

The Political Economy of Deforestation: A Case of Reserved Forest in Bangladesh

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Abstract

This article explores the driving factors of deforestation in Bangladesh by revealing the role of power, culture, and economic incentives associated with forest clearance. Based on a descriptive and explanatory methodology and utilizing the political economy approach, this study aims to answer how do political and economic factors influence deforestation and restrain the implementation of forest rules and policies in Bangladesh? The finding indicates that though Bangladesh has ample forest policies, effective implementation is now restrained as timber merchants and immoral political bigwigs supported by corrupted government forest officials of the Department of Forest are closely involved in the illicit wood cutting. Weak forest governance structure characterized by bureaucratic culture makes illegal logging easier. To properly implement the forest policies, the forest department needs to adopt initiatives such as recruitment of professional officials and stringent monitoring to handle the illegal activities.

Keywords: Bangladesh, Deforestation, Forest Policy, Political Economy, Reserve Forest

1. Introduction

The contribution of forestry to the national economy turns it as one of the vibrant sectors in Bangladesh. In each year, 3 to 4 percent of the gross domestic product (GDP) is produced from the forest sector. This renewable sector is also responsible to generate about 2 to 3 percent of employment opportunities for Bangladesh (Rahman, 2016). Bangladesh is one of the most densely populated developing countries in the world having only 2.6 million hectares of forest areas, out of which 1.53 million hectares are directly controlled by the Forest Department with a legal status of reserved forests and protected areas (Syed, 2017). But the continuous depletion of forest estate put through this sector as a vulnerable one. Nowadays, deforestation has become one of the most pressing challenges in Bangladesh as it begets numerous troubles such as degradation of biodiversity, disappearing local people's culture and livelihoods, increasing greenhouse effects, lowering groundwater levels, increase soil erosion, flooding and wildlife damage (Biswas &

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Choudhury, 2007). The environmental scientists' argue that for a balanced ecology 25% of a country's territory should be pervaded by forests where Bangladesh has only 6.7 % (Syed, 2017). According to FAO (2015), this country annually lost an average of 2600 hectares of forest land from 1990 to 2015, and the rate of annual deforestation was 0.2% during the same period. The scholarly contributions identify that population pressure, rural poverty, urbanization, privatization, industrialization and natural calamities as the critical reasons for deforestation in Bangladesh (Salam & Noguchi, 1998; Rahman, 2016). Moreover, æFAO identified forest crime and corruption as one of the main causes of deforestation and warned that immediate attention has to be given to illegal activities and corruption in the world's forests in many countries" (Chakravarty et al., 2012). Globally, illegal logging is liable for losing around USD 30–100 billion per year (Linkie et al., 2013) and in many Southeast Asian countries, the magnitude of illegally harvested logs is apparently larger than the legally extracted timbers (Sikor & To, 2011). Bangladesh has been also increasingly experiencing illegal logging and forest land grabbing. The dynamics of illegal logging in Bangladesh as like other tropical nations are inherently governed by the syndicate of multiple actors (Islam & Sato, 2012) and featured by the weak forest governance structure (Rahman & Miah, 2017). Here, some actors along with some institutions are controlling the forest resources and restraining the implementation of the forest polices in pursuit of an elite accumulation in order to achieve narrow pecuniary interest. Although the country has formulated a number of forest policies, effective implementation is now restrained with some analysts pointing to the activities of the local communality, mafia, political groups, forest staff and businessmen (Alam, 2009). To control the practice of deforestation, it is essential to identify all the actors, institutions and groups who are gaining illegal benefit from it. This study takes the initiatives to reveal how do political and economic factors influence deforestation of reserved forests and restrain the implementation of forest policies in Bangladesh.

A large volume of studies has been conducted on the deforestation problem in Bangladesh where the researchers' explain different socioeconomic aspects of deforestation (Salam & Noguchi, 1998; Biswas & Choudhury, 2007; Indarto & Mutaqin, 2016; Rahman 2016). The existing literature basically emphasizes illegal logging and various commercial activities among diverse socioeconomic grounds of deforestation (Chakravarty et al., 2012; Rahman & Miah, 2017). Very little existing research has found to utilize the political economy approach in explaining the driving factors of deforestation which restrain the implementation of reserved policies in Bangladesh. By unveiling the role of power, culture and economic incentives of actors such as political elites, state officials and businessmen associated to forest clearance, this study has tried to contribute to the existing literature and scholarly debates along with filling the current research gap.

1.1 Research Objectives

1) to identify the driving factors of deforestation by revealing the role of power, culture and economic incentives of actors such as political elites, state officials and businessmen.

2) to examine the institutional and governance weaknesses driving the deforestation and restraining the policy implementation.

2. Theoretical Approach

In terms of deforestation disputes, political economy analysis involves “how power and resources are distributed and contested in different contexts and provide insights into underlying interests, incentives, rules and institutions” (Haider & Rao, 2010, p. 4). The political economy is concerned with the linkage between politics and economics of a society, based on the theories of economics, the law as well as political and social sciences (DFID, 2009). This definition comprises a set of concepts and frameworks that look at the intersection between economics and politics as a unique field of study. Hudson & Leftwich (2014) emphasize the interaction of structure within a geographical area with institutions and actors which operates within the structure as common factors of political economy analysis. The core concept of this analysis deals with how societal structures and institutional power interact with key stakeholders’ interests and how this affects to achieve policy goals. Andrews (2013) mentions the institutions as “rule of game” where formal institutions include legal systems, property rights, tax systems and their enforcement mechanisms while informal institutions include cultural practices and social norms. Stakeholders’ interests are channeled through the institutional power and this formal institutional trend is weaker in developing countries which allow exercising the private interests of those in power (Fritz et al., 2009).

According to Howlett et al., (2009), the political economy context includes two meta-institutions, namely democracy and capitalism, which have great influence on the policy-makers and shape the public policy-making process. In the liberal-democratic capitalist country like Bangladesh, some actors such as elected politicians, bureaucracy, political parties, interest groups and mass media exercise most influence over public policy from making to implementation of the policy process. Capitalism includes business firms, industrialists, and other interest groups while in contrast elected politicians (executive and legislative) and the bureaucracy are the parts of the democratic government. Howlett et al., (2009) urge that bureaucrats are the central figure in the policy subsystem and perform many crucial functions in the policy process. From this perspective, this research has examined the extent to which the deforestation problem of Bangladesh driven by different actors (e.g., business firms, industrialists) and interest groups (part of the capitalist) along with the support of government officials (part of bureaucracy). The role of political parties and mass media has also examined for their direct and indirect influences on this outcome. Mass media often highlights the deforestation issue to draw the attention of the government but this is not effective enough. By using the political economy analysis, the present study attempts to understand who are the key players behind the deforestation, what are their vested interests, how they are defending and challenging the status quo of institutions and structures and shaping the deforestation and forest policy implementation in Bangladesh.

3. Methods

The study followed a descriptive and explanatory approach in analyzing the deforestation problem of Bangladesh from a political economy analytical perspective. An extensive search for scholarly articles and gray literature was performed to analyze the topic. A desk-based study was mainly used in reviewing these literatures. The necessary information from secondary sources was collected through a systematic literature review method. In order to obtain the reliable secondary documents, peer-review journal articles, books, government policies, newspapers, reports, government websites were searched thoroughly by using scholarly electronic database including Science Direct, Google Scholar and Scopus. The following keywords were employed for searching literature such as deforestation in Bangladesh, politics of deforestation, reasons of deforestation, the political economy of illegal logging and forest policy in Bangladesh. The selected literature was systematically categorized and critically analyzed based on the central research question and study objective.

4. Forest Policies in Bangladesh

Although the history of the forest sector in Bangladesh can be characterized as a classic example of continued deforestation and degradation, forest laws, policies, and regulations can work as significant instruments for shaping the forest development of the country (Alam, 2009). A successful forest resource management mostly depends on the effective implementation of policy and legal instruments (Biswas & Choudhury, 2007). Forest Policy (1994) is the current forest policy of Bangladesh. Besides, some other laws and regulations such as Forest (Amendment) Act 2000, Forest Produce Transit (Control) Rule 2011, the Brick kiln (Control) Act 2013, The Saw Mill (License) Rules 2012, and Bangladesh Biological Diversity Act (2012) have been also formed to manage the forests of Bangladesh.

The first forest policy of independent Bangladesh was announced in 1979 with an aim of the preservation and scientific management of forests (Alam, 2009). The current forest policy of Bangladesh was introduced in 1994 which emphasized the rights and participation of local people in the forest management (Alam, 2009).

4.1 Forest Policy 1979

According to Millat-E-Mustafa (2002), forest policy of 1979 focuses on the reformation of the Department of Forest, careful preservation and scientific management of forest and establishment of forest-based industries. Moreover, the policy also emphasizes employing modern technology to the extraction and utilization of forest products, training, and education to meet the scientific, technological and administrative needs (Millat-E-Mustafa, 2002). As there were no clear indication of practical classification and use of forest land, sustainable productivity and community participation, Choudhury (2017) asserts that "the National Forestry Policy of 1979 was somewhat vague and not implemented fully"

4.2 Forest Policy 1994

In 1994 the forest policy has been changed towards the conservation of forest and biodiversity from the traditional resource extraction policies (Jashimuddin, 2012).

This policy has formulated on the ground of continuous forest degradation and thus was underscored on the identification of the depleted or encroached of reserved forests (Iftekhar & Hoque, 2005). The main objectives of this policy are i) to bring 20% land area under forest cover and 10% of the reserved forests to be protected area by 2015 to achieve the ecological balance and manage self-sufficiency in forest production, ii) to enhance biodiversity and urban forest area, iii) to prevent illegal activities of forest lands like tree felling and hunting of wild animals by ensuring the participation of local people in forest management, and iv) to strengthen the forest department for achieving the objectives of this policy (Chowdhury et al., 2014).

4.3 The Focus on Various Forest Acts and Rules

Forest acts and rules are complementary instruments of forest policy. Policies show direction where rules set up rights and responsibilities. Along with the change of forest policy in 1994, the forest acts and rules also have been changing to achieve ecological balance and to fortify forest protection by providing penalties to officials associated with forest clearance (Jashimuddin, 2012). In order to reduce the rate of deforestation, the Brick kiln establishment (Control) Act, 2013 bans the use of wood fuels in brick making. The act provides punishment such as fines, imprisonment, and loss of license to the offenders for making bricks and breaking the legal provisions (DOE, 2017). The Saw Mill (License) Rules, 2012 was enacted for regulating the setup, operation, and control of sawmills in Bangladesh. With an aim to regulate conservation of biological diversity and their sustainable use the Bangladesh Biological Diversity Act, 2012 was introduced (Jashimuddin, 2012).

5. The Political Economy of Deforestation

International research on illegal logging illustrates the issue as a maneuver of political-economic networks involving multiple actors (Sikor & To, 2011). The deforestation is driven by a number of actors associated with social, political and economic groups of the society. Sikor & To (2011) mentioned about "local middlemen, customary leaders, local governments, logging companies, forest enterprises, forest protection officers, timber traders, wholesalers, and buyers in overseas markets" as the actors behind the point of extraction logs. The World Bank (2012) states that illegal logging is widespread at the global scale and most of this forest crime remains as undetected unreported and sometimes ignored. To stop deforestation, the government of Bangladesh has enforced the logging ban in the 1970s and 1980s (Sarkar et al., 2011). But commercial logging is still culpable for stirring 37.5% of deforestation in Bangladesh (Roy et al., 2014). To combat the deforestation, first it is important to identify the actors, institutions, and groups who are gaining illegal benefits from it. This study has taken this initiative to reveal the influence of illegal gainers who are hampering the forest policy implementation in Bangladesh.

5.1 Business Groups, Illegal Loggers and Deforestation

The wood products of sawmills and manufacturing industries in Bangladesh including furniture, pulp, paper, newsprint and match factories are sustaining based on forest trees and timbers. Upward market demand and the increasing needs of

timbers and forest products in Bangladesh are the major reasons of deforestation which encourage the illegal loggers to cut down the trees from forests areas (Salam et al., 1999). For household decoration and making furniture, the demand for quality timbers such as Sal, Segun, Sundori are gradually increasing (Mahbub & Uddin, 2008). As a result, local or national furniture traders become ready to pay in advance to the illegal loggers for good quality timbers (Islam & Sato, 2012). Chakma (2009) asserts that dishonest timber traders team up with forest officials to plunder the reserve forest. Even sometimes they smuggle thousands of cubic feet precious teak from forests to their business area over a night. Brickfields and sawmills set up by vested groups within the close area of reserve forest land are also liable for deforestation in Bangladesh (Uddin, 2015). These business firms are running their illegal operation due to the negligence of the Department of Environment, district administration and the Department of Forest (Uddin, 2015). Fine for illegal logging is not high. Moreover, the bribe that the forest officials normally charge is also smaller than the market price of timbers, so the timber trade generates high profits and encourages the large-scale illegal logging in Bangladesh (Bidhan, 2013). The findings of a news media uncover that local powerful businessmen of Moheshkhali Upazila (sub-district) under Coxbazar district have grabbed 3500 acres forest land and built 190 Shrimp farms by knocking down all the trees (Boyan, 2014). The same report also states about the similar phenomenon occurring in different areas of Coxbazar district such as Sonadia, Ghotivanga, Borodia, Jhapua, Dholghat and Matarbari. Das (2016) asserts that in Shylet district at Jaflong area, local businessmen have constructed 200 stone crushing farms by snatching 50 acres of reserved forest property. Both of these shrimp farms and stone crushing farms are detrimental for the environment. By causing deforestation these farms are escalating the probability of ecological imbalance and natural calamities. But local business groups are powerful enough to prohibit the enforcement of law and restraining the implementation of forest policy.

5.2 Government Officials, Corruption and Deforestation

Globally, a football field size of forest area is cutting down by illegal loggers in every two seconds (The World Bank, 2012). Terra Daily (2008) shows that an organized crime network is working world-wide behind the large-scale illegal logging with which bureaucrats' are also allied. The pivotal reasons of depletion and deforestation for reserve forest are wrong governance system of the forest sector and institutionalization of corruption. In most of the developing countries, corruption is now a pervasive setback. Corruption normally occur either in a form of direct monetary payments or political influence over decisions or actions that are contrary to law or policy (UN-REDD Bangladesh National Programme, 2016). Numerous authors mentioned the rampant corruption within the Forest department of Bangladesh (Mahbub & Uddin, 2008; Islam & Sato, 2012). This corruption is permeated in all of the forest areas of Bangladesh and also besets many offices like elected people's representatives, land administration and other law enforcing agencies along with Forest Department (UN-REDD Bangladesh National Programme, 2016). Reserved forests of Bangladesh including the world's largest mangrove forest (e.g. Sunderbans), is being smashed because of uncontrolled

corruption of the government officials (Terra Daily, 2008). By taking bribes from the timber traders, owners of brickfields and sawmills, most forest officials provide privilege for illegal actions to these business groups (Mahbub & Uddin, 2008). Corruption of government officials in the forest department of Bangladesh creates adverse impacts on forest preservation. Assorted reports show that almost two-thirds area of the Modhupur Sal forests in Tangail amounting about 80,000 acres have already vanished due to continuous illegal cutting of trees with the participation of a section of corrupted officials (Shakil, 2009) and almost half of the 7,225-acre reserve forest in Mirzapur Upazila (sub-district) has disappeared as the forest department and the district administration turned a blind eye to it (Shakil, 2009). Some foresters engage local poor people in the theft of wood and sometimes they hire outsiders as day laborers' to fell down the trees (Chakma, 2009). The Department of Forest often allows participatory monoculture of acacias, agar rubber tree and eucalyptus in reserved forest areas for their economic benefits, and these plantations of acacias, agar, rubber tree and eucalyptus do not provide fruit for wildlife and have a negative impact on soil and forest ecosystems (Haque, 2017). Issuing false transit passes for illegally felled trees and timber coming from the reserve forest showing as timber from private forests is an archetypal corruption of protected area authorities.

5.3 Local Community and Deforestation

Villagers and local woodcutters normally actively connect in the extraction of timber in areas with small-scale logging. Local communities especially the woodcutters are accelerating deforestation by engaging in the illicit collection of wood. Collecting deadwood from reserve forest is allowed in the reserved forest of Bangladesh. Salam & Noguchi (1998) show that by taking the advantage of collecting deadwood, some woodcutters illegally cut the other trees by digging up by the trees' roots, and later they come back to collect the naturally fallen dead trees. Moreover, the woodcutter also cuts alive trees and stripped their bark to qualify them as dead wood (Salam & Noguchi, 1998). Poor forest management strategies, bribe-taking nature of forest officials, soft punishment for offense are working as influencing factors for local woodcutters to take part to cut down trees (Bidhan, 2013). Besides, the poor local people are often influenced by illegal loggers in cutting and transporting trees to make money (Islam & Sato, 2012). To hunt the wild animals, indigenous people set fires in the forest lands and force the wild pig to come out from the brushes and local people also often intentionally set fire to make the forest ground clear for logging and assist the loggers to enter into the reserved forest areas (Rahman & Miah, 2017). Another form of community engagement in forest devastation is to capture the reserve forest land and construct the living house by cutting tree-plant. In Moheskhal Upazila local community grasp 12000 acres of land and built 10,000 illegal households (The prothomalo, 2014) and in Lohagora Upazila 50000 people take hold of 4000 acres of Chunoti forest area for the same purpose (Chowdhury, 2014). The forest officials of these areas assert that they could not take proper initiative to evict these illegitimate people because of the influence of the local political leaders. This is a common scenario in almost all the reserved forest in Bangladesh.

5.4 Politicians, the Role of Power and Deforestation

Politicians with their political power drive to forest depletion both directly and indirectly. Economically and politically sound elite's people are constructing their industries on the forest land near Gazipur and Dhaka (Islam & Sato, 2012). The report of the Department of Forest indicates that few ministers, Member of Parliament (MPs) and political bigwigs of Bangladesh have been illegally grabbed almost 2,50,000 acres of forest areas with the help of government forest officials (Haque, 2009). As regards, a printing media reports that in Badargang Upazila under Rangpur district, an Upazilla Porisod (UP) member is directly involved in grabbing 6 acres of reserved forest in Shimulbari area (The Prothomalo, 2015). The same political person is also accused of illegal logging in that area. Poorly defined and enforced property rights and lack of transparent government policies are motivating the politicians to use forest resources for their own gain (Islam & Sato, 2012). Pertaining to this issue, another report of printing media typifies that in Dinajpur District, most of the forest land grabbers are the local powerful politician. Even, police found it tough to enforce the law against them. Some forest officials who file any case against them often get insulted, murdered or got transfer (The Prothomalo, 2016). Illegal brickfields and sawmills near the protected forest territory are also emotive for extensive felling of trees (Shakil, 2009). The brickfields and sawmills owners are the local powerful economic groups who help the political leaders during the election through financing in the campaign. In returns, these influential business groups get political supports to grasp a vast amount of forest land by using false and forged documents (Shakil, 2009). Sometimes politicians influence their power on forest officials and prohibit them from raids the illegal timber depots (Chakma, 2009). Broad (1995) asserts about the issue of lack of political will in Third World governments on environmental issues. In Bangladesh, the problem associated with deforestation in reserve land is not a lack of political will but a political will that represent elite timber- traders' interests. So, it can be labeled as the failure of implementing forest policy as the political successes relies in managing forest resources for the benefit of the vested interest group.

5.5 Institutional Weakness, Bureaucracy and Governing Challenges

æGood forest governance is characterized by predictable, open and informed policy-making based on transparent processes; a bureaucracy imbued with a professional ethos; an executive arm of government accountable for its actions; and a strong civil society participating in decisions related to the sector" (UN-REDD Bangladesh National Programme, 2016, p. 28). Transparency, participation, accountability, coordination, and capacity are the five principles of good forest governance (Kishor & Rosenbaum, 2012). In Bangladesh, the Forest Department is responsible for protecting and maintaining the forests. But this department is suffering from large capacity gaps in terms of human resources, qualifications and skills, lack of budgets, poor equipment, and transportation shortage to manage and protect the forest resources (Iftekhar & Hoque, 2005). On an average, 1430 ha forest areas are administrated by one forest guard patrol which is far bigger than the optimum area (Syed, 2017). As a result, it is impracticable to monitor and manage the big forest

areas with limited forest guards where the forests are freely accessible from any side. With this shortage of manpower and technical capacity, the forest officials in southwestern districts of Bangladesh are fighting with the gangs of illegal loggers (Hossain, 2011). The official arms of the forest department are still old-fashioned and with these out of date arms, the foresters are confronting with the criminals equipped with the light machine gun, AK-47, revolvers and walkie-talkie (Hossain, 2011). In this context, Hossain (2011) states that the forest department does not following the minimum policy to ensure the security of forest and protection in southwestern districts that generate deforestation at the alarming rate. Besides, the forest department consists of an elitist and bureaucratic culture with hierarchical and top-down working practices (Iftekhar & Hoque, 2005). The forest department is part of state bureaucracies which implements all forest policies at field levels but the department always depends on the decisions of the forest ministry, planning commission, and finance division for funding to conduct any protective functions for forests, and get orders from multiple powerful bureaucracies that delays the implementation procedures of forest policies (Giessen et al. 2016). Monitoring is the key to accountability. The forest department has a monitoring cell at its head office which hardly undertakes any monitoring of field activities. The absence of effective monitoring arrangement along with the declining accountability of forest staffs is (Choudhury & Hossain, 2011) seriously jeopardizing the implementation of forest policy and impedes the improvements in forest management. Haque (2009) claims that majority of the forest officials at all levels helps the illegal loggers to pillage the forest in exchange for bribes. Most of the cases the corrupted officials maintain a good relation with powerful political leaders to help the land grabbers encroach in the forest (Mirza, 2009). Though forest department of Bangladesh is working as one of the key actors of policy-making process, they rarely consult with a community person (which is one component of forest policy 1994) during policy formulation, forest management, forest conservation and tree plantation plans (Rahman & Miah, 2017). So, the participation of local communities is ignored by the forest department. Lack of accountability and transparency in fiscal activities also exists in the department as it is reluctant to share the fund with the participants of community forest program (Iftekhar & Hoque, 2005). This poor governance and illegal logging results a loss of revenue that could be invested in sustainable forest management or economic development. Sometimes the weaknesses of forest sector are complex to address since well-connected interest groups including political leaders lean to take benefit from the status quo and resist change.

On the basis of good governance principle, capacity building is essential to develop the capability of forest administration. To improve administrative capacity World Bank suggests that the government need to adopt the following three important mechanisms æfirst, improving information and analysis to inform priority-setting and policy design; second, developing responsive and effective institutions suited to the administrative traditions of the domestic institutional setting; and, third, inviting greater local participation in policymaking, monitoring, and enforcement” (World Bank 1992).

6. Conclusion

This study attempts to examine the underlying political and economic dynamics of deforestation of reserved forests that hamper the implementation of forest policy in Bangladesh. The article has shown that, in Bangladesh control of restricted forests has been highly concentrated in the hands of a few interest groups who are exploiting the forest resources and twisting forest policy for their profits and destructing the sustainable development. The direction of forest policy in Bangladesh is now shaping, both directly and indirectly, by those groups whose vested interest is in misconduct of forest resources. The findings of this literature-based study clearly indicate that immoral political persons and dishonest timber merchants in support of some dishonest officials of the Department of Forest are involved in commercial logging and forest land grabbing in reserved forest areas. Weak forest government structure is characterized by elitist and bureaucratic culture with hierarchical and top-down working practices along with less monitoring and poor capacity made it easier for illegal logging supported by collusive corruption. In Bangladesh, sufficient laws and policies are established to prevent such illegal acts of felling trees and criminal timber trades but initiatives need to be taken to effectively enforce them. Although government and many international agencies have taken long-run projects such as REDD+ to curb deforestation, in reality the existing political and economic causes are working as barriers to implementing these properly. It results these projects to stay lag behind of targets.

To properly implement the forest policies, the forest department of Bangladesh immediately needs to recruit the professional forest officials with right academic and skilled training along with sufficient funds and equipment. Accordingly it needs a sanction to strengthen the department so that it can properly handle the illegal activities occurring in the reserve forest areas. Moreover, for effective implementation of the forest policies and to reduce the deforestation, it is essential to include stakeholder participation, apt monitoring on forest department and take rigorous measures for enforcing the forest laws. Strategies of empowering the civil society and private sectors need to be taken to reduce the deforestation in conjunction with government. Specific laws, policies, and legislation must be oriented to encourage the local people and different actors to participate in forest management and conservation. The initiative should be taken to shift sawmills and brickfields along with wood processing factories and furniture industries which are situated within 10 km of the forest boundary. Awareness raising activities such as involving the local communities as forest guard and arranging training programs about the significance of forest preservation can decrease corruption of local forest officials. Besides, mass media can also play an active role by covering more news on corruption, illegal logging, forest land grabbing and hunting of wild animals in reserved forest areas. If these policies are not adopted immediately, the influence of actors over the deforestation cannot be controlled. As a result, the deforestation rate in Bangladesh will continuously increase, and the number of reserve forests will gradually decrease.

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