4.5)	12(3.4)	35(9.8)	X2=31.199 P=0.000
	No	10(2.8)	79(22.1)	33(9.2)	122(34.2)	
Honest forest officers cannot do anything to stop corruption	Yes	18(5.0)	164(45.9)	18(5.0)	200(56.0)	X2=20.694 P=0.000
	Uncertain	0(0.0)	12(3.4)	8(2.2)	20(5.6)	
	No	22(6.2)	160(44.8)	49(13.7)	231(64.7)	
Communities cannot do anything to stop corruption	Yes	13(3.6)	87(24.4)	6(1.7)	106(29.7)	X2=59.670 P=0.000
	Uncertain	0(0.0)	23(6.4)	22(6.2)	45(12.6)	
	No	13(3.6)	140(39.2)	38(10.6)	191(53.5)	
Distribution of forest benefits is more like a political decision	Yes	22(6.2)	96(26.9)	3(0.8)	121(33.9)	X2=88.186 P=0.000
	Uncertain	19(0.3)	45(12.6)	44(12.3)	90(25.2)	
	No	12(3.4)	74(20.7)	13(3.6)	99(27.7)	
The relatives of political leaders get maximum benefits of the forest	Yes	22(6.2)	140(39.2)	6(1.7)	168(47.1)	X2=32.232 P=0.000
	Uncertain	0(0.0)	50(14.0)	27(7.6)	77(21.6)	
	No	13(3.6)	94(26.3)	23(6.3)	130(36.4)	
People nearer and dearer to ruling political party are more entitled to take more benefits from forest sectors	Yes	22(6.2)	115(32.2)	13(3.6)	150(42.0)	X2=35.393 P=0.000
	No	9(2.5)	130(36.4)	30(8.4)	169(47.3)	
	Yes	29(7.3)	109(30.5)	17(4.8)	152(46.2)	
Politicians influence the distribution of forest use rights to local communities	No	13(3.6)	136(38.1)	33(9.2)	182(51.0)	X2=21.083 P=0.000
	Yes	22(6.2)	115(32.2)	21(5.9)	158(44.3)	
	Uncertain	0(0.0)	31(8.7)	19(5.3)	50(14.0)	
The powerful segment is in better position to get management benefits from forests	No	15(4.2)	99(27.7)	11(3.1)	125(35.0)	X2=24.682 P=0.000
Yes	20(5.6)	129(36.1)	33(9.2)	182(51.0)		

Note: Values in the table present frequency while values in the parenthesis represent percentages proportion of the respondents.

5. DISCUSSION

Forest is a non-renewable natural resource with multiple financial and environmental benefits attached to proper forest governance and sustainable use of forests without destroying these natural resources. However, corruption in the form of political interference in forest governance through modification of policies and rules that favour the group of few powerful elites to squeeze the maximum out of the forest is threatening the very existence of the forests. The corruption mafia is strong and organized and has strong roots in the legal, political, and institutional system of the society. In this unpleasant situation, it is very hard for honest officers to protect forests and punish the culprits for upholding pro forest governance. Distributing of forest benefits is becoming more like a power game for the elite and powerful class through the use of corrupt practices. The power is used for corrupting the benefits of distributing mechanisms and favour powerful elite. This way, the deserving communities are ignored, while the dominant political and economic group and their favorites get maximum benefits by streamlining their rules in their favour. As evident from the highly significant results, that forest governance is negatively affected by the corrupt role of influential segments of society, political leaders, and forest staff relatives. Moreover, the situation of forest governance is desperately influenced by the involvement of timber mafia that plays a vital role to avoid legal punishment and honest forest officer's empowerment.

6. CONCLUSION AND RECOMMENDATIONS

Forest governance is facing an immense threat from illegal practices that are underway in the forest sector. Due to high economic returns and political power associated with forests, there is a high level of political interference in forest governance. Under grand corruption, specific policies are approved by the political government that favours the powerful elite to cut forest illegally and earn more money at the cost of destruction of forest and livelihood of local communities. The corruption mafia has its roots deep into the legal, political and institutional systems, hence, making it impossible for honest officers to arrest these offenders, protect the forest and reinstate the rule of law for effective forest governance.

The study findings recommended that in order to eliminate the problem of corruption and improve forest governance, the forest department must be brought out of political interferences and the rule of law must be established so that the laws are implemented equally without any discrimination. Monitoring of forest harvesting policies and programs through specialized units to cross-check the legally permissible harvesting of the forest, point out and punish all

those offenders, government staff, contractors and community members that are involved in harvesting timber over and above prescribed volume. Involvement of local communities in forest management related decision-making processes through the use of integrated participatory approaches right from identification of the problem, assessment of available resources, planning, implementation, monitoring, evaluation and benefits distribution stages of forest governance issues, so that these communities develop a sense of ownership in forest governance and protect the forest from destruction while controlling the illegitimate practices.

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