

A Study on the Effect of Climate Emergency in Urban India and with Growing Population and How the Region is tackling it

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ABSTRACT

New policy is required to tackle the problem of climate emergency in the Indian subcontinent, urban India is devastating effected by this catastrophe with its growing population and lack of natural resources which has created pressure on the environment. Unlimited use of natural resources with continues mining and logging over the years have ultimately led to climate change. The government has introduced many schemes to control the effect of climate change in India with Domestic solar assignment, Domestic assignment on supportable habitat under the Nation Action Plan. Solar panels are being installed to produce electricity, green building, use of electric cars and buses are being launched in the India urban region. Solid waste management is a major problem which needs to be looked at. Floods cyclone are at rise, droughts have resulted in many rural people migrating to the urban region for jobs, it is estimated that the population by 2050 will rise to 50 % in urban India for which Urban areas need to prepared itself to challenge the collision of climate emergency and further development needs to be made taken into consideration resilient development and sustainable development with an environmental friendly approach.

KEYWORDS: Policy, Climate Change, Solar panels, Domestic solar assignment, migrating, Urban India

INTRODUCTION

Urban zone utilize more of the natural resources compared to rural India. There are many countries which are developed like Japan, Singapore, England, America who will find many few people living in the rural sector, more than 92 % of the people live in urban cities, and enjoy a sustainable lifestyle because of their planned development taking into consideration all the elements which will have an impact on the lives in the future. Most of the countries in Asia received Independent at the same time like India, but they are developed countries and we are still a developing country. Japan a country which experience 3 to 4 small earthquake per day, has used technology to construct earthquake preventive homes. It about strategic policy making and innovative ideas with new techniques which can make life sustainable for the future. Ever since the Independence of India and rise of Industrialization, we are seeing a growth in cities, urbanization is

taking place which utilize natural resources with no limit, forest are being cut down, construction of factories in the urban region has resulted in an increase in carbon footprints. 24*7 there are vehicles moving on the roads, producing greenhouse cases, there is no limit on the Industrial waste and the assignment of carbon dioxide into the atmosphere. When urbanization started at a rapid speed they didn't take into consideration strategies for climate resilient, pressure created on the environment or restricted on the use of natural resources. Transportation and Industries are the main source of greenhouse gases in the urban region. As in the rural India where there is hardly any transportation facilitates and industries, the agricultural sector produces 10 % of the greenhouse gases. With majority of the activities happening in the urban area, the rural area has equally being affected. Climate change has resulted in long term drought, frequent floods and cyclones which has

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affected the agricultural sector as well, with poor farming and agricultural growth, we are seeing a migration from rural to urban area, because of rise of drought in the region which is creating a pressure on the cities, with growing population. Today in urban India, water is being vanished, most of the water has been used for construction purpose than 21 cities have completed ended their groundwater, where as artificial groundwater recharge can't be a long term solutions. There is sea level rise, air pollution, water pollution, melting of ice, heat waves, cold waves, natural calamities happening which is affected the urban sector in different ways, where business is being affected, work is being stopped, Lockdown with complete stop of transportation and shut down of factories have cured the nature and reduce climate change effect to some level, where we have got a clear view of the city and a pollution free environment in just a matter of 20 days.

Research Methodology

For the purpose of this exploration, I have used a amalgamation of two of the archetypical social sciences research tools application –as they are authentic and brilliant method to assemble statistics from multiple appellant in an methodical and convenient way. Question were asked to the common youth, public policy Analyst, urban people, slum dwellers, survey, interviews –consisting of several interrogation which were dispersed among representative of each contender group.

Objective of the Research Paper

The main areas of exploration in this paper incorporates

1. Undertsanding the effects of climate change in urban India.
2. How the government is tackling climate change in India
3. How way India has been successful in handling the affected of climate change in India.

Literature Review

Cities are most dependent on energy for majority of its activities, there is more burning of fossil fuels to produce electricity for different purpose, metal, ore, mineral are being used for enormous purpose every day. India is facing water crisis today which is a producer of climate change, being a natura resource, there was no limitation on its used, today water in many of cities come from contaminated aquifers, for instance Aurangabad gets water from a place which 118 Km away from the Aurangabad, which is also uses a lot of energy and is expensive. The condition of urban slums are miserable where 90,000 people live. Everyday people are dying because of heat waves, cold waves, rapid change in weather pattern,

cities like Mumbai, Kolkata, Chennai are facing heavy rainfall, rapid cyclone, in just 2020 and 2021, there has been two cyclone. Amphal and Yaas. Cyclone Amphal was the worst of all which was experienced after 100 years in India in the region of West Bengal and Odisha in 2020 and in 2021 we had Cyclone Yaas for which preventive measures were taken still they have an impact on the economy of the country, Every natural disaster has an negative impact on the economy and environment, Assam flood, where as India is not well prepared to manage Disaster at every level. 2020 saw 200 natural disaster which has been an influence of climate change in the world. However many countries across the world have been working to control climate change impact by bringing in new policies and strategies and experiencing new development, SDGs are a network of goals which aim to reduce climate change impact so that people can live in a sustainable manner. The government has introduced schemes and assignment s like Domestic Solar assignment, Domestic Assignment for Enhanced Energy planning, Domestic Assignment on Supportable Habitat which includes energy conservation, solid waste management system. Domestic water assignment – reduce wastage, conservation of water, Domestic Assignment for supporting the Himalayan biodiversity to protect the Himalayan glaciers and mountain biodiversity. Domestic Assignment for a Green India – bringing back forestry, practicing afforestation, 6 million hectares of land has been initiated, where 33 % is the target and currently only 23% have been covered by trees. Domestic Assignment for Sustainable Agriculture -sustainable agriculture will reduced our dependent on fossil fuels and require less inputs, we have seen organic farming and natural farming being practiced in many parts of the country in particular in the North-East region. Domestic mission on Strategic information for Climate emergency -focusing on qualitative research on climate emergency, a study on how climate change impact demography, health and livelihood. A climate change research Centre fund driven set up, initiated by the Privat sector.

Findings

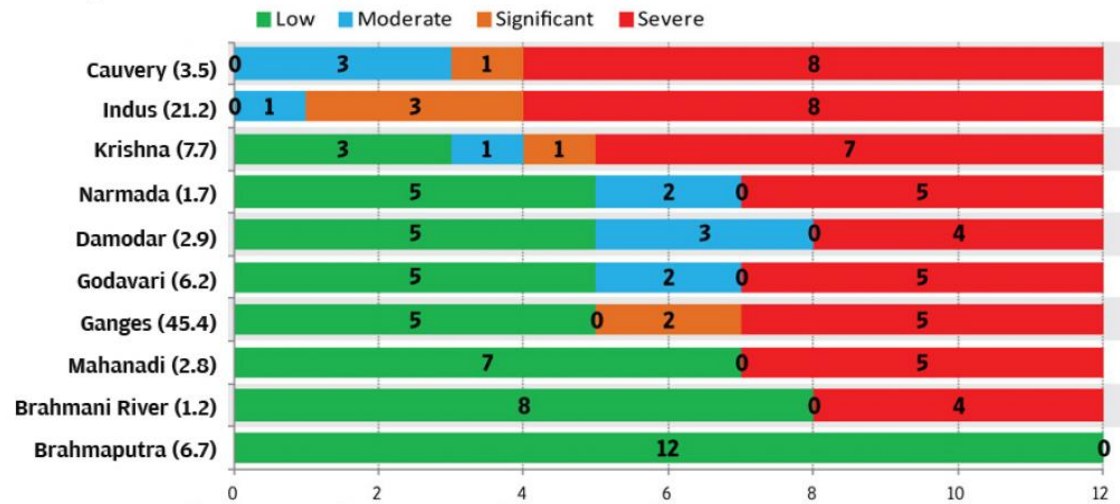
Urban sector and the influence of climate change has affected the economy, political, social and physical infrastructure of the society. There is a above rise in greenhouse produced by vehicles, everyday you find 5600 new four wheelers or two wheelers on the road, the road is congested there is traffic jam, which increase the air pollution, the people who live on the main road side is falling sick due to noise and air pollution, the poor people who have no shelter is being affected by the rapid air pollution side. Small rivers and lakes have become a dumbing ground for

industrial waste, garbage, for poor people for bathing, washing clothes and for some people it is a source of drinking water. The water has been so polluted that we don't have access to fresh drinking water left. Direct impact of urban climate change can be felt through the rise in the number of death caused by heat waves, cold waves, cyclone, air pollution, floods, for instance in 2015, 2000 people die due to heat wave ,

796 people die due to cold wave in India. 2.5 million people die each year due to the intake of toxic air. 2 Lakh people die every year due to drinking of unpolluted water. Due to flood, there is water logging which results in the stop of business for a few days and also because of network issue and power cut. India because of its climatic change is experiencing rapid natural calamities.

Most of India has severe water scarcity

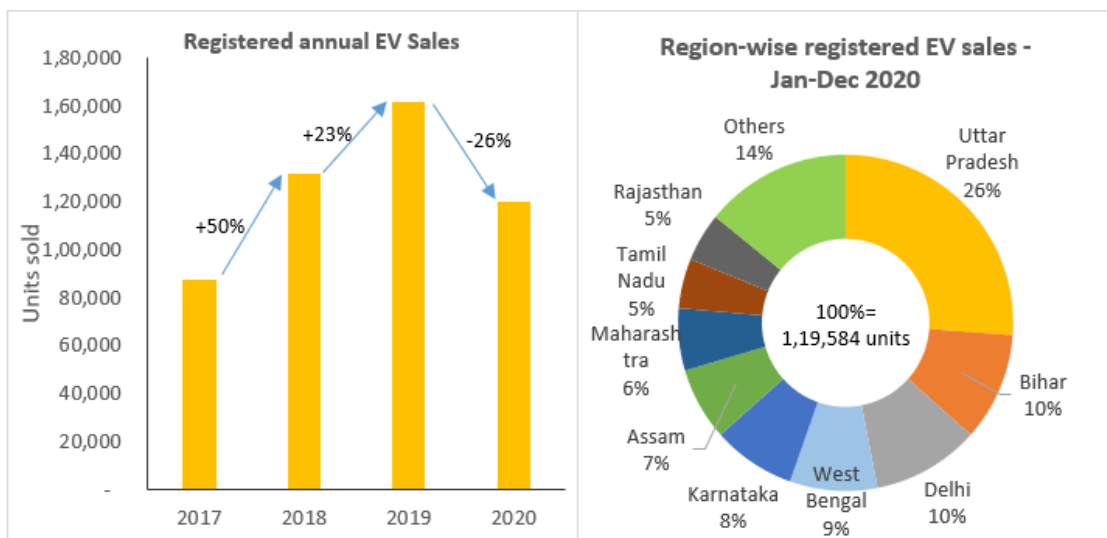
Bars show the number of months in a year by water scarcity situation in given river basin. Figures in parentheses with river basin indicate the population in crores. Data refers to 1996-2005



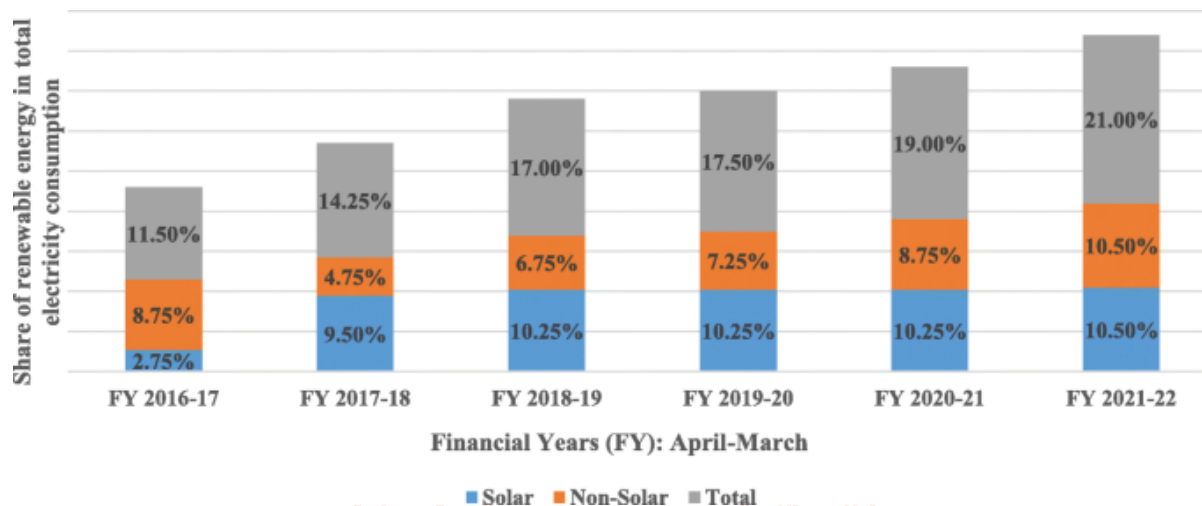
Note: Concept of different water scarcity levels are explained in the story. * Indus river basin includes areas in Pakistan.

Source: Hoekstra, A.Y. and Mekonnen, M.M. (2011) Global water scarcity: monthly blue water footprint compared to blue water availability for the world's major river basins, Value of Water Research Report Series No. 53, UNESCO-IHE, Delft, the Netherlands.

However, the urban sector is working to cut down its carbon footprint in many ways by moving towards digitalization, adopting green technology and artificial intelligence. In Delhi, government has introduced odd and even cars drive, there are particular days where odd number cars are on the road, the other day it is even number cars, due to large amount of private vehicles the government brought in this scheme to reduce greenhouse eassignment, followed by that all the Buses in Delhi are running on LPG gases, in Kolkata today majority of the buses are electrified now, reducing carbon footprint followed by Pune, Delhi, Bangalore has created space and roads of bicycle, there has been demand for smart bicycle with technology invention along with walking roads, Metro rail is being connected in all the cities to reduce the dependent on private cars. Electric cars have been introduced in India where Uttar Pradesh, Karnataka and Bihar has earned the maximum profit in the selling of Electric cars, charging stations have been installed at many places, solar energy is being used to run many public transports.



Green building have become very common in Bangalore, Pune, Delhi and some parts of Kolkata. India is the largest producer of solar energy in the world, where states like Karnataka, Tamil Nadu, Telangana, Uttar Pradesh, Maharashtra produce massive amount of solar energy. The smart cities assignment in India is also an initiative to cut down are dependence on non renewable energy, where smart cities are total doing to be run on technology and renewable energy. We have seen cleaning rounds having for cleaning ponds and small lakes, creating of artificial lakes for people to breathe in fresh air, horticulture and indoor farming has been brought into the urban sector which will reduce climate change effect, bring down the temperature, make the planet warmed, rise in ecosystem, bring back the loss biodiversity. Smart development is happening with the construction of green building and tree houses which will provide oxygen as well as observe carbon sink. Solar panels have been installed in the urban building to provide electricity.



Despite this we are unable to control the effects of climate change to a large extent because of the lack of urban solid waste management system in the country, garbage is thrown on the roads, industrial waste is thrown into the rivers, the roads are dirty, In spite of separate bins arranged for dry waste and liquid waste disposal, half of the population have not adopted it, most of the waste are not recycled, which doubles the waste in a region and open the door for diseases and insects, few percent of the people practice sustainable living or have adopted renewable energy. India has a population of 1.3 billion out of which only 31 % of the population live in the urban region, climate change effect have no yet reached out to the rich people of the country, it is the middle class and the poor people who are badly affected by this and will have to pay the circumstances. In the urban region 70 % of the people live below poverty line, the change in climate, effects of cyclone flood are faced by them with no food for many days, no income as they are depend on daily wages for their living and majority of them are migrant workers living in urban slums region or on the footpath. Climate change main impact can be found in the energy sector and food and water sector where one part of the urban India has humongous amount of food to purchase and waste, where as the other side are begging and crying for food for a single day.

Way Forward

Urban population will rise by 50 % by 2050. So it is very necessary to bring a change in the policies and

work towards a climate resilient environment. We need to adopt smart ways for receiving out to our energy security needs by total cut down our dependency on non renewable source of energy for production electricity. We can install solar panels on the roofs of each building in the urban set up, double the production of electric cars and reduce the manufacturing of cars run by petrol and diesel. Adopting of smart education, bring in digital education to reduce the use of papers. Digital economy which is 10 % in India will amplify in the upcoming years and reduce the carbon foot prints in India. The urban slums area should be upgraded by providing them access to fresh drinking water, sanitation system and make the area free from garbage with proper waste management system.

Conclusion

Every country is working on reducing its climate change effect, by cutting down its carbon foot print, so is India doing, the positive part is the majority of the people live in rural India where transportation, industries hardly exist, so some how the effect of greenhouse gas is less compared to the counterpart that is Urban India. Urban India has been working towards the control of climate change by adopting renewable energy, green technology, smart development and sustainable development. Climate change has made the life of urban poor people miserable, Poverty, hunger and environment degradation are the consequences of human activities which have led to climate change effects apart from

pollution and industrial, the government needs to upgrade their policies and come up with innovative ideas to bring about positive change in the society and tackle climate change in an innovative way.

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