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INTERNATIONAL SCIENCE, TECHNOLOGY AND INNOVATION CENTRE FOR SOUTH-SOUTH COOPERATION UNDER THE AUSPICES OF UNESCO

United Nations
Educational, Scientific and
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Towards a Global Consensus on Open Science

Inputs from Asia-Pacific region to the UNESCO Recommendation on Open Science

Asia-Pacific Online Regional Consultation

Tuesday 15 September 2020 (afternoon time (GMT+7) tbc)

Summary of global and regional results of the global survey on Open Science conducted from March-June 2020.

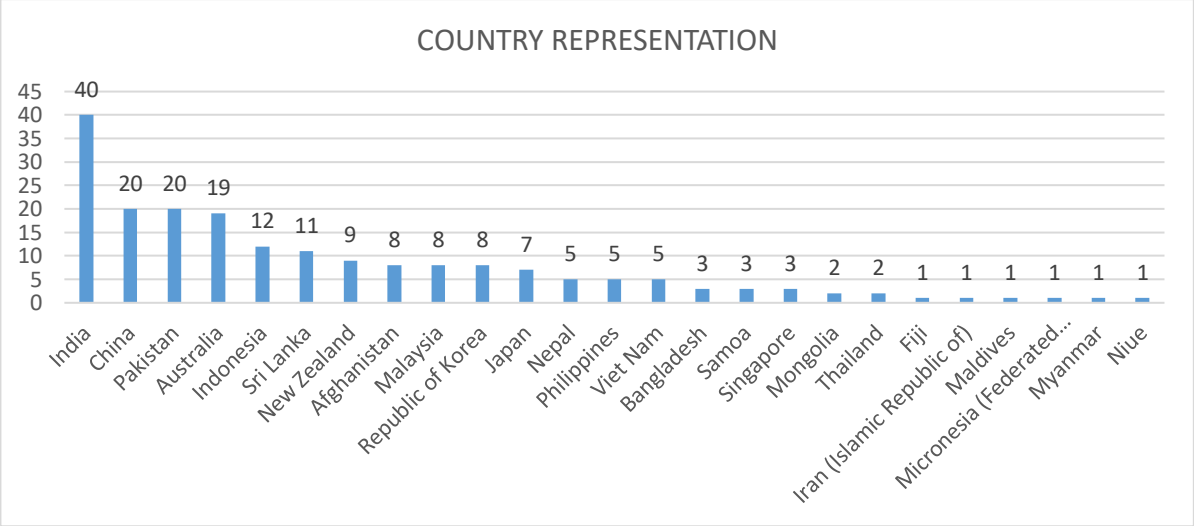
The Open Science movement has emerged from the scientific community and has rapidly spread across nations, calling for the opening of the gates of knowledge. Investors, entrepreneurs, policy makers and citizens are joining this call. However, in the fragmented scientific and policy environment, a global understanding of the meaning, opportunities and challenges of Open Science is still missing.

UNESCO, as the United Nations Agency with a mandate for Science, is the legitimate global organization enabled to build a coherent vision of Open Science and a shared set of overarching principles and shared values. That is why, at the 40th session of UNESCO's General Conference, 193 Member States tasked the Organization with the development of an international standard-setting instrument on Open Science in the form of a UNESCO Recommendation on Open Science.

The Recommendation is expected to define shared values and principles for Open Science, and identify concrete measures on Open Access and Open Data, with proposals to bring citizens closer to science and commitments facilitating the production and dissemination of scientific knowledge around the world. It will be developed through a regionally balanced, multi-stakeholder, inclusive and transparent consultation process.

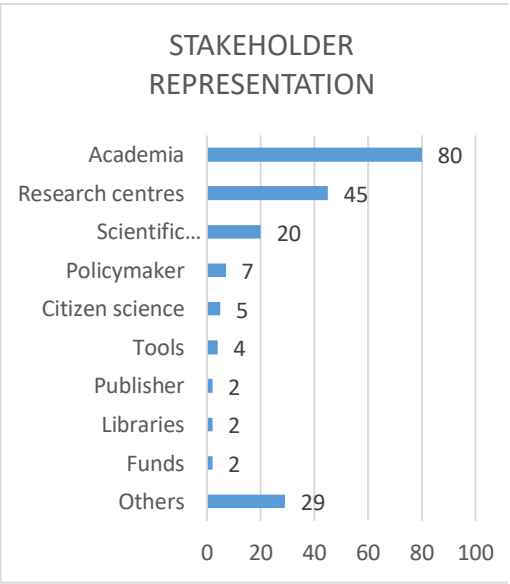
The global consultation questionnaire for inputs into the development of the UNESCO Open Science Recommendation was developed in January 2020. The purpose of the questionnaire is to conduct an electronic consultation with stakeholders in view of providing inputs into the UNESCO Recommendation Open Science.

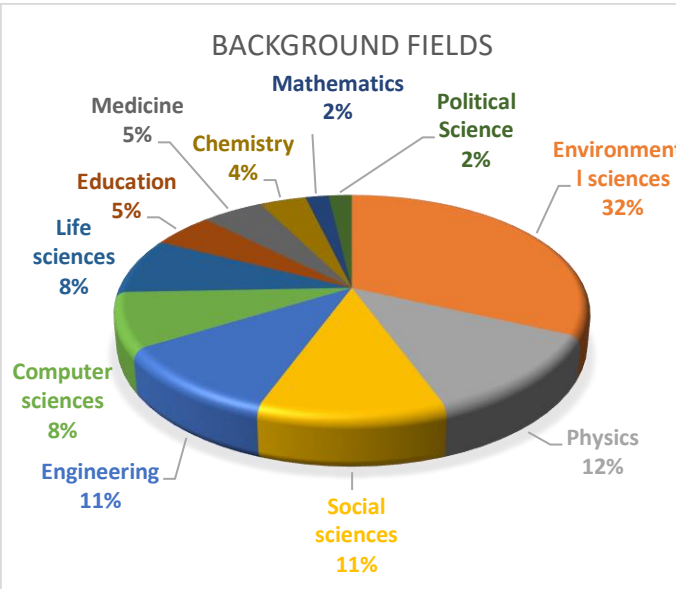
During February-June 2020, the questionnaire was available online at UNESCO website in English, French and Spanish versions. There are 2959 total inputs collected from 133 countries globally, including 209 responses from 27 countries in Asia and the Pacific region.



Source: UNESCO global consultation survey, 2020

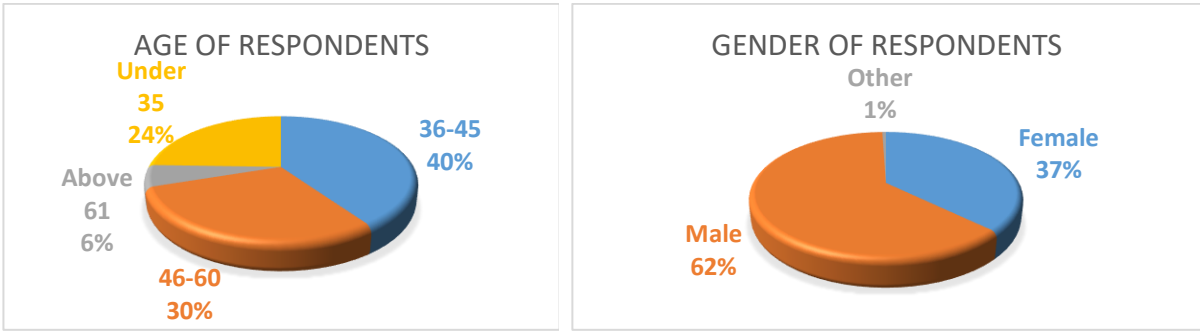
The stakeholders' groups are represented by academia, research centres, scientific communities, policy makers, citizen science, publishers, libraries, etc. The background fields of the respondents are Environmental sciences, natural sciences, social sciences, engineering, computer sciences, life sciences, education, medicine, political science, etc.





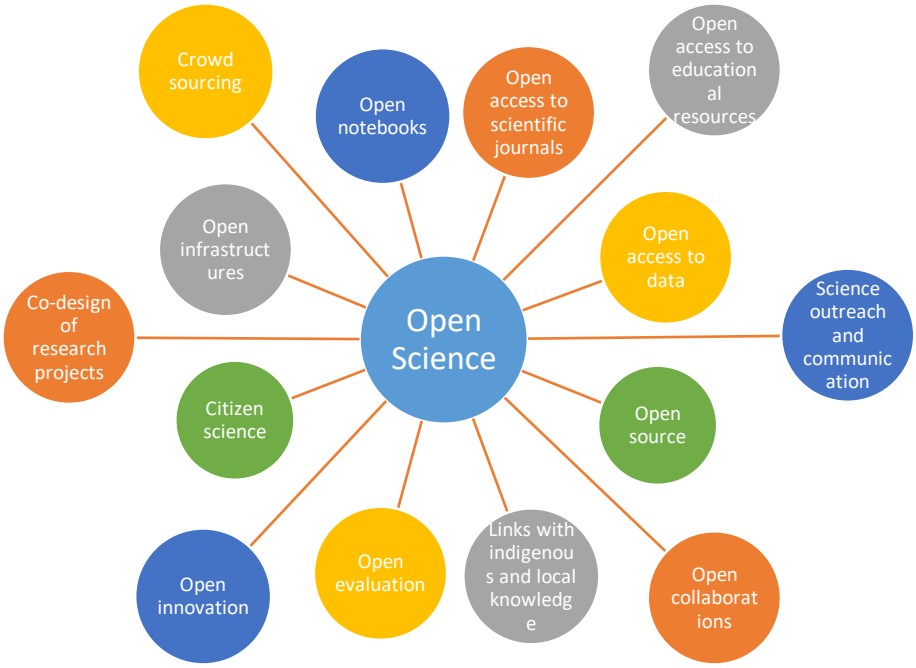
Source: UNESCO global consultation survey, 2020

The age group of respondents is mostly represented by 36-45 (40%), and 46-60 (30%), the remaining 30% are represented by under 35 and above 61. More than half of the respondents are male (62%), while 37% of the respondents are women, and 1% other.



Source: UNESCO global consultation survey, 2020

A total of 14 elements of Open Science are considered in the survey, namely Open access to scientific journals, Open access to educational resources, Open access to data, Science outreach and communication, Open source, Open collaborations, Links with indigenous and local knowledge, Open evaluation, Open innovation, Citizen science, Co-design of research projects, Open infrastructures (Open labs/Open Hardware), Crowd sourcing, and Open notebooks (see the graph below).



Elements of Open Science (UNESCO, 2020)

The most relevant elements of Open Science identified by the respondents both globally and regionally include Open access to data, Open access to educational resources, and Co-design of research projects. However, respondents in the Asia and the Pacific region emphasize on the needs for Links with indigenous and local knowledge, Open innovation, and Open infrastructures much more than the global inputs (almost twice more).

Regarding capacity building initiatives undertaken at national level, the respondents from Asia and the Pacific region also expressed higher level of interest in Links with indigenous and local knowledge, Open innovation, and Open infrastructures than global inputs. On the other hand, there are less initiatives taken in Open access to scientific journals, Open access to data, Open evaluation, and Open notebooks, which could be the key areas for change in the future.