

“Role of Mass Media sources in creating Awareness towards Climate Change in Urban Educated society”. - Survey study

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Abstract: Vulnerability to climate and environmental changes is now globally acknowledged. In the last three decades, the country has experienced nearly hundreds of climate-related disasters including drought, extreme temperature, floods, and storms. These natural events killed thousands of people, destroyed infrastructure and properties worth millions. United Nations Framework Convention on Climate Change (UNFCCC) stresses education, training and awareness in addressing the problem of climate change. The mass media sources are common platform for large segment of population at regional, national and global levels. The mass media is the single largest source that can play vital role in imparting awareness, providing knowledge and information regarding climate change and its effects. Various media sources have started strong campaign by development and implementation of educational and public awareness programmes on climate change and its effects. A survey based study was conducted in educated urban settlers of Bhopal city to investigate their awareness and knowledge and how they acquire the information on climate change. The random sample was collected and the respondents were classified into six groups – general population, students, media persons, environment experts, senior citizens and municipal employees. The responses were collected through questionnaire and then subject to qualitative analysis. The results show that there is high variability in the responses and knowledge regarding climate change, the results also shows that the awareness is very poor among the respondents.

Key words – Climate change, environmental issues, sustainable, mass media, awareness etc

1. INTRODUCTION

There are numerous sources that provide information and knowledge about climate change and environmental awareness. The potential information and its acceptance by the target population depend upon its correctness, authenticity, simplicity and interest. Also, the level of knowledge and awareness varies for different target population. The medium of sources are also different for different class of population and their geographical distribution. Therefore media sources can be broadly classified as follows -

- (a) Mass media (e.g. radio, television, newspaper and magazines)
- (b) Institutional media (e.g. school, government officials or village leaders)
- (c) Traditional media (e.g. family members, other relatives, friends and neighbors, NGO work)

The mass media provides immediate response to the public safety against natural disasters. For example, cyclone Phailin prior information on mass media helped Odisha and Andhra Pradesh to escape from widespread loss of life in 2013. This was due to largest evacuation efforts in the country's recent history helped keep casualties to the minimum. Second, the institutional media refers to importance of school education in creating environmental awareness and training right from the school this create environmentally friendly behavior and develop students knowledge towards ecological issues and sustainable development. In 1986 environmental education became an integral component of National Policy on Education (NPE, 1986) for the first time after independence. Discussion of environmental issues within the family or with friends and neighbor also develops awareness and eco-friendly behavior towards nature. Many NGO's under the Ministry of Environment and Forest are working to influence to develop awareness among the people towards the ecological sustenance and problems. To support the work of NGOs dealing with environmental issues the Ministry of Environment & Forests started the National Environmental Awareness Campaign (NEAC, 1986) in 1986.

Information through mass media sources- In India, no daily newspapers has a regular space reserved for environmental news neither they have regular environmental journalist to address the daily events taking place at local or national levels. They all depend on information provided by the government or information received in context to science and health on Press Trust of India the largest news agency in India. The only environmental magazine in India is “Down to Earth” started in 1992 after the Bhopal disaster in 1983. However, the magazine believes that addressing environmental issues in a developing country like India is not a matter of luxury, but of pure livelihood¹.

The awareness movement gained some impetus when Honorable Supreme Court made it mandatory that environmental programs should be broadcasted. This encouraged the radio broadcasting of two weekly programs from Delhi FM - “Kinare – Kinare” and “Ao Dilli Savaren” after motivation from Ministry of Environment and Forests. Initially the programs were not targeted to specific group, there was unsystematic approach targeting rural, industrial workers, children, women and urban population focusing the pollution issues like – air, water and noise pollutions, etc. The environmental issues were not given priorities in national level news unless it is of utmost importance.

In 1998, The All India Radio started radio serial “Yeh Kahan Aa Gaye Hum” raising all the delicate issues of environmental concern like- water, air and noise pollution, deforestation and even solid waste disposal in a story based program of rural background. To entertain and educate and increase its audience the serial content focuses to enhance knowledge, attitude and friendly behavior approach towards environment. To foster a competitive spirit the listeners were awarded prizes and even take feedback to make it more interactive.

The electronic media always give deep impact to the Indian audience. The use of this medium is not only for entertainment but also for education. Comparing to radio or newspaper, television is considered far better source for information in India the main reason is it is occupied by huge population of illiterates. Many popular international environmental programs are already popular on television such as - Discovery Channel, National Geographic Channel and Animal Planet Channel are broadcasting exclusively on wild life and endangered species. They also, cover the critical aspects of pollution and how this affects the flora and fauna of the biodiversity and how the species get extinct. The National channel is regulated by law to offer environmental programs. Doordarshan telecast three regular programs - “Earth Matters” focuses on one special environmental problem targeting educated people, weekly environmental quiz “Terraquiz” and “Nature Plus” is telecasted daily. In addition, BBC’s “Earth Report” offers exclusively information on environment also, daily broadcast of “The new adventures of Captain Planet” on Cartoon Network especially designed for children for giving information on environment².

Many evidences are now available that clearly alarms and gives warning about climate change which is needed to be address in awareness program like the loss of Arctic ice, which reduces the ability of the Earth to reflect back heat, warming it further and melting more ice. Another significant positive feedback is the die-off of forests – if the temperature of the Earth increases and reaches certain point, tropical forests start perishing , releasing huge amounts of carbon, raising the temperature further, and causing more severe forests destruction. All of these greatly accelerate climate change and are non-linear. Any one of these could lead to a tipping point of the whole earth system. There is a clear distinction that we are at the end of the bridge and if we cross the tripping point it’s never comeback situation. Awareness to understand the concepts of positive feedback and tripping point is necessary for learners; they also need to understand that if the situation reaches the tripping point by any circumstances then we have to reorganization the entire society, reduce consumption to lowest levels and need to monitor every impact on the climate thereafter. If we reach the point of no return, the only hope is to adapt to new changes.

2. METHODOLOGY

Almost all the respondents are educated with minimum qualification of class 12. The educated population was selected to investigate their awareness and knowledge towards climate change. The selection of educated respondents of urban location was due to three major reasons – better access to mass media, better understanding of local environmental issues covered in local daily newspapers and understanding of socio-economic and impact factors associated with the consequences of climate change. The specific objectives of the study was -

1. To evaluate the modern mass media sources in promoting environmental awareness.
2. People interest on the issues and information related to climate change.
3. To assess the present education on environmental awareness.
4. To assess the awareness, environmental friendly behavior and practices of educated urban settlers in their day-to-day life.

The respondents (or participants) were asked to provide information through questionnaire; this provides what is known as self-report data. A qualitative survey method was adopted in this study and stratified random sampling method was used to gather information through self-administered questionnaire contain statements and closed-ended questions that respondents were asked to answer.

3. RESULTS, DISCUSSION AND INTERPRETATION

3.1 Personal information on Climate Change

(i) *Have you heard about climate change?* Urban population (80%), media professionals (80), environmental experts (100%) are aware of the term, but only 60% of students are aware of climate change. The term is not familiar to 25% senior citizen and 33% of municipal employees (Figure- 1). *Interpretation*– Majority of respondents are aware of the term but still it is not so familiar term among the students, senior citizens and municipal employees. The main reason could be lack of interest and knowledge at school or college levels or poor access to the mass media sources. In a national survey, Americans were asked; same question majority said “Yes”. (Leiserowitz, 2003). However, the amount of knowledge about the subject varies (Bord et.al, 2000).

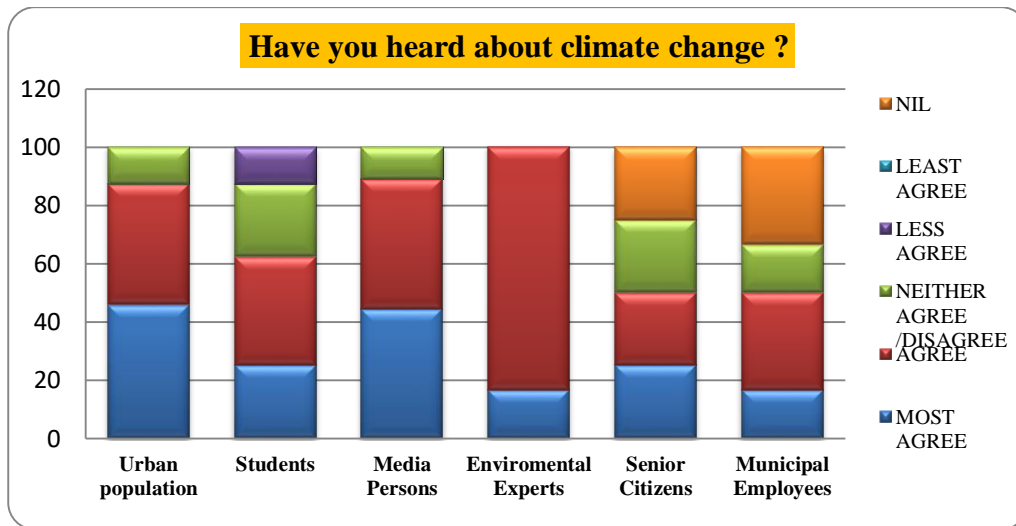


Figure 1 – Respondents in six categories answer to the question - Have you heard about climate change?

(ii) What according to you is climate change?

People universally stated that they have heard about the term ‘climate change’. However, the perception varies among the respondents. The respondents are confused among the five options, although, respondents in students (75%), media (62.5%) and environmental experts (80%) categories managed to be closest to the answer. But, there was many majority respondents in almost all the categories who were confused and did not responded (Figure-2). *Interpretation* – Majority of respondents were confused to properly address climate change and many didn’t answer this show the lack of proper knowledge among the vast majority of respondents. Surveys in the United States and in other countries also found that large proportions of the public express little understanding of global warming (Bell, 1994) and little knowledge about relevant facts.

3.2 Trust on the information sources related to climate change

(iii) Do you trust mass media sources on information regarding climate change?

75% of senior citizens, media person’s (66.6 %) and urban population (67%) trust mass media sources regarding information on climate change. Whereas around environment experts (58%) and students (50%), agree that they trust mass media sources information on climate change (Figure-3).

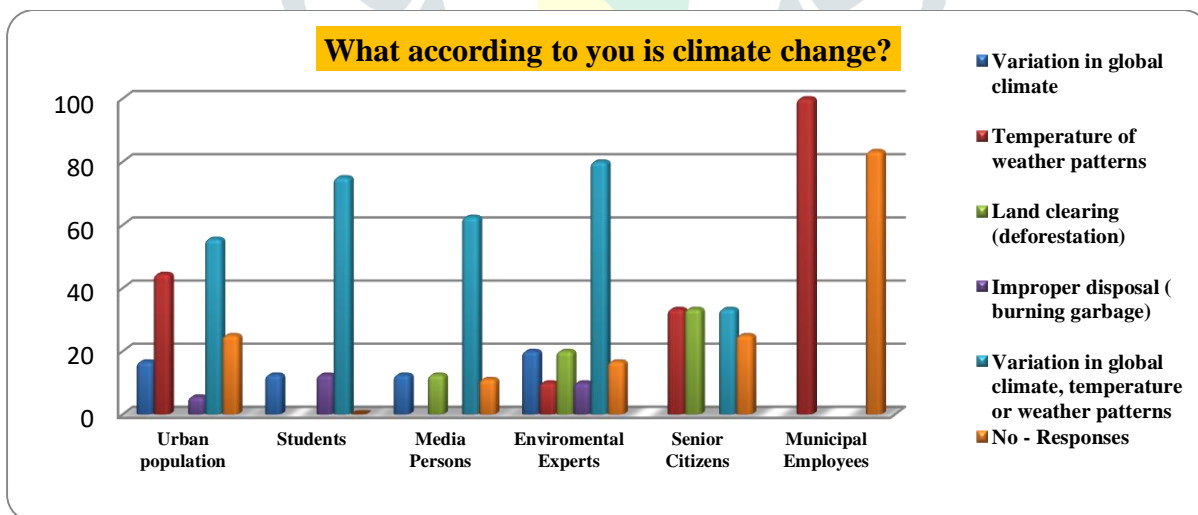


Figure 2– Respondents in six categories answer to the question - What according to you is climate change?

Interpretation – A very important source of information for masses is media – newspaper, radio or television, however, it is often seen that the coverage and content is very poor which is produced without research in the subject and therefore the audience shows little interest towards news, articles or programs on environmental issues. Also, another drawback is that the political issues related to environment are expressed more and the coverage is only in the form of press release by government officials.

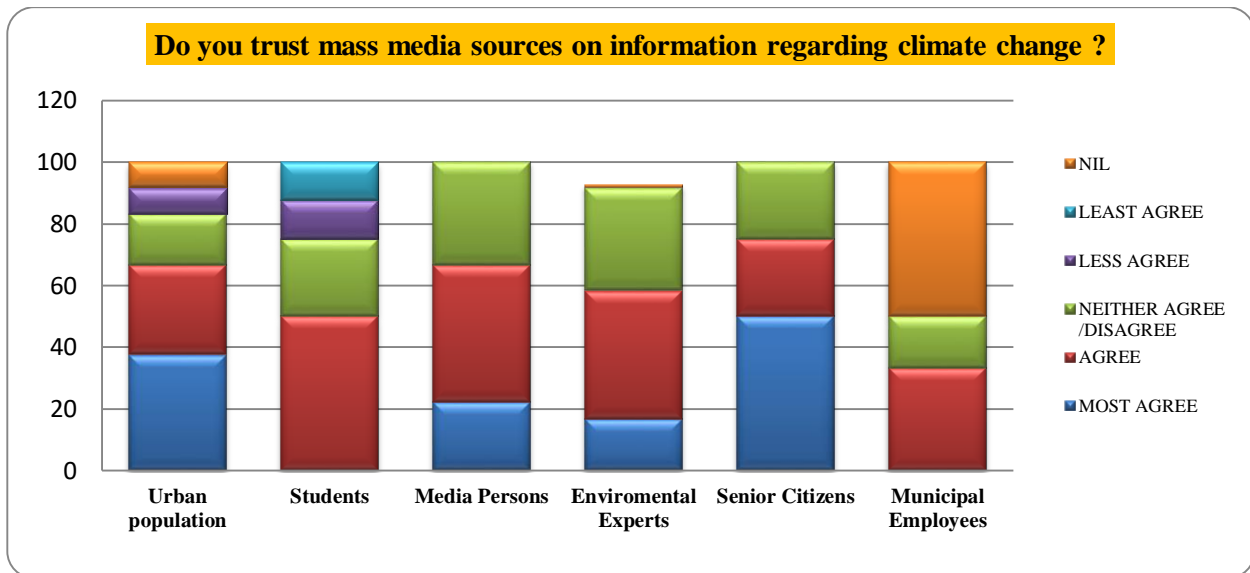


Figure 3 – Respondents in six categories answer to the question - Do you trust mass media sources on information regarding climate change?

(iv) Do you read (in newspaper) or listen (on radio) or watch (in television) on climate change - 100% senior citizens and municipal employees whereas 50% of urban population and students occasionally read (in newspaper) or listen (on radio) or watch stories (in television) on climate change. 62.5% media persons 50% of environmental experts and 33% urban population always read (in newspaper) or listen (on radio) or watch stories (in television) on climate change. 25% of students and urban population infrequently read (in newspaper) or listen (on radio) or watch stories (in television) on climate change (Figure- 4). Interpretation- 25% of students and urban population are not frequently using mass media for information. The access of mass media is an important source of information to majority of population either rural or urban therefore there is urgent need for regular space for the environmental issues to be covered and that also the local problems should be highlighted with interesting content and information.

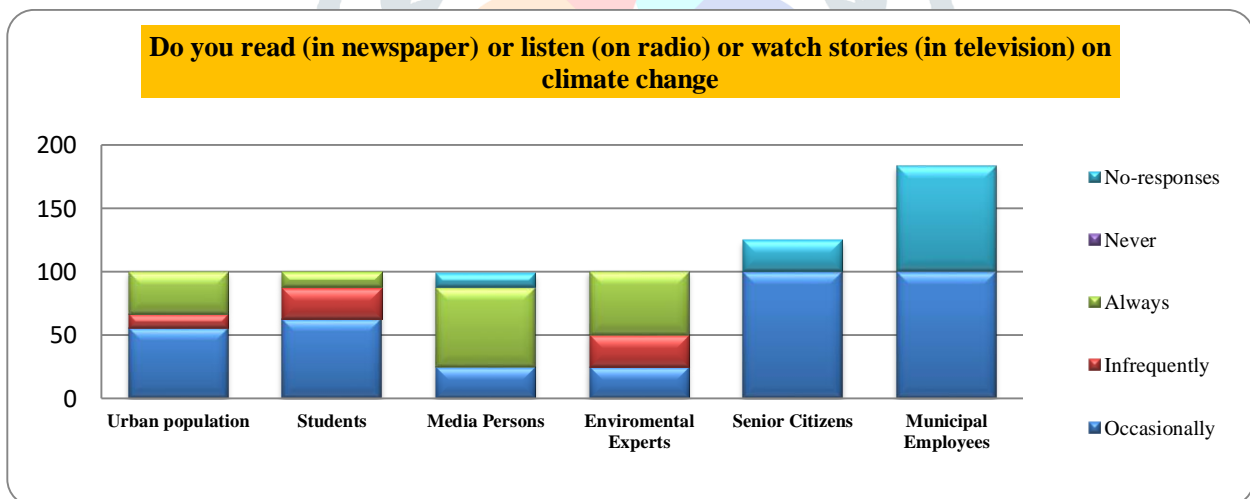


Figure 4 – Respondents in six categories answer to the question - Do you read (in newspaper) or listen (on radio) or watch stories (in television) on climate change.

(v) How you obtained information on climate change? The newspapers top the choice of preference followed by television, internet and radio respectively. Climate change information received from family and friends is least trustworthy (Figure -5).

Interpretation- The newspaper circulation is fastest and most effective media source for large population especially among the educated class. But, this may not be applicable to other geographical areas or rural setups.

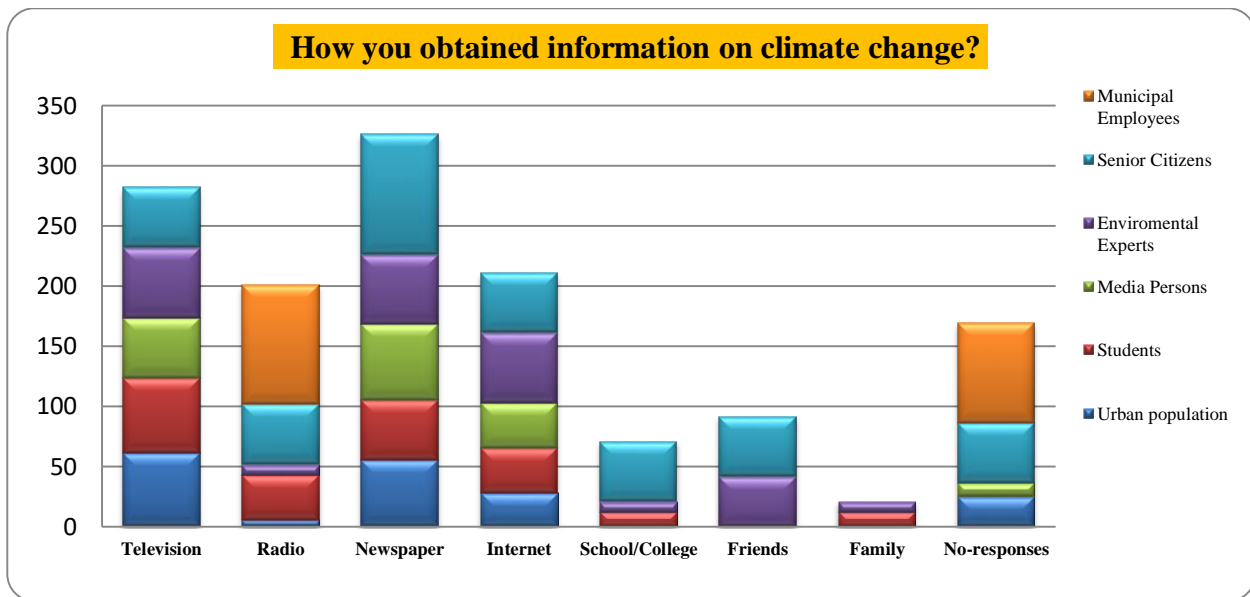


Figure 5 – Respondents in six categories answer to the question - How you obtained information on climate change?

(vi) The most effective medium for delivering information on climate change is: 50% of urban population and environmental experts favour both newspaper and television, 80% students and 100% municipal employees favour television whereas 50% of senior citizen favours radio and television both (Figure -6). Interpretation- There is general opinion that television could be better source of information because of its large audience. However, other sources like newspaper and radio are also popular especially among the senior citizens. Thus the awareness programs towards environmental issues are to be developed according to the interest of its audiences for all mass media sources. A survey of Seattle residents found that as exposure to media (especially newspapers, magazines, public radio, and books) increased, awareness of the causes, effects, and solutions to global warming increased markedly. (Weingart et.al.,2000;Nerb et.al.,2001;Bell, 1994)

(vii) The evidences on human activities involvement in climate changes are exacerbated - The 58 % respondents among the urban population agree and 21% do not agree with the statement (Figure -7). The 50% respondents among students agree and 37.5% do not agree with statement. 44% of respondents among media persons agree and do not agree, 58% of environmental experts agree and 16.6% do not agree to the statement. 50% of senior citizens agree and do not agree and finally the 67% of

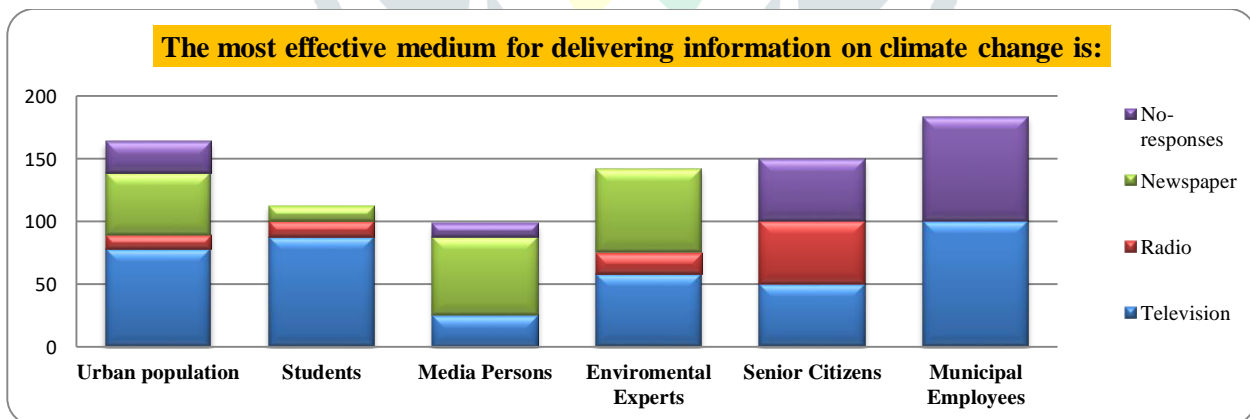


Figure 6 – Respondents in six categories answer to the question - The most effective action for delivering information on climate change is.

Municipal employees agree and 33% do not agree with the evidences. Interpretation- The evidences are not understood by majority of respondents and therefore show high variability in the results. To promote awareness towards climate change, the existing problem should be simple and more precisely addressed for common understanding to the masses. The educated population seems biased on scientific studies and evidences that are communicated to them through various media sources.

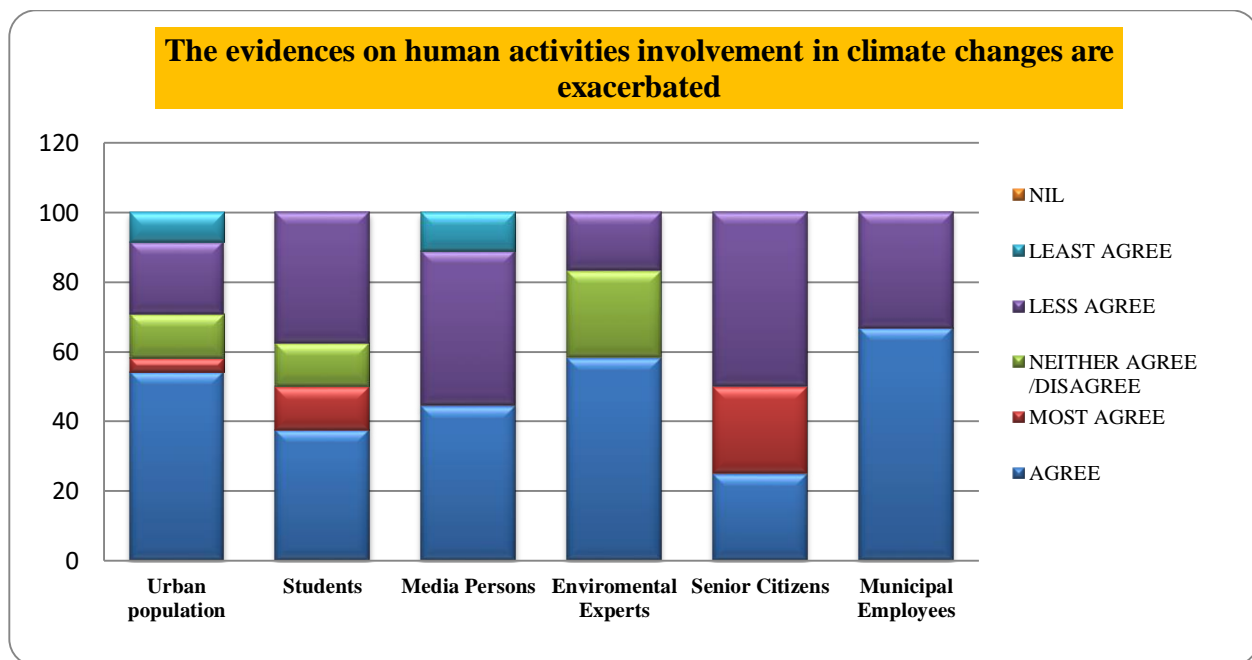


Figure 7– Respondents in six categories answer to the question - The evidences of human activities involvement in climate changes are exacerbated

3.3 Who should take major responsibility of Climate change?

(viii) *Who should take major responsibility of Climate change?* The majority of respondents choose multiple options out of the given six see Figure-8. The six options are- International organization, Central government, state government, Industrial organizations, environmental protection institutions and you. Out of the six categories environmental experts and media persons have chosen all the six options. Similarly, all the respondents' categories have chosen that they themselves are most responsible for climate changes. 37% urban population, 75% students, 78% media persons, 68% environmental experts, 25% senior citizens and 17% municipal employees consider that they are responsible for the climate changes. According to the results in Figure-8 the second and third most responsible authority is central and state government respectively. *Interpretation-* The vast majority of educated respondents have taken their own responsibility as they know that they are living a materialistic life and today's modernized society has exploited the environment for its own benefits.

Besides placing responsibility on government and other institutions, do people accept any personal responsibility for problems such as global climate change? There is some evidence that *people often feel uneasy that they have not taken any actions to deal with such problems. For example, participants in focus groups in Switzerland often indicated discomfort at the gap between their preference for a low energy-use future and their own lack of personal action to help achieve this result.* (Kleeman et.al., 2001) Similarly, a survey of Germans concerning global environmental risks found that "People either blame somebody else or feel there is nothing they can do. They do not assume personal responsibility..." (Bohm et.al, 2001)

(ix) *Government is not doing any major work on climate change issues-* 62.4% of urban population, 25% of students, 44.4% media persons, 33% environmental experts, 50% senior citizens, 17% of municipal employees agrees that government is not doing anything major on climate change issues. However, among the same categories 29% urban population, 62.5% students, 22% media persons, 50% environmental experts, 25 % senior citizens and 67% municipal employees do not agree (Figure-9). *Interpretation-* Majority of urban population and senior citizens blame government for not taking any major initiative to combat climate change. However, students, environmental experts and municipal employees do not agree to the statement. In several studies it was indicated that *people often blame societal institutions, especially government, for climate change, and tend not to blame themselves.* Members of focus groups discussing climate change in United Kingdom, and Italy, commonly blame for inaction of politicians, business and the general public. (Lorenzoni et.al. 2002).

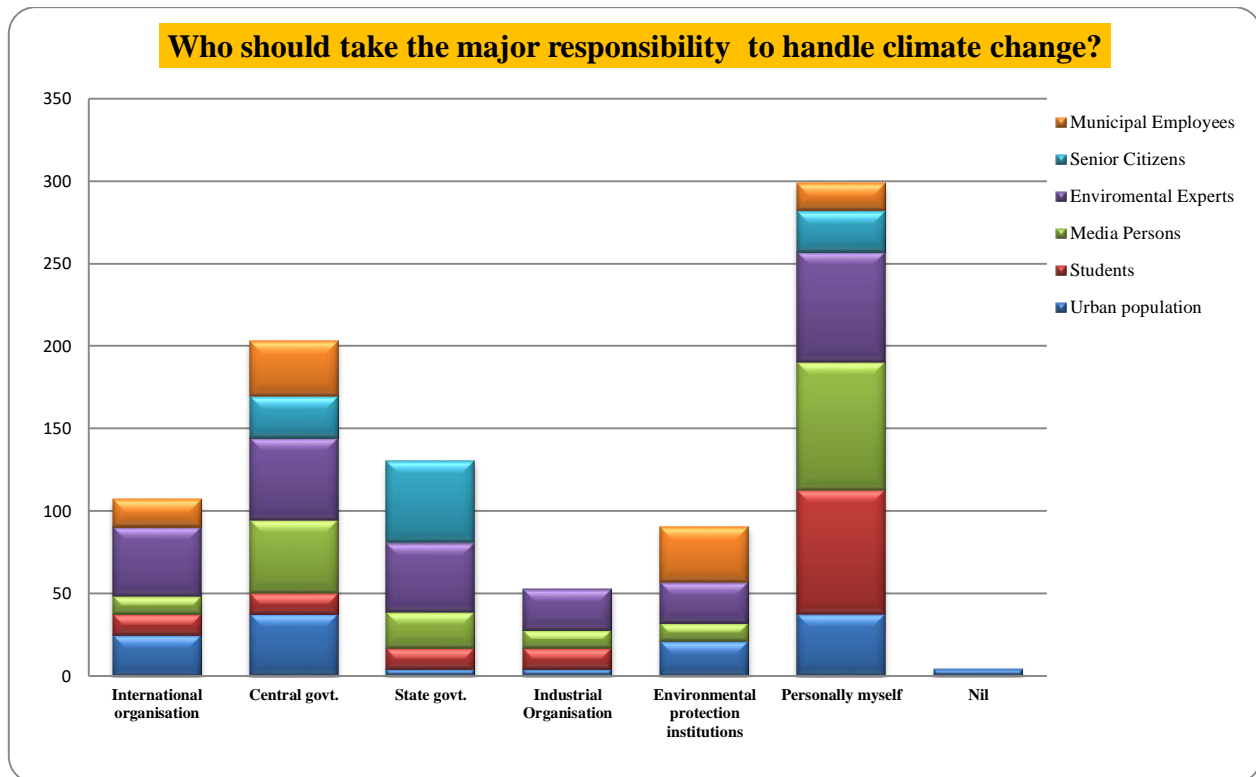


Figure 8– Respondents in six categories answer to the question - Who should take the major responsibility to handle climate change?

Government has started numerous schemes to mitigate climate change and sustainable development program towards U.N. Sustainable development Program 2030. This can be a slow process initially but with the help of public participation these goals can be achievable

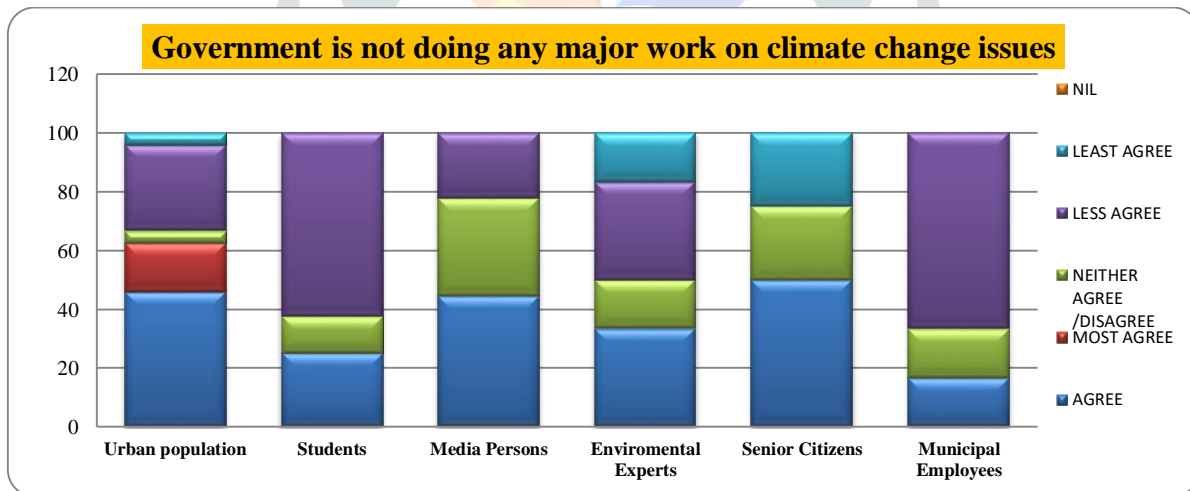


Figure 9 – Respondents in six categories answer to the question - Government is not doing any major work on climate change issues.

3.4 Individuals vision and perception towards others in their contribution in mitigating Climate change.

Respondents were asked a set of questions to judge how they visualize others in the society and their participation towards mitigation in climate change. The respondent’s feedback helps in judging the vision and attitude which will be helpful in changes and modification in the present set up for awareness program already in existence and to make it more effective and interesting.

(x) Little efforts and contribution from everyone help in mitigating climate change- Almost all the respondents feel that the participation of others in the campaign will definitely help in mitigating climate change; therefore, the approach of any awareness program should focus the masses and should be rewarded after the accomplishment of each task (Figure-10).

Interpretation- Climate change is a social responsibility and everyone should contribute. The government initiative of alternative odd and even number vehicles on Delhi road has drastically reduced air pollution in Delhi. Such initiative is beneficial to large population in terms of social health benefits.

The success of government programs like “Swachh Bharat Abhiyan”, The Prime Minister gave the mantra of “Na gandagi karenge, Na karne denge.” He also invited nine people to join the cleanliness drive and requested each of them to draw nine more into the initiative and thus the chain will continue to cover the entire nation. This was considered the biggest campaign launched towards awareness. People from different sections of the society have come forward and joined this mass movement of cleanliness. The use of innovative and eco-friendly technology to find better alternatives for existing products and utility materials that are 100% recyclable and contribute minimum to carbon footprint and pollution. Therefore, the government has launched “Make in India” program to facilitate investment, foster innovation, enhance skill development, protect intellectual property & build best in class manufacturing infrastructure.

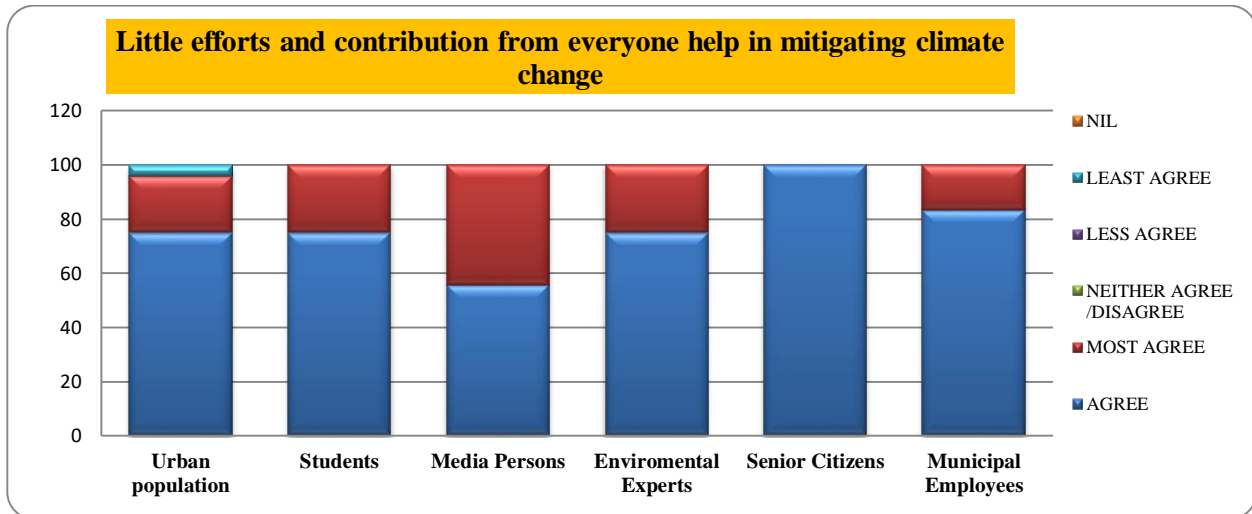


Figure 10– Respondents in six categories answer to the question - Little efforts and contribution from everyone help in mitigating climate change.

(xi) *People don't do anything for climate change for their own comforts-* 80% of urban population and Municipal employees, 100% of students, 75% senior citizens, 67% of media persons and 58% of environmental experts agree or strongly agree However, 25% of environmental experts and senior citizen, 22% of media persons, 17% Municipal employees and only 8% of urban population less agreed with the statement (Figure - 11). *Interpretation-* The perception and behavior towards environmental issues of majority of respondents depends on their attitude and initiative plan to mitigate climate change as they themselves are not the sufferers of any calamity associated with climate changes they are least bothered and blame others. The same majority of respondents however, take the maximum responsibility of climate change (Figure - 11).

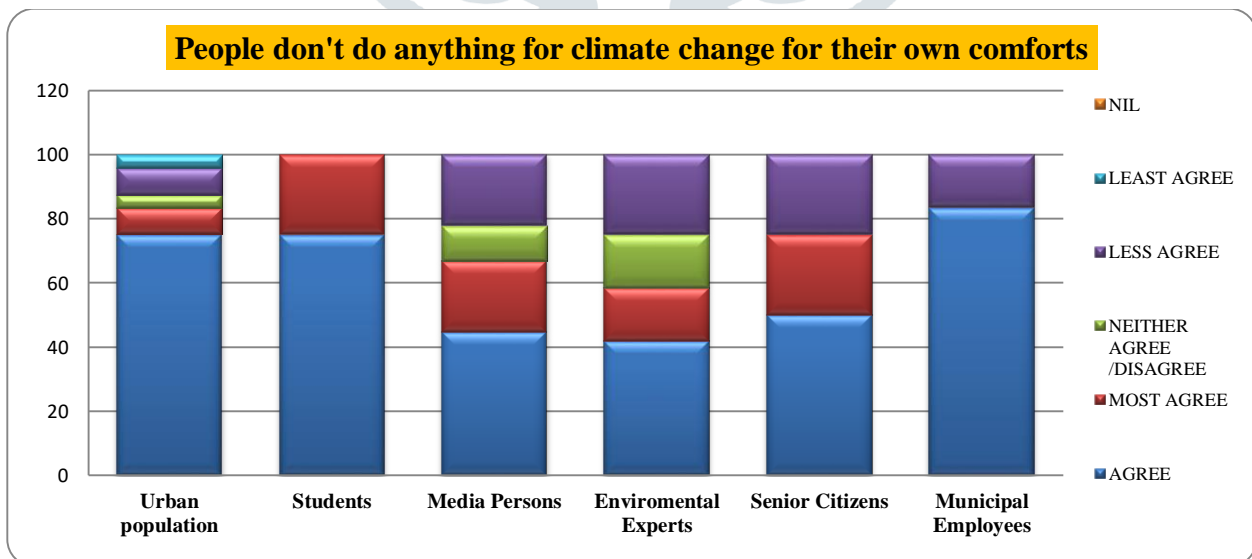


Figure 11– Respondents in six categories answer to the question - People don't do anything for climate change for their own comforts.

4. RECOMMENDATIONS AND SUGGESTIONS

The negative consequences of environmental challenges that people may counter needed to be correctly addressed this will develop a better understanding between the local communities and the government which will facilitate in implementation of other environmental issues also. As seen that perceptions of greater personal risk or threat (e.g., to the health of oneself or one's family) have been shown to increase people's willingness to take pro-environmental actions.

5. CONCLUSION

The educated respondents (in all the six categories) in the present study show that their knowledge about the climate change and its control measure is confusing and therefore their perception for pro environmental action is very poor. The concern for climate change is enormous in all the respondents but they have flawed understanding of global warming. The access to mass media for urban population is easily accessible but still awareness is poor also, the media coverage on environmental issues is not regular and the content of the news is not attracting the mass population. The media therefore need to show full potential and thorough research in each of its news piece along with its authenticity, knowledge and interest.

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