CHAPTER 6

Public Involvement in Combating Global Warming

6.1 Introduction
Democratic citizenship paves the way for public participation in environmental decision-making. Democratic citizenship is a polysemous concept which has various ramifications. The term ‘citizenship’ is closely associated with communities and nationality. It is the legitimacy of the State that unites the groups or communities of people under the domain of citizenship. Democratic citizenship has been defined by the Council of Europe as:

“……Democratic citizenship is about inclusion rather than exclusion, participation rather than marginalisation, culture and values rather than simple procedural issues (such as voting) and is about being active in shaping understandings and practices of citizenship……”

6.2 Public Participation in the domain of environment prediction and implementation:
India is a sovereign democracy. It means that India does not and will not tolerate any foreign intervention in the shaping and drafting of its policies. It also means that the decision-making process that shall be adopted at all levels will be democratic in nature which implies that it is the people of the country who shall take such decisions adhering to the principles of natural justice. Talking under the aegis of the term ‘sovereign democracy’ therefore it can be said that the people of the nation have a prominent role to play in the decision-making process at all levels and in all areas which includes environmental decision-making as well. Environmental decision-making to be effective must respect environmental democracy and respecting the latter can only happen when we are able to identify with society-environment relationships.

It is not a new concept that man has a strong and defined relationship with nature. Every State appreciates the said statement but identifies with it in different ways. To understand such

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identification, it becomes necessary to study about the different theories on society-environment relationship. The socio-scientific theories on society-environment relationship can be best studied by grouping them under two major schools of thought – one, which is known as the traditional environmental sociology and the other, the environmental state. The traditional environment sociology intends to draw cohesion between reflexive modernization, ecological modernization and post-materialism and holds that advanced or industrialized States consider environmental protection as a fundamental responsibility. Acknowledging such responsibility, the States perform activities for the promotion of the environment unconditionally, having enough freedom in choosing the options and measures to carry out the same. The traditional environmental sociology mostly consists of research which is European in origin. The latter is mostly U.S. based research that looks rather cynically on environmental development. Whatever be the approach of both the schools of thought, summing up it can be observed that environment has got a direct correlation with the society and thus the society play a dominant role in its preservation through its actors.

There are four chief social actors that determine a nation’s environmental decision-making, both with regard to its internal arena as well as the global environment. Such social actors include: the State, the market, science and the civil society. It is the observation and expression of views by these social actors that influence the policies on society-environment relationships. Thus, the civil society through the representation of its various factions, namely, the youth, the community represented by the environmental activists, the scientists, the business community and the moviemakers, the non-governmental organizations and the media, play an important role in stimulating social change towards the promotion of the environment. It may however be mentioned at this juncture that apart from the above mentioned social actors, the political culture

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3 Ibid
of a nation also determines the nation’s decisions in addressing different environmental problems such as climate change.\(^4\)

Community movements or social movements can be defined as collective social behaviour or collective behaviour of the society organized towards the achievement of a consensus pertaining to the environment. It is a movement wherein the social mobility is channelized to bring about political changes in the environmental decision-making process. Hence it is also denoted as ‘subpolitics’ by personalities like Ulrich Beck.\(^5\) Earlier, mobilizing social movements was an extremely difficult and tedious process but today, with the development of information technology, generating awareness and social mobility over potential issues is done virtually through electronic communication.

Transboundary public concern for global warming was witnessed quite long ago but even then there has not been much development in the area of public participation towards the sensitization of the issue and its impending and associated shortcomings. This is mostly because in most countries, although the governments were aware of the issue and its vulnerability, they did not execute the pious responsibility of educating their masses on global warming. As a consequence most people are either unaware of the issue or do harbour uncertainties about the issue itself. Again, while a section of the people is aware about global warming, they do not have any idea as to how the problem can be resolved or who stands primarily responsible for such sufferings. A survey conducted in 2001 highlights that a mere 26% of the survey respondents were aware that burning of the fossil-fuels causes global warming.\(^6\)


\(^5\) Jamison Andrew, ‘Climate Change knowledge and social movement theory’, WIREs Climate Change, Volume 1, November/December 2010, Pgs. 811-823

6.3 Environmental legislations in support of Public Participation:

Inserted by the Forty Second Constitution Amendment Act, 1976, which was brought into effect from January 1977 onwards, the Constitution of independent India under Article 51A(g)\(^7\) clearly provides that it shall be the boundant duty of every citizen to protect and promote the environment which includes the forests, lakes, rivers and wildlife of the country. Further, such duty also encompasses within its ambit the duty to show compassion for living creatures. A proper and justifiable interpretation of the said provision shows that such duty to be accomplished requires a public participatory framework of operation.

Environmental legislations operative in India such as the Air (Prevention and Control of Pollution) Act, 1981, under Section 43 (2)\(^8\) make it explicitly clear that a complaint can be filed before the Metropolitan Magistrate or the Judicial Magistrate of First Class for violation of any of the provisions of the said Act provided a complaint in writing has been made earlier to the violator giving a sixty days notice period for correction and/or amendment of the violation caused. The Environment Protection Act, 1986, also speaks in similar lines when it reiterates the same thing under Section 19 of the Act\(^9\). The National Green Tribunal Act, 2010, which came in the wake of the abolition of the National Environment Tribunal Act, 1995\(^10\), under Section 14\(^11\), states that the National Green Tribunal established under Section 3 of the said Act shall have the power to decide any dispute related to the violation any substantial right pertaining to the environment. In Section 2(m) of the Act\(^12\), the term ‘substantial question relating to the environment’ has been defined. The said term includes ‘an instance wherein there is a direct

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\(^7\) Constitution of India

\(^8\) [http://india.gov.in/allimpfrms/allacts/796.pdf](http://india.gov.in/allimpfrms/allacts/796.pdf)


\(^12\) Ibid
violation of an environmental obligation by a person which affects the community at large, the damage to public health is broadly measurable, there is substantial damage done to the property or the environment and the consequences occurs from specified activity. The Act further lays down that action under the Act can be taken even when there is a violation of a substantial right granted under any of the scheduled Acts namely the Water (Prevention and Control of Pollution) Act, 1974, the Water (Prevention and Control of Pollution) Cess Act, 1977, the Air (Prevention and Control of Pollution) Act, 1981, the Environment Protection Act, 1986, the Public Liability Insurance Act, 1991 and the Biological Diversity Act, 2002. The National Green Tribunal Act, 2010, further lays down that an application under the said Act can be filed not only by an aggrieved person but also by his legal representative or an agent duly authorized by the person affected or by a representative body or organization. It is such legislations that are operative in the Indian dominion which gives the civil society and the non-governmental organizations the right of public participation in environmental decision-making.

6.4 Contribution of the Youth:

Climate change is an ethical challenge which is imperative to be tackled collectively with the contribution made at the individual, institutional and collective level. The youth of the country play a major role in the initiation of activities for addressing global warming. To initiate such enterprises, it is obligatory to be aware about the menace of global warming. On the basis of a survey conducted in Pune, Maharashtra, it has been identified that about 98.5% of the respondents were aware that global change has been occurring and that it is human induced. The awareness about institutions engaged in addressing global warming was also assessed through such survey and it was found that approximately 45.3% of the respondents had the knowledge of

\[13\] Ibid
different international institutions operating in the domain of global warming. From such survey findings, it can be concluded that the youth of today are aware about the change in the global climate and they have the positive approach towards combating global warming. Hence they should be motivated to participate in either adapting or mitigating climate change as it is the youth, the future generations of the planet, who must take the onus upon themselves to save the planet from its nearing doomsday. Education plays an integral role in generating awareness among the masses which include the youth of the country. Acknowledging and appreciating the contribution of the youth in combating climate change, the International Youth Day of 2008 was titled as “Youth and Climate Change: Time for Action”. Addressing the youth on the said occasion, the Secretary General of the United Nations observed that it is the youth of the world who can make and adapt to low carbon lifestyles and hence the youth of every nation should be channelized towards building a carbon-free society. Further, the United Nations Environment Programme (UNEP) continues with the daunting task of creating awareness about the environmental risks by commencing programmes from time to time. The World Environment Day, the 5th of June, 2008, was dedicated towards building a low carbon economy and the UNEP commemorated the said commitment with the slogan “Kick the Habit! Towards a Low Carbon Economy”. To achieve a low carbon economy, it is necessary to initiate educational courses at the intermediary level so that the awareness about environment, environmental problems and their redressal become the subject matter of concern from a tender age. The youth of the country should also be inspired to undertake research and initiate programmes that are cost-effective and at the same time play a major role in reducing the carbon footprint of the planet.

6.5 Contribution of Movies:


15 Pandve Harshal T., ‘Global initiatives to prevent climate change’, Indian Journal of Occupational and Environmental Medicine, August 2008;VOLUME 12-Issue 2

16 Ibid
The concern for the environment was spearheaded by the Government and environmental activists only towards the end of the twentieth century although the recording of the history of global warming dates back to the nineteenth century. Such concern for global warming not only highlights the deleterious effects of climate change on the planet but also paves the way for positive action in the diminishing of greenhouse gases from the atmosphere. Positive action towards the building of a low carbon economy is possible only through collective efforts undertaken by the stakeholders of the environment. It is the collective action that aids and enhances formal governmental regulations and assists in the enforcement of the governmental regulations. The entertainment industry through movies and documentaries can play the role of an informer in protecting the environment from global warming. Environment being a sub-plot in movies is not new. Creating awareness about the environment and its vulnerability in the days of industrialization has caught the attention of moviemakers time and again. Movies such as ‘Addicted to Plastic’, produced in 2009, bring to light the problems faced by plastic pollution and provides solutions by showing the manufacture of plastics derived from plants. ‘The Cove’, an Oscar winner on feature documentary, unearths numerous ecological crimes by a team of ecological activists and filmmakers thereby attracting huge audiences. Addressing environmental issues through movies is much faster and easier. ‘Flow’ by Irena Salina which was produced in 2008, bring to light one of the most acute crisis faced by the world, namely, the world water crisis. Irena through the film tries to draw attention to the freshwater calamity that is being faced

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18 Pargal Sheoli and Mani Muthukumara, ‘Citizen Activism, Environmental Regulation, and the Location of Industrial Plants: Evidence from India; Economic Development and Cultural Change, 2000, Pages 829-846

19 http://www.squidoo.com/top-movies-on-the-environment

20 http://www.squidoo.com/top-movies-on-the-environment

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by the world community and spells for the creation of a world cartel to tackle the said catastrophe.

Among the environmental issues on which movies have been made, global warming and climate change has intrigued and fascinated the film fraternity most and the film media has encashed on its popularity to generate consciousness to this contemporary issue. ‘An Inconvenient Truth’ – the award winning documentary conceptualized by Former U.S. Vice President Al Gore is considered to be one of the prominent films that exerted a pull on the audience and made the whole world raise their voice on the subject. ‘In Hot Water’, uses locations in the Arctic, the Chesapeake Bay and the South Pacific islands to highlight the change in ocean ecosystems that has begun to happen as a result of global warming. Just as people spoke of the Great Plague or the Great Depression, ‘The Great Warming’ narrated by Keanu Reeves and Alanis Morissetti, depicts the most authentic account on global warming and attempts to arrive at sustainable solutions based on the endorsements provided by dozens of leading scientists across the globe.

‘The 11th Hour’ is a documentary that puts the spotlight on the impacts of global warming and calls for ecological restoration in the domain of climate change. One of the recent additions to the list is ‘Happy Feet’ which is a 98 minutes film involving $100 million wherein environment and more specifically the Antarctica melting has been used as a subplot to send a global message that much requires to be done to combat global warming. In the turf of animated films, Twentieth Century Fox produced the popular film ‘Ice Age: The Meltdown’ which revolved around certain prehistoric animals who had to flee their homes to save themselves from a melting ice wall that endangered their lives. Studio executives around the globe are of the opinion that adding an environmental flair to family films aroused the minds of the masses towards the

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21 Saini Angela, ‘Climate Change in the Movies’, available at http://www.opendemocracy.net/globalization-climate_change_debate/article_2508.jsp

22 http://www.thegreatwarming.com/
environment as also aided them in contributing towards sustainable development. It may be mentioned herein that the Environmental Media Association, an association in the United States, counsels the entertainment industry on the ways in which environmental messages can be incorporated in their content so that public awareness is generated relating to the said issues.

**6.6 Contribution of the Media:**

The vigilance of the media on environment and its impending dangers continues in a democratic society. It is the media in a democratic society that provides the piecemeal and instant information about environmental disasters but in selecting the news which it gives, in most cases transparency is unable to be maintained by the media. Corporate plundering of the environment or reports of abating environmental pollution conducted by the business world is reported only seldom. This is perhaps because the media does not want to disturb the vested interests that it has as a result of its relationship with the corporate world. Another minor reason for the graying of environmental reporting is that while the page count of newspapers is constantly on the rise to tackle stiff competition, the staffing of the newspapers have not increased to such extent. As a consequence, most of the environmental reporting is not done by specialist environmental reporting teams but by inexperienced general column reporter who understands the issue in a limited sense and hence justice is not done to the news covered and reported.

In the domain of global warming, it becomes very difficult to realize whether the news that is generated by the media is biased or tainted with prejudice. In a democratic society, freedom of the press should be respected subject to limitations. These limitations should be appreciated only when divulgence of the particular news would result in impairing the sovereignty of a nation. In all other cases, the media should be strengthened with regulations that allow it to fully penetrate into environmental disasters and divulge openly the pros and cons connected to the same.

Manipulative deployment of the media by powerful, influential and economically affluent people

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disintegrates the democratic society and does not allow the society to enjoy the fruits of democracy. In the era of global warming therefore, the media can be used as a constructive weapon to detect and highlight the plausible impacts of the disaster and thereby arrive at prospective sustainable solutions. Gatekeepers of news should stop thinking selfishly while selecting, screening and deciding on the weightage to be given to the news to be highlighted in the first pages of the newspaper. In depicting environmental issues, unanimous efforts to tackle the same should be undertaken between the different factions of the media and all controversies existing between the left-of–centre journalists and the right-of-centre journalists should be put to rest. It is true that news of controversy among scientists as regards the existence of global warming is definitely more ripe, juicy or saucy but the gatekeepers of news must also realize that as responsible citizens of the globe, it is their moral duty to behave ethically and highlight the ‘more relevant and necessary’ news, thereby adhering to their commitment towards environmental reporting.

Till late eighties, most of the news coverage on climate change was based on scientific information. However, in 1988, when James Hansen pronounced before the United States Congress that the long summer of 1988 was as a consequence of global warming, it opened the floodgates on climate change reporting. Between 1988 and 2002, most of such reports in the United Kingdom discussed about the dangerous consequences of climate change while that in the United States were tarnished with uncertainty on the authenticity of the news published. Between 2000 and 2006, the United States reports were more swayed towards the impacts of the environmental problem while beyond 2009, the framework of news discussed dealt with environmental reporting.

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25 Anderson Alison, ‘Sources, media, and modes of climate change communication: the role of celebrities’, WIRE’s Climate Change, Volume 2, July/August 2011, Pgs. 535-546

26 Ibid
solutions to the issue rather than on the uncertainty of the findings associated with the issue. A study conducted by Boykoff and Mansfield\textsuperscript{27} highlights that it was in the year 2007 that press coverage on climate change was at the zenith which stood repeated in 2009. Two important facts may be held responsible for such increased coverage in 2007 and 2009 – it was in the year 2007 that the Fourth Assessment Report of the Intergovernmental Panel on Climate Change was published which shook the world with its alarming content on global warming and it was in the year 2009 at the Fifteenth Conference of Parties at Copenhagen the entire talks on arriving at a consensus on climate change were stalled due to differences of opinion between particular developed countries and the rest of the world.

The role of celebrities in educating the masses on global warming through the print and electronic media is another area of concern which needs to be highlighted at this point of discussion. It is indeed true that in democratic countries where freedom of the press is not chained, celebrity endorsements towards the cause of climate change might be a boon as it would manage to draw attention towards the issue but the manner of utilization of such celebrities by the media in campaigning against global warming does not make it clear whether celebrity association to such causes does make a difference or not. Their roles as non-State actors have been acknowledged no doubt but their association to the issue being extremely time–bound due to financial costs dilutes the issue. For example, the year 2006 witnessed ‘Vanity Fair’ publish its first environmental issue with leading Hollywood personalities namely Julia Roberts, George Clooney, Al Gore and Robert F. Kennedy Junior on the cover page endorsing the cause of the environment. Such coverage must have entailed huge financial costs on the magazine as in 2007,
the cover page of the second environmental issue was much more streamlined with Leonardo de Caprio and Knut, the polar bear cub at Berlin zoo\textsuperscript{28}.

Today however press coverage on global warming and climate change is not only limited to newspapers but non-governmental organizations through their personal websites also network on climate change facts and issues. In attempting to do so, they take the aid of celebrities as vehicles to promote positive environmental change in the society. The instances of M.TV’s Switch campaign and the pop-singer Madonna’s lyrics on climate change in her song ‘Hey You’ further substantiate the dominant role of celebrities in dealing with climate change. Celebrities also prefer to engage themselves in such activities to create a better public image of themselves and this in certain cases aid them in their switch-over to the profession of a politician. Whether celebrity association has enlivened the discussions or deliberations on climate change has not yet been proved but based on recent trends it has been held that celebrity association with environmental issues have enhanced their (celebrity) news coverage. This however has an underpinning effect to the extent that the cause gets diluted in the news coverage of the celebrity. What happens as a result is that there is a growing sense of distrust on celebrity advocacy towards climate change which in turn has resulted in public skepticism over the issue.

6.7 Community Activism in the Province of Global Warming:

Environmentally efficacious and efficient solutions to address the issues of global warming can assist in attaining a sustainable livelihood. Accusations, denials, assurances and actions will happen in the domain of global warming when community activism is geared towards gathering consensus on the same. The participation of the society through the involvement of prominent personalities from all walks of life, social activists and the common man does play an integral role in combating the menace of global warming with a heavy hand. Further, with the involvement of such masses, the citizen entitlements also gain recognition and the governments and institutions across the globe understand and appreciate the need of the hour and thereby try

\textsuperscript{28} Anderson Alison, ‘Sources, media, and modes of climate change communication: the role of celebrities’, WIRE’s Climate Change, Volume 2, July/August 2011, Pgs. 535-546
to arrive at prospective solutions to the issues involved. This is better explained when we pay attention to the provision of extraterritorial environmental harm prevention noted in Principle 21 of the 1972 Stockholm Declaration on the Human Environment. Principle 21 of the 1972 Stockholm Declaration on the Human Environment states as follows:

“States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”

The first attempt towards the generation of community environmental consciousness was made in the sixties when Barry Commoner, a high school teacher, through ‘The Closing Circle’ established the four laws of ecology and thereby introduced to the world the role of carbon-dioxide emissions in the context of global warming. In the ‘The Closing Circle’, he wrote:

“………….Carbon dioxide has a special effect because it is transparent to most of the sun’s radiation except that in the infrared region of the spectrum. In this respect, carbon dioxide is like glass, which readily transmits visible light, but reflects infrared. This is what makes glass so useful in a greenhouse in the winter. Visible energy enter through the glass, is absorbed by the soil in the greenhouse, and then is converted to heat, which is reradiated from the soil as infrared energy. But this infrared energy, reaching the greenhouse glass, is bounced back and held within the greenhouse as heat. . . .Like glass, the carbon dioxide in the air

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that blankets the earth acts like a giant energy valve. Visible solar energy easily passes through it; reaching the earth, much of this energy is converted to heat, but the resultant infrared radiation is kept within the earth’s air blanket by the heat reflection due to carbon dioxide. Thus, the higher the carbon dioxide concentration in the air, the larger the proportion of solar radiation that is retained by the earth as heat (Commoner, 1 pp. 26–27).  

It was such consciousness that paved the way to learn about ‘alternative sources of environment friendly’ ways to produce food and energy. Environmental consciousness of the community gained momentum in the seventies with the idea that human intervention is changing the earth’s climate system. In the Netherlands, for instance, ‘science shops’ were established at universities to provide for better interaction between the academia and the society so that awareness in favour of the environment is easily established. At the local folk high schools in Denmark, centres of renewable energy stood established as early as in 1978. It was in the same year that the students of Tvind folk high school constructed the then world’s largest wind energy power plant. It would be pertinent to mention herein that in the nineteenth century, Paul La Cour, a Danish high school teacher, experimented to produce electricity through wind power generation. Environmental movements of such nature initiated climate change to leave the academic tables and plunge into greater podiums for fruitful discussions over the issue.

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30 Jamison Andrew, ‘Climate Change knowledge and social movement theory’, WIREs Climate Change, Volume 1, November/December 2010, Pgs. 811-823

31 Jamison Andrew, ‘Climate Change knowledge and social movement theory’, WIREs Climate Change, Volume 1, November/December 2010, Pgs. 811-823

32 Ibid

33 Ibid

34 Ibid
The seventies had witnessed two differing strands of environmental behaviour. While the growth and emergence of the neo-nationalist and the neo-conservative movements in the United States of America and in many other European countries has had profound influence in shaping oppositional opinions on climate change by the said countries, a different strand of expression is noticeable when one observes the opinions of profound actors in the climate change arena like Al Gore. Such actors are said to share closer association with the neo-liberal or ‘transnational capitalist’ movement that rose to prominence after the fall of the Soviet empire in 1989. The neo-liberal movement was majorly responsible for developing stronger ties between the academic fora and the business world. Such closer ties in turn led to the commercialization of scientific knowledge.

The eighties observed the fragmentation of the environmental movement into diverse organizations. Green organizations such as Greenpeace began to grow in the eighties. Even within universities, new organizations stood established such as the Wuppertal Institute, the World Resources Institute, etc. wherein new understandings on the subject of global warming began to be discussed with much fervor. Indirectly, it can also be said that with the fragmentation of the environmental movements, professional mechanisms of knowledge-sharing on climate change began to brew.

The nineties saw competitiveness responsible for the shift of green knowledge makers into the business arena. In the United States, for instance, universities began to enter into consolidation programmes with companies. European countries such as Denmark, Great Britain, Germany, etc. also followed suit. The students of the School of Architecture and Planning at the University of Texas had developed low-cost housing facilities which were climate resilient with the help of

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35 Jamison Andrew, ‘Climate Change knowledge and social movement theory’, WIREs Climate Change, Volume 1, November/December 2010, Pgs. 811-823

36 Jamison Andrew, ‘Climate Change knowledge and social movement theory’, WIREs Climate Change, Volume 1, November/December 2010, Pgs. 811-823
local suppliers of resources\textsuperscript{37}. It was such market-oriented approach that dominated the Kyoto deliberations and created the North and the South bloc of countries over issues on climate change.

The present concern towards terminologies such as ‘climate justice’ and ‘climate accountability’ can be said to be the outcome of yet another movement more commonly known as the ‘anti-globalization’ movement which articulated a sense of collective responsibility towards the environment. Activism beyond borders have further strengthened public participation in the domain of global warming with the formulation of the ‘People’s Agreement of Cochamamba’ in April, 2010\textsuperscript{38}. Such agreement was finalized at Bolivia at the World People’s Conference on Climate Change and the Rights of the Mother Earth.

States like India have always appreciated the understanding of ‘common but differentiated responsibility’ in attending to global warming and have implemented such stance by acknowledging the involvement of the community in dealing with the same. Individual participation does not receive the recognition when dealing with a problem as huge as global warming simply because all persons do not stand on an equal footing although their ecological interests are similar. The right to claim protection against environmental harm is much better recognized when there is a mass movement in support of the same. Hence, all across the globe, mass movements in support of any environmental cause has always received positive responses.

India can be regarded as one of the best examples to be highlighted when we discuss the role of environmental activists in preventing or highlighting environmental harm. Retired Justice Kuldeep Singh of the Supreme Court of India is regarded as the ‘Green Judge’ of India as he was very vocal in pronouncing judgments against the polluters of the environment. Another distinguished environmental activist in the history of Indian Environmental Law is Mr. M.C. Mehta who had undertaken a crusade against environmental pollution, be it through the case of

\textsuperscript{37}Ibid

\textsuperscript{38}Jamison Andrew, ‘Climate Change knowledge and social movement theory’, WIREs Climate Change, Volume 1, November/December 2010, Pgs. 811-823
Ganga pollution or that of the Taj Mahal. He has been honoured for his contribution in generating awareness about environmental pollution with the Goldman Prize for Environmental Protection in 1996 and the Ramon Magsaysay award in 1997. Medha Patekar is another name to reckon with in the environmental domain. The Narmada Bachao Andolan which is a people’s movement opposing the construction of a series of dams to channelize the waters of the Narmada river, under her leadership and guidance, managed to gain attention of the world towards the hardships faced by the project affected people of the region. She was also assiduous in establishing a network of activists across the country titled ‘National Alliance of People’s Movements’ who maintain a vigil on environmental constraints faced by the people all across the country. Her contribution to environmental growth was recognized with the conferment of the Goldman Environmental Peace Award in 1992.

Medha Patekar was strongly aided in such missions by Arundhati Roy, the eminent writer and social activist. The initiators of the Chipko movement, Chandi Prasad Bhatt and Sunder Lal Bahuguna have both played pivotal roles in sensitizing the masses against deforestation and administered a prohibition on commercial forestry. The Jal Swaraj Campaign spearheaded by Mr. Anil Agarwal, the founder of the Center for Science and Environment is another name to reckon with. India’s traditional water harvesting received a boost under his leadership and guidance and opened the eyes of the world to one of the indigenous ways in which water can be utilized optimally for constructive causes. His crusade against the violators continues unabated even today under the able leadership of Sunita Narain, the present Director General of the Centre. She is also the present director of the Society for

39 [http://www.goldman.com/node/125](http://www.goldman.com/node/125)

40 [http://www.commondreams.org/headlines05/0610-04.htm](http://www.commondreams.org/headlines05/0610-04.htm)


42 [http://www.elaw.in/issues/htm](http://www.elaw.in/issues/htm)

43 [http://www.cseindia.org/node/221](http://www.cseindia.org/node/221)
Environmental Communications. Rashida Bee and Champa Devi Shukla, both Bhopal gas activists have also ignited the minds of millions of people towards the treatment meted out to disaster victims and their powerful campaign was rewarded with the Goldman Environmental Peace Award in 2004.

In the domain of global warming and climate change, the name of R.K. Pachauri deserves special mention. During his tenure as the chair of the Intergovernmental Panel on Climate Change, the Intergovernmental Panel on Climate Change and Al Gore, the former Vice President of the United States of America, shared the Nobel Peace Prize of 2007 for their contributions made towards the dissemination of information pertaining to climate change. Mr. Pachauri through the initiative ‘Lighting a Billion Lives’ in 2005 was able to light the lives of the vulnerable people living in the Sunderbans through solar energy thereby showing the way in which alternative sources of energy can be harnessed to attain constructive ends. The former Vice President of U.S.A. on the other hand, donated his share of the prize money of $1.5 million to the non-profit organization ‘Alliance for Climate Protection’. Initiatives such as these help in attracting the common masses towards graver and bigger issues such as climate change and global warming. Such approaches are necessary to be appreciated by the government of a country for no government in any country in any part of the globe can isolatedly deal with the peril of global warming.

6.8 Contribution of Non-Governmental Organizations:

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44 Ibid

45 http://www.goldman.com/node/163


47 http://labl.teriin.org/

Public participation in environmental decision-making highlights the needs of both the present and the future generations. Any environment improvement programme does not gain good ground and is not ideally executed without the involvement of the non-governmental organizations that operate in the area of environment protection. Again, it has been widely accepted that for any development project to yield the proper results, it is vital that social impact of the project is evaluated correctly. Correct and justified social evaluation of the project is said to be done when there is conservation of the resources of the living environment. To assess and examine whether there is correct evaluation done or not, voluntary action groups at the community level, in the national or international arena, play a central character. The awareness on effect of environmental perils on humanity as also the awareness on the impact of changing lifestyles on the environment is being monitored by different voluntary action groups. These voluntary action groups are known differently by different people. While some regard them as “social action groups”, others call them as “civil society organizations”, “citizen associations”, “non-profit organizations” etc. In short, it is their concerted effort that scrutinizes the actions taken by the corporate world and the governments to provide for sustainable living.

The term “non-governmental organizations” is not a new coinage; it owes its existence to the time when the United Nations emerged after the downfall of the League of Nations and the Second World War. However, non-governmental organizations became popular since the seventies\(^\text{49}\) from when its prominence in relation to legitimacy or accountability of governance began to yield positive results. Today we notice non-governmental organizations operating to serve diverse social causes across the globe. There are, however, some non-governmental organizations which operate only at the national level or remain restricted at the grassroots level. The alliances formed in the Latin American, African and the Asian countries stand testimony to the universal consciousness about global warming and the steps initiated through public

\(^{49}\) Paul James, “NGOs and Global Policy Making”, 2000, [http://www.globalpolicy.org/component/content/article/177/31611.html](http://www.globalpolicy.org/component/content/article/177/31611.html)
participation in tackling the issue. Radical organizations such as Oxfam and Friends of the Earth have incorporated climate change in their agenda of operation and are initiating measures to deal with climate change. Non-governmental organizations such as Greenpeace, Amnesty International also operate worldwide to sensitize the issue of climate change among the global masses so that preventive measures are initiated to deal with the menace. Climate camps have become common in the recent years. One of the most significant attempts made by such climate camps is the occupation of the airport runaways by climate change activists draped as polar bears to generate awareness among the citizenry about the impacts of global warming. Further recent climate change fora such as Copenhagen, Cancun and Durban, etc. have noticed non-governmental organizations protesting against climate change decisions which according to them were more politically and diplomatically motivated rather than ethically driven.

Indian non-governmental organizations such as the Indian Youth Climate Network, The Nand and Jeet Khemka Foundation, Centre for Science and Environment, etc. are also dedicated to make a difference to the social and economic environment of India. At the international level, the non-governmental organizations are known as ‘non-State actors’ as they exert a strong influence on the environment, an area where only State actors exercised dominant influence. The former Secretary General of the United Nations Mr. Kofi Annan referred to non-governmental organizations as the “conscience of humanity”. Such conscience of humanity exercises predominant influence on international environmental negotiations, attend sessions where environmental treaties are negotiated between countries, understand and regulate the operations of international institutions such as the World Bank, United Nations Commission

50 Jamison Andrew, ‘Climate Change knowledge and social movement theory’, WIREs Climate Change, Volume 1, November/December 2010, Pgs. 811-823
51 www.iycn.in/
52 http://www.khemkafoundation.org/environment.php
53 http://www.cseindia.org/
on Sustainable Development, etc. to check whether the funds are being utilized to attain beneficial sustainable ends. It was the Earth Summit in 1992 that called for the inclusion of non-governmental participation in environmental governance and paved the way for the participation of 17,000 non-governmental organization representatives in the NGO parallel forum and 1,400 representatives in the direct negotiations\textsuperscript{54}. It was such strong participation of the NGOs that played a key role in the successful conclusion of the Earth Summit and lay concrete on the creation of institutions such as the Commission on Sustainable Development. It can be said that the non-governmental organizations represent cross border interests and help in the resolution of cross-border issues pertaining to the environment as environment is a transboundary area of operation.

In India the growth and spread of the Indian non-governmental organizations in the domain of environment began in the sixties but by 1983, they rose by leaps and bounds. The twenty first century further witnessed a stupendous growth of NGOs. Reports as back as 2007 indicate that in 2007, there were over 10,000 NGOs operative in the countries who were engaged in diverse eco-management programmes\textsuperscript{55}. It may be mentioned herein that the World Wildlife Fund for Nature (WWF)-India, published a directory on environmental NGOs operating in India which highlighted the areas of operation of each NGO\textsuperscript{56}. In the realm of environmental pollution, environmental NGOs perform diverse roles-from generating awareness to performing advisory roles to the government, from performing eco-development programmes to implementing rehabilitation schemes for people whose right to livelihood stand deprived and devastated as a result of environmental plundering, from acting as pressure groups to playing pivotal roles in environmental litigation.

\textsuperscript{54} Paul James, “NGOs and Global Policy Making”, 2000, \url{http://www.globalpolicy.org/component/content/article/177/31611.html}


\textsuperscript{56} ibid
Within the precincts of global warming and climate change, environmental NGOs that have created an edge include Greenpeace which plays an active role in climate change discussions. Its initiatives in the confines of global warming stand noticed when it rebuked the Kyoto Protocol by terming it as “Kyoto –Lite”\textsuperscript{57}.

**6.9 Contribution of scientists and the business community:**

No concrete action in combating climate change can be undertaken unless there is collective action spearheaded by the environmental groups, scientific fraternity and the business community. Business plays an integral role in the upliftment of the economy of a nation and in the modern day, a country’s growth is said to be measured in terms of sustainable growth. Environmental reforms are key to sustainable growth and the business community therefore owes its sustenance and success to the agenda undertaken by it in the arrest of global warming. Most of the leading business houses of the country today undertake diverse corporate social activities related to the conservation and promotion of the environment. Understood by different names such as ‘green reporting’, ‘green agenda’, ‘sustainable reporting, ‘sustainability report’, ‘green accounting’, etc., the companies like Reliance Industries Limited, HCL, Infosys Technologies Limited, etc., try to impress upon the society through the eco-friendly initiatives undertaken by them that help in maintaining the greenery or reduce the emission of greenhouse gases into the atmosphere. “Green economy” has already begun to be the subject of discourse in diverse environmental forums and engaging in the creation of a green economy is advantageous for both the governments and the private sector because it gives both the opportunity to shift towards safe greener futures and initiate signals for price control of commodities and products. The last decade has witnessed several catastrophes such as inflation in prices, fuel price shock, global recession, rise in energy prices, growing gap between freshwater demand and supply and

so on, which necessitate the business community not to remain tight-lipped but to begin behaving as a tiger with teeth and claws. What needs to be arrested is the misallocation of funds and hence, proper allocation of funds to proper issues at hand should be followed.

The scientific community through diverse climate models and impact studies conducted from time to time appreciate the existence of global warming and thereby tries to create awareness among the masses about the impending dangers of climate change although contradictions on the existence of global warming is still being debated upon. The scientific community also tries to provide appropriate solutions to global warming and thereby sensitize the community to take imperative steps in contesting global warming.

6.10 Conclusion:

Public participation in the domain of global warming and climate change still remains in a nascent state and much needs to be undertaken to address the issues arising out of global warming. To achieve self-sustaining future through the reduction of the carbon footprint, public participation needs to be appreciated and public awareness on the same need to be worked upon. Further, efforts must be made to reach the remotest corners of the country to explain global warming and its impending dangers. Peoples’ council needs to be formed with responsible people spearheading the war against global warming. The study of global warming and climate change needs to be commemorated through the arrangement of public debates and symposiums and environment-friendly practices adopted through environment education. Environment education which is compulsory in elementary education should include relevant problems such as global warming and discussion on prospective solutions to the same. Perhaps the best way in which we can publicly address the said issue is by giving a justified understanding, appreciation and implementation of the following statement:
“……The global commons such as the air, water, biowebalth, etc. appropriated and exploited in the name of the principle of competition needs a little more charitable treatment by the Homo sapiens……”\(^{58}\)