Can Print Media Discourse Drive Forest Policy Change in Bangladesh?

Md. Nazmus Sadath[1,2] & Max Krott[1]

[1] Forest and Nature Conservation Policy, Georg-August University, Göttingen, Germany

[2] Forestry and Wood Technology Discipline, Khulna University, Bangladesh

Correspondence: Md. Nazmus Sadath, Forest and Nature Conservation Policy, Georg-August University, Büsgenweg 3, 37077 Göttingen, Germany. Tel: 880-167-065-3550. E-mail: nsadath@gwdg.de or mnsadath@yahoo.com

Abstract

Forest issues are widely discussed in Bangladeshi print media. Different policy actors (both central and peripheral) participate in the media discussion to express their opinions on and interests in forest issues. The media play an important role in the construction of the social, environmental and economic context of the Bangladeshi forest sector where forest policies are formulated and modified. Nevertheless, while extensive research has been carried out to explain the formation of the environmental discourse, very little research has been done on the specific relationship between the policy outcomes and media discourses. This study tries to determine the influence of media discourse on forest policy changes in Bangladesh. It analyses the media discourse from 1989 to 2009 in the "The Daily Ittefaq", a reputed Bangladeshi print medium of Bangladesh, along with Bangladeshi forest policy documents from 1989 to 2010. A quantitative, qualitative content analysis, followed by expert interviews of forest policy decision makers was the chosen methodology. The empirical findings of the study reveal that media discourses do not drive the forest policy change in Bangladesh; rather the international concurrent forest discourses trigger symbolic forest policy changes in Bangladesh.

Keywords: forest media discourse, substantive and symbolic policy change

1. Introduction

Bangladesh is one of the most densely populated developing countries in the world, with only 2.52 million ha of forest. The contribution of the forests to the country's gross domestic product (GDP) is around 2% (Choudhury & Hossain, 2011). In addition, forests are also one of the major sources of energy and livelihood for the people of Bangladesh. Historically, the Bangladeshi forest sector has been characterized by the continuous depletion of forest resources, both in terms of area and quality (FMP, 1994). This depletion warranted reforms in forest policy and management in Bangladesh (Mustafa, 2002). Since the early 1980s, the forest sector in Bangladesh has witnessed changes in policy terms and management strategies (Bangladesh Forest Department, 2010). The concepts of ecotourism, participatory management and climate change issues have become important in forest policy programmes. The emergence of climate change as the biggest threat for the country prompted environmental discussion in both the public and the private arenas. A substantial portion of within this environmental discussion was dedicated to the forest (Mia, 2011). The print media does not lag behind in reporting on various forest issues in Bangladesh. Different political actors (central and peripheral) have discussed the forest sectors' problems and opportunities in the Bangladeshi print media (Sadath et al., 2012). On many occasions, the notion that the forest is in crisis is the preferred line of argumentation (Sadath et al., 2013). The print media has drawn attention to the problems of forest conditions continuously. The crisis of forest conservation and management are widely discussed in the national print media discourse (Sadath et al., 2012). This media coverage on forest issues may have some influence over forest policies. Central actors (politicians, administration and judiciary) use the print media to promote or legitimize their policy decisions and a political system's civil society actors/peripheral actors use mass media to propagate their ideas and opinions through argumentation in a rational discourse (Kleinschmit & Krott, 2008).

There have been claims that the media have been an influential factor in environmental policy changes, like the one involving the elimination of two-stroke engine rickshaws and Polly-shopping bags in Bangladesh (Anam,

2002). The different types of media have different strength and weaknesses in fulfilling the different functions. "New" digital media is characterized by its openness for discussion on the one hand and by its fragmented information on the other (Kleinschmit, 2010) in comparison it is the strength of the "old media" like newspapers, television or radio aggregating and channelizing information. For this reason these media types are still the ones opinion leaders and in particular political decision makers rely on when searching for indicators of the public opinion (Kleinschmit & Krott, 2008). Given this particular role of "old media" this paper will further on deal with newspaper reporting. However, newspapers, as well as the other "old media" are an actor with political interest on their own. Consequently the selective function of newspapers, deciding which information becomes news and which not, follows specific rules (Kleinschmit, 2012). Political actors know about these rules and adapt to it when competing for media attention. In this way the reported reality is already a constructed reality, adapted to the media rules. During the last two decades there have also been a significant number of forest policy changes (both symbolic and substantive) in the Bangladesh forest sector, where combating deforestation and wildlife conservation are the two major policy programmes (Sadath & Krott, 2012). The facts that these two issues had wider media coverage during the last two decades (Sadath et al., 2012) and that policy changes took place provide the opportunity to investigate the role of the media in the introduction of change in forest sector policy in Bangladesh. This paper will concentrate on the discourse in newspapers in Bangladesh and policy change between 1989 and 2010. The general research question is how the media discourse on forest issues influences change in the forest sector policy. Based on the theory, the following chapter will specify the ways in which the research question leads to hypotheses that guide the empirical analysis.

2. Media Discourse and Policy Change

Communication is imperative in politics. The ability to send, receive and process politically relevant messages is vital in the policy processes (Chaffe, 1975). In these processes, the media become the provider of a public sphere wherein the aggregate of stakeholders' opinions and interests are found (Kleinschmit, 2012). Hence, the media discourse on certain forest issues could be understood as the aggregate of policy actors' positions on those issues within the media. Based on theoretical concepts by Fairclough (1995), Dijk (1985), Real (2009), and Keller (1997) this study considers forest media discourse to be the communication about topics and actors relevant to forest issues present in print media.

2.1 Policy Program and Policy Change

From the forest policy perspective, the central actor of a political system intervenes by introducing a new policy programme or by changing the existing policy programme in response to a forest problem or issue that may have received media attention. According to Krott (2005), these policy programmes constitute statements by (forest) stakeholders concerning the utilization and/or protection of the forest, made in a social context. He explains that the basis of a forest policy programme includes corresponding pieces of legislation, as well as administrative guidelines and concepts. Later he adds specific components that determine the informative performance of the political programme (Krott, 2005).

Since this study examines the relationship between the media discourse and policy change, understanding policy change is very important. The analysis of policy change examines the policy process and outcomes to determine what the changes are (Giessen, 2011). In addition, changes in social, economic and environmental factors at any given time may warrant changes in forest policy. Central actors make policy change claims often (Sadath & Krott, 2012), and these policy changes may be real or symbolic (Gustafsson, 1983). A real/substantive policy change is a change in policy goals and in implementation in response to forest issues and problems (Sadath & Krott, 2012). These changes may be made in an incremental fashion or through a radical approach (Krott, 2005; Voitleithner, 2002). The number of claims associated with actual substantial policy change is questionable, however. There is a discrepancy between the publicly announced policy goals and their substantial implementation in almost all political systems. Many policy decisions are announced without substantial means for new implementation. Such policies are merely symbolic (Gustafsson, 1983; Sadath & Krott, 2012). The reason for these symbolic policy changes could be that they are a way to show acknowledgment of public opinion.

2.2 Policy Media Interaction

Public opinion plays a key role in policy decision-making because the government requires public support and acceptance to legitimize its policy decisions. If we assume that the media reflect public opinion (Sadath et al., 2013) then the media play a vital role in presenting the general perception on any certain issue or event, particularly crisis events. The public discourse on critical events in environmental and forest issues that is supported by the media has a chance to influence policy decisions. However, during environmental crises, like

the famous disposal of Shells' Brent Spar oil buoy or the forest dieback problem in Germany, Austria and Switzerland, the media took one side of the story and made the issues more emotionally charged instead of using rational discursive argumentation (Kleinschmit, 2012). It can therefore be assumed that, by promoting a particular policy direction, advocated by a certain political actor or a coalition of actors (see example Hajer, 1993), the media play a key role in policy change (Robinson, 2000). This promotion of a particular policy line regarding forest issues may be explained by the concept of framing (see examples in Entman, 1991, 1993). Certain issues are framed and receive increased media attention to encourage policy intervention. In terms of foreign policy decisions, the CNN effect is a well-established theory that argues that the media have the capacity to influence policy making (Gilboa, 2005; Robinson, 1999). This phenomenon refers not only to the effects CNN has but emphasises the power of media networks to influence political processes by selective coverage of certain issues (Barker, 2005). In many cases the political events that occur in a political system are not only reflected in the media but are also shaped by it (Matthew & Lewenstein, 2002). The media have their own selective mechanisms to decide which aspects of a certain issue will be reported and which will not. For instance, the media is selective in reporting forest issues in Bangladesh according to their selection criteria, which in media theory are referred to as "newsworthiness" (Weingart, 1998). So the print media may consciously frame forest issues to advocate certain policy outcomes or they may provide different policy actors with opportunities to frame the forest discourse so as to favour their interests. Extensive media attention for a particular forest issue could determine immediate response and attention by policy decision makers (Yanovitzky, 2002). However, the extent of the influence of media over policy processes is still debatable. Robinson (2000) devised the "policy-media interaction model" to determine the media's power over policy processes. His policy-media interaction model is based within the context of Hallin (1986) and Bennett's (1990) press-state relation framework. According to Robinson when the government has a clear, well-defined and articulated policy objective, the media have no influence over policy, rather, the government tends to set the news agenda and shape the media discourse. But when there is uncertainty in policy objective definition the media have influence over the policy process. In the absence of clear, well-articulated policy lines the government is vulnerable to extensive media attention devoted to an issue and responds to the carefully framed media discourse (Robinson, 2000). The media have been credited as being a policy agenda setter (Dearing & Rogers, 1996), and policy makers tend to infer the public's perception on issues from the media's agenda (Linsky, 1986). The fluid and competitive nature of the political arena makes decision-makers more responsive to issues that are prominent within the media agenda, otherwise they may run the risk of losing their current position of power (Yanovitzky, 2002; Lemert, 1981; Linsky, 1986). In addition, media construction of an issue opens a window of opportunity for policy change (Kingdon, 2003), particularly in the event of environmental catastrophe and crisis (Kleinschmit, 2012). Therefore, concentrated, heightened media attention on certain forest issues at certain times may prompt policy change (Yanovitzky, 2002). Based on this theory the study suggests the hypothesis that media discourse on certain forest issues can initiate forest policy change in Bangladesh.

3. Quantitative and Qualitative Analysis

The analysis of policy change requires the information about the formal policy outcomes as well as about the drivers or processes that cause the change. A quantitative-qualitative approach is suitable for cause and effect analysis in the policy field, because this approach increases both the reliability and the validity of the data (Schusser et al., 2012). Hence, a quantitative-qualitative research approach with content analysis and expert interviews was chosen for this study.

In this study, we define the discussion on forest issues in the print media as media discourse. The best form of media discourse analysis is content analysis. Content analysis reveals social reality through a manifest text and a non-manifest context (Neuman, 2006). According to Krippendorff (1980) it is the research technique for making valid, explicative inferences from data about their context. In addition, content analysis is the appropriate method used to reveal objectively the significant text, words or symbols within a large volume of newspaper text (Neuman, 2006). The first part of this study consists of content analysis of political communication regarding forest issues found in the media discourse, using quantitative data. The daily newspaper "The Daily Ittefaq", a reputable Bangladeshi newspaper, was chosen for this. The daily Ittefaq was selected because of its popularity in society and its ability to reach political elites and decision-makers. In addition, the daily Ittefaq publishes articles that include a broad range of issues and subjects, including environment, politics, culture and sports. Relevant articles from the "Daily Ittefaq" were collected manually using the National Library Archive of Bangladesh. The search was limited to the years 1989 to 2009. The database search for relevant articles was performed using the keyword 'Forest', and the articles found were then screened to obtain the relevant articles. The selection criterion was that articles chosen had to contain at least one paragraph dealing with Bangladeshi forest issues. After

screening, 609 articles with 630 statements were obtained for content analysis. Quantitative content analysis was then performed on these newspaper articles to determine their general direction regarding forest issues and problems in Bangladesh. A coding system was developed and used for this content analysis. The coding system and procedure are very important for the validity and reliability of content analysis (Neuman, 2006). This content analysis provides the first empirical results of the study. Based on the data, a time line for media discourses was drawn, in respect of the four major Bangladeshi policy programmes (Sadath & Krott, 2012).

The political programme analysis is based on a total of 87 available policy documents from 1989 to 2010, collected from the Bangladesh Forest Administration's library and from the Circle and Divisional offices. Not all these documents deal with Bangladeshi forest policy change. After screening, 58 documents were selected as a sample that deals with policy change based on the analytical policy programme approach (Sadath & Krott, 2012). The 58 documents were analysed to find the substantive and symbolic policy changes during the study period. As policy formulation takes longer, the policy change analysis was done for one year more than the media analysis. The content analysis of policy documents provides four policy programme streams between 1989 and 2010 (with substantive and symbolic changes) concerning four major forest policy programmes in Bangladesh.

For comparison, the media streams of four major forest policy programmes were matched with their respective policy programme streams so as to observe the parallels between the two. Synchronicity between a media stream peak and a substantive or symbolic change of policy programme stream was considered to indicate a possible causal effect of the media on policy change. However, the parallels found do not ensure the media's influence. Therefore, a qualitative content analysis of the relevant media articles was done to ascertain the objectives of the article or a speaker's statement in respect of policy change.

Expert interviews were carried out with Bangladeshi forest sector policy decision-makers concerning the reasons for change in policy programmes, particularly regarding the changes that occurred in parallel with the media peaks. Each symbolic and substantive change was discussed with the policy stakeholders using open-ended interview guidelines. A snowball technique identified 18 policy stakeholders responsible for policy decision-making in Bangladesh. The information provided by each interviewee was checked against relevant documents in order to verify whether the opinions were supported by facts. In this manner, empirical analysis combined quantitative data analysis with qualitative analysis of text and interviews.

4. Results

Sadath and Krott (2012) found four major policy programmes in Bangladeshi forest sectors during 1989 and 2010. Those were deforestation, wild life conservation, forest encroachment and coastal afforestation. The results are discussed in line with these four policy programmes.

4.1 Deforestation

The media stream concerning deforestation is more or less stable, with mostly nine to eleven statements per year, except for small peaks. Four peaks were found (Figure 1), with more than fifteen media reports on deforestation in 1997 (22 statements), 1999 (18 statements), 2000 (17 statements), and 2002 (19 statements). The content of the media discourse on deforestation from 1989-2009 did not change, and it was about deforestation and its different causes. No significant emphasis on any one topic regarding deforestation was found. The deforestation issue had a stable presence in the media and did not receive increased attention that would put pressure on Bangladeshi politics. The result is in line with findings about the forest dieback issue in Germany after the 1980s. The forest dieback maintained media presence but did not receive the amount of attention it did in the early 1980s (Krumland, 2003).

The policy stream consists of 6 substantive and 2 symbolic changes. Out of these 8 policy changes 4 changes are parallel to the media peaks mentioned previously. In 1998 biodiversity conservation was added symbolically to the objectives of the policy programme addressing deforestation. At the same time there was also a positive change in the financial instrument of the same programme. However, the expert interview confirmed that the symbolic change was driven mostly by the international forest discourse at that time, especially the discourse among donors. This claim is also supported by a policy document that clearly explains Bangladesh's obligation to CBD (MOEF, 1995). The amendment of the Forest Act in 2000 and the reorganisation of the Forest Department in 2001 are also closely parallel to the media peak of 1999 and 2000. But the qualitative analysis of the media content confirms no significant relation between the two media peaks and the two substantive changes. Rather, it was the international donors and the international expert discourse that influenced the two very important policy changes. Apart from these three, all other substantive and symbolic changes were not parallel within the time stream. In addition, the media articles do not deal with biodiversity in regard to deforestation, but

do show concern about continuing deforestation of the country. To conclude, the media influenced neither the symbolic nor the substantive changes in the policy programmes.

The SIDR cyclonic event affected the Sundarbans reserve forest severely in 2007. This catastrophic event received broad media coverage that dealt with forest destruction and its chances for recovery. The media suggested a complete ban on harvesting from the Sundarbans in order to promote restoration. In the latter part of 2007 a regulative substantive change banning all kind of forest harvesting was introduced in the policy programme (MOEF, 2007). In this particular case the quantitative content analysis also indicates a relationship between media and policy change. However, the expert interviews indicate that this change would have happened even without media attention, because the science and technical knowledge of forest management demand the same solution and the forest administration had become active anyway. This is also documented in the first SIDR impact assessment report of the Bangladesh Forest Department (FD, 2007).
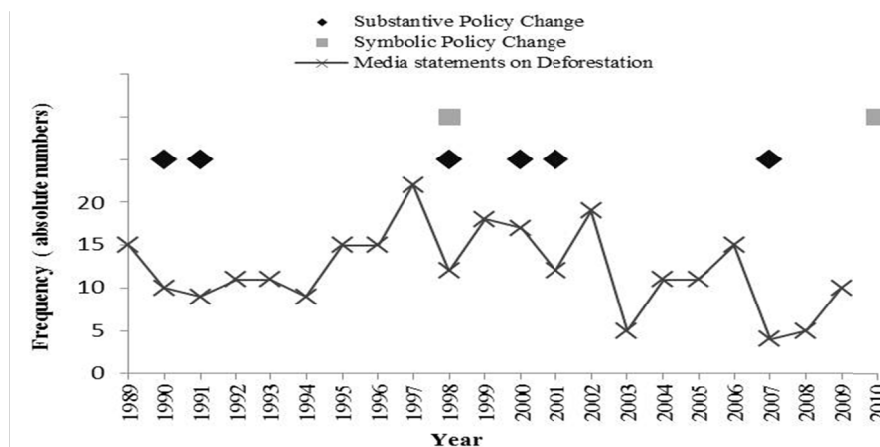

Figure 1. Policy change and media stream in the deforestation policy programme

4.2 Wildlife Conservation

The analysis shows a stable level of media attention to the wildlife conservation issue from 1989-2009, averaging 10 to 12 statements per year. There is no high peak on this issue except in 1989 and 2000, showing more than 15 media reports. In 2003 and 2004 one finds a trough in the media stream. The policy stream is constituted of 4 symbolic and 7 substantive policy changes from 1989-2010. Three parallels were identified while comparing the streams. There were 15 media articles on wildlife conservation issue in 1989 and a regulative change was found in 1990 in the wildlife conservation programme. However, qualitative analysis of the media content could not find any relation between the media discourse and the policy change. The expert interview also confirmed that this change, to oppose wildlife poaching, was a result of a departmental initiative that also coincides with the Bangladeshi National Forest Policy statement of 1979.

In 2000 there were 16 media statements on wildlife conservation. In addition, a substantive change in the policy stream occurred in 2001. A qualitative analysis of these 16 articles and the policy change determined that there was no relation between the media discourse and the policy change. The media discourse was mostly about the wildlife-human conflict and the policy change consisted of the creation of new wildlife divisions within the forest department. One could argue that the media discourse signals the wildlife conflict and that the policy response is an increase in the efficiency of wildlife management. However, the expert interviews confirmed that the creation of the wildlife divisions was the result of long administrative processes due to development partners' requirements and international treaty obligations, which are devoid of any media influence. In addition, this restructuring process was also outlined in the Forestry Master Plan (1993).

In 2008 there were 13 media articles in close chronological proximity to one substantive change in the policy stream. However, according to the expert interviews, the introduction of the tiger action plan in 2008 was not due to media influence. The driving interest was to fulfil the country's commitment to the global tiger conservation initiative. The most significant policy programme change was found in 2010, when the Bangladesh Forest Administration proposed a new wildlife conservation act that strengthened wildlife protection and management. The act also created opportunity for minimal compensation for the people suffering from damages

caused by wildlife. We did not find any significant peaks in the media stream in 2009 or 2008 corresponding to demands for a change in the Wildlife Conservation Act. On the contrary, the media reports were mostly on the wildlife-human conflicts in which human life or property was lost and in which the wild animals, e.g., tigers and elephants, were framed as being the cause of the problem.
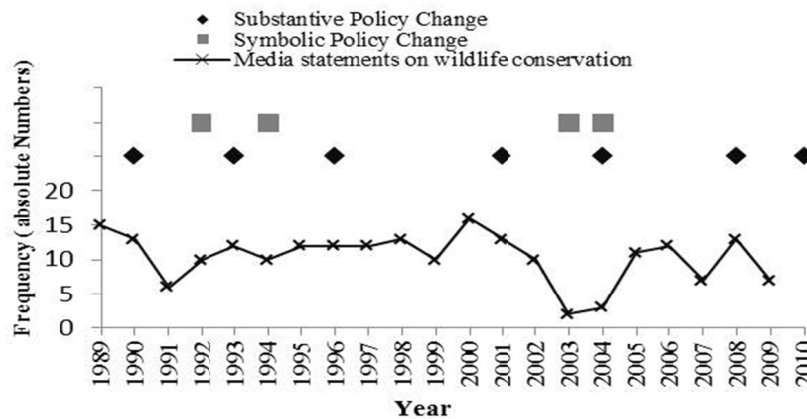

Figure 2. Policy change and media stream in the wildlife conservation policy programme

4.3 Forest Conflict Resolution and the Afforestation Programme

There is very little media attention paid to forest conflicts and afforestation issues (see Figures 3 and 4). Most articles about forest conflict issues were found in 2000 (6 articles) and about afforestation in 2008 (8 articles). Encroachment into the forest area is a big problem in the Bangladesh forest sector. As a result, there was significant policy changes made from 1989-2010. The Forest Act of Bangladesh was amended in 2000 to incorporate participatory forest management to solve the encroachment problem, and subsequently, in 2004 and 2010, substantive policy changes were found in this programme. In the afforestation programme, 4 substantive and 4 symbolic policy changes were found. Since the media shows little concern for these two programmes, it seems that these policy changes in forest conflict resolution and afforestation are not influenced significantly by media discourses.
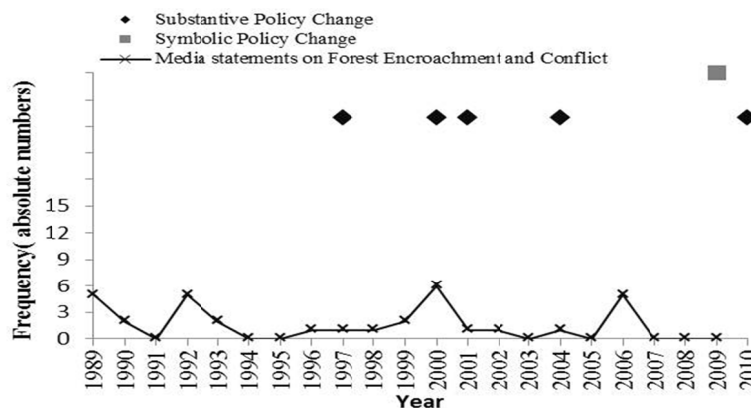

Figure 3. Policy change and media stream in the forest conflict policy programme
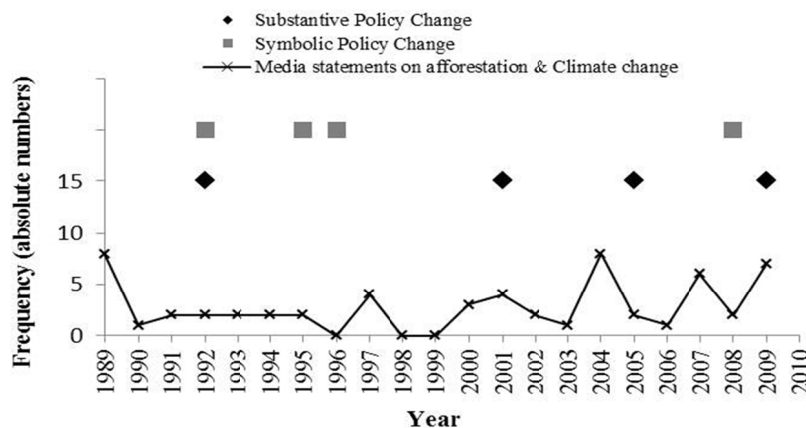
Figure 4. Policy change and media stream in the afforestation and climate change policy programme

4.4 Corruption

In addition, the print media explicitly pointed out corruption as a major problem of the forest sector in Bangladesh (Figure 5). According to the media, the corruption of the administration and local elites, the timber industry and entrepreneurs (big and small) are the main drivers of deforestation in Bangladesh. Our analysis did not find any substantive or a symbolic policy initiation to tackle the corruption issues in the forest sector.
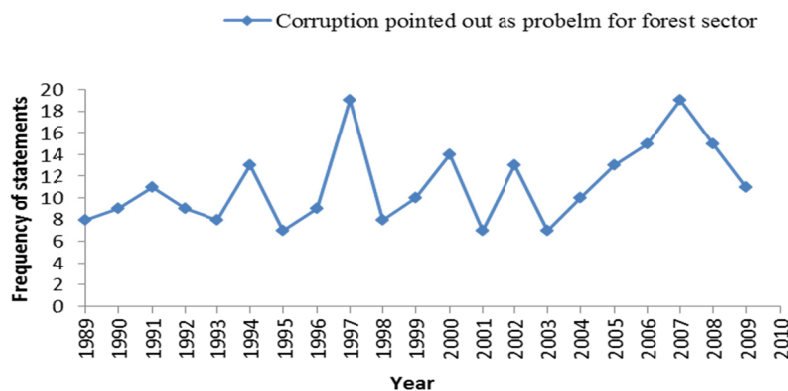

Figure 5. Corruption in forest media discourses

5. Discussion

The analysis finds that forest issues have a rather small but stable representation in the national selected print media in Bangladesh between 1989 and 2009. In total, five media streams were identified in this study. Not all five media streams have a similar number of articles per year. The average number of articles per year per stream was classified as high (15 articles or more per year), moderate (7-14 articles per year) or low (0-6 articles per year). The study also revealed substantive and symbolic changes related to four of the five media streams and no policy changes related to the corruption media stream. There are few parallels between media peaks and policy change when it comes to the deforestation and wildlife media streams. But these parallels do not show substantive links between media and policy changes. The following table summarizes the relationship between these media streams and relevant policy changes.

Table 1. Media-policy relation at a glance

Issues	Media attention*	Substantive policy changes	Symbolic Policy Change	Linked by parallel Peaks	Substantive link
Deforestation	Moderate (12)	Yes	Yes	Yes	No
Wildlife	Moderate (10)	Yes	Yes	Yes	No
Forest conflict	Low (1.6)	Yes	Yes	No	No
Afforestation	Low (2.8)	Yes	Yes	No	No
Corruption	Moderate (11.2)	No	No	No	No

*(High= < 15/year, Moderate= <7--15/year, Low = 0-7/year).

As a whole, our analysis indicates that most forest issues get constant but low media coverage. The forest discourses in the Bangladesh print media are strong only in crisis argumentation, where deforestation and wildlife conservation are the issues. These results are similar to those elsewhere in the world, since nature/environment crises are very likely to be a topic in the media (Krott, 2005). Most forest issues in Bangladesh do not receive a level of attention that is high enough to influence policy changes. This can be seen, for example, in Livesey (2001), Hajer (1997) and in the case of the forest dieback problem in Germany, Austria and Switzerland in the early eighties (Kleinschmit, 2012). Although the media-assisted campaign against two-stroke engine auto rickshaws, meant to help control air pollution, was successful in bringing a policy change towards banning those kinds of vehicles in the capital (Anam, 2002), no similar cases were found in forest sector. Seven modest forest-related media attention peaks were found in the media stream. There were also changes in the policy stream in proximity to these six media peaks, but the expert interviews indicate no relation between the media attention and the policy changes. Earlier, relevant policy documents corroborate this (see for example FMP, 1993; MOEF, 1994; FD, 2007; MOEF, 1995). Instead, other influential factors appear to have had an effect on both substantive and symbolic policy changes. These include the internal interests of the forest administration, governmental interests, pressure from international treaties, and international development partners. The results also indicate that the symbolic policy changes are more strongly linked to the international forest discourse than to the national one. The forest's role in climate change mitigation was symbolically tackled by the existing coastal afforestation programme, which did not receive much attention in the media discourse in Bangladesh but was a prominent component in the international discourse (Sadath et al., 2013). This symbolic response may have resulted from the interest of the Bangladeshi government in receiving more international financing and investment under the REDD and CDM programmes. Similarly, biodiversity conservation was symbolically added to the forest policy programme of Bangladesh in the late 90s as a reaction to the global expert discourse.

The expert interviews indicate that the reason why the media's influence on policy change is limited is that the media cannot sustain a given topic or issue for very long. With the appearance of new events and crises the current issue fades away and today's important issue becomes yesterday's news tomorrow. At the same time, the certainty of policy objectives and goals regarding the forest policy of central actors also limits the ability of the media to influence forest policy change in Bangladesh. The Bangladesh forest policy is dominated by the public sector. The main goal of the Bangladesh forest administration is to conserve the natural forest and increase forest production through afforestation and reforestation. Hence, there has not been any policy interest conflict within the forest policy subsystems in Bangladesh. There has not been any doubt among the decision-makers of what needs to be done. In addition, there is no frequent shift of policy goals. Therefore, according to policy studies (Baumgartner & Bryan, 1993), Bangladesh forest policy follows clear lines. Empirically, forest policy in Bangladesh fits the model by Piers Robinson (2003), in which the media have low influence due to the actors' having clear policy lines and mission.

6. Conclusion: Low Influence of Media on Forest Policy in Bangladesh

The analysis finds out five media streams those deal forest issues with a rather small but stable representation in the national selected print media in Bangladesh between 1989 and 2009. The study also revealed substantive and symbolic changes related to four of the five media streams and no policy changes related to the corruption media stream. There are few parallels between media peaks and policy change when it comes to the deforestation and wildlife media streams, where no substantive links between media and policy changes could be established. Deforestation and wildlife conservation issues dominate the forest discourse in the media in Bangladesh.

Because of low media attention in general, few moderate peaks were identified. Policy changes were also found in proximity to these peaks but qualitative analysis revealed that the content of policy change is not linked to the content of media reports. Therefore the influence of media cannot be proven. In most of the cases the media discourse highlights the causes and problems regarding deforestation and wildlife conservation and conflict. Qualitative comparison of the content of the issues did not find a connection of this media attention to the identified policy changes (both symbolic and substantive). Rather, the factors driving substantial changes were the internal needs and desires of the forest administration, governmental political commitment, commitment to international treaties and international development partners. In addition, the international concurrent forest discourse triggers the symbolic policy changes in the Bangladesh forest policy programme. Therefore the research hypothesis is not supported and the empirical data show that the media discourse does not drive the forest policy programme in Bangladesh. This study also provides research methods that have potential for empirical research on the media's influence on policy outcomes.

References

Anam, M. (2002). The Media and Development in Bangladesh. In W. Bank (Ed.), *The Right to Tell The Rore of Mass Media in Economic Deveopment* (p. 267). Washington D.C.: The World Bank.

Barker, M. (2005). Manufacturing policies: the media's role in policy making process. *Proceedings of the 2005 Journalism Education Association Conference*. School of Arts, Griffith University.

Baumgartner, F., & Bryan, J. (1993). *Agendas and Instability in American Politics*. Chicago: University of Chicago Press.

Bennett, W. L. (1990). Toward a Theory of Press-Szaze Relations in the United States. *Journal of Communication, 40*(2), 103-125. http://dx.doi.org/10.1111/j.1460-2466.1990.tb02265.x

Chaffe, S. H. (1975). *Political communication: issues and strategies for research*. Beverly Hills and London: SAGE.

Curran, J. (2002). *Media and Power*. London/Newyork: Routledge.

Dearing , J. W., & Rogers, E. M. (1996). *Agenda setting*. Thousand Oaks, CA: Sage.

Dijk, T. A. (1985). Introduction:Discourse Analysi in (Mass) Communication Resarch. In T. A. Dijk, *Discourse and Communication New Approaches to the Analysis of Mass Media.* Berlin: Walter de Gruyter. http://dx.doi.org/10.1515/9783110852141.1

Edelman, M. (1985). *Symbolic Uses of Politics with a New Afterword*. University of Illinois.

Entman, R. M. (1991). Framing US Coverage of International News: Contrasts in Narraives of KAL and Iran Air Incidents. *Journal of Communication, 41*(4), 6-27. http://dx.doi.org/10.1111/j.1460-2466.1991.tb02328.x

Entman, R. M. (1993). Framing: Toward Clarication of a Fractured Paradigm. *Journal of Communication, 43*(4), 51-58. http://dx.doi.org/10.1111/j.1460-2466.1993.tb01304.x

Fairclough, N. (1995). *Critical discourse analysis: A critical study of language*. London: Longman.

Forestry Master Plan (FMP). (1993). Forestry master plan. Ministry of Environment and Forest, Government of the Peoples Republic of Bangladesh. UNDP/FAO, BGD/88/025, Dhaka.

Giessen, L. (2011). Reviewing empirical explanations of policy change: Options for its analysis and future fields of research. *Allgemeine Forst- und Jagdzeitung, 182*(11/12), 248-259.

Gilboa, E. (2005). The CNN Effect: The Search for a Communication Theiory of International Relation. *Political Communicatio, 22*, 27-44. http://dx.doi.org/10.1080/10584600590908429

Gustafsson, G. (1983). Symbolic and Pseudo Policies as Responce to diffusion of power. *Policy Science, 15*, 269-287. http://dx.doi.org/10.1007/BF00136828

Hajer, M. (1997). *The Politics of Environment Discourse: Ecological Modernization and the Policy Process*. Oxford: Clarendon Press. http://dx.doi.org/10.1093/019829333X.001.0001

Hajer, M. A. (1993). Discourse Coalitions and the Institutionalisation of Practice: The Case of Acid Rain in Grea Britain. In F. Fischer, & J. Forester (Eds.), *The Argumentative Turn in Policy Analysis and Planning* (pp. 43-67). Durham/London.

Hallin, D. (1986). *The Uncensored War*. New York: Oxford University Press. In P. Robinson (2000). The Policy-Media Interaction model: measuring media power during humanitarian crisi.

Keller, R. (1997). *Diskursanalyse*.

Kingdon, J. W. (2003). *Agendas, Alternatives and Public Policies*. New York: Addison-Wesley Educational Publishers Inc.

Kleinschmit, D. (2012). Confronting the demands of a deliberative public sphere with media constraints. *Forest Polica and Economics, 16*, 71-80. http://dx.doi.org/10.1016/j.forpol.2010.02.013

Kleinschmit, D. (2010). Die Bedeutung der Öffentlichkeit durch Print-und Onlinemedien für eine demokratische Politik. Eine Ernährungspolitische Perspektive. In J. Böhm, M. Kayser & A. Spiller (Eds.), *Die Ernährungswirtschaft im Scheinwerferlicht* (pp. 27-39). EUL Verlag. Lohmar.

Kleinschmit, D., & Krott, M. (2008). The media in forestry: government,governance and social visibility. In T. Sikor (Ed.), *Public and private in natural resource governance: a false dichotomy?* London: Earthscan.

Krippendorff, K. (1980). *Content Analysis an Introduction to its Methodology*. London: Sage.

Krott, M. (2005). *Forest Policy Analysis*. Dordrecht: Springer .

Krumland, D. (2003). *Beitraf der Morstwirscaft un Naturschutz im Politikfeld Wald*. Frankfurt am Main: PETER LANG.

Lemert, J. B. (1981). *Does mass communication change public opinion after all? A new approach to effects analysis*. Chicago: Nelson-Hall.

Linsky, M. (1986). *How the press affects federal policy making*. New York: Norton.

Livesey, S. M. (2001). Eco-identity as a discursive struggle: Royal Dutch/Shell, Brent Spar and Nigeria. *Journal of Business Communication, 38*(1), 58-91. http://dx.doi.org/10.1177/002194360103800105

Matthew, N. C., & Lewenstein, B. V. (2002). Biotechnology and the American Media: The policy Process and the Elite Press, 1970 to1999. *Science Communication*, 359-391.

MOEF. (1979). *National Forest Policy*. Minstry of Environment And Forest.

MOEF. (1994). *National Forest Policy*. Minstry of Environment And Forest.

MOEF. (1995). *Development Perspective of the Forestry Sector Masterplan.*

MOEF. (2007). Suspension of all permit for resource harvest from the Sundarbans for conservation and restoration of the forest after the cyclone. Ministry of Environment and forest of people republic of Bangladesh, Office of the chief conservator of forest/1T-223(part-6)/2007/1638.

Neuman, W. L. (2006). *Social Research Methods Qualitative and Quantitavie Approach* (6th ed.). USA: Pearson.

Park, M. S. (2009). *Media Discourses in Forest Communication: The Issue of Forest Conservation in the Korean and global Media.* Göttingen: Cluvillier Verlag.

Real, A. (2009). *Discourses and Distortions: Dimensions of Global and National Forest Science Communication.* Göttingen: Faculty of Forest Science, Georg august University Göttingen.

Robinson, P. (1999). The CNN effect: can the news media drive freign policy? *Review of International Studies, 25*, 301-309. http://dx.doi.org/10.1017/S0260210599003010

Robinson, P. (2000). The Policy-Media Interection Model: Measuring Media Power During Humanitarian Crisi. *Journal of Peace Research, 37*(5), 613-633. http://dx.doi.org/10.1177/0022343300037005006

Sadath, M. N., & Krott, M. (2012). Identifying policy change-Analytical program analysis: An example of two decades of forest policy in Bangladesh. *Forest Policy and Economics, 25*, 93-99. http://dx.doi.org/10.1016/j.forpol.2012.07.013

Sadath, M. N., Krott, M., & Schusser, C. (2013). Forest-climate politics in Bangladesh's media discourse in comparison to global media discourse. *Open Journal of Forestry, 3*(1), 1-7. http://dx.doi.org/10.4236/ojf.2013.31001

Sadath, M. N., Rahman, S., & Rahman, M. (2012). Forest in crisis: 2 decades of media discourse analysis of Bangladesh print media. *Environmen, Systems and Decisions* (under review).

Schusser, C., Krott, M., Devkota, R., Maryudi, A., Salla, M., & Yufanyi Movuh, M. C. (2012). Sequence Design of Quantitative and Qualitative Surveys for Increasing Efficiency in Forest Policy Research. *AFJZ, 183*(3/4), 75-83.

Voitleithner, J. (2002). The National Forest Programme in the light of Austria's law and political cultere. *Forest Policy and Economics, 4*(4), 313-322. http://dx.doi.org/10.1016/S1389-9341(02)00073-4

Weingart, P. (1998). Science and Media. *Research Policy, 27*, 869-879. http://dx.doi.org/10.1016/S0048-7333(98)00096-1

Yanovitzky, I. (2002). Effects of News Coverage on Policy Attention and Action: A Closer Look into the Media-Policy Connection. *Communication Research, 29*, 422-451. http://dx.doi.org/10.1177/0093650202029004003