



## **“JOSHA’s Critical Review of ‘India’s Scientific Diversity: Caste Barriers’ by Ankur Paliwal”**

**Authors:** Neher Aseem Parimoo, Ignacio Mastroleo, Roland Mertelsmann  
**Submitted:** 24. March 2023  
**Published:** 17. April 2023  
**Affiliation:** Josha Journal, Freiburg, Germany  
**Languages:** English  
**Keywords:** India, Education, Academia, Scientific Diversity, Caste Barriers, Discrimination, Adivasi, Dalit  
**Categories:** News and Views, Humanities, Social Sciences and Law, Life Sciences

### **Abstract:**

The article "India's Scientific Diversity: Caste Barriers," published in Nature by Ankur Paliwal, sheds light on the pervasive caste barriers in Indian science that prevent marginalized communities from pursuing careers in the field. The article highlights the under-representation of Adivasis and Dalits in science and points out the discrimination and biases they face from privileged castes in higher education. While the government's quota system has helped uplift excluded communities, it has not been effective in increasing diversity at higher academic levels. The article calls for Indian academia to address caste barriers and lack of diversity to promote equality and inclusivity in the field. The author cites the challenges faced by marginalized communities in India's educational pipeline and raises awareness of the impact of discrimination and prejudice on their pursuit of higher education in science. While the article could benefit from more in-depth analysis and specific recommendations for change, it is an essential piece that exposes the need for action to cultivate a diverse and inclusive scientific community in India. This article was first published in Nature on January 11, 2023 (<https://www.nature.com/immersive/d41586-023-00015-2/index.html>)

# JOSHA

[joshajournal.org](https://joshajournal.org)

**Journal of Science,  
Humanities and Arts**

JOSHA is a service that helps scholars, researchers, and students discover, use, and build upon a wide range of content



# “JOSHA’s Critical Review of ‘India’s Scientific Diversity: Caste Barriers’ by Ankur Paliwal”

Neher Aseem Parimoo, Ignacio Mastroleo, Roland Mertelsmann  
[admin@josha-archive.org](mailto:admin@josha-archive.org)

Journal of Science, Humanities, and Arts, Freiburg im Breisgau, Germany

The article "India's Scientific Diversity: Caste Barriers", published in *Nature* by Ankur Paliwal, discusses caste barriers in Indian science that prevent marginalised communities from pursuing careers in science. It examines the under-representation of Adivasis (indigenous peoples; referred to as 'Scheduled Tribes') and Dalits (formerly known by the dehumanising term 'untouchables'; referred to as 'Scheduled Castes') in science. The article also highlights how students from privileged castes (referred to as the 'General' category) often discriminate against marginalised students in higher education, causing them to feel intimidated and consider dropping out. It explains how the government's quota system has helped to uplift excluded communities but has not been effective in increasing diversity at higher academic levels. The government is accused of failing to hold institutions accountable for failing to comply with reservation policies. Overall, the article serves as a wake-up call for Indian academia to address caste barriers and lack of diversity to promote equality and inclusivity in the field.

The article notes that less than 1% of professors in India's top-ranked engineering institutes come from Adivasi or Dalit communities. The caste system limits scientific opportunities for certain groups, and this is evident in the educational pipeline from primary school to university. Teachers and mentors specialising in science are rare in rural high schools attended by marginalised communities, resulting in the under-representation of Dalits and Adivasis in undergraduate science courses. This lack of guidance and mentorship in science can be a disadvantage for these students in their pursuit of higher education. The article cites examples of students from excluded communities who have faced discrimination and biases. For example, Samadhan, an indigenous person who became the first person in his village to obtain a PhD in science, is reluctant to reveal his family name or institution



for fear of highlighting his social status to a wider group of Indian scientists. It points out that "free off" is a common insult used by students from privileged castes to refer to students from marginalised communities who receive government assistance. Moreover, the article states that there is no statistical data available to analyze scientists by caste and academic position beyond the undergraduate level, and most universities do not publish this data.

A positive aspect of the article is that it highlights the challenges faced by marginalised communities in India's educational pipeline, from primary school to university. The author also raises awareness of the discrimination and prejudice faced by students from marginalised communities. One of the drawbacks of the article is its lack of in-depth analysis of the causes and reasons for caste barriers in Indian science. It briefly mentions that the caste system limits scientific opportunities for certain groups, but does not explore the underlying reasons for this. The piece only mentions the need for change without specifying what changes are needed to address the issue. It does not provide a comprehensive list of recommendations for overcoming caste barriers and promoting diversity in Indian science. While the author suggests that the government needs to hold institutions accountable for not following reservation policies, more needs to be done to ensure that marginalised communities are given equal opportunities for career advancement in science. The author could have also explored the impact of the caste system on scientific research, beyond the representation of marginalised communities.

Finally, the article "India's Scientific Diversity: Caste Barriers" by Ankur Paliwal is an important piece that exposes the under-representation of Adivasis and Dalits in science in India. The author raises awareness of the challenges faced by marginalized communities in the Indian educational pipeline and calls on the government and institutions to take immediate action to promote equality and inclusion in the field by providing mentorship and guidance in science, following up on the reservation policy and ensuring that marginalized communities have equal opportunities to advance their careers in science. By doing so, India can cultivate a diverse and inclusive scientific community that will ultimately lead to a brighter and more prosperous future for all.



**JOSHA's Critical Reviews focus on recent studies and discoveries in medicine and science that may impact patient care. Our editors aim to stimulate thoughts and reflections on new developments and interventions. While our opinions are subjective, we hope this service is helpful. We welcome comments from our readers!**

## **Acknowledgements**

ChatGPT Mar 14 Version was used during the writing process as part of JOSHA's policy of experimentation with new AI tools. However, the authors of this review take full responsibility for its content.

## **Article Information**

<https://www.nature.com/immersive/d41586-023-00015-2/index.html>