

## Drinking water quality awareness in rural areas\*

Drinking water is the prime need of human settlements in rural as well as urban panorama. Awareness plays an important role in the spreading of any new technology or popularizing something among people on mass scale. It has a special value in the urban human society to a great extent, but is lacking in rural areas.

Drinking water quality needs to be part of public awareness, learning and education for a better and sustainable society. Awareness plays a significant role in promoting knowledge, skills and values necessary for realization of noble goals of sustainability. For safe and better future of the generations to come, awareness and education have a central role to play in understanding and mitigating the problems related to drinking water quality issues.

A conference-cum-workshop was organized recently on drinking water quality awareness with the overall goal of creating awareness among local urban as well as rural people of Kanpur region. Some useful tips about drinking water handling were given to students, industrial persons, fishermen, farmers and residents. The theme was chosen to create awareness about drinking water quality and practices among residents of rural areas of Kanpur Nagar and Kanpur Dehat districts, UP.

The major discussions were on awareness building, information exchange and the role of awareness on drinking water quality with particular emphasis on the challenges faced by the residents in accessing the water resources and storing water.

Deliberations were made under two major themes. In the first theme, 'Survey on drinking water quality: a qualitative approach' participants discussed the current status and different aspects of

drinking water in their vicinity and perspectives on how rural residents of remote locations are familiar with fundamental aspects related to drinking water and associated issues.

The National Council for Science and Technology Communication (NCSTC) – a cell of DST has sanctioned a project under which a survey was conducted to evaluate the basic overview about the problems that occurred in the Kanpur area. A simple questionnaire having 25 basic questions was filled by local residents of different places to draw a general idea regarding the existing panorama to develop a strategy for further actions. Several water samples were also collected from different locations and analysed for general parameters and selected heavy metals. Ajay K. Tyagi (SRI, Delhi) elaborated on the basic goal of the project and workshop. The results of the survey were presented by Meenu Talwar (SRI, Delhi) in which the basic knowledge of rural residents about water indicated their casual approach and poor practices while dealing with drinking water.

Villagers felt nostalgic while sharing their understanding of water-related issues and potential associated diseases. They shared their experiences on various positive as well as negative aspects associated with drinking water quality of the region, its awareness status with special emphasis on Kanpur region, industrial pollution and practices adopted by them.

In the second theme, the qualitative part and analytical results of samples collected from different locations were presented and discussed. Pawan Kumar (SRI, Delhi) pointed out the environmental pollution problems arising in the vicinity. He presented almost every possible route of pollution in major industrial areas like Jajmau, Raniya, Barra, etc. He also emphasized that industry in our country is a major factor showing negative influences on the environmental components of the nation. We need to adapt ourselves according to nature and not oppose it by increasing industrial effluent discharges. Kanpur is famous for

leather tanning and hexavalent chromium ( $\text{Cr}^{+6}$ ) was found in several samples. In Jajmau region, surface water bodies were found contaminated with chromium. A large concentration of Cr(VI) was found in groundwater of Khanchandur village in Raniya industrial area.

Conventionally, people consume drinking water directly from hand pumps or tube wells and thus suffer from various suspected diseases. However, the speaker also suggested some quick remedial and preventive measures.

B. N. Pandey (Brahmanand College, Kanpur) emphasized on the natural water cycle on our planet and pointed out the emerging phase of industrial pollution in early industrial era. He explained how to adopt eco-friendly technologies in routine life, and how to develop field methods and technologies for water pollution assessment and treatment. Talwar focused on recent development and progress in portable field test kits for water quality parameters.

Rashmi Tripathi (Brahmanand College, Kanpur) stressed on the need for awareness regarding drinking water quality and a healthy society. He lamented how some villagers are using chemical effluents in irrigation which is creating soil fertility problems due to changes in soil chemistry and texture. The toxic pollutants can accumulate into the body parts of plants and tend to magnify at next trophic levels. He also stressed on the need to motivate the youth to come forward to create awareness on drinking water quality for a better and healthy society.

In parallel, a poster competition was organized for college students, which was much appreciated by everyone. Discussions among the villagers, fisherman, farmers, industry persons and experts were productive, especially in the industrial region of Kanpur.

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