

CLIMATE CHANGE CONCEPT FAMILIARITY IN URBAN AREA, MADURAI, 2013–A FIELD STUDY

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Abstract: This study has designed to determine the familiarity on climate change and related terms and this study has carried out in Madurai, commercial city in Tamil Nadu state, India. Questionnaire survey has conducted in different places of the city among various age groups. The familiarity will give an outline of the public attention on environment. This study reveals that the students are more attentive that other age groups. This study reports that. Climate change concept reaches to the public in different levels and they are having various conceptions about climate change.

Introduction

Extreme weather events and more frequent adverse weather events are bringing attention among people about climate change. Even though, the public awareness on climate change is not high except during extreme weather events. The human evolution is closely related with climate parameters, such as temperature, rainfall, humidity and solar radiation and having very low adaptive capacity for rapid and extreme climate change. But the human activities and urbanization leads adverse effects in local climate system, sometime it may be regional. Conferring knowledge and awareness about climate change can be a maiden step for the journey towards to save the green Planet.

The topic like climate change and green house effects have added in school subjects for giving awareness on climate change among youths. The green activities are taken by the government and SHG's are familiarizing the term "Climate Change" among people. The purpose of this study is to investigate the familiarity about climate change and terms related with that. This study has carried out through questionnaire survey at 7 places in Madurai city, Tamil Nadu, India.

Study Area

Madurai is the city, crossed by river Vaigai, which was the flooded river, but completely dry in recent. The ground water pockets are also giving water in lesser amount, when compared with population. Definitely, Madurai has greatly affected by the adverse characters of the climate. Though the industries and factories have grown in the city, the pollution and water quality problems are enabled in recent years. Based on this circumstance, the questions were prepared for the survey. The questionnaire was issued to 350 people in randomly chosen areas among different age groups.

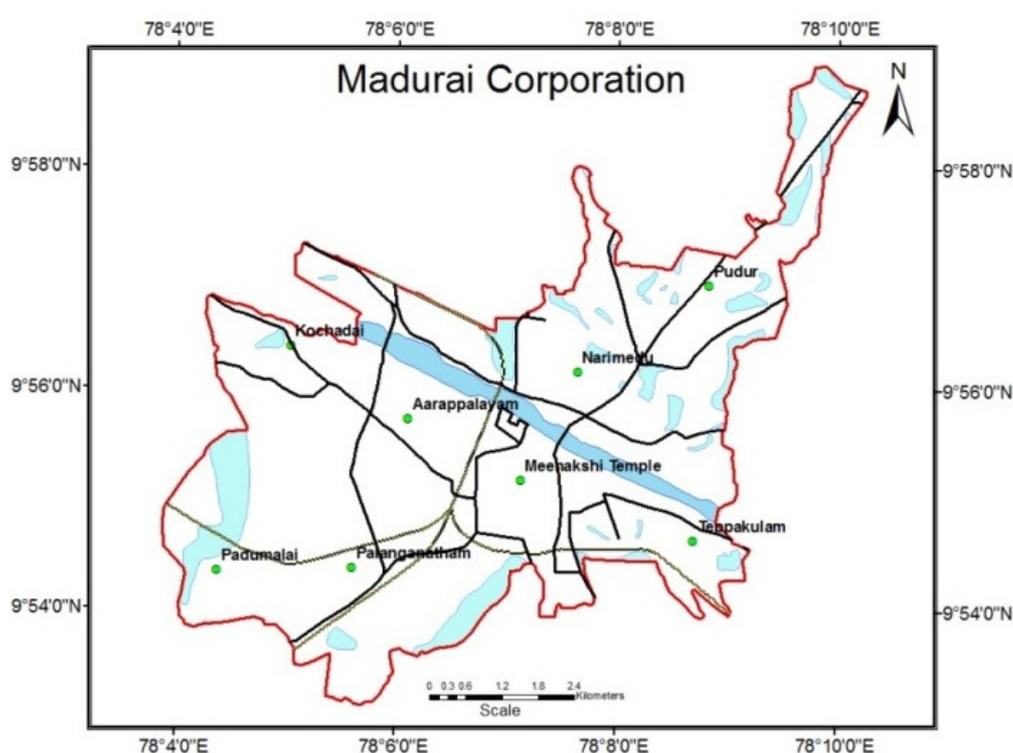


Fig 1. Madurai – Study Area

Methodology

This is not a survey to draw the conclusion of the awareness of the public, but simply to show the range of thoughts and familiarity of terms through different sources. As like Driver et al, (1996), who has carried out a qualitative survey on understanding about climate change, this study also framed to get qualitative data.

Table 1. Questionnaire for the Field Survey

S.No.	Age	Sex	Education Qualification	Area of Living	Familiarity of Terms	Answer	Source
1.					Climate change	Yes / No	
2.					Global Warming	Yes / No	
3.					Weather	Yes / No	
4.					Green house Effect	Yes / No	
5.					Monsoon	Yes / No	
6.					Flood	Yes / No	
7.					Drought	Yes / No	
8.					Deforestation	Yes / No	
9.					Ozone Depletion	Yes / No	
10.					Chlorofluorocarbons (CFC)	Yes / No	
11.					Temperature Rise	Yes / No	
12.					Sea level Rise	Yes / No	
13.					Water Pollution	Yes / No	
14.					Air Pollution	Yes / No	
15.					Adaptive Capacity	Yes / No	

The sample of this study has designed as 50 per age group and 50 per area. The age groups are, below 20, 21-40, 41-60 and above 60 and the areas are Meenakshi temple, Aarappalayam, Kochadai, Palanganatham, Pudur, Narimedu, Teppakulam and Pasumalai. The survey has carried out only the people who are living only in the city.

Results & Discussion

The term climate change is having more familiarity among below 20 years people, especially school students. Attention given by the Government and actions taken for giving awareness through the students, made 86% of familiarity about Climate change and Global Warming (94%). Totally, 81% of the people belongs to this age group are having familiarity on climate change and related terms.

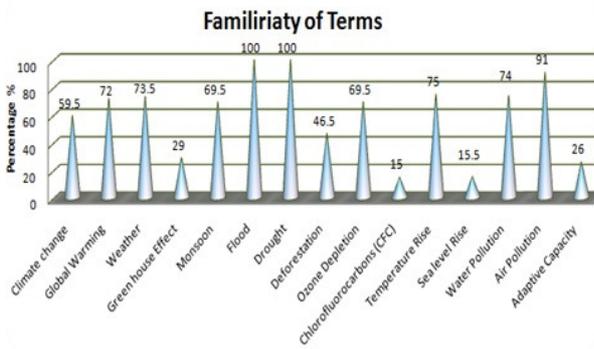


Fig 2. Familiarity of Terms in Urban Areas

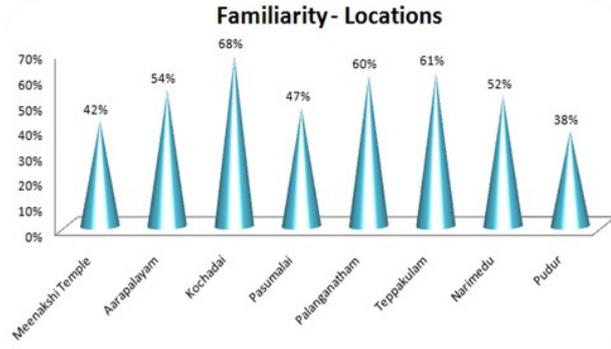


Fig 3. Familiarity of Terms in Different locations

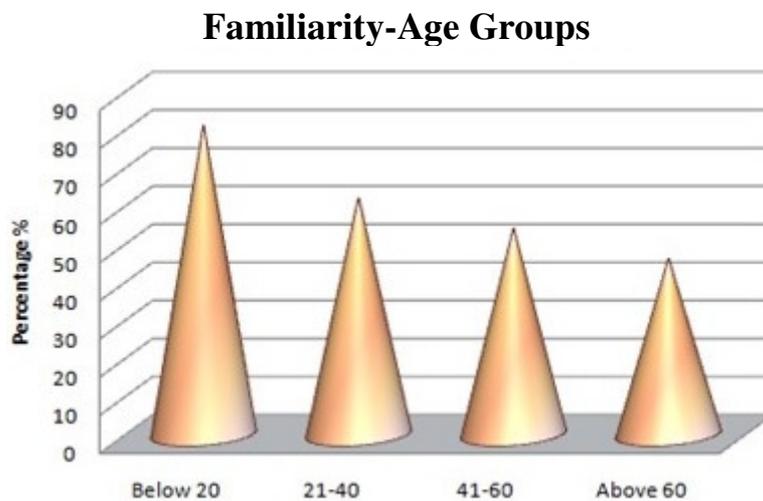


Fig.4. Familiarity of Terms in Different Age Groups

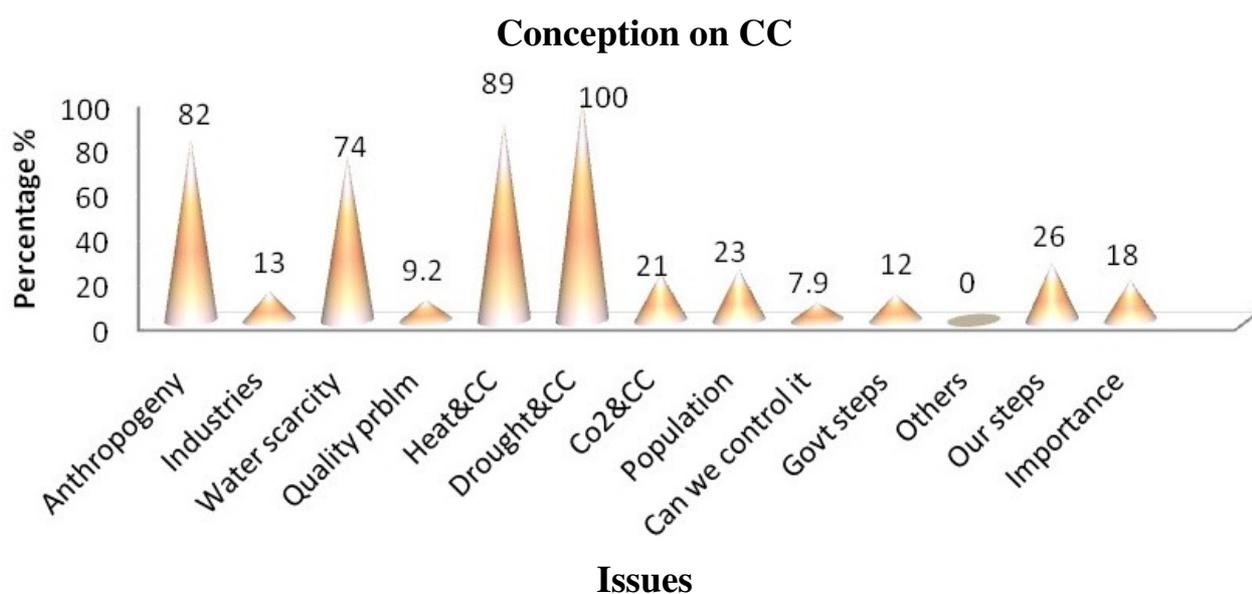
In all age groups, flood, droughts and air pollution are the most familiar terms and 75 % of them have accepted that the water pollution and temperature rise are present in their environment. The terms Weather and Global Warming are having familiarity around 70 %. The people, living in city known the term Monsoon, are only 69.5 %. Ozone depletion, Green House effect, CFC, Sea level rise and adaptive capacity are not much familiar in city and the familiarity is falling lower than 30 %. (Fig.2)

The survey has carried out in 7 locations and the familiarity of these areas is not so similar. In Kochadai (68%), familiarity reaches high, Pudur reaches low (38%), Aarapalayam (54%), Pasumalai (47%), Palanganatham (60%), Teppakulam (61%) and Narimedu (52%) having familiarity around 40- 60%. (Fig.3)

As the school education and recent scientific development have thrown light on climate change, the people below 20 years old, especially School students have more

familiarity on Climate change (81%). This age group is more interactive during the survey and has good understanding on climate issues. (Fig.4) The familiarity goes down in other age groups, 62% among 21-40, 54% among 41-60 and above 60 years the people are having only 46% of familiarity.

Shepardson et al., (2011) has conducted a survey among students to study the concept familiarity about climate change, global warming and green house effect and the students are greatly confused with global warming and climate change. In this study, students are familiar with the terms than other age groups. The recent scientific inputs in the school subjects have made awareness on environment and climate conditions. The student's conception studied by the Pruneau et al., (2001 & 2003) and the revealed that, the students do not believe the global warming and climate change will have a major impact on people or society. The similar findings were derived from many parts of the world. The people conception of global warming and climate change are limited and they are confused in the concept. But in Madurai, the public, are aware about pollution and weather events such as flood and drought but they are not much familiar about other terms. The students are having good familiarity and awareness on environment and weather like previous findings produced by Shepardson et al., (2011) and Preneau et al., (2001 & 2003). The overall familiarity in the study area attained 61%, this result acquaint with the success rate of climate change mitigation actions and policies.



Conclusion

This study has revealed the attention and awareness on environment in urban region among various age groups. The scientific thinking about climate change and natural phenomena will give a meaningful awareness among public. The determination of awareness and understanding level in public is the base work for the Climate change impacts mitigation policies because climate change is not an issue of scientific society, as National oceanic and atmospheric Administration (2007) says, Climate is an ideal interdisciplinary, integrating theme for education and important topic and make use of this knowledge in people's life and in their communities. Even though the concept familiarity in Madurai urban area is 61%, the awareness is poor except youth especially students. Lack of environmental education and attention on environment leads low awareness and high sensitivity to climate change. The awareness programmes and students contribution will assist to increase the awareness level among public.

Acknowledgement

The Author would like to express their thanks to INSPIRE Division, Department of Science and Technology, New Delhi, India for their financial support and Ms. Arul Jothi, Research Scholar, Department of Economics, Gandhigram Rural Institute–Deemed Univeristy, Gandhigram, for her support to design the questionnaire.

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