

Statement in Support of the UN Resolution on Nuclear War Effects and Scientific Research December 3, 2024

The Physicists Coalition for Nuclear Threat Reduction strongly supports the UN General Assembly's resolution, "Nuclear War Effects and Scientific Research," and urges all governments and scientists to join this support.

The resolution was first approved by the United Nations First Committee on November 1, with 144 states voting in favor. It calls for the UN Secretary-General to establish a panel of scientific experts to review the impacts of nuclear war, address knowledge gaps, and outline future research needs. This will be the first UN study on nuclear war since the 1980s.

Despite the overwhelming support for the resolution, the United States abstained from voting on it. We express our profound disappointment with this decision and urge the United States to provide full support to the study in preparation for future votes on this resolution. A failure to do so will be a missed opportunity for U.S. participation in a global process aiming to advance a shared and inclusive understanding of the dangers posed by nuclear weapons and the need to confront them.

As researchers in the nuclear policy field, we believe it is essential for all policymakers and the global public, to have up-to-date, scientifically validated and comprehensive information about the effects of nuclear weapons use, as well as a clear understanding of the gaps in our knowledge.

In 2023, a U.S. National Academies committee identified a significant gap in the nuclear war effects models used by the U.S. Department of Defense's Defense Threat Reduction Agency (DTRA). The committee reported that "current modeling [by the DoD's DTRA] of the consequences of nuclear explosions resulting from strategic deterrence failure are limited to prompt military effects, especially detonation (blast) and some fallout effects, and does not extend to broader and longer-term effects." As a result, this modeling provides only "a partial accounting of the consequences leading to a limited understanding of the breadth of the outcomes." The committee concluded there is "a need to improve [DOD's] understanding of the physical effects of nuclear weapons, as well as the assessment and estimation of psychological, societal, and political consequences of nuclear weapons use."

An April 2024 joint statement by the National Academies of Science of the G7 countries (Canada, France, Germany, Italy, Japan, the UK, and the United States) emphasized that "it is imperative to highlight the known consequences of nuclear warfare." We agree with the statement's findings that a "full-scale nuclear war between the nations with the largest arsenals would result in devastation," "cause harm worldwide," and likely lead to the destruction of "entire ecosystems and extinction of species." Furthermore, we endorse the statement's conclusion that "among the roles of the scientific community are to continue to develop and communicate the scientific evidence base that shows the catastrophic effects of nuclear warfare on human populations and on the other species with which we share our planet."

We urge all governments, including the United States, to unequivocally endorse and support the UN General Assembly resolution "Nuclear War Effects and Scientific Research" and its mandate for a comprehensive study of the consequences of nuclear war. We also call on scientists worldwide to actively engage with this critical issue. It is imperative that science informs policy in addressing one of the gravest threats to humanity and our shared future.

Sincerely,

The Steering Committee, Physicists Coalition for Nuclear Threat Reduction Laura Grego, Daryl G. Kimball, Frederick K. Lamb, Stewart Prager, Zia Mian, Frank N. von Hippel