Rethinking Diversity and Inclusion in Geoscience: A Transdisciplinary and International Lens from PhD Students at the University of Tokyo

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As international PhD students from geoscience and social science with research affiliations in Japan, and Australia, we have experienced firsthand how gender, discipline, and institutional priorities shape research environments across different cultural contexts. At the University of Tokyo, where only 18% of students and 10% of faculty members are female, gender imbalance remains a pressing issue in academia. In geoscience, these disparities are even more pronounced, affecting both representation and research culture. From research cruises where the lack of female toilets once posed barriers to shifts in institutional policies that have since improved conditions for women and non-binary scientists, we have seen how structural changes can foster inclusivity. Our coauthors from the Research School of Earth Sciences at ANU bring perspectives on diversity and inclusion challenges in Australia, while myself and another coauthor’ s experiences at ETH Zurich (Switzerland) and Lund University (Sweden) offer insights from European academic cultures, enriching the discussion with international comparisons.

However, beyond infrastructure, fostering an environment where all researchers—regardless of gender, nationality, or discipline—feel comfortable expressing emotions is just as crucial. Science, normatively or objectively, often undervalues the role of inner dimensions - values, emotions, and minds as non-scientific. However, scientists are human beings and science itself is a double-edgued sword capable of immense progress but also destruction. To ensure it serves humanity and the planet, we need researchers who are not only intellectually capable but also emotionally aware and ethically grounded.

One way to cultivate this balance is through the intersection of art, science, and transdisciplinary collaboration. Art is inherently emotional; it allows us to express what words and data cannot. By integrating artistic practices into scientific spaces, we can create environments that encourage reflection, intuition, and empathy—qualities often sidelined in traditional research cultures. A more inclusive geoscience community values not just intellectual diversity but also emotional intelligence, benefiting not only women but also neurodivergent, non-binary, and gender-diverse individuals. Similarly, integrating social sciences into geoscience broadens perspectives, encouraging critical reflection on research culture and inclusivity. These approaches help create an academic environment where students from non-mainstream cultures, neurodivergent backgrounds, and gender-diverse identities feel more comfortable participating in scientific spaces

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