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EDITORIAL

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Key Points:

- Editors-in-chief of AGU journals stress urgent need for greening economy
- Cross-sector solutions-based science must supplement basic research
- AGU is adding solutions-based community science journal to portfolio

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Geoscientists, Who Have Documented the Rapid and Accelerating Climate Crisis for Decades, Are Now Pleading for Immediate Collective Action

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Our planet is in crisis! The latest report of the United Nations Intergovernmental Panel on Climate Change (IPCC AR6) confirms that human influence is causing widespread, rapid, and intensifying changes in our weather and climate that are affecting every region on Earth in multiple ways. With every additional ton of carbon we emit, the frequency and intensity of storms, floods, droughts, and fires become greater and the effects on the environment and on human health and civilization become more severe.

As geoscientists and journal editors, most of us have been accustomed to being on the leading edge of human knowledge and understanding of climate change, where we deal in objectivity, uncertainty, and debate, but now we find ourselves at the core of this climate crisis. It is no longer scientific discoveries at stake, but also humanity itself. This is an uncomfortable place for many of us. We are trained to be dispassionate observers and cautious thinkers, yet the alarming rate of recent climate change impels us to turn our attention directly toward mitigating this impending crisis.

We are making a plea for collective action: we must make the switch to a green economy, put a just and effective price on carbon now, and consider a portfolio of other equitable public investments in climate solutions. These actions will ensure that the true costs and risks of burning fossil fuels are accounted for and global carbon emissions are rapidly reduced. Rich countries must lead the way in making drastic cuts to carbon emissions and in helping low- and middle-income countries to develop sustainably. We are running out of time.

For decades, American Geophysical Union (AGU) journals have been at the forefront of documenting human-caused climate change and warning of a worsening climate crisis. Over 2,000 publications from AGU journals are cited in the new IPCC AR6 report. But we too can do more than just document and scientifically explain the ongoing crisis—our profession must help lead the way to solutions.

Finding solutions and adapting to change have become not only necessary, but essential in ensuring safe, sustainable, and healthy human communities in the future. The geosciences have an essential role to play in these efforts by pivoting toward more cross-sector, solution-based science. To help lead this vision, the AGU is adding a new publication forum for community science in partnership with associations outside the geosciences. This forum will enhance interactions among AGU's existing, more disciplinary journals and give local communities a voice in leading solutions to global challenges.

We are scientists, but we also have families and loved ones alongside our fellow citizens on this planet. The time to bridge the divide between scientist and citizen, head and heart, is now. The lead-up to the 2021 UN Climate Change Conference, COP26, being held in Glasgow in November, is our “last best chance” to urge world leaders to come together and commit to keeping climate change and its devastating impacts in check.