

## PRINT MEDIA COVERAGE ON CLIMATE CHANGE ISSUES IN BANGLADESH

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***Abstract:** Climate change is a momentous issue across the globe since the onset of the mid-19<sup>th</sup> century. The impact of 'climate changes' is one of the most critical issues for Bangladesh due to its geological position, high density of population, poverty and dependence of some major livelihood sectors on climatic factors. Communication experts have traditionally defined some major functions of the mass media to the society: to inform, to educate and to entertain. Media can play these roles effectively to communicate the climate change issues in Bangladesh. Experience and observation show that media have no agenda in general to disseminate information on adaptation and mitigation of catastrophic-shocks triggered by 'climate change'. The article depicts how the print media of Bangladesh oversee 'climate change' issues and cover the same.*

***Keywords:** Climate change, Climate change shocks, Broadcast media, Environment, Human health.*

### **Introduction**

Environment, in the broad sense, means the circumstances, objects or conditions by which someone is surrounded. Humans, animals and plants are all important elements of the natural environment. Environment includes all the physical and biological surroundings and their interactions.

The key constituent of our natural environment is 'climate' which has been reportedly undergoing significant changes in the recent years. 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 Carbondioxide. The Global Warming Policy Foundation (GWPF) has defined 'climate change' as a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, may be decades or longer. The United Nations

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Framework Convention on Climate Change (UNFCCC) 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’ (UNFCCC: 2014).

There are some differences between weather and climate. Weather consists of those meteorological matters i.e. rain, wind and sunshine which can be changed gradually. On the other hand, ‘climate’ indicates the average of all these matters over a period of time, i.e. a year or a decade. The key process behind the climate change is the increasing ‘greenhouse effect’. In this mechanism, the earth’s atmosphere traps energy from the sun like a ‘greenhouse’. The natural greenhouse effect which warms our planet to support life is being heavily disturbed (WHO: 2008).

#### **Global Impact of Climate Changes: A Brief Scenario**

Climate change has become a much talked about issue across the globe since the onset of the mid-19<sup>th</sup> century. According to World Health Organization, weather and climate affect the key determinants of human health: air, food and water. They also influence the frequency of heat waves, floods and storms as well as the transmission of infectious diseases (WHO:2009). Due to rise in the global temperature, all the species of animals and plants will be affected. Moreover, environment pollution and disappearing of forests will directly affect the human life along with other species. Repeated media reports with strong evidence show that the world is heading towards a serious catastrophe due to severe environment pollution, global warming and climate change. Climatologists predict that midway through the next century, temperatures may rise by as much as four degree Celsius. This could terribly reduce mankind’s ability to grow food, destroy or severely damage wildlife and wilderness, raise sea levels and thereby flood coastal areas and farmlands. Climate change is having a major impact on biodiversity and in turn biodiversity loss (in the form of loss of carbon sequestering trees and plants) is a major driver of climate change. Land degradation such as soil erosion, deteriorating soil quality and desertification are driven by climate variability such as changes in rainfall, droughts and floods (Chambers: 2013).

The impact of climate change causes 2.4 per cent of all cases of diarrhea worldwide and 2 per cent of all cases of malaria. Climate change was responsible for at least 150,000 deaths and 5.5 million Disability Adjusted

Life Years in the year 2000. It was estimated that about 119 million cases of malaria occur every year only in South East Asia (Department of Environment: 2009).

#### **Climate Change Impact and Issues in Bangladesh**

According to the Global Climate Risk Index 2009 of German Watch, Bangladesh is the top most vulnerable country in the world. It has been experiencing various climate change related events like heat waves, cold waves, recurrent floods, drought, salinity intrusion and severe cyclones, water logging, droughts and river bank erosion over the years causing direct and indirect adverse impacts on human health and mass population displacement. Added to this, high population density, low level of literacy, low per capita income, high level of poverty, subsistence focus, resource poor setting, inadequate infrastructure, and long costal belt have made the climate vulnerability of the country more severe, costly and devastating (Shahid: 2009).

A study titled 'Climate Change and Flow of Environmental Displacement in Bangladesh' conducted by Unnayan Onneshan-The Innovators in 2009 reveal that on an average 25%, 3% and 2% populations are displaced from different natural calamities like floods, droughts and cyclones. The estimation of future displacement reveals that approximately 63 million and 78 million people might be displaced in 2015 and 2020 respectively. The growth of environmental displacement is likely to be closer to about half of the total population in 2020. This is very alarming for Bangladesh.

Bangladesh undergoes severe natural disasters frequently due to its flat topography and low land a little above the sea level. Therefore, almost every year, a huge portion of the population is displaced, both temporarily and permanently. Due to these calamities approximately 500,000 people were displaced when the Bhola Island was permanently inundated by the floods of 2005. In addition, recent occurrences of major cyclones 'Sidr' in 2007, and 'Aila' in 2009 are perceived as an indication of more frequent and severe climatic catastrophes (Akter: 2009).

The impact of global warming and climate changes are most critical for Bangladesh due to its geographical location, high population density, high level 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).

Climate Change Cell at the Department of Environment, Ministry of Environment and Forests conducted a study titled 'Climate Change and Health Impacts in Bangladesh' in 2009 in three different climatic zones representing drought prone Rajshahi district, flood prone Manikganj district and salinity affected Satkhira district of Bangladesh. The study reveals that the climatic factors including temperature, rainfall (annual and seasonal) and salinity have positive correlation with diarrhea, skin diseases, kala-azar etc in the study areas. In Rajshahi and Satkhira, incidence of diarrhea shows positive correlation with total annual rainfall. Seasonal rainfall (monsoon) was also found to have positive correlation with diarrhea incidence in Rajshahi and Satkhira. Dry season rainfall was found to have positive correlation with diarrhea in Manikganj.

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 one day go under water (Shahidullah:2014). There are some symptoms that are visible as a gradual changing in the climate and overall elements of the natural environment as per the opinions of the climatologists. One of the major symptoms is the rise of 'global temperature or global warming'. In 2001, heat-waves in Bangladesh caused deaths among metal workers and rickshaw pullers due to heat stroke (WHO: 2008).

#### **Climate Change Issues in Bangladesh Media: Scope of the Study**

In the context of recent climate change scenarios, Bangladesh is vulnerable to tropical cyclone, tornado, flooding, sea level rise, heat wave, cold wave, saltwater intrusion, water and vector borne diseases and many other calamities. Media, being the watch-dog' of the society can have many things to do. Communication experts have traditionally defined three major functions of the media to the society: to inform, to educate and to entertain. Media can play these roles effectively to communicate the climate change issues across the country. The Bangladesh media, despite booming since 1990 after the fall of autocratic government and restoration of the democratic regimes, have no agenda in general to disseminate climate change related information on adaptation and mitigation of the catastrophic-shocks triggered by 'climate change'.

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 insufficient 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).

In these circumstances, the present study was conducted to comprehend how the print media oversaw the issues of environment and climate changes around the ‘World Environment Day’ on June 05. Like previous years, the ‘World Environment Day-2013’ was observed globally with the theme ‘Think, Eat and Save’. It was basically an anti-food waste and food loss campaign that encourages people to reduce footprint. According to the UN Food and Agriculture Organization (FAO), every year 1.3 billion tons of foods are wasted. This is equivalent to the same amount produced in the whole of sub-Saharan Africa. At the same time, 1 in every 7 people in the world go to bed hungry and more than 20,000 children under the age of 5 die daily from hunger (UNEP: 2013).

In the light of aforesaid discussion, the following aspects will be considered as the scope of the print media coverage for the present study:

- Effects on human health: heat-stroke, respiratory diseases, waterborne diseases, vector-borne diseases, malnutrition, injuries, psychosocial stress and other relevant health shocks
- Effects on agriculture and food security: rise of salinity, frequent sea tidal, floods and cyclones
- Effects on ecosystem and overall biodiversity: animals and plants, forests, wild animals and wilderness, birds, flowers and fruits in the threat of extinction
- Adaptation and mitigation measures by river dredging and reclaiming lands, constructing embankments, and creating green belt in the coastal region, green budget; minimizing loss of the environment and climate changes, innovating disaster resilient crops, managing natural disasters effectively

- Air and water pollution, soil health and soil pollution, encroachment of lake and rivers, river dying, polluting rivers and lakes and other natural water bodies; deforestation
- National and international laws and policies on environment and climate changes, initiatives of the government and non-government organizations
- Gender aspects, children's protection and protection of the people having special needs (for example, physically challenged people) in the face of the climate change hazards
- Focus on activities of the local players like Civil Society Organizations, Local Government and Local administration in response to disasters, etc

In the present study, it is investigated how the Bangladesh print media could deal with the issues, what were the levels of media interest to cover the same and in what way (treatment) they were covered.

#### **Objectives of the Study**

The study has been conducted in order to:

- Figure out types of content that usually receive more media attention/coverage on environment and climate change issues within aforesaid scopes
- Comprehend issues and themes that are generally covered with due importance on environment and climate changes
- Explore skills of reporting and inclination of the media towards coverage of the environment and climate changes
- Assess quality of print media coverage on environment and climate change issues

#### **Theoretical Framework and Literature Review**

Downs (1972; Sampei et.al: 2008) argued that environmental issues attract widespread attention in mass media and then decline from public view, though the issues remain largely unresolved. "Our results also indicated that high levels of media coverage did not last for a long time. Moreover, we revealed that coverage of global warming on the front pages of the newspapers influenced the environmental concerns of a large proportion of people" (Sampei & Usui -Aoyagi: 2008)

The theoretical framework of the present study bases on some established perspectives of media and communication which ideally include: Normative Media Theory and Agenda Setting Function of the Media. According to the

normative theory of the mass media, the role of the media has been defined as the 'social responsibility' of the media through their 'watchdog' functions. According to V. Held (1970), the role of media are usually determined through the vote of 'Majoritarian' reflecting expectation of the majority people in the society while in the 'Unitarian' notion, the role of the same is defined based on a particular class of the people having power and influence.

Public interest is really difficult to understand though the matters of public welfare should be the priority of media content. However, McQuail emphasized on four objectives of the role of media in a democratic society: (McQuail, 2000, p-46)

- surveillance in the cases of violation of social and moral discipline in the society and access to information without interference
- timely criticism of the functions of society and its organs
- encourage people's participation through access to information
- transmission of values and culture of particular groups to generations

According to the Kurt Lang & Gladys Engel Lang, the agenda setting of media denotes putting importance on those issues and affairs what they think important and beneficial to people while they similarly ignore those issues which they think less important. Thus, the media formulates the framework of people's thinking (Lowery & Defleur: 1988).

Based on the aforesaid theoretical frameworks, it is said that the issues of 'climate change' is most important for Bangladesh. The mass people should be informed and educated of the disastrous impact of it. Moreover, the people should be persuaded by the media to play assertive roles in the policy advocacy with the national and international bodies to minimize the impact of 'climate changes'.

### **Major Research Questions**

Based on the aforesaid discussions from different paradigms related to the role of media, the following inquiries were made in the present study:

- Do the newspapers in Bangladesh consider appropriate issues in selecting news and contents on environmental and climate change within the stated scope of the coverage
- Do the daily events and surface matters around the 'climate change' issues get more coverage in the newspapers?

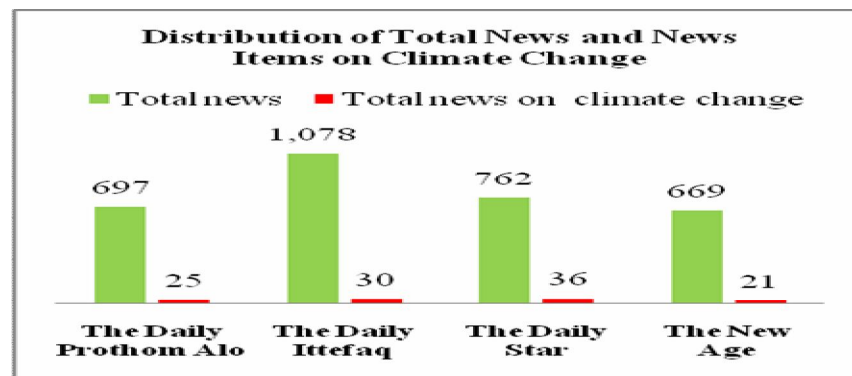
- What are the usual types of contents covered by the newspapers?
- What is the inclination of the newspapers in terms of publishing the contents on the ‘climate change’ issues?
- Do the contents follow standard practices of journalism?

### Methodology

‘Content analysis’ method was applied in carrying out the study. ‘Content analysis’ is a specific research approach used frequently in all the areas of the media study. The method is popular with mass media researchers because it is an efficient way to investigate the content of the media.<sup>2</sup> Walizer and Wienir (1978) defined ‘content analysis’ as any systematic procedure devised to examine the content of recorded information. Krippendorff (2004) defines it as a research technique for making replicable and valid references from data to their context. Kerlinger’s (2000) defined: “Content analysis is a method of studying and analyzing communication in a *systematic, objective, and quantitative* manner for the purpose of measuring variables (Dominick et.al: 2011). Lasswell, through his famous definition of communication, framed the base of the content analysis by stating: “Who says what, to whom, why, to what extent and with what effect? (Wahlstrom: 1992).

### Study Universe and Sampling

The DFP (Department of Film and Publication, Ministry of Information) report of August 2013 shows that there are 325 daily newspapers registered with it as ‘media’ of which 124 are published from the Dhaka Metropolitan Area while the remaining 201 are published from various regions of the





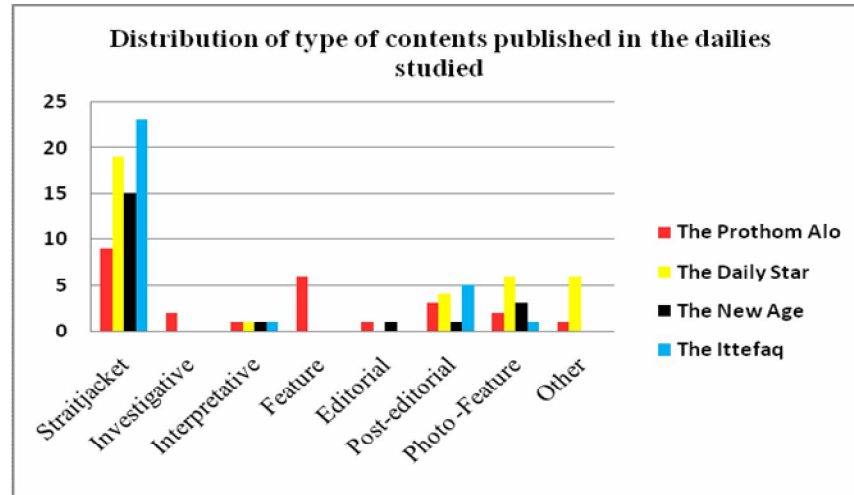
country. All the print media especially the daily newspapers are the study universe. Among the universe, four Daily Newspapers (the Daily Ittefaq, the Daily Prothom Alo, The Daily Star and the Daily New Age) were selected as samples for the study based on their circulation (Source: DFP Report, August 2013) and experience. All these selected dailies came under the study during 5-11 June 2013 around the 'World Environment Day' and thus a total of 28 issues of the selected dailies were analyzed.

### **Scope of Analysis**

Following aspects of the coverage were reviewed:

- ❖ type of the content and classification of news (event based, issue based, person/institution based)
- ❖ nature of news (strait jacket, investigative, interpretative, follow-up, desk report etc.)
- ❖ news treatment (front page, back page and inner page, byline, box, banner head, length of column, i.e. single, double, triple and more, colour, only picture, picture with news, news without picture etc.)
- ❖ accuracy, objectivity and fairness of the content exploration, preparation and presentation
- ❖ quality of information sources and quality of analysis
- ❖ quality of investigation and compilation of the gathered information
- ❖ variation of topic(s) covered in the content
- ❖ quality of content presentation in the aforesaid dailies
- ❖ overt and covert meaning of the message communicated through the content
- ❖ effectiveness and communicative competence of the content

**Unit of Analysis:** 'Column Inch' was the unit of analyses for the contents of the selected newspapers.

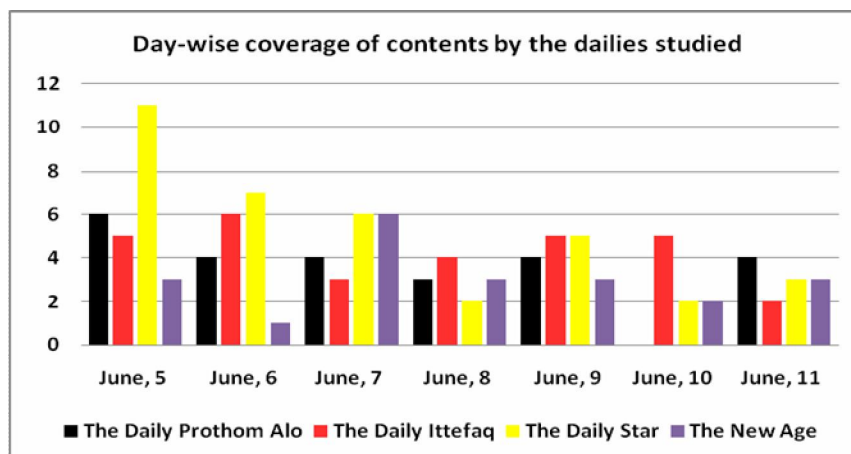


## Major Findings

### i. Frequency of Coverage

During the study period (05 -11 June 2013), the dailies undergoing the study published a total of 112 contents (reports, features, editorial and post-editorial and photo-features) on climate change issue. The Daily Star published the highest amount of contents which was 4.7 percent of the total news items published in the daily. In terms of total coverage carried out by all the four dailies, the Daily Star covered 32 percent. The New Age published the lowest amount of content which was only 3 percent of the total news items published in the daily. In terms of total coverage carried out by all the four dailies, the New Age covered 19 percent of the contents while the Daily Prothom Alo and the Daily Ittefaq covered 22 percent and 27 percent of the total contents published by all the four dailies respectively.

All the 112 contents took 2144 column inches in the four dailies of which the Daily Star covered the highest spaces, 816 column inches, 38 percent of the total coverage by all the four dailies. The Daily Ittefaq, being the second in terms of covering content items, stood the last position in terms of allocating spaces for the contents. The Daily has allocated only 305 column inches (14% of the total column inches covered by the four dailies) while the Daily Prothom Alo allocated 649 column inches (30%) for publishing the contents.

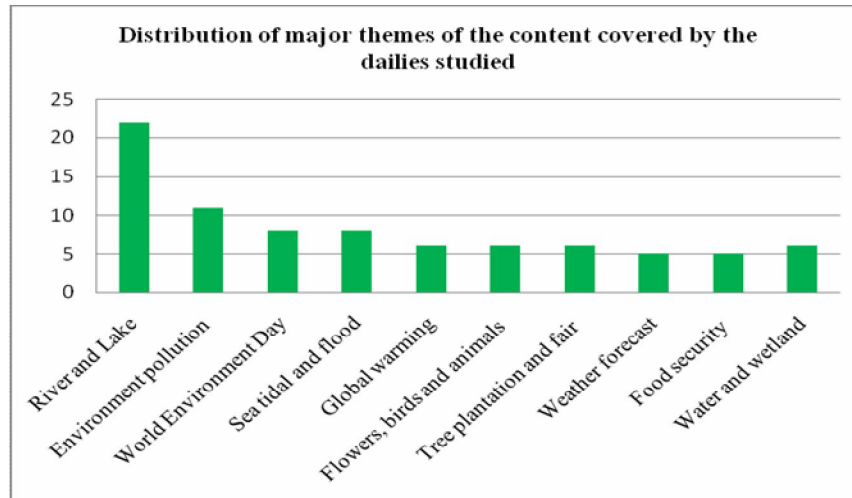


The New Age allocated 374 column inches, 18 percent of the total column inches.

All the dailies undergoing the study had inclination to cover contents around the World Environment Day on June 05. On the particular day, the dailies covered 25 items which was 22 percent of the total coverage. In the following two days (06 and 07 June), the amount of coverage was also mentionable since the activities on the World Environment Day were covered on the mentioned days. After June 07, the amount of coverage declined gradually.

## ii. Type of Contents

The study shows that out of 112 contents, 66 (59%) were the 'Strait Jacket' reports mostly based on different events and affairs around environment day celebration, river erosion and dredging, river dying and encroachment of lakes and canals and dumping of garbage on the city roads and streets. These reports gave only a 'superficial' view of an event or issue by answering 'What, Where, When and Who' with a little information on 'How and Why'. The Daily Prothom Alo covered only two 'Investigative Reports' on 'lake encroachment' and 'river dying' with in-depth investigation. Of the total contents, only 4 were the interpretative reports covered one by each of the dailies. The subjects of the interpretative reports included 'inconsistency in water law', 'river erosion', 'disappearing of farmland' and 'loosing of wetlands in the capital city'. Only the Daily Prothom Alo covered 06 features. A total of 15 'editorials and post-editorials' were published on different issues of climate changes while 12 photo-features were published. Tone of most of the 'editorials and post-editorials' expressed concern about



the gradual impact of ‘climate change’ on the life and living of human beings, animals, wilderness, plants and other species in the ecosystem.

### iii. Treatment of the Contents

Of the contents, 95 items (85%) were published in the inner pages of the dailies while 13 items (11%) were covered in the back pages and only 04 items were published in the front pages of which The Daily Star made a ‘Lead news’. The Daily star published the highest amount (30) of pix (short form of picture) while the Daily Prothom Alo published 18. The Daily Ittefaq published 12 pix and the New Age published only five pix, the least amount.

### iv. Focus of the Content

The dailies put emphasis on the ‘river and lake issues’ (erosion, dying, dredging, killing, encroachment and pollution) in their content presentation by publishing the highest quantity (22 reports) of reports, 19.64 percent of the total coverage made by the dailies.

The findings go with almost similar way with the study ‘Agenda Setting on Environment and Climate Change Issues in Bangladesh Newspapers: the case of UN Climate Change Conference, Cancun’ which revealed ‘coverage of local environment changes includes a wide range of issues, such as degrading conditions of river, and legal actions against the grabber and polluter’(Reza & Haque: 2011).

'Environment pollution and protection' was the issue which got frequent coverage after the river and lake issue. A total of 11 contents (about 10% of the total coverage) were published by the dailies on the issue. 'Celebration of the World Environment Day' and 'Sea tidal, flood and cyclone' got equal coverage with 08 contents covered on each. On each of 'effects of climate change and global warming'; 'flowers, birds and animals in the threat of extinction' and 'tree plantation, fair and award for plantation' issues 06 contents were published. Apart from these, the dailies published contents on 'bamboo cultivation', 'perching (a natural way to kill harmful pests through setting up branches of bamboos or trees in the crop fields where the birds can seat, rest and eat the harmful pests)', 'bio-diversity', 'deforestation', 'extraction of sand', 'farmland', 'forest act', 'soil health' and 'genetically modified organs'.

#### **v. Quality of Contents**

All the contents published in the dailies were rated in a scale of 10 points in the areas of 'interaction with sources', 'clarity', 'accuracy', 'communicative competence', 'completeness', 'fairness' and 'following journalistic styles and principles'. Based on these indicators all the contents were categorized in three ways:

- i. The contents that achieved 8-10 points in terms of maintaining the above-mentioned indicators were rated as 'good'
- ii. The contents that achieved 5-7 points in terms of maintaining the above mentioned indicators were rated as 'moderate'
- iii. The contents that achieved below 5 points in terms of maintaining the above motioned indicators were rated as 'weak'

The rating of the contents show that 75 items goodly maintained the aforesaid indicators, 25 maintained moderately while the rest 12 items weakly followed the same. Out of 36 items published by the Daily Star, 33 items (91.66%) were good and the remaining ones were moderate. Of the items published by the Daily Prothom Alo, 23 items (92%) were good and the remaining ones were moderate. Of the items published by The Daily Ittefaq, 10 items (33.33%) were good, 14 items (46.66%) were moderate and the remaining ones were weak. Similarly, of the items published by the Daily New Age, 09 items (43%) were good, 06 were (28.57%) moderate and the remaining ones were weak.

**Analysis of Findings**

Despite low coverage on the environmental and climate change issues, The Daily Prothom Alo set some new trends in covering the issue; used to publish features and photo features on the birds, flowers, fruits, plants and medicinal plants and other elements of the natural environment. The Daily focused on the species in the threat of extinction. Quality of photo-features is good in terms of content selection and presentation, style and diversity, communicative competence and overall tone of aesthetic and attraction. Overall tone of presentation of the content on 'climate change' issues implicates the daily's seriousness on the same.

Being the oldest among the dailies studied, the Daily Ittefaq did not consider 'climate change' issues seriously. The daily mostly emphasized on the daily events to cover, for example, covered event of rallies organized on the occasion of the World Environment Day. The 'post editorials' were found more effective in terms of analysis and quality of information than that of the reports covered by the staff.

The Daily Star covered the environment and climate change issues with importance, however, the post- editorials and the expert articles were more powerful, stronger than those of the reports covered by the staffs of the daily. The daily brought some of the significant and innovative items around the world environment day, the food security and food waste. Moreover, the daily covered a few issues on 'perching' an innovative and natural way of controlling harmful pests. The New Age depended on the news agency 'United News of Bangladesh (UNB) and some other sources for a few of the contents of which the quality was not good. The daily could not bring relevant, innovative and effective issues before the audience rather it presented the daily events mostly.

**Recommendations and Conclusion**

The study depicts that the print media in Bangladesh mostly show interest on event-based coverage of the relevant issues rather than in-depth investigation, analysis and follow-ups. The study reveals that the dailies mostly concentrate on covering issues of environment and climate changes around the 'World Environment Day'. After the day, tendency of the news coverage declines. The findings show that the editorials and post-editorial write-ups and articles possess stronger tone rather than the reports meaning the newspaper's own reporters or feature writers are not well trained and skilled in covering

environment and climate change issues because these are mostly technical matters requiring special knowledge to cover effectively.

Considering significance of the ‘climate change’ issues globally in general and in Bangladesh in particular, the newspapers should plan and set agenda ‘to inform, educate and persuade’ people. While all environmental issues may not be relevant to climate change, the pertinent ones should be covered as ‘infotainment’ for persuading the people effectively. The newspaper authorities should undertake the issue as a ‘beat’ rather than ‘ad-hoc basis’ reporting. They should arrange comprehensive training for the reporters to equip them with necessary skills and knowledge on the issue to facilitate better coverage. Partnership can be developed with the research and training organizations having demonstrated expertise on environment and climate change issues for the capacity building of the reporters. The institutions and the universities having programmes in Journalism and Communication should introduce a course on the ‘Climate Change Reporting’ so that the students are oriented on the same.

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