

Role of Media and Indigenous Communities to Combat Climate Change

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Abstract: Since the industrial revolution, the greenhouse gas emissions have been on the constant rise and the global average temperature has increased by 1.1 degree Celsius as compared to pre-industrial era. This alarming climate change situation caused by human activities has already been causing devastating effects everywhere on the planet. The melting of sea ice, thawing of the permafrost, increase in natural hazards and their frequencies, reduction in the biodiversity of ecological areas, increase in sea levels, deterioration of species & wild populations, etc. are all pointing towards a direct threat to human well-being posed by the climate change. This research paper, whose idea germinated in the mind of the author while attending Arctic Circle Assembly 2021 in Reykjavik Iceland, circles around the role and position of media and indigenous communities in climate change mitigation and adaptation by exploring key questions like challenges and narratives of climate coverage by media, a requirement for revolutionizing the institution of media, the importance of indigenous peoples and traditional knowledge for combatting climate change to name a few. The paper argues various elements affecting media and indigenous communities and concludes the crucial involvement for media and indigenous peoples to act for saving the planet considering the huge scale of this catastrophic climate change scenario.

Keywords: media; indigenous community; climate change; media and indigenous peoples; media, climate and indigenous peoples

1. INTRODUCTION

The environment is moving rapidly towards an undeniable event, Climate Change. Everyone in the world, one way or another, is getting affected by a sharp increase of the global average temperature owing to the industrial revolution. Humans have single-handedly driven the planet Earth on an alarming track of endangering the survival of every species including themselves. Even though climate scientists have proven the role of homo sapiens pivotal in causing these climate variations, many still keep questioning whether the scientists are right. Among all these meaningless hypothesis of many ignorant people, one cannot help but wonder about the role of media and indigenous communities in protecting the planet.

During Arctic Circle Assembly 2021, held at Harpa Conference Hall in Reykjavik (Iceland), many interesting sessions took place. Some of them also revolved around the climate change and its impact around the globe, specifically in 'The Arctic'. The huge number of journalists circling around everywhere and trying to capture each and every little event at the conference highlighted the significance of connecting the conference participants (speakers, audience, etc.) with the people directly or indirectly being affected by decisions or discussions happening at these events. The number of journalists was in contrast with the number of indigenous people present at the conference. But that small number didn't deter them from speaking their mind and calling out the hypocrisy of the people in power or in business. This was more than enough to showcase that their strength was not represented by their numbers, rather it was depicted through their deep knowledge and sense of responsibility for the planet they have been struggling to nurture for long. The harmony between indigenous communities and nature is commendable and it shows how the so-called developed world has long forgotten its relationship with nature. These key issues related to media and indigenous people in context of climate change are the main inspiration behind the idea for writing this research paper.

Ever since humans arrived on Earth, their opinions on issues have been largely based on the narrative placed in front of them. This is where media comes into picture. In order to educate every human on the planet, its role becomes extremely important to paint a portrait of reality depicting the degradation of climate based solely on scientific data without using subjective interpretations (for example, when the media portrays politicians before elections). Media inspired and guided by science is the need of the hour in order to act collectively for reversing the impacts of climate change before the situation gets out of hand. Media is even responsible for creating stereotypes about indigenous communities and it needs to undo its own mishaps. Whilst "technologically advanced" people have been busy utilizing the resources swiftly, indigenous communities have been living sustainably using natural resources in an optimal manner. It is the indigenous communities who better understand the threat of climate change hanging over the heads like a poorly tied sharp edge sword. This understanding and acceptance of the threat comes from the acknowledgement of dependability of every species on environment and the curiosity that has not been sabotaged by the hysteria of the industrial revolution.

This paper seeks to answer certain questions about the role of media and indigenous communities to accelerate actions and initiatives towards a better climate. The questions raised are as follows: i) Is media establishing required scientific narratives in human minds? Does media have the capability and will to do so? Can media help in accelerating actions required for climate change? What are the challenges faced by journalists while reporting climate news? ii) How and why do indigenous people are important in context of climate change? What indigenous knowledge and traditions do they possess that can be helpful for climate protection? Can they lead the way for ignorance prevalent in the world amongst non-scientific people? iii) Can media and indigenous communities join hands to move towards climate change mitigation?

2. BACKGROUND

Media is any means used to communicate to the masses, be it broadcasting, publishing and/or internet. Even though communication methods might have been different, the term 'media' came into use only in the 1920s to indicate the constructs of such communication (Dooley, 2015). It is well known that human behaviors are often based on their surroundings and can be swayed through the repetitiveness of information and false propaganda spread through fear and control. Media plays a major role in painting narratives about anything happening anywhere in the world. The media coverage for climate change can be seen rising but it seems to be more in the countries with tough Kyoto emission targets (Andreas et al., 2013).

History, as well as media, has not been kind to indigenous communities, and they have always received various stereotypical labels due to their sustainable lifestyle and unwillingness to accept the economic development by sacrificing environment. Indigenous people have recently been recognized globally for their continuous efforts of working in harmony with the environment and treating the planet like an extension of their own body.

3. MEDIA: PUBLIC PERCEPTION, REQUIRED EVOLUTION AND CHALLENGES

(In context of Climate Change Awareness & Mitigation)

Climate Crisis is happening every day and it calls for urgent public attention and drastic actions. Media coverage of this catastrophe can help shape public opinions by facilitating the scientific consensus on climate change that the global average temperature has evidently increased by 1.1 degree C, and it is all due to greenhouse gas emissions induced by humans. People consume news everyday but the amount of news about climate change is still less in proportion to the news about sports, celebrities, politics, economy and now covid19 pandemic. Even if the media coverage of climate change has increased, it still is not enough in countries with high carbon emissions and low emission reduction targets (Andreas et al., 2013). Public opinions and perceptions about climate news are based on the amount of trust they have in the media houses. More trust means more consumption of news from that media source.

Media cannot sustain in the present economic environment without having financial funding. While crowd-funding mediums remain more aligned towards central ideologies, the mediums funded by private corporations, often end up having left-right ideologies. This polarization within media is what leads to polarization of the masses and their ideologies (Newman et al., 2018). Due to transformation of media system, the news media sources which used to be based on stating facts on the situation have now turned into opinionated sources (Newman et al., 2018). Various studies have depicted how the right-wing media follows condescending tone relative to the certainty and urgency of climate change, whilst the left-leaning media networks could be seen consistent with scientific consensus and linking climate change as human-caused event (Feldman et al., 2014). This has played a major role in forming opinions in mass populations that deviates from scientific facts. Now, the question that arises is that does media have the capability to do so? Well, the answer is both yes and no. Media while communicating scientific data to masses often rely on journalists covering the issues who, more often than not, do not have scientific backgrounds. This leads

to an error in data transfer and understanding at two levels. Firstly, whilst understanding the climate science themselves, the journalists may lose the scientific understanding and secondly, while trying to interpret the result into a language easily comprehended by masses, the climate science news may start to lose the evidential factors that the news rely on. News Framing is very important and a lag in the structure can even lead to individual framing of issues far away from truth (Swain, 2017). For example, media reports about the impact of climate change on polar bears will have different effects than destruction caused by floods due to climate change. The former one may affect the policy makers more while the latter is more likely to cause trauma in people's minds. The pandemic has also led to increase in the feeling of isolation and hopelessness. Due to this, the media reports have also increased about the pandemic and global economic downfall, which is far from the topic of climate change. More media reports can be seen when major events like COP26 happen due to the involvement of politics and international recognition.

The attitudes and values of reporters (broadcasting climate change news) with respect to climate change can also influence their knowledge and understanding of scientific consensus and their intellectual interpretation of climate change topics (Swain, 2017). Media also face a lot of challenges while reporting climate change news. One of them is finding correct sources for the information. For example, relying on government sources may give limited access to dissenting voices of environmentalists. Another challenge is interpreting scientific interviews. Since scientific understandings evolve over years, media can only capture glimpses of this knowledge which inevitably leads to narrow analysis and interpretations. This eventually leads to loss of finer points of a climate story (Swain, 2017). A small error in reporting is enough to discredit both scientists and media organizations, and this results into misinformation (Swain, 2017). Dramatization of reports in order to increase viewership is also an obstacle faced by various independent media organization while reporting climate change. Social media trends also degrade the evidence-based conversations around climate change mitigation due to speed with which the statements circulate through it (Mavrodieva et al., 2019). So, what can be done to accelerate climate change mitigation through media? There are various ways to change public perception and bridge the gap between scientists and general public opinion. While creating balanced media reports, cherry picking misleading bits of information for the sake of providing appearance of artificial balance is to be avoided. The interview segments in media reports should give equal coverage to both scientists and policy makers in context of climate change. Separating media from government institutional dependency is a crucial way to mitigate climate change through media influence. Forming an independent research team of scientific journalists can also prove to be beneficial in this long fight for climate. Climate stories need follow-ups on new channels to stay in public minds. Investigative journalism and independent media have also assisted in shifting public perception of governmental institutions and required policy changes.

4. INDIGENOUS COMMUNITIES WITH INDIGENOUS KNOWLEDGE

The term 'indigenous' translates to originating or occurring naturally in a certain place. There has not been any single universal definition of indigenous peoples. United Nations Working Group on Indigenous Populations (WGIP) accepted

a preliminary definition in the year 1982. It was proposed by Mr. Jose R. Martinez-Cobo who was a special rapporteur on Discrimination against Indigenous Populations. The definition states: "Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing in those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems." (IWGIA, 2011) Apart from this definition, other criteria are also set out by ILO Indigenous and Tribal Peoples Convention, 1989 (No. 169), for identification of the peoples concerned.

There are a lot of risks to livelihood of indigenous peoples. Indigenous Peoples are among the poorest section in the society, and this makes them more vulnerable than others to the effects of climate change (Oelz et al., 2017). They depend on natural resources which are at risk due to climate variability. They live in topographical regions and ecosystems that have been exposed to the impacts of climate change (Oelz et al., 2017). Due to lack of recognition and institutional supports, they even have limited access to remedies which increases their vulnerability and weakens their abilities to mitigate and adapt to climate change (Oelz et al., 2017).

Why are indigenous people important when talking about climate change? Even after being a vulnerable group, indigenous peoples are crucial for accomplishing effective climate action, sustainable development and green growth (Oelz et al., 2017). The sustainable green economy and unique indigenous knowledge makes them key agents for climate change mitigation and adaptation (Oelz et al., 2017).

Currently, the indigenous communities amount to 5% of total world population and yet protect about 80% of remaining biodiversity on this planet (Oelz et al., 2017). On average, there has been significant alteration of land-based and marine environment by human beings and their activities. But these developments have been less harsh in areas which have been kept or handled by Indigenous Peoples and local communities (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), 2019, May 6). The significance of indigenous peoples for conservation of environment is being slowly recognized through acknowledgement of human rights of indigenous peoples, especially by UN. Indigenous peoples have been seeking active participation in mitigating climate change by taking part in international environmental conferences along with activism and political engagement both at regional as well as national levels (Etchart, 2017).

Indigenous peoples have plethora of traditional knowledge through which they live in synch with the environment without disturbing the natural balance. Enormous number of practices followed by indigenous communities have been keeping the natural environmental equilibrium in place since ages. For more than 1200 years, farmers have grown common carp in rice paddies in South China. Fish and rice are beneficial to each other. Paddies with fish utilize considerably less pesticide and fertilizer when compared to the amounts used by rice monoculture (Lansing & Kremer, 2011). Rice-fish cocultures have also been reported in many other regions like India, Egypt, Vietnam, Indonesia, Thailand, Bangladesh,

the Philippines, etc. (Lansing & Kremer, 2011) Rice-fish polyculture promotes positive interactions and complementary use of resources between species to significantly reduce the requirement for chemical inputs (Lansing & Kremer, 2011). In Alaska, Eastern Alaska natives use traditional fire suppression techniques through community interactions for forest management. These procedures incorporate "bridging" landscapes by setting specified burns between natural areas (wetlands, marshes, and rivers, etc.) which then leads to reduction of density of fuel load and frequency of fire. This can help in preventing a huge fire from propagating ahead and destroying nearby village or region. (Brewer II & Warner, 2014) Intercropping techniques for planting maize, beans, and vegetables around rice paddies is also quite common (Van Huynh et al., 2020). Techniques of building 'Johad' for rainwater harvesting goes way back to ancient era used by indigenous communities in India, especially in the state of Rajasthan. A johad is a type of dam that gathers rainwater to direct it into the ground to restock the supply of underground water that not only prevents water scarcity but also provide soil moisture for forests or farmlands around the area (Suutari & Marten, 2005). The list of traditional practices followed by indigenous communities is a long one but this shows the pre-existing sustainable practices within indigenous communities that can have positive impact on environment and can be used to mitigate and adapt climate change.

But for this traditional knowledge to be exchanged and understood by others outside indigenous communities, the inclusion of indigenous peoples in various roles is a key factor. The indigenous groups still lack significant participation and roles in decision making process of environmental governance. They also need to be connected to the scientists for better understanding of the processes and for exchange of traditional and sustainable practices.

5. DISCUSSION & CONCLUSION

Media's coverage of climate change has been extensively criticized and this calls for improvements in the media systems. Since climate change is a complex phenomenon and it continues to gather new dimensions, the journalists should get proper training while doing scientific journalism. A synergy is also needed between media and the information sources, for example, sources like NGOs, politicians and scientists. The framing of climate change in news affects the response of audiences. To get positive response, the climate change narrative needs to be framed without ambiguities. The stories should also be relevant to the audience. For example, public is more likely to act after seeing news about flood events due to climate variations in contrast to reports of endangered polar bears in foreign land owing to warming of the climate. The digital media like cinema can also change public perception of various climate events happening around the globe. More documentaries involving the scientists narrating the catastrophic effects of climate change at various regions and on different species can propagate necessary actions. The need for moving from sensational media towards more factual, scientific, and relatable media is also a key in achieving climate change mitigation and adaptation.

The indigenous peoples are significant for making progress towards climate change mitigation and adaptation. Their immense connection with nature and conscious use of resources highlights the need to include them in dialogues while formulating climate policies. They have the potential to ameliorate the destructive impacts of climate change. Owing to their knowledge of their region and natural resources, they are more likely to adapt to climate change than non-

indigenous communities, provided they are given proper rights and platform to discuss their knowledge and experiences. Research and curriculum based on indigenous peoples and their ancient knowledge can help them redefine their identity and educate the new generation of scientists and academicians. Even indigenous peoples understand that their traditional knowledge alone cannot mitigate the climate change due to the intensity and pace of the issue. There is also a need to involve them in adaptation strategies that integrate traditional knowledge with the scientific knowledge, like the Ealát network Study whose objective is to prepare reindeer herders and national authorities in the changing Arctic region.

Massive shifts in policy as well as public behavior is necessary in order to keep the greenhouse gas emissions below the dangerous levels and to prevent this from becoming irreversible. Combatting climate change is not individual fight anymore considering the scale of this event and there is an urgent need to include media and indigenous groups in order to save the human species from experiencing mass extinction, because one way or another nature will find a way to replenish itself, but humans won't be able to catch up with it.

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