97 Years

IPCW ON

National Workshop

HEAT WAVES AND URBAN SYSTEMS: CHALLENGES, PREPAREDNESS AND MANAGEMENT

INDRAPRASTHA COLLEGE FOR WOMEN
UNIVERSITY OF DELHI
DEPARTMENT OF GEOGRAPHY
PROJECT DHYAN

JULY 26-29, 2021

CONCEPT NOTE

Urban systems housing high concentration of population and economic activities are not only the major drivers of global climate change but also the spaces vulnerable for climatic hazards. Heat Waves, one of the most dangerous natural hazards, have rarely received adequate attention as their death tolls and destruction are not always immediately obvious. However WHO statistics shows that, between 2000 and 2016, number of people who were exposed to heatwaves had increased by around 125 million. In the urban centres, heat wave impact could be exacerbated due to the Urban Heat Island (UHI) conditions. UHI is a phenomenon that originates due to the combined effects of more heat absorbing surfaces, the trapping of hot air between buildings, limited tree cover and other heat trapping and heat inducing factors such as fuel combustion and air conditioning. Poor and marginalized people living in urban areas are amongst the hardest hit when a heat-wave occurs. This hazard can burden health and emergency services and also increase stress on water, energy and transportation resulting in power shortages or even blackouts in urban systems.

Heat wave recorded in India during the summers of 2010 was a wakeup call for inter-governmental agency action, preparedness and community outreach. However, 2014 records surpassed 2010, making it the warmest year in the global temperature record since 1880s. More interestingly, 10 warmest years on record have all occurred since 1997 in India. In 2015, the country witnessed the fifth deadliest heat wave in history taking more than 2,300 lives. Some of the cities like Delhi (46.4°C), Hyderabad (46°C), Prayagraj (47.8°C) and Bhubaneswar (44°C) broke their previous records. In 2016, Delhi again set a new maximum temperature record of 48°C in May, and Phalodi and Churu in Rajasthan recorded the highest day temperatures in India, at 51°C and 50°C respectively. Delhi continued to break its maximum temperature record of June 2019. Ministry of Earth Sciences states that the frequency of summer (April–June) heat waves over India is projected to be 3 to 4 times higher by the end of the twenty-first century under the RCP8.5 scenario, as compared to the 1976–2005 baseline period.

The Fifth IPCC Assessment Report suggests that urban climate adaptation action that delivers mitigation co-benefits is a powerful, resource-efficient means to address climate change and to realize sustainable development goals. It further states that urban governments are at the heart of successful urban climate adaptation because so much adaptation depends on local assessments and integrating adaptation into local investments, policies, and regulatory frameworks. Thus, given India's increasing vulnerability to heat waves, the workshop tries to address some of the pertinent questions related to the heat wave and India's urban systems viz. Are our cities prepared enough to tackle the emerging challenges of heat waves? What are the adaptation measures taken so far by urban governance institutions for risk reduction? How are the disaster management institutions dealing with the uncertainty associated with climate change projections and balancing them with actions to address current vulnerabilities and adaptation in urban areas?

Program Schedule

26 July, 2021

02.30 pm: **Welcome Address**

Prof. Babli Moitra Saraf

Principal, Indraprastha College College for Women, University of Delhi

02.40 pm: **Introduction**

Dr. Meena Bhargava

OSD, Department of Geography, Indraprastha College for Women, University of Delhi

02.50 pm: **Inaugural Keynote Address**

Prof. Anil K. Gupta

National Institute of Disaster Management

New Delhi

Panels

27 July, 2021

02.30 pm: **'Heat Waves in India: Predictions and Management'**

Dr. S. C. Bhan

India Meteorological Department, New Delhi

28 July, 2021

02.30 pm: **'Global Climate Change & Impacts of Heatwave on Public Health'**

Dr. Priya Dutta

Indian Institute of Public Health, Gandhinagar

29 July, 2021

02.30 pm: **'Heat-wave Action Plan and Experiences'**

Mr. Anup K Srivastava

National Disaster Management Authority, New Delhi

03.30 pm: **Vote of Thanks**

Dr. Soma Sarkar

Faculty Coodinator, Project Dhyan

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