

February 14, 2020

**Submission: Right to Science from the American Association for the Advancement of Science**

United Nations Committee on Economic, Social and Cultural Rights (CESCR)  
Draft General Comment: Science and economic, social and cultural rights  
Art. 15: 15.1.b, 15.2, 15.3 and 15.4

Dear Drs Uprimny and Mancisidor:

On behalf of the American Association for the Advancement of Science (AAAS) Science and Human Rights Coalition, I am pleased to write in response to your call for contributions regarding the draft general comment on science and economic, social and cultural rights, with specific reference to Articles 15(1)(b), (2)-(4) of the International Covenant on Economic, Social and Cultural Rights.

AAAS is the world’s largest multidisciplinary scientific society with approximately 120,000 individual members and more than 250 affiliated societies, and the publisher of the highly esteemed peer-reviewed journal, *Science*. AAAS serves as the Secretariat of the AAAS Science and Human Rights Coalition, a [network](https://www.aaas.org/programs/science-and-human-rights-coalition/coalition-members) of scientific membership organizations that recognizes the role and responsibilities of science and scientists in human rights.

In considering the matters addressed in the draft General Comment, we are guided by the 2010 AAAS [Statement on the Right to Enjoy the Benefits of Scientific Progress and Its Applications](https://www.aaas.org/sites/default/files/Article15_AAASBoardStatement.pdf) and the subsequent research and analyses conducted by the Coalition to understand the meaning of the right from the perspectives of scientists, engineers and health professionals as documented in two public reports (available [here](https://www.aaas.org/sites/default/files/s3fs-public/reports/Right_to_Science_Report.pdf) and [here](https://www.aaas.org/sites/default/files/content_files/UNReportAAAS.pdf)). Those reports made clear three key propositions:

1. the right to science is not only a right to benefit from the material products of science and technology and the services derived from them, but it is also a right to benefit from the scientific method and scientific knowledge;
2. scientific freedom is linked to and must be exercised consistent with scientific responsibility;
3. access to science, as a core component of the right, must exist in a dynamic relationship between the benefits of science, scientific freedom, and scientific responsibility. While access to the created products of science entails certain limited scientific responsibility, increased participation and increasing levels of access to scientific knowledge, information, literature, data and samples, requires greater responsibility. Three essential tools for ensuring access for individuals according to their interests, skills and training include quality science education for all, adequate funding, and an information technology infrastructure that serves as a tool of science and medium for the diffusion of scientific knowledge.

We are, therefore, pleased that the draft emphasizes the multifaceted nature of the benefits of scientific progress and includes the scientific method and scientific knowledge, and that it recognizes the importance of considering scientific freedom and responsibility as two sides of the same coin, where both are critical to an understanding of the right to science and to the constructive and successful progress of science. We also note the comprehensive approach of the draft General Comment in addressing Article 15(1)(b) together with the relevant sections of Articles 15(2), (3) and (4). It is in this context, and given the interdependent and indivisible nature of human rights, that the recognition of a “human right to science” becomes clear.

In addition to the above, we offer the following specific suggestions:

1. ***Content: Article I, Introduction and basic premises***
2. Article I(1): the General Comment currently begins by stating the “deep social impacts” of science and characterizing such impacts as “ambivalent.” As an alternative, we suggest dedicating one operational paragraph to the benefits of scientific progress and its applications, thereby establishing a clear basis for recognizing the benefits of science, and in the following operational paragraph addressing the risks. This approach avoids the suggestion of an equivalence between the broad benefits of science and the specific risks of its misuse.
3. Article I(1): science and technology are vital to the enjoyment of both civil and political rights (e.g., freedom of expression through access to the Internet) as well as economic, social and cultural rights (e.g., the rights to health, and to water). Given that, we suggest that the second sentence be amended as follows: “…promoting the enjoyment of human rights, including Economic, Social and Cultural Rights (Hereinafter: ESCR).”
4. Article I(1): in addressing the risks of science, we suggest making explicit that such risks do not just arise from “some developments of science” but from the irresponsible *conduct* as well as *development* of science and its applications.
5. Article I(2): given the insights gained by the research conducted involving the global scientific community and the echoes of that research in the draft General Comment, we suggest inclusion of an additional citation in footnote #2: J. Wyndham and M.W. Vitullo (2015), “The Right to Science—Whose Right? To What?” in *European Journal of Human Rights*, No 4, 431-461.
6. ***Content: Article II, Normative content***
7. Article II(8): in the final sentence, we suggest that “stewardship for the environment” be added as science in the service of progress that should be prioritized in addition to “the universal enjoyment of human rights and human development”.
8. Article II(16): Before the last sentence in this paragraph, add “The right to take part in science, as an element in the normative content of the right, must exist in a dynamic relationship between the benefits of science, scientific freedom, and scientific responsibility. Thus, while participation in the enjoyment of the created products of science entails certain limited responsibility, with increasing participation and increasing levels of access to scientific knowledge, information, literature, data and samples, greater responsibility adheres.”
9. Article II(18): in addition to the inclusive description of ‘dimensions’ constituting scientific freedom, we suggest first that such freedom be specifically described consistent with the AAAS Statement on Scientific Freedom and Responsibility which states as follows: “Scientific freedom is the freedom to engage in scientific inquiry, pursue and apply knowledge, and communicate openly.” In addition, we suggest amending the final sentence to replace “some limitations are possible” with “it must be exercised in accordance with scientific responsibility.”
10. Article II(19): we suggest deleting “it has to be fulfilled even if it does not contribute positively to the enjoyment of other rights” which suggests that the right may impact negatively the enjoyment of other rights (which we do not understand to be the intention of the statement). We suggest replacing that language with the following “…; it adds substantively to the human rights framework in addition to serving as support for and/or a prerequisite for the enjoyment of other rights.”
11. ***Content: Article III, Elements of the right and limitations***
    1. Article III(A)(21): this paragraph currently omits reference to the availability of the applications of science and technology. We suggest that a sentence be added to the effect that “States Parties have an obligation to create policies that work toward ensuring that individuals, particularly in disadvantaged and vulnerable groups, have available to them the applications of science consistent with a dignified existence.
    2. Article III(A)(22): in light of the comment above, we suggest that “these assets and services” be replaced by “scientific knowledge and the applications of science.”
    3. Article III (A)(23): we suggest that the order of the four dimensions be changed to reflect that which is most generally applicable to the greatest number of people first, i.e., access to the applications of science, access to information, and the opportunity to participate. We also suggest expanding the list of prohibited grounds of discrimination to include “religion, racial and national origin.”
    4. Article III (A)(25): we suggest the language of “regulation” and “certification” be qualified “as necessary, to ensure the responsible development and application of science.” We also suggest removing reference to “innocuous character” which could be interpreted to prevent development and dissemination of science that is objected to solely on religious or political grounds.
    5. Article III (A)(27): we suggest that “incorporate ethical principles” be amended to “act according to ethical standards and consistent with their social responsibilities.” Consistent with general scientific vernacular, we also suggest that “research *subjects* and participants” be added, and that “subjects” replace “participants” following “informed consent.”
    6. Article III (B)(28): we suggest that the language concerning limits mirror that of Article II(8) and draw on the language of the AAAS Statement on Scientific Freedom and Responsibility which states that “**Scientific responsibility is the duty to conduct and apply science** **with integrity, in the interest of humanity, in a spirit of stewardship for the environment, and with respect for human rights.”** We also suggest that “necessary for scientific research” be replaced by “necessary for the responsible conduct of scientific research”.
    7. Article III(B)(29): we suggest deleting “prior to any intervention in the context of medical interventions” as the issues addressed are relevant to research in many fields, not just medicine.
12. ***Article IV, Obligations***
    1. Article IV(B)(35): we suggest that “quality” be added before “scientific education programs”, that “to gain a basic level of understanding and knowledge of science” be added after “equal opportunities for”, and that “to quality for scientific careers” be replaced by “pursue a career in science”.
    2. Article IV(B)(36): we suggest that “actively foster and facilitate women and persons of other underrepresented groups in the pursuit of careers in science” replace the existing language and that special attention be paid to racial and ethnic minorities, in addition to the groups mentioned.
    3. Article IV(B)(39): we again suggest the addition of “quality” before “scientific education”. We also suggest deleting the sentence beginning “Special temporary measures” and replacing “harmonize” with “balance.”
    4. Article IV(B)(41): we suggest adding a final sentence that recognizes the unique contributions that persons with disabilities often bring to science: “Persons with disabilities bring their unique perspectives and experiences into the scientific landscape, thus contributing new ideas for experimentation and innovation.”
    5. Article IV(B)(42): we suggest adding “and contributions” after “participation” and “both individually and” after “with disabilities” in 42(i). We also suggest adding “the most constructive” after “statistics on”, and “assumptions” in place of “prejudices.”
    6. Article IV(B)(42): we suggest adding the following: “The use of new technologies for accommodation and to meet the needs of individuals with disabilities can also impose new burdens on the rights of those individuals [cite: Molly K. Land et al., *Article 22: Respect for Privacy*, in The UN Convention on the Rights of Persons with Disabilities: A Comments 604 (Illias Bantekas et al. eds., OUP 2018). States should take steps to ensure that the rights of individuals are protected from undue burden.”
    7. Article IV(C)(43): we suggest deleting “and providing them with some legitimacy”. We also suggest deleting the final sentence as being at a level of specificity inappropriate for the General Comment.
    8. Article IV(C)(44): we suggest adding after “strategy to” the following: “develop scientific and technological innovations and/or prioritise technology transfer that serve the needs of the poor.”
    9. Article IV(D)(46): we suggest amending the language concerning education and scientific careers as follows: “eliminating barriers to accessing education, including quality science education, and to the pursuit of scientific careers, including through the use of temporary measures that are designed to remedy current manifestations of past inequality and achieve substantive equality.”
    10. Article IV(D)(47): a significant omission in this article is the protection of “the human rights of people subject to research activities, including in particular the right to information and informed consent” which we suggest be added. We also suggest that “the basic principles of the medical profession” be replaced by “ethical standards for responsible research” given that the protections mentioned are relevant to all forms of scientific research, not just medical research. We also suggesting adding the following example: “ensuring that private actors do not disseminate false or misleading scientific information.”
    11. Article IV(D)(51): we suggest deleting the second sentence which is unclear and may be unnecessarily specific for the General Comment.
    12. Article IV(D)(56): we suggest that the fifth dot point be amended to refer to “consequences of false, misleading and pseudoscience-based practices” and that the specific example of vaccinations be removed. We also suggest, consistent with the nature of core obligations and reflecting the language of Article V(A)(58), an additional core obligation is “to develop government policies and programs based on prevailing scientific evidence.”
13. ***Article V, Special topics of broad application***
    1. Article V(A)(58): we suggest that the distinction between “scientific evidence” and “opinions to be debated” becomes confused in the current draft of this article. We suggest the following alternative language: “in particular through the engagement of publics in dialogue about the benefits, implications, and limits of science.”
    2. Article V(G)(75-78): we suggest adding a paragraph to address “dual-use research,” or research conducted for legitimate purposes that generates knowledge, information, technologies, and/or products that could be utilized for both benevolent and harmful purposes, an example being research conducted for military purposes with harmful civilian applications.
14. ***Article VI: International Cooperation***
    1. In light of existing practices contrary to Article 15(4), we suggest adding the following: “The States must not erect artificial barriers, premised on discrimination based on race, religion, national or ethnic origin, or other protected characteristics, that impede international scientific cooperation.”
15. ***Article VII: National Implementation***
    1. Article VII(86): we suggest the language concerning democratic debate be amended consistent with our comments regarding Article V(A)(58).
    2. Article VII(89): we reiterate our support for the clear expression of the concept of a human right to science that ties together the multiple components of Article 15 as they relate to science, thus reinforcing the interdependent and indivisible nature of the rights set out in those sub-paragraphs of Article 15.

We are very pleased that the United Nations through the Committee on Economic, Social and Cultural Rights remains committed to defining this right and determining practical measures for its implementation, and are pleased to be able to offer the perspectives of scientists, as elicited during more than a decade of research, to this review of the draft General Comment. Please do not hesitate to contact us with any questions.

Sincerely,



Jessica M. Wyndham

Coordinator, AAAS Science and Human Rights Coalition

Director, Scientific Responsibility, Human Rights and Law Program

American Association for the Advancement of Science

1200 New York Avenue, NW

Washington, DC 20005 USA