

Concerns of young protesters are justified

The world's youth have begun to persistently demonstrate for the protection of the climate and other foundations of human well-being. (1, 2). As scientists and scholars who have recently initiated similar letters of support in our countries, we call for our colleagues across all disciplines and from the entire world to support these young climate protesters (3). We declare: Their concerns are justified and supported by the best available science. The current measures for protecting the climate and biosphere are deeply inadequate.

Nearly every country has signed and ratified the Paris Agreement of 2015, committing under international law to hold global warming well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C (4). The scientific community has clearly concluded that a global warming of 2°C instead of 1.5°C would substantially increase climate-related impacts and the risk of some becoming irreversible (5). Moreover, given the uneven distribution of most impacts, 2°C of warming would further exacerbate existing global inequalities (5).

It is critical to immediately begin a rapid reduction in CO₂ and other greenhouse gas emissions. The degree of climate crisis that humanity will experience in the future will be determined by our cumulative emissions; rapid reduction now will limit the damage. For example, the Intergovernmental Panel on Climate Change (IPCC) has recently assessed that halving CO₂ emissions by 2030 (relative to 2010 levels) and globally achieving net-zero CO₂ emissions by 2050 (as well as strong reductions in other greenhouse gases) would allow a 50% chance of staying below 1.5°C of warming (5). Considering that industrialized countries produced more of and benefited more from previous emissions, they have an ethical responsibility to achieve this transition more quickly than the world as a whole (4, 6).

Many social, technological, and nature-based solutions already exist. The young protesters rightfully demand that these solutions be used to achieve a sustainable society (7). Without bold and focused action, their future is in critical danger. There is no time to wait until they are in power.

Politicians have the huge responsibility of creating the necessary framework conditions in a timely manner. Policies are needed to make climate-friendly and sustainable action simple and cost-effective and make climate-damaging action unattractive and expensive. Examples include effective CO₂

prices and regulations; cessation of subsidies for climate-damaging actions and products; efficiency standards; social innovations; and massive, directed investment in solutions such as renewable energy, cross-sector electrification, public transport infrastructure, and demand reduction. A socially fair distribution of the costs and benefits of climate action will require deliberate attention, but it is both possible and essential (8).

The enormous grassroots mobilization (2) of the youth climate movement—including Fridays for Future, School (or Youth) Strike 4 Climate, Youth for (or 4) Climate, and Youth Climate Strike (7)—shows that young people understand the situation. We approve and support their demand for rapid and forceful action. We see it as our social, ethical, and scholarly responsibility to state in no uncertain terms: Only if humanity acts quickly and resolutely can we limit global warming, halt the ongoing mass extinction of animal and plant species, and preserve the natural basis for the food supply and well-being of present and future generations. This is what the young people want to achieve. They deserve our respect and full support.

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SUPPLEMENTARY MATERIALS

www.sciencemag.org/content/364/6436/1392/suppl/DC1
List of signatories

10.1126/science.aax3807