

## **Abstract**

Science communication is now a global phenomenon and is recognised as an essential part of the scientific enterprise. It started with filling the deficit of scientific knowledge in the public by providing more scientific information and knowledge. Now, it has grown as an area of professional and academic expertise being taught and researched at universities.

In India, taking the message of science to society and inculcating scientific temper among the people are given high priority, at least, at the government and policy level. Despite strong constitutional and policy provisions, the actual science communication situation in India remains unsatisfactory. Amid the increasing calls for scientists' active role in bridging the divide between science and society, scientists' participation in science communication is generally low.

With the lack of literature on science communication, especially on what Indian scientists think about science communication and their engagement, the current study addresses this critical gap by investigating how senior Indian scientists engage in science communication activities and how their engagement can be improved by exploring their perceptions, attitudes, and behaviours toward science communication.

The current study attempted to create some baseline data on science communication views and behaviours of Indian scientists by exploring and describing what senior and experienced Indian scientists, who are elected fellows of three Indian science academies, think about science communication. The study collected empirical data in this regard through a cross-sectional national online survey.

The study provides the first-ever empirical evidence from India on scientists' views and behaviours toward science communication; objectives of science communication; media coverage of science; science-society interactions; their duty, role, and responsibility; willingness to engage; factors preventing their active engagement; their personal attributes for successful science communication performance; and what they think about how their public engagement can be enhanced.

It is found that the majority of Indian scientists surveyed gave high importance to science communication with the public and all its deficit, engagement, trust, and policy objectives, while also expressing that science communication is part of their job, and they have a moral duty to engage with the public. They believed that all the different ways of communication are essential in establishing better science-society linkages. However, most of them did not engage with the public often but were willing to engage in the future.

Contrary to much of the literature, Indian scientists did not see lack of time, lack of communication skills, lack of personal benefits, being called a publicist, deviation from research, etc. as potential factors preventing their active engagement. They suggest science communication training may help improve science communication by scientists. Many believed that science communication specialists should lead institutional efforts for science communication where scientists can contribute as and well required.

The study also provides valuable insights on further improving science communication by scientists in India and informing future policies on scientists' engagement with the public.

The possible implications of the findings are discussed, and recommendations are provided for further advancing the field of science communication in India.

The current study's findings are significant because the study sample is very senior and experienced scientists who are also scientifically very productive. More than half of them occupied top scientific/administrative positions in their institutions. Views, attitudes, and behaviours of these top Indian scientists are expected to set examples for junior and mid-career scientists to think about their own public engagement views and behaviours.