

# Over 87% Indore citizens feel climate change is occurring: TERI survey

**New Delhi, June 3:** The Energy and Resources Institute (TERI) has released the findings of its Environmental Survey 2014, which was initiated to gauge the perception, awareness, opinion and behaviour of people towards environment in India. This year, the survey covered eight cities, including Delhi, Mumbai, Coimbatore, Guwahati, Indore, Jamshedpur, Kanpur and Pune. The focus of the survey was on the general environment, and in particular, water and waste related issues.

In his video message on the occasion, Dr R K Pachauri, Director General, TERI, said: "This time, we have focused on cities which normally don't get the kind of attention they deserve. If we want to bring about improvement in environmental quality, then the foundation on which any such effort would rest, would be on the awareness of the public. I hope through this survey we are able to bring about the level of awareness that really lays the foundation for action in the right direction. If we don't, then we would all be taken over by urban blight."

Dr Prodipto Ghosh, Distinguished Fellow, TERI, said: "TERI's Environmental Survey 2014 of residents of eight major cities of the country provides usual insights into the attitude and perceptions regarding India's environment. Urban respondents felt government and consumers played a positive role for improving the environment. The survey will be of immense value to policymakers in identifying areas where sound environment management policy can play a significant role, and where greater efforts of outreach and awareness building are necessary."

## The findings from Indore

A high majority of the respondents (87 per cent) felt that climate change was occurring. Almost 80 per cent and 69 per cent of the citizens interviewed felt that temperature and rainfall had increased respectively. About 65 per cent of the respondents felt that government must prioritize environment protection over development objectives.

A higher percentage of respondents felt that air quality, drinking water quality and groundwater availability had worsened in the last five years as compared to those who found it to have improved. However, a higher percentage of respondents perceived tree cover, surface water and drinking water availability to have improved.

In terms of ranking the efforts made by stakeholders in protecting the environment, 50 per cent and 36 per cent assigned the first rank to consumers and governments respectively. Leakage of water during distribution was identified as the primary cause of wastage of water by a majority, followed by leakages from taps/ faucets in homes. Over 90 per cent of the respondents were aware of the subsidized price of water, and 92 per cent felt that users should be charged the actual cost of water.

The best strategy, according to almost 50 per cent of the respondents, to manage the problem of solid waste was to improve waste recycling capacity, followed by generating less waste at the household level. A majority of the respondents felt that mandatory laws pertaining to recycling can greatly promote re-use. Only 58 per cent of the survey respondents expressed willingness to segregate waste before disposal. Almost 90 per cent of the surveyed population felt that polythene bags must be banned.

Indore, located on the southern edge of the Malwa Plateau, is the largest city in Madhya Pradesh. The city lies on the Saraswati and Khan rivers on an elevated plain with the Vindhyachal range to the south. Hailed as being a part of the fastest-growing economic regions in India, the city is home to numerous small, medium and large scale manufacturing and service industries namely, automobile, pharmaceutical, software and textile trading. As per of the 2011 Census of India, the population of Indore in 2011 was 1,960,631. The survey comprised a sample of 11,214 citizens spread across the selected urban agglomerates of India.

## **Key environment indicators**

The citizens of Indore were asked about their perception on the environment over the last five years. More than 50 per cent of the respondents felt that air quality (51 per cent), drinking water quality (48 per cent), and ground water availability (38 per cent) had worsened in the last five years. In contrast to this, a considerable section of the respondents felt that tree cover/ green cover (35 per cent), surface water quality and availability (43 per cent), and drinking water availability (56 per cent) had improved over the past five years.

As high as 87 per cent of the respondents in Indore felt that climate change / global warming was occurring. While responses varied across different age groups, a majority

of people in each age group agreed with the occurrence of climate change. Disaggregating at occupational level, it was observed that as high as 93 per cent of the casual / daily wage workers believed that climate change was occurring. In terms of changes in climate variables, a majority of respondents felt that there had been a rise in temperature (80 per cent) and rainfall (69 per cent). A high percentage of respondents (63 per cent) reported changes in the wind pattern. Also, a majority (38 per cent) of the students felt that there has been a reduction in the intensity of extreme events.

## Policies and people

Respondents were asked about their awareness of government policies related to environment and their opinion on implementation and adequacy of such policies. Around one-third of the respondents in Indore felt that policies pertaining to air pollution (32 per cent), water pollution (36 per cent), water supply (32 per cent), water conservation (41 per cent) and waste management (31 per cent) existed and were well implemented. However, as high as 55 per cent and 45 per cent of the citizens of Indore felt that there were no policies for climate change and groundwater usage, respectively. About 26 per cent respondents said that policies concerning forest conservation were either inadequate or not implemented.

The two most preferred sources of information on environment for the respondents were national newspapers and television at 50 per cent and 42 per cent respectively. The survey respondents, when asked to select an environmental problem, which according to them had the most visible impact on people's health, 85 per cent of the respondents chose poor air quality.

#### Water

When asked about the main reason for wastage of water, most of the survey respondents identified leakage of water during distribution (61 per cent) as the primary cause for wastage, followed by leakages from taps/ faucets in houses (19 per cent). Awareness about the subsidized water pricing was very high (93 per cent). Ninety two per cent of the respondents were of the opinion that users should be charged the actual cost of water so as to reflect the scarcity value of water and discourage wastage, those the proportion was smaller at about 70 per cent among those with primary education.

When asked about the preferred billing mechanism for water consumption, majority of the respondents chose fixed charges as the ideal billing mechanism (75 per cent), followed by meter-based (15 per cent) and slab wise consumption charges (10 per cent).

#### Waste

Almost 64 per cent of the survey respondents identified organic waste to be a major component of their household garbage. Surveyed citizens in Indore were cognizant of the impact of improper solid waste management on human health. About 86 per cent of the respondents found the impact of improper solid waste management on human health to be severe, while 11 per cent rated the impact as moderate.

With respect to willingness to pay for the management of waste, 71 per cent of the respondents felt that the fees should be commensurate with the amount of waste being generated. About 26 per cent suggested that same fees should be charged across all households irrespective of the amount of waste they produce.

According to 52 per cent of the respondents surveyed in Indore, private companies should have the biggest responsibility for disposing city's solid waste and garbage. While 19 per cent felt that the local municipality or other government agencies ought to assume this responsibility, 12 per cent of the respondents felt that the greatest responsibility is on the individual citizens or households.

# **Health impacts**

Highlighting the inherent linkage between health and environment, almost all the survey respondents felt that the quality of the surrounding environment had an immediate effect on human health, and as high as 65 per cent of the respondents attributed a variety of respiratory diseases to poor environmental quality

### PERCEPTIONS FROM INDORE

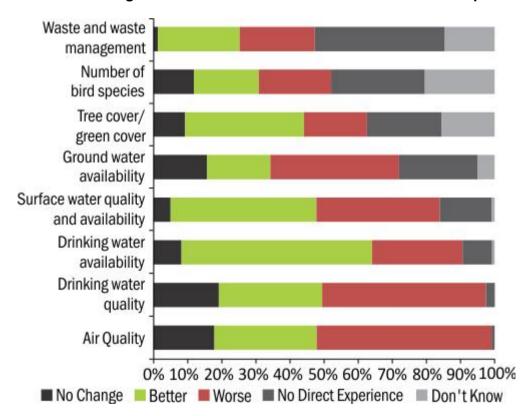
Almost **80 per cent** and **69 per cent** of the citizens felt temperatures and rainfall had increased respectively.

About **65 per cent** felt that government must prioritize environment protection over development objectives.

About 90 per cent were aware of the subsidized price of water

About 92 per cent said users should be charged the actual cost

### Perceived changes in the state of environment in Indore over the past five years



## For detailed findings of the report, please click:

http://www.teriin.org/pdf/environmental\_survey-report-14.pdf

### **About TERI**

TERI is an independent, not-for-profit research institute focused on energy, environment, and sustainable development and devoted to efficient and sustainable use of natural resources.

Since its inception in 1974, TERI has emerged as an institution of excellence for its path-breaking research, and is a global brand widely respected by the political leaders, policy makers, corporate entities as well as the civil society at large. For more details, please click: http://www.teriin.org/index.php

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