ROLE OF MEDIA IN CREATING AWARENESS ABOUT ENVIRONMENTAL PROTECTION, CIMATE CHANGE AND BIO-DIVERSITY

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ABSTRACT

Environment is the sum total of external factors, substances and conditions, which influence organisms without becoming their intrinsic part [1]. Ruthless exploitation of nature by man to meet his ever increasing needs and greed has brought the ecological balance of earth on the brink of collapse. Vast areas in the world have lost their forests cover. Our drinking water has become impotable. Our food is contaminated and even the air we breadth is slowly poisoning and disabling us. Crisis of global warming, climate change, green house gases, ozone layer depletion and temperature rise have posed a big question on our claims of development. Climate change has posed a big threat to Bio-diversity across the globe. Hence, it is necessary to aware society about seriousness of these issues. Media can play an important role in it, as the media has a duty to empower, educate and inform society. This paper describes the role of media in Environmental Protection, Climate Change and Bio-diversity.

Keyword: - *Climate Change, Environmental Protection, Bio-Diversity, Media, Newspaper, Mass Communication*

INTRODUCTION

Extensive discussions are taking place throughout the world in all forms of media on the subjects of global warming and climate change. These discussions point to the global dangers posed by the earth's warming. Discussions are also taking place on the related question of resource limitations and the manner in which humans are using the planet's limited resources. In addition climate change is predicted to be the greatest long-term threat to biodiversity in many regions and is listed as a key threatening process under the Threatened Species Conservation Act 1995 and the Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth) [2]. However, in media especially in developing nations like India, environmental issues lack the sense of urgency. They often take a back seat as compared to popular stories. Hardly anyone see to have any newspaper even a weekly supplement on Nature and Environment issues [3]. In a country like India with 1,05,443 newspapers and periodicals, 604 All India Radio Channels, 243 private FM Radio Channels and 829 private Television channels [4], space and time allotted in the

media for coverage of Nature and Environmental issues is less than 1.5 %. It is even lesser in the regional media [5]. Around 80 % of the common people in India learn about Nature and Environment related issues only through the Television, 50 % through newspapers, 20 % via Internet and 18 % through radio. And yet, the coverage enjoyed by these issues in the Indian media is just 1.5 % of the total news in Print Media, 0.35 % in electronic media and lower and lesser still in the regional media [6]. However, media can play a vital role in spreading awareness about environmental conservation and climate change related issues in context with bio-diversity. The purpose of this paper is to focus light on how these three sectors are interdependent on each other and Media can play a better role in spreading message of environmental conservation.

CLIMATE CHANGE AND GLOBAL WARMING

Climate change is the subject of how weather patterns change over decades or longer. Climate change takes place due to natural and human influences. Since the Industrial Revolution (i.e., 1750), human have contributed to climate change through the emissions of GHGs and aerosols, and through changes in land use, resulting in a rise in global temperatures. Increases in global temperatures may have different impacts, such as an increase in storms, floods, droughts, and sea levels, and the decline of ice sheets, sea ice, and glaciers [7].

The earth receives energy through radiation from the sun. The Green House Gases (GHG) plays an important role of trapping heat, maintaining the earth's temperature at a level that can sustain life. This phenomenon is called the Greenhouse Effect and is natural and necessary to support life on earth. Without the greenhouse effect, the earth would be approximately 33 °C cooler than it is today [8]. In recent centuries, humans have contributed to an increase in atmospheric GHGs as a result of increased fossil fuel burning and deforestation. The rise in GHGs is the primary cause of global warming over the last century [9].

The climate of the earth is affected by a number of factors. These factors include output of energy from the sun (warming effect), volcanic eruptions (cooling effect), concentration of GHGs in the atmosphere (warming effect) and aerosols (cooling effect). Since the Industrial Revolution i.e., 1750), the largest contributor to the increase in global warming is carbon dioxide (CO2), followed by methane (CH4). CO_2 concentrations have increased from 278 parts per million (ppm) in 1960 to 401 ppm in 2015—a 44% increase Since 1951, approximately 100% of warming is attributed to anthropogenic forcing, while more than 100% is due to greenhouse gases due to offsets in anthropogenic aerosols. Natural forcing and internal variability are considered to be negligible during this time period[10]. Water vapour has an important indirect effect on temperature increases resulting from increasing GHG concentrations. An increase in global temperature by 1°C results in approximately a 7% increase in atmospheric water vapour. Therefore, although CO_2 is the main anthropogenic control knob on climate, water vapour is a strong and fast feedback that amplifies any initial forcing by a typical factor of between two and three [11].

Not all industrial emissions result in a warming bias. Aerosols resulting from industrial emissions have worked to offset about 26% of greenhouse warming due to blocking solar radiation from reaching the earth's surface. As a result, the short-term effect of industrial pollution can be cooling followed by long-term warming [12]. The greenhouse effect occurs when solar energy making contact with the earth's surface is retransmitted to the atmosphere in the form of infrared thermal radiation. This radiation has a lower wave frequency than solar energy itself. GHG molecules absorb this thermal radiation at low frequencies, causing these molecules to vibrate. These greenhouse molecules then emit energy in the form of infrared photons, many of which return to the earth's surface. The greenhouse effect is measured in terms of Radiative Forcing (RF) in units of watts per square meter (W/m2). Since the Industrial Revolution, the total RF is estimated to have increased by approximately 2.3 W/m2 (1.1 W/m2 – 3.3 W/m2; 90% confidence interval) mainly due to the net effect of increased GHG and aerosol concentrations in the atmosphere[13].

IMPACT OF CLIMATE CHANGE AND GLOBAL WARMING

Climate changes may have far reaching repercussions on global nature compositions. It involves a variety of potential environmental, social, and economic impacts. It includes Floods and Droughts, Reduction in Water Resources, Rising Sea Levels, Changes in Ecosystems, Terrible storms, more hot days, spreading of diseases like

Allergic Illnesses, Hay fever, Malaria and Dengue and shortage of Food Production are few of them[14]. Vector borne diseases are illnesses that are transmitted by disease vectors, which include mosquitoes, ticks, and fleas. These vectors can carry infectious pathogens, such as viruses, bacteria, and protozoa, from animals to humans. Changes in temperature, precipitation, and extreme events increases the geographic range of diseases spread by vectors and can lead to illnesses occurring earlier in the year [15].

As per Convention on Biological Diversity 1992 , 'Biological diversity' means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems. About 8.7 million is the new estimated total number of species on Earth. Out of this 6.5 million species are on land and 2.2 million in oceans. Currently, we have identified only 1.7 million species, so we have a long way to go before we can come close to figuring out how many species are on Earth [16]. Climate change is predicted to be the greatest long-term threat to biodiversity in many regions and is listed as a key threatening process under the Threatened Species Conservation Act 1995 and the Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth). Under a natural rate of extinction, 2 species goes to extinct per 10,000 species every 100 years. However, 477 vertebrates have gone extinct since 1900, rather than the 9 that would be expected at natural rates [17].

Global warming and Climate change are expected to threaten with extinction approximately one quarter or more of all species on land by the year 2050, surpassing even habitat loss as the biggest threat to life on land. Climate change is a threat because species have evolved to live within certain temperature ranges, and when these are exceeded and a species cannot adapt to the new temperatures, or when the other species it depends on to live cannot adapt, for example its food supply, its survival is threatened [18]. The IPCC has predicted that by 2100, assuming that current trends in burning fossil fuels continue, the surface of the Earth will warm on average by as much as 6 degrees Celsius or more [19]. As biodiversity decreases, there will be far-reaching effects. Disruptions in the food chain may greatly affect not only ecosystems but also humanity's ability to feed an ever-growing population. There is also a risk of decreased ability to produce medicine as key plants are lost to extinction. Biodiversity also protects against natural disasters, such as grasses that have evolved specifically to resist the spread of wildfires [20].

ROLE OF MEDIA IN ENV. PROTECTION, CLIMATE CHANGE AND BIO-DIVERSITY

Unless the environment is protected, the existence of life on the planet Earth would eventually be impossible. That is why environmental issues have become so sensitive and globally important. All people need to have a common understanding of the role played by human beings in reducing or worsens environmental deterioration[21]. Environmental awareness is strategic communication process to promote the knowledge of environment, keep people up to date about impacts of human development and help them to know about sustainable development. Over 2600 global media channels operate with the support of about 3000 satellites, reaching nearly 1.5 billion people across the globe. It can be argued that the majority of global citizens learn about environmental issues, beyond their immediate surroundings, through the global media [22].

Print media, which is still dominant and most influential compared to electronic media, can play a big role in environmental protection. A few print and broadcast media had offered columns and feature programs on the environment. But the overall coverage is quite primitive and limited. Environmental reporting is a focused subject now. A media person can give knowledge about waste disposal, sustainable development or anniversary activities concerning the environment. “China Environment News”, China’s first newspaper on the environment, was published in 1983, and the first publishing house on environmental science was set up in 1980 [23].

In May 1992, the Society for Environmental Communications started India’s only science and environment fortnightly, Down To Earth (DTE). Over the years the magazine has informed and inspired people about environmental threats facing India and the world - a dimension underplayed in mainstream media. DTE has become a reading habit in 400 out of about 500 districts of the country - more than any other Indian newspaper or magazine. DTE’s sphere of influence is not just limited to India. Numerous readers across the world rely on the magazine for a comprehensive view from the South on the most critical issues of human existence. The online version of DTE is an effort to reach more people and to use all the interactive elements that the new medium has to offer [24].

There is a growing population of youths that are ardent users of new media platforms. With Facebook or Twitter, youths today are very connected with each other and other global/local issues through the Social Media. Although not limited to youths only, social media platforms are also utilized by industry and government agencies as a preferred tool of communication with the general public. A campaign of 21,000 trees plantation was carried out in Aurangabad by Divya Marathi Newspaper and the message was spread by social media. India Water Portal is a website that shares knowledge and builds communities around water and related issues in India [25].

All India Radio (AIR), an official radio of India has been serving to inform, educate and entertain the masses since its inception, truly living up to its motto – 'Bahujan Hitaya: Bahujan Sukhaya'. Objectives of All India Radio are to provide information, education and entertainment, for promoting the welfare and happiness of the masses. AIR's *Vasundhareche Run* and *Aamchi Sheti Aamche Shivar* is Agriculture and Environmental based program on Aurangabad station. *Hello Sirsa* on Haryana AIR is interview based call-in show in which a dignitary, expert, specialist is invited to discuss Environmental issues [26].

Doordarshan is public service broadcaster. Its programmes include news and current affairs, magazine and documentaries on science, art and culture, environment, social issues, serials, music etc. The leading NDTV group has launched a unique campaign in April 2008 NDTV Toyota green campaign. It was an effort for people conscious about environmental issues. After its huge success environment campaign Greenathon announced the Green Awards to encourage, acknowledge and award the Champions of the Earth for environmental leadership[27]. With a slogan of Every Step is a Green Step, - Chetna Yatra is organized since 2005 by Dr AK Rastogi, chairman All India Aavishkar Dish Antenna Sangh. The Yatra covered 450 cities and travels 30,000 kilometers in around 60 days. This initiative is supported every year by ABP News a leading Hindi news channel[28].

CASE STUDY: DAINIK BHASKAR GROUP

Daink Bhaskar, a leading Hindi Newspaper of India started Jal Bachao Abhiyan among its readers in different states ant it has great impact on readers. Further, Jal Satyagrah initiative was being organized as a special drive in summers. The objective of the campaign is to create awareness and invoke individuals to 'Save Water'. The campaign encourages people to take a pledge; inducing them to save 15% water in their daily usage. The initiative reaches out to individuals via ads, full page editorial content on ways to save water, Videos on water conservation played in school. As a result, 3.3 + lakh students from 503 schools across 9 states and lakhs of individuals joined in campaign and took the pledge to save water. 2 states mandated rain water harvesting in the construction of new buildings. DB Group introduced the concept of Tilak Holi in 2009 to avoid water wastage in both playing Holi and then in bathing to remove the colors. This campaign was launched in all its editions and got tremendous response [29].

SUGGESTION AND CHALLENGES

Mass- media can play a vital role in creating peoples' awareness about environment and conservation of natural resources. It can serve this purpose by means of its multi-channel regional and network service comprising programs such as talks, interviews, plays and documentaries etc. The electronic media can identify and bring to a halt forces affecting the natural and even the man- made environment. It matters much how the public mind can be mobilized to reduce pollution and promote environmental quality. Media research and media planning in the field of environmental protection and conservation of natural resources can be accelerated keeping in view the attitude of the people. These could steer campaign objectives, measure the effectiveness of advertising campaign, provide the information most relevant to the efficient use of media and transmit programs on conservation of resources and maintenance of environmental quality.

However, the Investigation element is lacking in India's mainstream Environmental Journalism. It should be revived. A bulk of Environmental reporting today feeds itself on handouts and press releases given by respective ministry, departments or NGO's. The coverage afforded to these issues in the Regional Media is almost negligible. To change this scenario, media person need to be empowered with special training on environmental issues and priorities. They

need to be provided with adequate resources for such empowerment and capacity building. Only then will they be able to perform the task.

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