Print Media Coverage on Climate Change Issues in Coastal Regions of Bangladesh: An Assessment of Professional Needs

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Abstract: *The role of news media to communicate climate change issues is critical. Being one of the worst suffering countries from the climate change shocks, Bangladesh needs effective media coverage to raise mass awareness on the on hazardous effects of the climate change, adaptation and mitigation techniques. The Bangladesh media in general have no any agenda to deal with the issue except covering reports occasionally, particularly during the disaster period. The daily newspapers in the coastal regions of the country rarely cover climate change issues. Whatever they publish include mostly the disaster time reporting without much information and way-forwards. The present study was conducted to reveal the tendency of the print media coverage in the coastal region, figure out quality of the reporting and understand professional needs of the journalists. Content analysis approach was applied to assess the tendency and quality of reporting while Key Informant Interviews (KII) were carried out to understand the professional needs of the journalists. The study reveals that 72 percent reports were surface with an average column inch of 10.5. Only 7 percent reports were complete in terms of information and narration. Only 10 percent reports used expert's interviews while using the sources didn't adhere to the standard practice of journalism in most of the cases. The content analysis revealed major drawbacks of the journalist's understanding of the climate change issues as well as standard practice of journalism. The findings from the KIIs suggested to improve the reporting skills and knowledge of the journalists working in the coastal regions in the field of climate change.*

Keywords: *climate change, quality of coverage, professional needs, impact, global warming.*

Introduction

Bangladesh is the seventh most affected country in terms of long-term climate risks and shocks. From 1999 to 2018, the country faced 191 extreme climatic events (The Global Climate Risk Index 2020, p.9) which caused a huge loss of human and animal lives and properties.

A study titled 'Climate Change and Flow of Environmental Displacement in Bangladesh' conducted by Unnayan Onneshan-The Innovators in 2009 revealed that on an average 25 percent, three and two percent populations are displaced from different natural calamities like floods, droughts and cyclones respectively. Added to this, high population density, low level of literacy, low per capita income, high level of poverty, subsistence focus, poor resource setting, inadequate infrastructure and long coastal belt have made the climate vulnerability of the country more severe, costlier and devastating (Shahid: 2009).

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The impact of global warming and climate changes are most critical for Bangladesh due to its geographical location, high population density, high levels of poverty, and the reliance of many livelihoods on climate-sensitive sectors, such as agriculture and fisheries. Climate change impact on human health is a global concern. Various climate change related events like heat waves, cold waves, flood, drought, salinity intrusion, cyclone etc. have direct and indirect adverse impacts on human health (Department of Environment: 2009).

One of the most alarming news about Bangladesh is that as a result of the rise of the sea level, the lower southern part of the country may disappear in the near future. " UN scientists predict some of the worst impacts of climate change will occur in south-east Asia, and that more than 25 million people in Bangladesh will be at risk from sea level rise by 2050" (McVeigh: 2017).

Climate Change and Its Impact

The key constituent of our natural environment is 'climate' which has been reportedly undergoing significant changes in the recent years (Islam: 2014). The Oxford Dictionary has defined 'climate change' as changes in the earth's weather, including changes in temperature, wind patterns and rainfall, especially the increase in the temperature of the earth's atmosphere that is caused by the increase of particular gases, especially Carbon dioxide. The United Nations Framework Convention on Climate Change (UNFCC) has defined 'climate change' as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods' (UNFCC: 1992, p.7).

Earth's climate is always changing. In the past, the earth's climate has gone through warmer and cooler periods, each lasting thousands of years. Scientists' observations show that earth's climate has been warming. Its average temperature has risen a little more than one degree Fahrenheit during the past 100 years or so. This amount may not seem like much. But small changes in earth's average temperature can lead to big impacts (Stillman and Miller, 2015).

This change in global or regional climate patterns seems to be visible from the mid to late 20^{th} century onwards. Some causes of climate change are natural. These include changes in earth's orbit and in the amount of energy coming from the sun. Ocean changes and volcanic eruptions are also natural causes of climate change. Many scientists and environment experts think that recent warming should not be interpreted only by the nature alone. Rather, this should be viewed from human activities over the environment and climatic factors. Most of the scientists believe that the warming since the mid-1900s is due to the burning of coal, oil and gas. Burning these fuels is how human beings produce most of the energy that they use every day. This burning adds heat-trapping gases, such as carbon dioxide, into the air. These gases are called greenhouse gases. Some impacts already are occurring, for example, sea levels are rising, and snow and ice cover is decreasing. Rainfall patterns and growing seasons are changing (*ibid*).

Impact of climate changes are many folds from different aspects of our life, living and environmental context. Many kinds of natural calamities like heat wave, flood, downpour, heavy rainfall, droughts, cold wave, unseasonal rain or cold wave are some of the visible effects of global climatic disorder. These types of disorders in the atmosphere can lead to loss of human and animal lives and long-term ailments. Due to climate changes, weathers are seriously disrupted and create depression, heat wave and warm air, rain at intervals, ceaseless downpour, heavy rain, droughts, cyclones and flash floods, rise in the sea level and tidal surge and many other calamities. These catastrophic and extreme atmospheric situations cause huge loss of animal and human lives and properties including respiratory and cardio-vascular diseases, water-borne diseases (like typhoid, dysentery, cholera, skin and cacogenic disease etc.), vector born disease(like malaria, dengue fever, encephalitis etc). The impacts of climate changes are directly linked with poverty and malnutrition. Food production and agriculture are heavily affected due to the adverse effects of climate change. Negative changes in the temperature, monsoon and raining pattern, miniaturization and fertility of the soil and soil health are brought by the climate change which will ultimately affect the food production and food security.

Impacts of climate changes are also visible on the marine ecosystems. Hoegh-Guldberg and Bruno (2010) shows in their study 'The Impact of Climate Change on the World's Marine Ecosystems' that the "impacts of anthropogenic climate change so far include decreased ocean productivity, altered food web dynamics, reduced abundance of habitat-forming species, shifting species distributions and a greater incidence of disease. Although there is considerable uncertainty about the spatial and temporal details, climate change is clearly and fundamentally altering ocean ecosystems. Further change will continue to create enormous challenges and costs for societies worldwide, particularly those in developing countries".

McVeigh(2017), based on the statements of the scientists, reports that the sinking of islands in the Bay in Bengal is due to natural and possibly manmade climate change. Erosion linked to storm surges, for instance, predate global warming. But sea surface temperatures, linked to sea level rise, have risen in the Bay of Bengal. In the context of recent climate change scenario, Bangladesh is vulnerable to tropical cyclone, flooding, sea level rise, heat wave, cold wave, saltwater intrusion, water and vector borne diseases and many other calamities.

Rationale of the Study

In communicating the causes and effects of global warming and climate change and their mitigation techniques, news media can play proactive role. The media can inform and educate people on impending hazards of the disasters so that they can be better prepared and well-equipped to face the hazardous effects of the climate change. From the broader point of view, media can facilitate the government to undertake measures in befitting manner to reduce vulnerability of the people.

But, the media reporting in Bangladesh is almost limited to rescue and relief operation following disasters instead of focusing all the three phases – pre, during and post-disaster period. The regional dailies are not exceptional too.

Media, being the watch-dog' of the society rarely perform catalyst role in creating awareness about adverse effects of climate change. The Bangladesh media have no agenda in general to disseminate information on adaptation and mitigation of the catastrophic-shocks triggered by 'climate change'.

There are 14 coastal districts in Bangladesh which are located in the three coastal regions i.e. Barisal, Chittagong and Khulna. A huge number of people of these coastal districts are the victims of natural calamities like sea tidal, cyclones and floods. The ferocity of three terrible cyclones, 'Sidr, Aila and Mohasen' is still visible in the coastal districts of Bangladesh even after a long period. Apart from these terrible disasters, periodic sea tidal, cyclones and floods are the frequent incidents causing regular sufferings to millions of people.

International debate and discourse took place in several occasions like Earth Summit (the UN Conference on Environment and Development) in 1992, Kyoto Protocol in 1997, Climate Conference in Bali, Indonesia, Copenhagen Summit in Denmark in 2009, Cancun Summit in Mexico in 2010, U.N. Framework Convention on Climate Change (UNFCCC) in 2015 and Marrakech Climate Change Conference, Morocco in November 2016. From all these international events, it has become clear that climate concerns are serious attentions of mass media.

Amidst a growing attention of media throughout the world on the climate change issues, questions raised on how the Bangladesh media represented the matter. The mainstream media show interests and cover all roars and buzz on the issues especially the role of big countries on their pledges and commitments. The advocacy journalism on climate change thus gets a trend of activist journalism. Since Bangladesh is vulnerable to tropical cyclone, flooding, sea-level rise, saltwater intrusion, water and vector borne diseases and other calamities, mass media need to cover all these with importance.

The study, in this context, was an attempt to understand the level of capacity of the journalists covering climate change issues, trend and nature of such reporting in the regional dailies of the coastal zones. The study contributed to developing pragmatic and needs-based training module and manual for conducting training ad workshop on climate change reporting. The study also encourages progressive researchers for undertaking further studies and research in the fields of media, disaster and climate change.

Objectives of the Study

The overall objective of the study was to understand the quality of coverage on climate change issues and the capacity of the journalists in covering the same. Simultaneously, it also assessed the pattern, trend and scope of climate change reporting of the regional dailies in the coastal zone. Specific training needs of the journalists in the field of

environment, climate change and disaster issues were figured out. The specific objectives were to:

- figure out the issues and affairs generally covered by the regional newspapers on climate change
- understand the nature and quality of reporting of the regional journalists on the climate change issues
- assess professional needs of the journalists of the coastal region to cover climate change issues more effectively
- recommend pragmatic way-forwards for further professional development of the journalists working in the coastal regions

Literature Review

In a study conducted in 2010 on 'Print Media and Climate Change in Bangladesh: The Missing Health Issue', it revealed that coverage of reports on climate change is deficient in Bangladesh media. None of the daily newspapers has done any independent research on climate change and its impact on health in Bangladesh. Special issues on climate change, editorials and round table discussions with experts are insufficient within the context of the problem. Print media has the potential to influence climate change policies through independent research, roundtable meeting with development partners, UN bodies, and can highlight the damages up to the need (Haque et.al:2010).

A study titled 'Effects of Mass Media to Address Disaster in Coastal Region' was conducted in April 1996 under the auspices of Press Institute of Bangladesh (PIB) which revealed that most of the newspaper reports on disaster did not portray reality of the facts. However, researcher Md. Mahfuzul Islam Khondokar (1996) mentions that the role of the newspapers is significant in depicting the post-disaster casualties in-depth manner. One of the conclusions of the study was made on enhancing inquisitiveness of the newspapers.

In a newspaper article Dr. Kabir (2017) state that climatic change is brining changes in every sphere of our natural environment and affecting our life. According to him, traditional definition and nature of the winter, summer, spring and the rainy seasons have been drastically changed. In the winter season, there lacks of cold, in the summer, there is dearth of hot temperature and humidity and rain doesn't obey the perpetual role of showering. All these aspects are being changed. Unseasonal and pre-seasonal or late-seasonal rain, cold wave and hot temperature occur in excessive way. Even now-a- days, thunder bolts hit even before raining. All these play adverse role in our natural environment affecting our lives badly.

Professor Sakhawat Ali Khan (2008) argues that the environment risks are very technical matters for reporting for which the communicators need to design the message in the most effective and communicative manner. He observes, "……if a message on immediate environmental risks is not properly encoded for that reason if most of the intended receivers fail to decode it, the impact of the message is unlikely to achieve its objectives. Apparently the message may physically go up to its intended receivers, but it will seldom touch their minds".

Islam (2014) conducted a study on four leading national dailies of Bangladesh to understand the tendency of climate change coverage in the print media of the country. He found that the print media in Bangladesh mostly showed interests on event-based coverage of the climate change issues rather than proactive investigation, analysis and follow-ups. Sampei et.al (2008) observed that high levels of media coverage did not last for a long time. However, coverage of global warming on the front pages of the newspapers influenced the environmental concerns of a large proportion of people.

Under a project titled 'Strengthening the role of media to address DRR & CCA Issues towards building resilience', a series of handbooks were published by PIB reflecting on skills of climate change reporting in general.

However, very little has been done to understand the tendency of coverage of the regional dailies published from the coastal regions of Bangladesh though they have a great role to perform to make awareness among the people as well as the policy makers. Besides, professional needs of the journalists working for the regional dailies were not comprehensively assessed too to understand the gaps in climate change reporting. The present study was an attempt to bridge that gap.

Methodology

The study has been carried out applying 'Content Analysis' and 'In-depth Interview'. Content analysis of the published reports on the climate change issues facilitated to understand the tendency and quality of reporting of the selected dailies from the aforesaid regions. 'In-depth Interviews', on the other hand, facilitated to understand the professional needs of the journalists on how to cover the climatic issues more effectively.

Content Analysis

The content analysis has been conducted on 60 reports purposively selected from seven dailies published from Chattogram, Khulna and Barisal region. The dailies were selected on the basis of their circulation and availability. The reason for choosing this 'report-based' content analysis was that the frequency of reporting on the climate change issues is a specialized one which is rarely done. Pre-selected dailies did not get good result in getting reports on the issue, so the reports-based content analysis was an approach to purposively avail the contents. Since, the key objectives of the study included to assess quality of reporting on the climate change issues and to figure out the professional needs of the reporters, it was necessary to analyze the reports to understand the strengths and gaps in such type of reporting.

Name of the Region	Newspaper	Number of reports selected
Chattogram	Dainik Azadi	14
	Dainik Purbokone	6
	Amader Cox's Bazar	3
Khulna	Dainik Purbanchal	15
	Dainik Probaho	10
Barisal	Dainik Ajker Barta	8

	Dainik Shahnama	4
Total	07 Dailies	60

Table 01: Number of the reports selected from the dailies

Of the 60 reports, 23 were selected from the daily newspapers of the Chittagong region, 25 were from Khulna region and the remaining 14 were from Barisal region. The selected reports were published in the aforesaid dailies during January 2016 to April 2017.

Scope of the Content Analysis

In the light of aforesaid discussion, the scope of the print media coverage in the study included some specific issues and affairs including climate change effects on human health, agriculture and food security, ecosystem and biodiversity, adaptation and mitigation measures, air and water pollution, national and international laws, protocols and policies; gender aspects and protection of the children and the people with special needs, activities of the local players, etc.

In-depth Interviews

All the journalists working in the coastal districts are the study universe of which 24 (district correspondents of the national and regional dailies, news editors/senior reporters of the selected regional dailies and the journalist leaders(secretary/president of press clubs) underwent the study as respondents. A semi-guided questionnaire was developed to interview them after sampling.

Study Findings

The study has been conducted on the basis of the four specific objectives mentioned earlier. So, the findings derived from the content analysis and key informant interviews have been presented accordingly:

Tendency of Coverage

Themes of reporting: The issue of the climate change is crucial from the perspectives of ecological diversity of various regions i.e. Chattogram, Barisal and Khulna of the country. It is perceived that these three regions from which the newspapers were selected for the study were apparently vulnerable to different natural calamities like cyclones, sea surges, flash floods, salinity, hasty inundation etc. These are considered as the adverse effects of climatic changes in the atmosphere due to global warming. Since the reports of the daily newspapers published in the regional dailies were selected on the basis of purposive sampling procedure, analysis of the frequency of reporting does not add mentionable value in the study to figure out the tendency of coverage on the climate change issues.

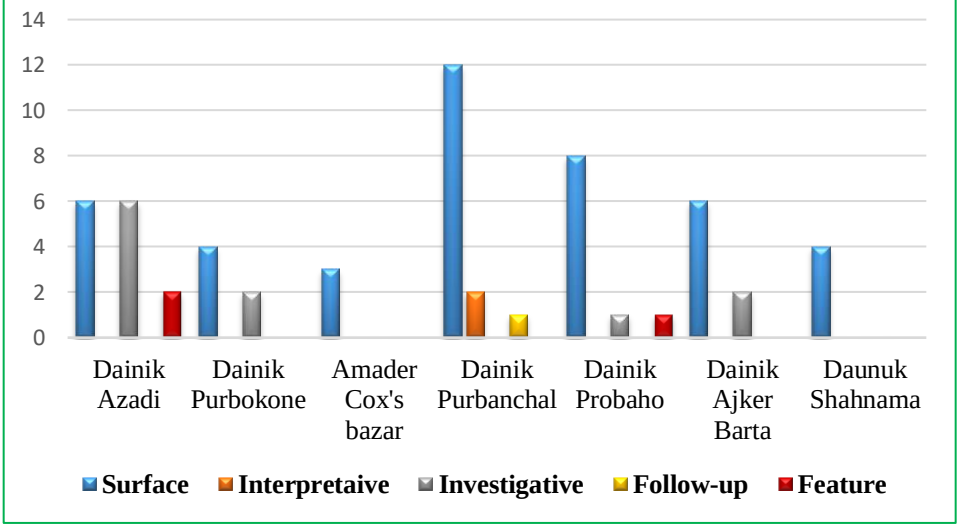
Themes of reports	**Number**
Non-stop heavy raining, depression and flash floods	15
Cold wave and downpour	05
Thunderbolts and sudden storms	04
River erosion, encroachment and inundation	07
Heat wave	04

Campaign for awareness and preparedness	12
Human activities fueling adversity of climatic shocks	07
Other disasters and natural calamities	06
Total	60

Table 2: Thematic areas of the report

Types of reports and their treatment: Of the total reports found in the study, the highest number was 43 as the surface stories. In journalism, this type of report mostly contains superficial information on an event, issue or affair rather than to dig deep into the fact. The audiences generally get some elementary information from a surface report that mostly answer the questions 'What, Where, When and Who' with less emphasis on 'Why and How'. Apart from the surface reports, there were 11 investigative reports, two interpretative reports, one follow-up report and the remaining three were the features. In terms of selection of the subjects, depth of information, presentation, structure and size; the reports were mostly the surface ones. Out of the 43 surface reports, 12 were published in *Dainik Purbanchal*. The second position in terms of covering the surface reports was taken by *Dainik Ajker Barta* with 08 such reports. Although the highest numbers of the total reports (15) were taken from *Dainik Purbanchal*, there was only one investigative report among them. However, the daily published two interpretative reports which was not covered by other dailies. In terms of covering investigative report, *Dainik Azadi* stood the highest position covering six such reports.

Graph 01: Distribution of types of reports undergoing the study



In journalism, investigative reports are considered the most important and laborious genre having greater impact on the society. This type of report is generally covered on the basis of research and documentation of a long period, popularly covered on crime, corruption, scandals and issues of public interests. On the other hand, interpretative reporting is a special type of journalistic report usually covered on socio-economic, political and cultural issues and affairs in detailed manner where analysis is the main task of the reporter based on explanation of data gathered from various sources without reporter's

comments. This type of reports mainly concentrate on the causes and effects of an important issue.

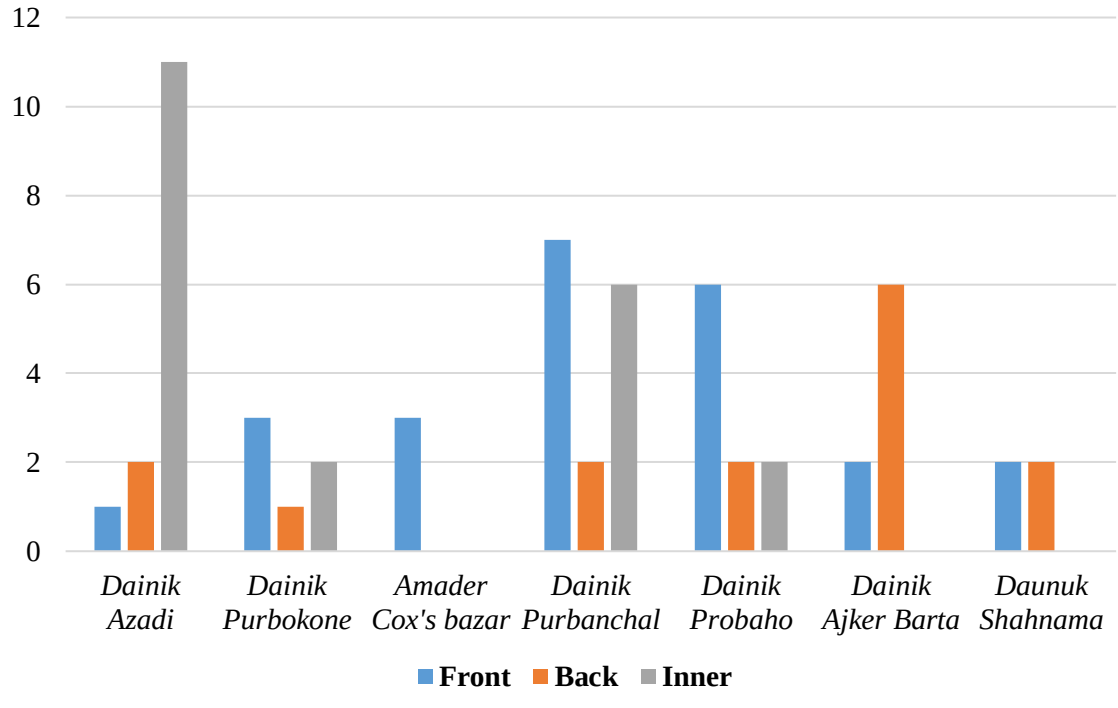
The content analysis shows that, of the reports, 71.66 percent were the surface ones while 18.33 percent were the investigative in nature (headlines and the issue of the reporting seem investigative but they lack in terms of style of presentation, citation of evidences and sources, impartiality and equity) while 3.33 percent were interpretative. Five percent reports were the feature and the least 1.6 percent was the follow-up report (in journalism, follow-up reports are significant to capture updates of a first day event, affair or issue to provide the audience with further development of the same).

Interactions with the senior journalists of the three regions reveal that almost all the journalists do not feel willingness to cover the climate change issues. There was rarely investigative reporting on the impact of the climate change issues. Most of the reporters think of the climate change issues like other daily matters, so they take interests on the lighter issues for reporting in which the sources and data are available. For example, they state, whatever the climate change reporting in the regional newspapers cover mostly include the issues like, heavy rain fall, cold wave, extreme heat wave etc. But, there were no mentionable tendency of covering investigative and interpretative reports on the issues.

Treatment: To understand the treatment of the reports undergoing analysis, a few aspects were considered: location of the reports in the page of the newspapers, coverage of column and picture associated.

Position: The study shows that most of the reports (n=24) were published in the front page of the dailies while 21 reports, the second highest, were published in the inner pages. The remaining 15 reports were presented in the back page of the dailies. The

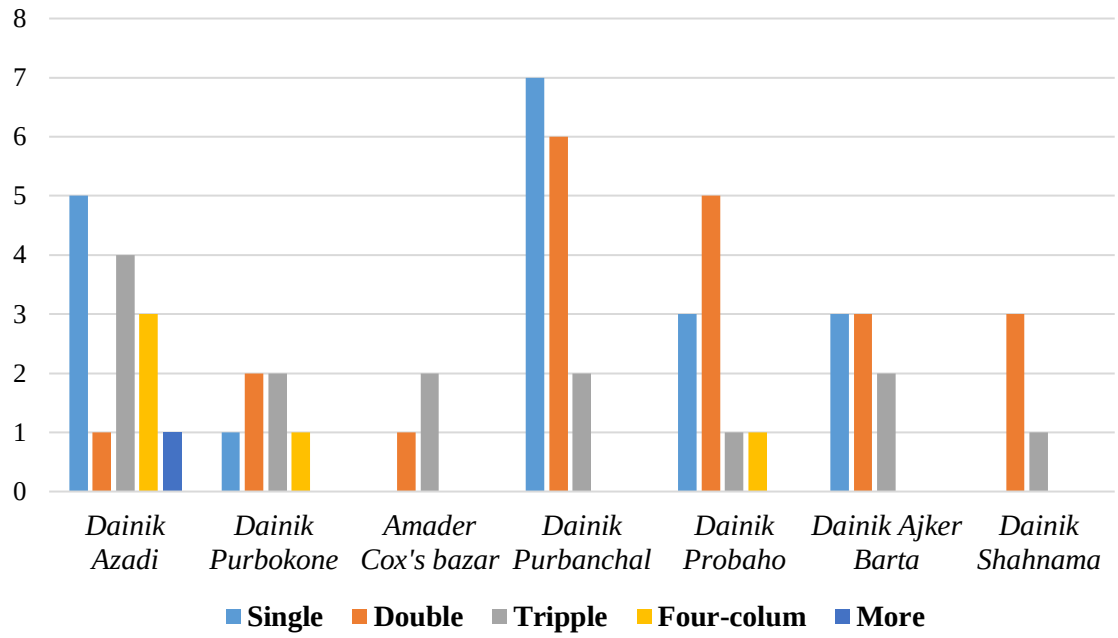
Graph 02 : Frequency distribution of the reports as per their position in the newspapers



Dainik Azadi placed the highest number of reports in the inner pages while the *Dainik Purbanchal* stood second in terms of placing the reports in the inner pages.

Column coverage: About one-third of the reports (n=19) were presented in single column treatment, while more than one-third (n=21) were in double column and about one-fourth (n=14) of the reports were published in triple column coverage. Only five reports were published in four-column treatment and one in five-column. The coverage of

Graph 03 : Distribution of the number of the reports as per their treatment in column



column shows that the daily put emphasis on single and double column treatment of most of the reports. It means that the dailies took the issue of climate change reporting lightly.

Column Inch: The average length of the report was 10.5 column inch. In terms of providing with spaces for reporting, *Dainik Azadi* spent the highest amount, average 16.57 column inches. In doing so, *Dainik Ajker Barta* stood in the second position allocating average 11.56 column inches. The reports selected from the *Dainik Purbokone* got the least amount of average column inches, 6.33.

Name of the Daily	Total Column Inch	Average Column Inch
Dainik Azadi	232	16.57
Dainik Purbokone	38	6.33
Amader Cox's bazar	36	12
Dainik Purbanchal	115.5	7.7
Dainik Probaho	84	8.4
Dainik Ajker Barta	92.5	11.56

Dainik Shahnama	34	8.5
Total	632	

Table 3: Length of the reports in column inches

Use of pictures: The analysis shows, among the selected reports, one-third (n=20) reports were published with relevant pictures. The total coverage of the pictures was 143 column inches. The *Dainik Azadi* published more pictures with more allocation of column inches. The *Dainik Purbanchal*, from which the highest number of reports was selected for the study, allocated only two pictures with 13 column inches.

Name of the Daily	**Number of Pictures**	**Column Inches**
Dainik Azadi	9	81
Dainik Purbokone	1	8
Amader Cox's Bazar	1	6
Dainik Purbanchal	2	13
Dainik Probaho	5	21
Dainik Ajker Barta	1	12
Dainik Shahnama	1	2

Table 4: Number of pictures and their column inches

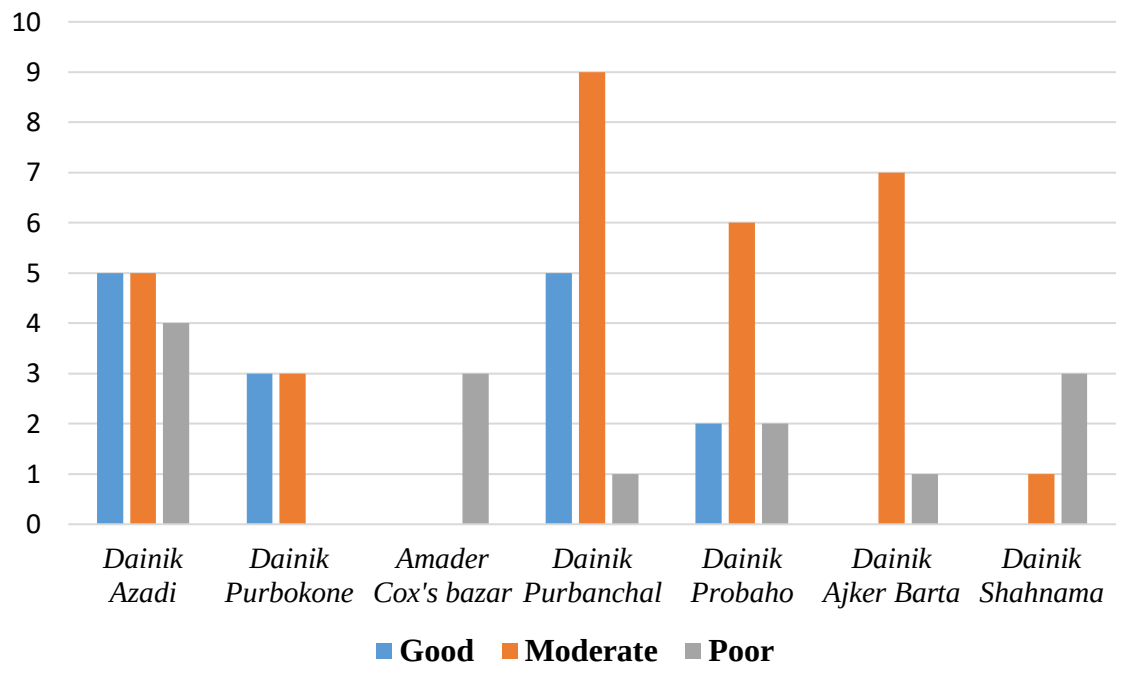
The *Dainik Purbokone, Amader Cox's Bazar, Dainik Ajker Barta* and *Dainik Shahnama* used only one picture each. This states that the regional dailies covered the reports without seriousness and planning.

Quality of Reporting

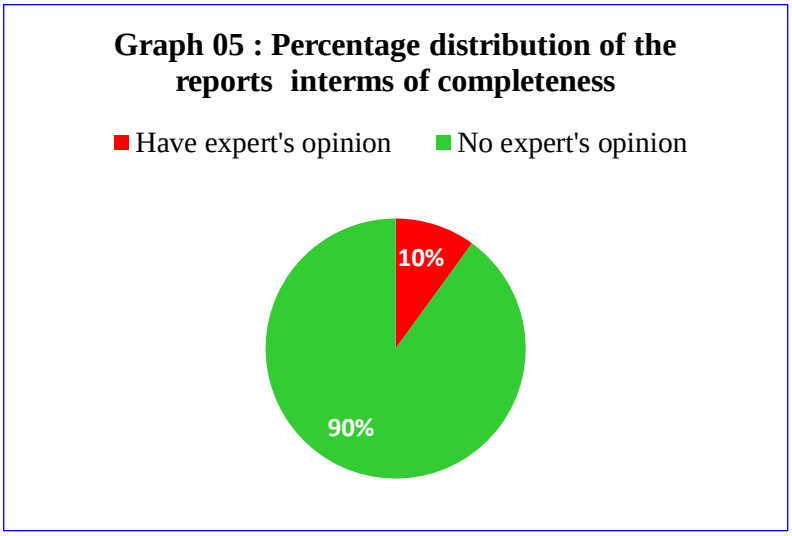
The type of contents the local newspapers mostly cover on the climate change issues were the surface report. The tendency of reporting is mostly limited to day to day event based reports. There was lack of interpretative an investigative report.

Journalistic presentation: The journalistic reporting follows some established rules and guidelines in presenting the fact. In a report, general practice is to put the most important information in the top/first paragraph of a report called 'Intro/Lead'. The intro/lead should be as short and simple as possible depicting the most important information first with accurate information and correct language. In this consideration, the reports published in the regional dailies on the climate change issues flagged of the universal practices. Only 25 percent of the reports maintained the aforesaid practices well while about 25 percent reports were poorly presented. More than 50 percent reports were in the middle position, not good or not poor, rather they were ranked moderately which followed some rules and flagged of some.

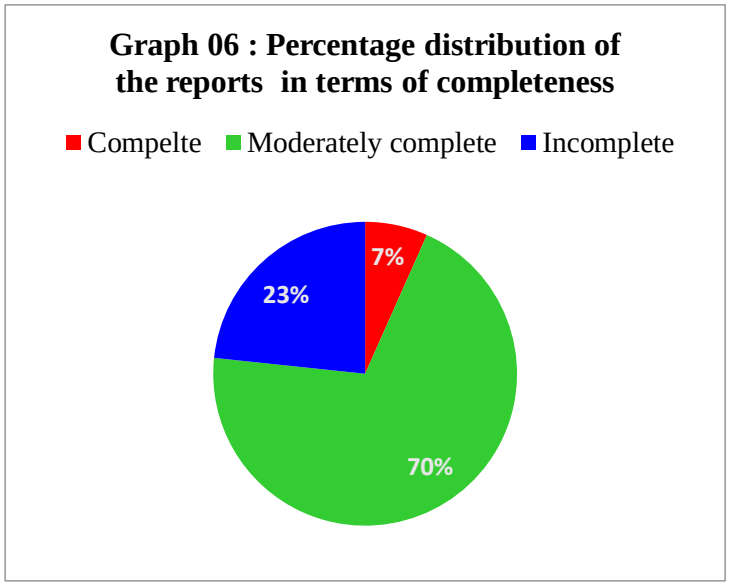
Graph 04 : Distrubution of number of reports ranked as per their presentation and journalistic standard



Sources: The common sources of the reports included: directorate of environment, Chittagong University (CU) teacher, Power Development Board (PDB), police station, NGO, meteorological department, forest department, water development board, land and agriculture offices and officers, local people, local administration including district level government officers like Deputy Commissioner (DC), department of agricultural extension, Directorate of Relief, Local Government Engineering Department (LGED), Khulna City Corporation (KCC), Executive Engineer, local people. There was no mentionable information or data or analysis from the recognized research organizations or think tanks or the globally recognized organization or association who work for the preservation of environment and climate change shocks. The sources mentioned above which were taken from the reports undergoing the study show that the prime targets of the reporters were to gather information from various officials. It means that the reports were mostly covered from the viewpoints of activities or programmes arranged by various government and non-government organizations. Stating from the reference of the official sources mean that the reports are mostly linked with various organizations.



Expert's interviews: Professor Sakhawat Ali Khan (2008) argues, "Environment is now a very complicated and specialized field. To prepare a suitable message, which will be understandable to the target people, there should be cooperation and coordination among the communication workers and the relevant experts".



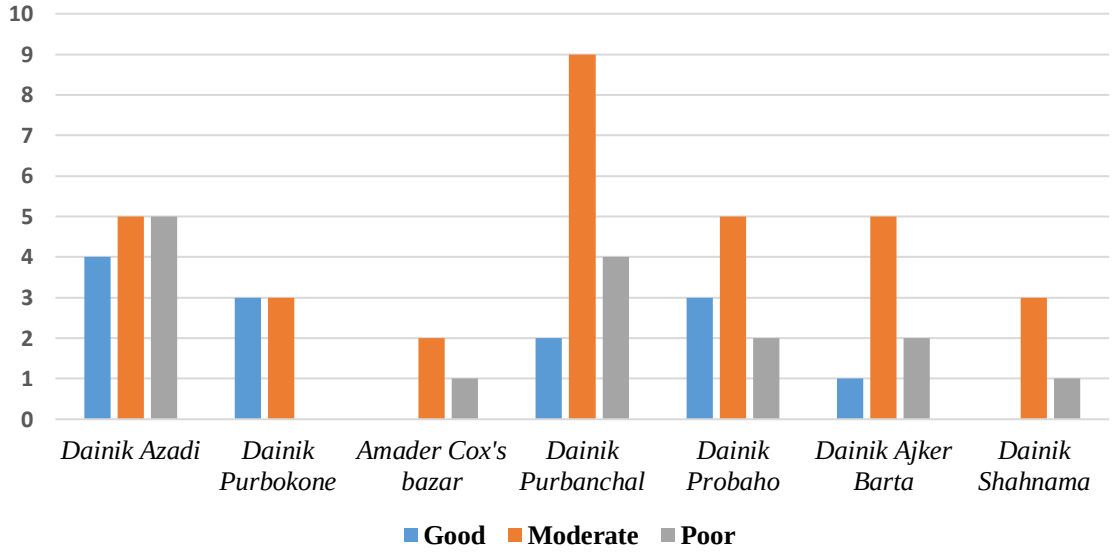
But, the regional dailies put less emphasis on the expert's opinion in covering such types of reports. The study shows that almost all of the reports (90 percent) did not include any expert's interviews while the remaining ones (10 percent) contained the same. Whatever the experts were mentioned and cited or interviewed in the reports mainly included the university faculties teaching environmental sciences, and the agriculturists. Experts from the known research organizations were not interviewed or their statements were not quoted or used from the secondary sources.

Completeness: The study shows that the reports in many cases did not present complete information and analysis. It seemed that most of the reports were covered in a quick

manner that flagged necessary information. Only 7 percent reports were found complete while 70 percent were moderately complete meaning the reports had some sorts of lacking in terms of information, interviews, data, facts, analysis, and overall presentation in line with the journalistic structures, ethics and principles. About one-fourth of the reports (23 percent) were totally incomplete.

Clarity of information, sources and credibility: Clarity of sources was defined in terms of specific mention of sources rather than 'unknown source says', 'it was known', 'preferring anonymity' etc. If the reports have mentioned all the sources used in the story clearly with name, position and other particulars of the sources; the presentation of sources of the report was considered as good. On the other hand, if some sources were clearly mentioned and some were unclear, the presentation of sources was marked as moderate. Similarly, the mention of sources was poor in case of presenting most of the sources in unclear means.

Graph 07 : Distribution of the frequency of the clarity of sources used in the reports



Considering these, only 13 reports were found maintaining proper presentation of the sources in the report. More than half of the reports lacked of proper mentioning of the sources while one-fourth were marked as poor since they cared little about presenting the sources.

In journalism, presentation of sources indicates the credibility of reports. According to Islam & Kabir (2015), credibility is a vital quality of any source of communication. The audience does not believe any message of the media which has lost its credibility. So, if the sources in the reports are clearly mentioned, the credibility of the reports enhances. Regarding quality of reporting on the climate change issues, the findings from the KII show some pragmatic barriers including the devoid of local journalists of formal education and professional training in journalism and communication; dearth of logistics

and technical supports, lack of research organizations and think-tanks at the local level, inadequate professional benefits and financial motivation.

Professional Needs of the Journalists

The findings from the key informant interviews revealed that the journalists of the coastal regions had professional needs both in reporting and the technicalities of climate change. The regional journalists didn't possess adequate knowledge on the climate change issue for its very technical nature. The journalists felt to develop professional skills and knowledge in the areas of causes and effects of climate changes; impact of climate change on agriculture, human health, biodiversity, wilderness and wildlife; adaptation measures at the local, national, regional and international arena; protocols, policies and legal frameworks; explanation of terminologies and key actors at various level. Besides, the journalists also mentioned to have proper understanding of the investigative and interpretative reporting on the climate change issues, ethics and principles of climate change reporting and sensitivity of the vulnerable communities.

Limitation of the Study

There were a few limitations and difficulties in the process of conducting the study. The principal drawback was that the regional newspapers did not preserve their old issues. In some cases, online issues of the newspaper were selected due to the dearth of the printed copies. Apart from this, inadequacy of related materials and intellectual contributions in this area was also a matter of concern.

Conclusion and Way Forward

The journalists depend upon good faith with the readers in terms of seeking the truth and accurate information on various issues and affairs. They have to present the facts with the most sense of professional integrity and skills in impartial manner. In covering the climate change issues, the journalists must investigate who are the masterminds behind emission of carbon and global warming. They have to find in detail who are mainly responsible for interrupting the climate and who are being affected with this and how. More investigative, interpretative and follow-up reports should be planned and covered in the professional manner depicting the real picture of the effects of climate changes at the local, regional, national, international and global perspectives. The journalists should also indicate the way-outs of reducing the adverse effects of climate changes. In order to enable the regional or local level journalists, the government organizations like Press Institute Bangladesh (PIB) can design and implement long-term projects to build capacity of the reporters. The PIB can also contribute to developing 'Climate Change/Environment Beat' in the local newspapers for effective coverage of the issue.

The quality of reporting on the climate change issues should increase to contribute more effectively to creating mass awareness on the subject. The reporters working at the bottommost level and the marginalized localities should be selected for developing their capacities of reporting through pragmatic training sessions. The training workshops should be of three phases:

a. **Introductory:** On both the fundamentals of communication, journalism and reporting; and the basics of environment and climatic factors as well as the impact of climate change.
b. **Functional:** Practical training sessions should be arranged on both the reporting and climatic factors. In this stage, the training can be concentrated more on writing reports in different formats on various issues of climate changes.
c. **Project-based:** In this phase, follow-ups of the previous training sessions can be worked out to keep the trainees in touch of the mentors. The trainees will produce quality reports which should be submitted for reviewing. The best ones should be published in the mainstream daily newspapers.

[**Note:** The study was conducted with support from Press Institute Bangladesh (PIB) under supervision of Dr. Md. Golam Rahman, Professor, Department of Mass Communication and Journalism, University of Dhaka & Former Chief Information Commissioner, Information Commission, Bangladesh.]

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