

## **PAKISTAN ON THE ACHIEVEMENT OF SUSTAINABLE DEVELOPMENT GOALS AND ROLE OF SOCIAL ATTITUDE IN URBAN AREAS, TOWARDS CLIMATE CHANGE AND CHALLENGES**

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### **Abstract**

*Heat stork caused a large number of deaths during 2015 and 2016 in country is not a single example of effects by hazardous results of climate change and challenges. United Nations gives a concept of Sustainable Development Goals with purpose of eradicating poverty, promoting prosperity in changing world. Protection of environment and natural resources is among the specific goals. Target Number 13.3 of sustainable development goal is especially related to awareness and adaption about climate change. Despite the facts it is also truth that general population is unaware regarding changes in seasonal weather patterns from climate change views. This study is directly concerned with society and their attitudes towards climate change, it very difficult to assess the human attitude especially regarding climate changes and challenges in developing countries like Pakistan where society don't have concerns about environment and climate change. Specific objective of this study was to analyse attitudes of society towards*

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*climate changes and effects of climate change over society in urban Sindh, and Hyderabad city was selected as research universe. Furthermore, the study is based on research through qualitative approach and four focus group discussions with related stakeholders and five In-depth interviews were utilized to collect primary data. Standard techniques of qualitative data analyses were applied. Results show that majority of people living in urban areas of Hyderabad is unaware about climate change and challenges. Effects of pesticides in agricultural areas, pollution created by huge number of vehicles in city, pollution created by industrial areas of the city and nearest town Kotri and polluted water of Indus River are among major causes which affect climate. Attitude of society towards climate and environment is quite passive, even though not listed in priority. Society feels that, environment protection, climate change and challenges are matters related to Government and NGO's. The study suggests need to initiate massive campaign for awareness about climate problems at each level.*

**Keywords:** *Sustainable Development Goals, Climate Change, Environment, Awareness, Social Attitude, Sindh, and Hyderabad*

### **Introduction**

Pakistan faced dangerous heatstroke during 2015 that affected Karachi, floods during 2010 and heavy rains during 2011 in Pakistan and droughts in desert area of country are latest examples of Climate change effects. Even we can count terrible figures of hazardous effects at global level. Human economy is dependent on natural ecosystems and climate patterns but faster changing in climate causes huge human and material destruction. Developing countries like Pakistan are facing issues of over population, illiteracy, political instability, economic upheavals and poor infrastructure. They are also striving for achievement of Sustainable Development Goals given by United Nations with purpose of eradicating poverty and promoting prosperity in changing world. Target Number 13.3 of sustainable development goal is especially related to awareness and adaption about climate change. Many international and local studies have revealed that global warming is a real fact of natural climate variability (Romero-

Lankao, Hughes, Rosas-Huerta, Borquez, & Gnatz, 2013). Despite the facts it is also truth that general population is unaware regarding changes in seasonal weather patterns from climate change views (Solomon et al. 2011). Climate change may impose many negative effects on physical, ecological, economic and societal system (Wardekker, 2011). These effects are infectious diseases, vector borne diseases, environmental inequalities, temperature related droughts and mortalities, malnutrition and societal stabilities (Costello et al., 2009).

Urban cities must become resilient to a wider stresses in order to be prepared for climate change, and practical approach is important for better application to cope with climate change in urban areas. (Leichenko, R, 2011). Urban society of Sindh comprises major portion of population, Karachi is the biggest urban city and industrial center of country, Hyderabad is second most populated city of urban area Sukkur, Larkana and Mirpukhas on third, fourth and fifth number in population. It is assumed that urban population may have better information about climate change and positive attitude with better literacy rate, good educational institutions and comparatively better economic conditions. But observations are not reflecting the expectations and reality. Further it is viewed that urban society has no concern towards climate change and challenges. Even major causes to damage environment and drivers of climate changes are produced by urban society itself.

This study is directly linked with urban society and their attitudes towards climate change, it is difficult to assess the human attitude, especially regarding climate changes and challenges in developing countries, where society don't have any concerns about environment and climate change. Richard (2004) argued that many climate change studies are less useful due to lack of local scale guidance on adaptation. Scientific and general knowledge toward climate change is increasingly all over the world therefore research was designed as baseline information about attitude, behavior and vulnerabilities of climate change in urban Sindh. Moreover climate change, Challenges and their adoption level in society was explored.

**Literature Review:**

Climate change is a long term deviation in the climatic pattern of a specific regions or place measured by variation in the department of climate elements like wind pattern, temperature and precipitation which results in changes of socioeconomic activities and ecosystem of said area or region

“Climate change is among the most pressing issues of planet and its natives” is an introductory sentence of a Comprehensive report written by American Psychological Association’s task force on the Interface between Psychology and Global Climate Change. This complete report was released in 2009 that is available on official website APA. The report, re-presented the definition of climate change given by, Intergovernmental Panel on climate Change (IPCC), 2007. “Climate change is defined as changes over time in the average and variability of surface temperature, precipitation, and wind as well as associated changes in Earth’s atmosphere, oceans and natural water supplies, snow and ice, land surface, ecosystem, and living organisms”. The task force worked on six important sections related to dimensions of Psychology with climate change. Section one discussed the understanding of peoples about risks imposed by climate change and illustrate that people cannot understand phenomenon of climate change at their own, they have average concern about adverse consequences of climate change like droughts and floods. According to report it is difficult to develop proper opinion by general public about climate change because it can be seen as natural process and global environmental system that is beyond the control of individuals and communities. Section two of the report said that population growth and other region specific patterns of social life are influencing on climate change, moreover fulfillment of all needs, versus luxuries, consumption of natural things by individuals even cultural norms, social behaviors and orientation towards time and nature have great influence on climate change. The report further worked on psychological impacts of climate change, adaption and coping with impacts of climate change, and role of psychologists in limiting climate change. Giving the policy recommendations American Psychological Association was suggested to encourage “Walk and Talk” actions and to motivate worldwide psychologist’s community to develop principles for maximizing their research concepts, effective responses and contribution for minimizing climate change and challenges.

A survey report published by European commission “Europeans’ attitudes towards climate change” in 2009 said that climate change is gaining priority on international and national level. According to report Europeans are well informed about climate change its causes and results, they believe that rather than individual efforts collective efforts are required to minimize effects and causes of climate change. Report said in turkey, Romania, Bulgaria and Lithuania peoples are not well aware about climate change. Majority of citizens were not familiar about issue report said peoples of Sweden, Slovenia, United Kingdom and Ireland are agreed to take personal efforts and play their role at individual and joined level to limit the effects of climate change. In the end of report it concluded that

even facing the economic and financial crisis climate change is getting concerns of people and retained their position in public mind. Different studies argued analyzed the impact of climate change and revealed that effect of climate change is impacting on victim countries through declining in agriculture production and increasing world commodity prices (Winters, Murgai, Sadoulet, De Janvry, & Frisvold, 1998).

Department for Transport United Kingdom published a an evidence based public review on climate change and transport in 2006, Dr. Jillian Anable, Dr. Ben Lane and Dr. Tanika Kelay worked on the this research. Major objectives of their work were to collect data about climate change knowledge and awareness relates to transport decision-making attitudes and behaviors among general public. Research concluded that attitudes, climate change and travel behavior is not comprehensively analyzed properly. link between climate change and travel behavior is necessary, according to report collective efforts are required rather than individual efforts.

A research study has been conducted by Pakistan institute of development economics Islamabad in 2013 titled as Climate Change Brief and subtitled as Climate Change, Agriculture and Food Security in Pakistan: adaption Options and strategies. Study said that Pakistan is vulnerable to threats of climate change and especially it have dangerous effects on crop production, the research was conducted in selected districts of country and farmers were the focus.

According to research formers are adopting results of climate change and they are managing with alternate methods at different regions like Barani /Rain fed Regions and Irrigated Agriculture regions are installing Tube-wells, changing crop types, collecting rainwater in small check dams to coop with droughts etc. The study summarized various studies to find out various climate change trends in Pakistan and find out that temperature is increases or expected to be higher at globe that causes reduction in agricultural productivity, the heat wave duration has increased by 31 days from 1980 to 2007, glaciers are melting rapidly.

Pakistan Meteorological Department conducted a research through a Lead researcher Dr. Ghulam Rasul in 2012, research was tilled as “Climate Change in Pakistan, focused on Sindh Province”. The research focused difficulties to be faced by inhabitants of Sindh province due to global warming and climate change. Research said Pakistan is one of the most affected countries by climate change in the world, because of its geographical position and climate features. It has north with more than 5000 glaciers and south with larger deserts. In Pakistan Indus

delta is highly risky zone for agriculture sustainability and proper crop production. According to study climate change effects on Pakistan with larger risks of variability in monsoon rains, large floods, and extended droughts. Therefore extreme risk of Water security, Food security and Energy security are increasing. Moreover Indus delta is located at intensive heat zone therefore rise in temperature will cause adversely on human health due to heat strokes, diarrhea, cholera, vector borne disease and larger human shifting. According to UN climatic change is one of the most serious threat to world which is still not addressed as its need (van Kerkhoff, Ahmad, Pittock, & Steffen, 2011). It is estimated that by 2015 the sea level may rise around 30 cm and it will affect the more 14% countries across the globe (Ayers, Huq, Faisal, & Hussain, 2014).

Government of Pakistan gives National Climate Change Policy in 2012, the major Goal of Policy document was “To ensure that climate change is mainstreamed in the economically and socially vulnerable sectors of economy and to steer Pakistan towards climate resilient development”. Policy document covered major measures to minimize the effects of climate change and divide the policy in major portions like climate change Adoption and Climate change Mitigation. According to policy document Pakistan have nine major threats by Climate change i.e. Increase in the frequency and intensity of extreme weather, threatening water inflows into Indus river, frequent floods, Rising temperature, adversely affected plant species and decrease in scanty forest cover, increased intrusion of saline water in Indus delta, Threats to coastal areas, stress on sharing of water resources, migrations and health risks.

### **Objectives of the Study**

- To determine level of understanding about climate change and sustainable development goals in urban Sindh Hyderabad.
- To examine social attitude of society towards climate change and environment.

### **Research Questions:**

- What are concerns of society about climate change and its challenges in urban Sindh?
- How society thinks about expected climate changes and its causes with relationship of sustainable development goals.

### **Research Methodology**

Major focus of this research was to identify general concerns, knowledge and behavior of society regarding climate change and challenges through sociological

observations and analysis. Research was commenced through personal and professional discussion with selected members of society especially university students and professionals. Four focus group discussions were conducted with university students, NGO representatives, Government officials, religious leaders and shopkeepers. Four in-depth interviews were also conducted by Political leader, College teacher, representative of District officer Social welfare department and one literate female house hold. Proceedings of FGD's and IDI's were recorded with the consent of participants and then translated and analysed to get results.

**Results & Discussion:**

Four Focus group discussions were arranged in Hyderabad city majority of participants were residents of urban area. Participants were university student's girls and boys, university teachers, NGO representatives especially those are working on climate issues, shopkeepers, officers of Social welfare department and political workers.

The major objectives of these group discussions were to analyse views of different stakeholders on the basis of their experiences and following important questions were discussed and results are as under. Participants took interest in threadbare discussion, at some stages probing questions were asked to get better results.

**I. What is the level of understanding about climate change in our society and Sustainable Development Goals?**

To find out the level of understanding was opening question for each focus group discussion most of the participants were their view that climate change is still not clear in society at any level even urban people have no clear idea about it in sindh, there is need of massive awareness campaign to develop understanding about climate change in society. One of the participants discussed that even majority of university students are not clear about climate change and confusion exists in society about weather, environment, pollution and climate change. People are not clear about difference between these terms. Discussing the relationship of disasters like flood, droughts and heatstroke and climate change most of the participants said these are caused by nature and there is no or less roll of climate change in disasters. During all focus group discussions it was observed that urban society of sindh is absolutely not clear about climate change, challenges, effects and causes even about role of society for this global issue.

**II. How our society believes about their behavior and everyday lifestyle to contribute for environment friendly activities?**

While discussing society believes and everyday life style, it was revealed that least number of people are thinking about environment friendly activities in their daily life and majority of population is engaged and seriously disturb about their socio-economic issues. Participants from civil society and political parties were confused about role of Government and civil society for daily life activities to protect environment. Most of the participants were their view that individual cannot play their role when state is reluctant. According to participants society is unaware therefore it is difficult to reduce the use of vehicles in urban areas and increase the use busses in cities. It was observed from FGD's that participants related to electronic media and print media were not satisfied with role of local government or municipal corporations in urban areas to protect environment and increase the positive role of community in their daily life and environment friendly activities. They were very much worried about terrible sewerage system in cities, failure of water supply services, shortage of parks and entertainment areas and unavailability of dustbins in public areas.

### **III. What is the level of public concern about climate change in urban Sindh?**

During Focus groups discussion the concern of people about climate change was discussed, according to participants people are unknown about effects, causes and consequences of climate change therefore overall urban society is very passive and have no concern about climate change and challenges. Discussing on this concern of society it was finally observed that overall society is very passive on this matter and has no or rare concern about climate change.

### **IV. Why our society believes that environment protection, climate change and challenges are matters related to Government and NGO's?**

Discussing on the reasons that why there is lack of ownership in our society about major problems and public believe that climate change and environment protection are matters related to government, NGO's and local administration. Majority of participants were their view that it has become habit of society that people don't own things which are not belongs to them. Moreover some participants were their view that in our society people don't love to work as combine efforts to solve issues. Some participants were their opinion that majority of our people are engaged in patty issues of their domestic problems and hardly able to solve personal socio-economic issue therefore they are very passive about climate change issue and keep the responsibility on government and NGO's in some cases.

## **V. How do people understand the risks imposed by climate change are extreme weather events, droughts or floods?**

According to participants only small portion of our society understands risks of climate change otherwise majority of our society is believe in religious concepts about natural disasters. It was also discussed that activities which are expected to promote climate change are not caused at individual, community or society level but may be caused by industrial areas and developed countries. During discussion there was a view of participants that extreme whether events, droughts, floods and heat strokes risky incidents happen due extreme violation of environment protection rules by major developing countries at large and developing countries at small scale.

### **Conclusion**

Population living in urban areas of Hyderabad is unaware about climate change and challenges. Effects of pesticide in agricultural area, huge pollution by big number of vehicles could be seen in the city. Attitude of society towards climate and environment is very passive. Climate Change issues are not listed in priority issues of society as well as Government. Society feels that, environment protection, climate change and challenges are matters related to Government and NGO's. Conclusion of research suggested there is need of massive campaign for awareness about climate problems at each level. There should be a strategic planning to reach at targets of sustainable development goals about climate change. Government must develop institutions at district level to work climate change, challenges and effects.

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