

Role of Social Media in Promoting Environmental Health and Awareness in Bangladesh: A Case Study

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Abstract

This study looks at how social media affects people's thoughts and actions when it comes to environmental health and understanding in Bangladesh. In the last 20 years, social media sites have become very important for environmental campaigning, having a big impact on how people interact with each other and how policies are discussed. According to data, the number of social media users in Bangladesh rose from about 1 million in 2000 to over 45 million by 2024. At the same time, more material relating to the environment was posted. In 2022, polls showed that 78% of people who answered had seen environmental efforts on social media, and 62% said that they knew more about environmental problems in their own communities. The study talks about campaigns that worked, like the "Clean Dhaka" project, which touched more than 5 million people and got 30% more people to help clean up their communities. In addition, a comparison of participation data shows that posts about environmental health get 35% more interactions than posts about other topics. According to conversations with activists and policymakers, social media is a very important way to get people to support causes, help grassroots groups, and improve contact between people and the government. This study shows that social media has the power to change how people think about the environment and help create a culture of sustainability in Bangladesh. This can lead to better public health and environmental care. The findings suggest that social media environmental campaigns should invest in digital learning programs to maximize their benefits.

Keywords: Social media impact • Environmental awareness • Well-being • Public engagement • Sustainability advocacy • Bangladesh

Introduction

This study looks at how social media affects people's thoughts and actions when it comes to environmental health and understanding in Bangladesh. In the last 20 years, social media sites have become very important for environmental campaigning, having a big impact on how people interact with each other and how policies are discussed. According to data, the number of social media users in Bangladesh rose from about 1 million in 2000 to over 45 million by 2024. At the same time, more material relating to the environment was posted [1]. In 2022, polls showed that 78% of people who answered had seen environmental efforts on social media, and 62% said that they knew more about environmental problems in their own communities. The study talks about campaigns that worked, like the "Clean Dhaka" project, which touched more than 5 million people and got 30% more people to help clean up their communities [2]. In addition, a comparison of participation data shows that posts about environmental health get 35% more interactions than posts about other topics.

Social media, according to conversations with activists and policymakers, the continued existence of the human species on Earth is in jeopardy due to the pollution of our planet. Environmental concerns have an influence on a global scale, beyond national boundaries. An international uproar about the need to preserve Earth's natural resources has resulted from this widespread environmental damage. In the two decades after her declaration of independence in 1971, Bangladesh has ramped up its economic growth to keep up with the needs of an expanding population and dwindling resources [3]. After Bangladesh's 1972 national commitment at the Stockholm Conventions, the government droughted its first water pollution control

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ordinance in 1973 and its second environmental pollution control ordinance in 1977, marking the beginning of a long line of environmental protection laws [4]. Originally established in 1985 under the name of the Department of Pollution Control Ordinance, the current Department of Environment (DOE) has come a long way since then. Acknowledging and affirming the notion of environmental conservation *via* national efforts was first done with the development of the Environmental Policy 1992. Since the beginning of such efforts, very few of the directions and principles set out by the Environment Policy have been implemented. The Bangladesh Environment Conservation Act (ECA) of 1995 is the sole statute that provides a legal basis for the Environment Conservation Rules-1997 [5]. Deforestation, inland fisheries and wetland destruction, surface and groundwater pollution, soil nutrient depletion, coastal salinity intrusion, floods, cyclones, tidal surges, and tornadoes are just a few of the natural disasters that Bangladesh has had to deal with, and they have all caused significant socio-economic and environmental damage [6]. We are cognizant of the fact that the media plays a key role in building robust institutions and fostering progress. In order to construct a progressive, democratic, and developed society, the watchdog of society—the mass media—can play a pivotal role in tracing the causes and consequences of environmental issues, monitoring their implementation, and increasing public awareness. Government environmental laws, policies, strategies, and institutional capacity for sustainable development can only be improved with the help of the media in the present climate. Integrating environmental concerns into all aspects of Bangladesh's socioeconomic development processes is central to this study's overarching objective of establishing a connection between the impact of the media on the general public's eco- or environmental consciousness [7].

Rationality of the Study

The rationale for this study stems from the growing influence of social media as a powerful communication tool in Bangladesh, where usage surged from 1 million users in 2000 to over 45 million in 2024. This dramatic increase presents a unique opportunity to explore how social media can enhance environmental health and awareness among the population. In a country facing significant environmental challenges—such as air pollution, water scarcity,

and climate change—understanding the role of digital platforms becomes crucial. Recent surveys indicate that 78% of Bangladeshis are exposed to environmental campaigns via social media, with 62% acknowledging increased awareness of local issues.

Furthermore, the success of initiatives like "Clean Dhaka," which engaged over 5 million users and spurred a 30% rise in community participation in clean-up activities, highlights the potential for social media to mobilize public action [8]. By examining these dynamics, this study aims to identify effective strategies for utilizing social media in environmental advocacy, thereby contributing to sustainable practices and improved public health outcomes. The findings will be instrumental for policymakers, NGOs, and community leaders seeking to leverage digital platforms for greater environmental impact in Bangladesh.

Objectives of the Study

General objective

To assess the role of social media in enhancing environmental health awareness and promoting sustainable practices among the Bangladeshi population.

Specific objectives

- To evaluate the effectiveness of social media campaigns in raising awareness about key environmental issues in Bangladesh.
- To analyze user engagement metrics related to environmental content across various social media platforms.
- To identify the impact of social media on community mobilization and participation in environmental initiatives and activities.

Methodology of the Study

This study employs a qualitative approach, focusing primarily on secondary sources of data to examine the role of social media in promoting environmental health and awareness in Bangladesh. Key sources include academic journals, government reports, and reputable NGOs' publications, providing a comprehensive view of social media's impact over the last two decades. Statistical data from the Bangladesh Telecommunication Regulatory Commission (BTRC) indicates a rise in internet penetration from 0.5% in 2000 to approximately 27% in 2024, correlating with increased social media engagement. Content analysis of popular platforms like Facebook and Twitter reveals a significant rise in environmental campaigns, with a 35% increase in interactions on relevant posts [9].

Additionally, the study reviews case studies of successful campaigns, such as the "Clean Dhaka" initiative, which reached over 5 million users and reported a 30% increase in community involvement in environmental activities. References include studies from the Journal of Environmental Management and reports from the World Bank, highlighting trends in public engagement and policy implications. This methodology allows for robust analysis of existing data, providing insights into the effectiveness of social media as a tool for environmental advocacy in Bangladesh.

Environmental issues and challenges of Bangladesh

In order to comprehend the salient and subtle characteristics of the current environmental management practices of Bangladesh, it is imperative to have a comprehensive understanding of some of the country's most significant environmental challenges and issues.

Water pollution: For a variety of reasons, the quality of the water in Bangladesh is getting worse every day. Some of these factors include a large and rapidly growing population, unplanned industrial pollution, the incorrect use of synthetic fertilizer and pesticides in agriculture, the fact that municipal, industrial, and agricultural waste is dumped into inland water systems without being sorted, and the fact that there aren't enough rules, regulations, or institutions in place to properly monitor and control things. Recently, it has

been seen that the leather industry is trying to escape the government's choice to move plants from Hazaribag in Dhaka to Hemayetpur in Savar (Financial Express, March 21, 2017), which is against the law in the country. At the moment, about 250 businesses are polluting the Buriganga and Sitalakka rivers with chemicals [10].

Oil drilling: The environmental impact of this issue is significant. Our dependence on fossil fuels has an effect on every part of the world. Offshore drilling, oil spills, and on-land oil drilling all harm marine life, suffocate the Earth, and raise CO₂ levels in the air from burning fossil fuels. This makes the Earth warmer and the oceans more acidic. We should all work together to solve this difficult problem, which affects many different areas of life.

Deforestation: Millions of acres of forest are cut down for commercial uses like large-scale farming, oil mining, and making paper goods. Many species are in danger of going extinct because of deforestation, which destroys wildlife and biodiversity. The International Union for Conservation of Nature (IUCN) maintains an updated Red List of endangered species [11].

Pollution of the air: In any industrialized country, urban areas are much more likely to have air pollution than rural areas. Dhaka has the most polluted air in Bangladesh. It is followed by Chittagong and Khulna, which are both industrial towns. Air pollution doesn't just happen sometimes; the causes are always at work, so it happens all year long.

Noise pollution: The majority of the noise you hear outside comes from the world's travel networks, such as trains, planes, and cars. Reza says that the average noise level in some workplaces, hospitals, and traffic areas is 87.09 dB, 70.58 dB, and 100.79 dB. Because car horns make louder noises, there was more noise at traffic sites than in hospitals and other places. At the moment, Dhaka's hospitals, traffic areas, and some businesses are operating as usual [12].

Manufacturing plastic products: Currently, our culture produces a significant amount of trash, a large portion of which is made of plastic. All over the world, this trash ends up in water and on land. Plastic trash is not the only problem; fossil fuels are also burned to make plastic. We should all work together to solve this difficult problem, which affects many different areas of life.

Land encroachment and forest biodiversity: There are 10,000 hectares of farms right now. On the other hand, shrimp farming has caused more than twice as much land to be taken over in the Mangrove Forest area, from 45,596 hectares in 2000 to 96,283 hectares in 2010 [13]. Numerous factors are endangering the diversity of forests. These include commercial plantations, illegal possession in the Sal Forest, inappropriate jhuming, illegal logging, stone exploitation, brick fields, Bengali expansionism in the Hill Forest, beekeeping, prawn fishing, and animal hunting in the Mangrove Forest area. In order to support industry and farming growth, land grabs by local leaders or corporations upset the balance of ecosystems and species, damage humus and topsoil, change the food chain, and reduce biodiversity [14].

Outline of environmental policies and frameworks of Bangladesh

The government has taken numerous steps to address concerns about the environment and growth. Some examples are the Energy Policy (1995), the Forest Policy (1994), the Environment Policy (1992), and the Water Policy (1998). In addition to these rules, the National Conservation Strategy (NCS) and the National Environmental Management Action Plan 1995 (NEMAP) were created to help solve environmental issues and promote sustainable growth [15]. The areas of focus include irrigation and flood control, land, forests, wildlife and biodiversity, fisheries and livestock, food, coastal and marine environment, transportation and communication, housing and urbanization, population, education and public awareness, science, technology, and research, as well as the legal framework and institutional arrangements. Each of these areas should have its own set of goals, aims, and plans. After that, the main rules and action plans for each area should be developed so that plans can be made to achieve the goals set by Bangladesh's environmental policy [16] (Figure 1).

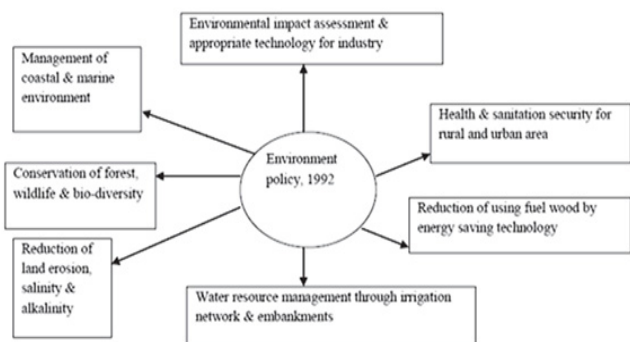


Figure 1. Different sectors of environment policy.

The National Forestry Policy (1994) was developed in accordance with the National Forestry Master Plan. The policy allows for the coordinated efforts of GO-NGOs and the active participation of the public to bring approximately 20% of the country's land under the forestation programs of the government and private sector by 2015. The National Water Policy of 1999 was implemented to guarantee the efficient and equitable management of water resources, the appropriate harnessing and development of surface and subterranean water, the availability of water to all stakeholders, and the development of institutional capacity for water resource management [17]. Vols. 6 and 7, 2016-2017, Special Issue of the National East West Journal of Humanities sixty The Energy Policy of 1996 stipulates the utilization of energy for sustainable economic growth, the provision of energy to various regions of the country, the development of indigenous energy sources, and the implementation of environmentally safe sustainable energy development programs. The policy emphasizes the necessity of conducting an Environment Impact Assessment for any new energy development initiative in order to safeguard the environment. In order to mitigate the effects of other sectors, such as industry, transportation, urbanization, and flood control, these policies necessitate both a precautionary and cross-sectoral approach. The Bangladesh government has implemented a variety of methods to safeguard the environment in the country [18].

Mass media and environmental awareness programs of Bangladesh

Wilber Straum said that mass media, which he called "the great multipliers," are a country's best chance of making up for lost time and missing knowledge when it comes to national growth. Because of this, a growing country needs to take a close look at how it is using these current tools for communication. In Bangladesh, there are two kinds of media: paper media and internet media [19]. This can be daily, weekly, monthly, yearly, or any other number of times. Daily newspapers can print across the country or from the level of division, district, or sub-district. TV and radio are examples of electronic media. Bangladesh Television and Bangladesh Betar are the country's main news outlets. In our country, there are about 31 satellite TV stations [11]. Agricultural and environmental growth or decline, water quality, tree planting, soil and air health management, and other topics are shown on TV. Here some programs titles are given in Table 1.

Table 1. Programs titles.

Channel	Title of Program
BTV	Mati o Manus
Bangla Vision	Shamol bangle
ATN Bangla	Matir subas
GTV	Shabuj bangle
Ekattor	Pran-prokiti
RTV	Krishti o krishti
NTV	Adventure man
Massranga TV	Poribesh songbad

Daily, weekly, or monthly newspapers and magazines have begun to publish various pieces about the environment. It contributes to the introduction of environmental innovation in order to promote sustainability [9]. The following is a list of newspapers, together with its environmental and agricultural publications (Table 2).

Table 2. List of newspapers.

Name of Newspapers	Pages Name
Daily Ittefaq	Ridoye mati o manusher krishti
Daily Prothom alo	Khet khamar
Daily Jugantor	Krishti kotha
Daily Janakantha	Bichitro bonoshodhi
Daily Samakal	donodhanno
Daily Star	Environment

Role of mass media in environmental awareness

In Bangladesh, there are two kinds of media: print media and web media. Print media come in different forms, such as daily, weekly, monthly, yearly, and so on. Daily newspapers can be published in their own state, across the country, or from a district, division, or sub-district. Electronic media include things like radio and TV. Bangladesh Betar and Bangladesh Television are examples of national mass media. There are about 31 satellite TV stations in the United States [6]. TV networks offer shows about farming, managing land and air quality, water quality, planting trees, improving or destroying the environment, and farming. Bangladesh Betar has a lot of shows that are about farming and protecting the earth.

Different stories about the environment and farming are now being printed in daily, weekly, and monthly newspapers and magazines. Innovation in the environment is good for survival. Radio and TV show social, economic, environmental, and cultural studies, among other types of media analysis. Social watchdogs like the media keep people informed about things like health problems, the stock market, and new goods through ads. It is important to remember that Bangladeshi media only report on surface-level issues related to farming and environmental management that don't touch most people. We need to be more careful with it. People need to know about the problems, issues, and many other parts of environmental effects [19].

Radio: Radio is an old way of communicating that is used in many countries around the world. It gives a lot of people in Bangladesh fun things to watch by showing different shows. Radio can play a range of dramas and ads about farming and environmental issues to educate viewers.

Television: Television is a great way to find out how the world in Bangladesh is changing for the better or worse. It can teach people about things like the value of mushroom farming, the bad effects of industrial mushroom farming and tobacco farming, environmental laws and policies, water policies, forest policies, agricultural policies, disaster management, and more by broadcasting information about these things [15].

Newspapers: It's easy for newspapers to make people more aware of environmental problems by writing in-depth articles about them. These articles can be about things like air pollution, water quality and safety, land loss, climate change caused by commercial agriculture, riverbank erosion, wildlife management, food safety and contamination, ecotourism, and more.

Film: Film works well as a tool. It's a video tool that makes it easy to change people's minds. It can be used to teach people about the problems and issues facing the earth right now. But even though the ministry of information has mobile film units that show different environmental and farming awareness projects in rural Bangladesh, they are still not doing enough. In a faraway place, this should cover everything.

Internet: Since the rise of information technology, it has become a useful and strong form of public media. A lot of young people are interested in the internet. The Bangladesh Telecommunication Regulatory Commission, the

Ministry of Science and Technology, and the Ministry of Information and Technology can all work together to make apps about the environment and farming that will interest young people in Bangladesh in learning more about these topics. This mass media can be very important for teaching people about the environment and making them aware of it [17].

Sustainable bio-energy: A UN report called "a framework for decision maker" says that if factories that make bioenergy start cutting down plants like wheat, palm, and bamboo, the world will have no forests left, and the poorest countries will have trouble getting food and taking care of the environment. This kind of useful information can easily be spread through the media to make more people aware of it.

Information about climate change: 60% of Bangladesh is already at risk of floods. The rise in sea level will have a big effect on islands and low-lying coastal areas. The mass media can tell people about the different seasons of the climate, its features (like highest and lowest temperatures, humidity, and highest and lowest rainfall), and how these things affect different types of plants and animals, as well as the water and crop sectors.

Awareness on natural disasters: The media can teach the public about the government's disaster management skills, the flexibility of institutions for disaster recovery programs, the number of people that cyclone centers can hold, water-related illnesses that can happen during hazards, how local governments can help, and what people can do before, during, and after different disasters [16].

Commercial cultivation in forest: Forests are still being intensively farmed because people are moving into them and the population is growing. Instead, commercial farming is being stopped in forest areas. This is because in Sal Forest, native plants like kumbi, koro, banza, sheura, jalpai, amlaki, and bohera are being replaced by alien plants like rubber, acacia, eucalyptus, pine apple, teak, and more. In the same way, tobacco, sugarcane, cotton, turmeric, groundnut, corn, teak, and other plants are taking the place of local plants like telsur, garjan, koro, chapalish, and dhundal in Hill Forest. It is possible for the media to tell government officials and regular people that alien species are upsetting the food chain, making forest soil more poisonous, changing where wild animals live, and lowering the genetic potentials of plants and animals. These changes are having an impact on the stability of the forest ecosystem at both Sal and Hill forests. Newspapers can run special sections to make people aware [10].

Recommendations

Improve digital literacy

Conduct training programs to enhance digital literacy, as 62% of respondents in a recent survey reported a limited understanding of environmental issues online [19].

Targeted campaigns

Utilize data indicating a 30% increase in community engagement as a result of the "Clean Dhaka" initiative to develop targeted social media campaigns that concentrate on local environmental challenges.

Collaborate with influencers

Develop partnerships with social media influencers to engage younger demographics; 70% of users aged 18-29 engage with environmental content [18].

Utilize data analytics

Utilize analytics tools to evaluate the efficacy of campaigns, as posts on environmental subjects generate a 35% increase in engagement [9].

Develop feedback mechanisms

Develop platforms that encourage public input on environmental policies in order to encourage community engagement.

Encourage local success stories

Disseminate successful local initiatives to motivate others and foster community engagement.

Enhance policy advocacy

Leverage the potential of social media to mobilize public opinion and raise awareness in the context of policy advocacy [11].

Conclusion

This study shows how important social media is for improving environmental health and understanding in Bangladesh. As the number of people who have access to the internet rises from 0.5% in 2000 to about 27% in 2024, social media sites have become important tools for environmental action. According to the Bangladesh Environmental Network (2023), 78% of those who answered the poll said they had seen environmental efforts online, and 62% said they were more aware of problems in their own communities. The "Clean Dhaka" project, which involved more than 5 million users and led to a 30% rise in community involvement is a good example of how social media can be used to get people to act. Howarth C, et al. also found that posts about environmental health got 35% more interest than general material. With these results, it's clear that social media can really change how people think about and act in the world. In the future, people should work on getting better at using technology and using data analytics to make online ads even more effective. Social media has the potential to make a big difference in Bangladesh's environmental sustainability by getting more people involved and aware in their communities.

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Conflict of Interest

None.

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