

Summary of “Technological and Science-based Solutions to the COVID-19 Challenge.”
part of the Global Policy Dialogue Series from UN DESA virtual event
29 October 2020

On 29 October 2020, the United Nations Department of Economic and Social Affairs (UN DESA), as part of its Global Policy Dialogue Series, held a virtual dialogue on technological and science-based solutions to respond to the COVID-19 challenge. About 1,025 people from more than 100 countries registered for the event, with 62 per cent of registrants identifying as male, 36 per cent female and 2 percent non-binary or preferred not to answer. Overall, 34 per cent of those registered were under age 40. About 500 viewers watched the livestream on Zoom and Facebook. The archived video on Facebook has reached more than 22,000 people, with 5,600 people choosing to watch all or part of the event.

In keynote remarks, **Mr. Munir Akram**, President of the UN Economic and Social Council, emphasized the importance of new technologies, in particular digital communication tools in responding to the COVID-19 pandemic. Availability and application of these technologies have enabled countries to test, trace and control the effect of the virus, and they will continue to be indispensable as the world recovers better from the wreckage of the crisis and accelerates the 2030 Agenda. In order to succeed in this recovery, he stressed that the proof of scientific research should be fully and readily be available to society at large.

In this regard, the President outlined the three priority objectives for the upcoming Multi-stakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals (STI Forum) in 2021: 1) aligning the intellectual property regime with the SDGs; 2) mobilizing the scientific community to identify science and technology breakthroughs necessary to advance the SDGs; and 3) supporting the Secretary-General’s Roadmap for Digital Cooperation to avoid digital divide and development divide.

Mr. Liu Zhenmin, the UN Under-Secretary-General for Economic and Social Affairs, in video remarks, further highlighted the need to strengthen the science, policy and society interface, and introduced the Technology Facilitation Mechanism (TFM), supported by UN DESA, as an instrument to disseminate good practices and partnerships by all stakeholders.

Key takeaways from Panel 1: Using science-based decision-making to counter COVID-19

The first panel discussed how well science-based solutions to the COVID-19 challenge have been adopted by decision makers and translated into effective policies. Here are the key messages:

1. Timeliness is the key to ensure science is effectively influencing the decision-making of the policymakers. Lack of real-time scientific information and data has caused delays in responding to the pandemic, especially at the national levels.
2. Lack of institutional frameworks has often led to asynchronous responses between the decision-makers and the scientific community. Some of the relatively successful cases of pandemic responses have demonstrated that they were able to draw on the frameworks and capacities developed from recent pandemic cases, which led to the success of rapid and targeted deployment of health responses.
3. Countries need to build on these frameworks together to ensure the continuity of the science, policy and society interface as we enter the “chronic” phase of the pandemic, where competing information and advice generate “science-fatigue” among people. The public needs to be engaged and trained from an early age on scientific methods and theories so that they will have more appetite to absorb scientific advice throughout their lives and understand that data-driven evidence allows everyone—governments, civil society and the public—to respond better.
4. Furthermore, low-income countries need to be brought on board to build these frameworks. The resulting blend of cooperation and competition—“coopetition”—would allow these countries to more directly benefit from these efforts and strengthen their capacities for science-based decision-making and responses.

International organizations with health and scientific experts are well-positioned to lay the foundation for developing good, science-based policies by engaging the scientific community and experts. Countries with well established relationships with international organizations and the scientific community continue to be able to disseminate scientific information and mobilize medical support more rapidly during the pandemic.

Key takeaways from Panel 2: Regional perspectives on harnessing technology to limit the worst effects of COVID-19

The second panel consisted of two sessions—a global session led by UN DESA and a regional breakout session in Arabic led by the United Nations Economic Commission for Western Asia (UN ESCWA).

The global session highlighted examples of technological innovations to help relieve the worst effects of COVID-19. Several panelists highlighted the importance of developing a common platform to ensure that countries and people can respond to the pandemic in a more collective manner, while noting that technologies do not always have to be cutting-edge, in order to ensure innovative results. For example, the African Union led the establishment of the COVID-19 Response Fund, which allowed pooled procurement of medical supplies at a much lower cost for countries. It also allowed countries to share COVID-related information and diagnostics throughout the region. Furthermore, in Bangladesh, introduction of a basic digital payment system allowed small businesses and people to continue their economic activities safely and survive during the pandemic. Speakers from Oman and the Republic of Korea discussed the digital and innovative responses from their countries that were submitted to the *Compendium of Digital Government Initiatives in Response to the COVID-19 Pandemic* compiled by UN DESA.

Panelists also stressed that in order to fully harness technologies in COVID-19 responses, innovations must be accompanied by other associated factors, such as: 1) basic infrastructure, such as energy infrastructure; 2) a strong trust in governance developed by ensuring open and transparent dissemination of quality data; and 3) effective policies that work in tandem with technologies.

The regional session was centered around a discussion on the use of big data in relation to the COVID-19 pandemic. Statistical experts from Lebanon and Jordan presented example cases where they utilized big data to monitor public sentiment and concerns about the pandemic, as well as mobility patterns. This data was used to develop effective policies for responding to the outbreak. It was stressed that availability of more granular data would be important to address local concerns. In Jordan, which like Lebanon faces a large refugee crisis, the COVID-19 pandemic presented the first big opportunity to implement broad data-driven policies, which it employed for online education, food assistance and aid to small- and medium-sized enterprises, among other focus areas.

Please find attached an annex with the list of speakers and questions raised by the audience for your information.

ANNEX: PARTICIPANT LIST

Moderator: **Ms. Tanya Lewis**, Associate Editor, Health and Medicine, Scientific American

Introductory remarks

Mr. Munir Akram, President of the United Nations Economic and Social Council

Mr. Liu Zhenmin, UN Under-Secretary-General for Economic and Social Affairs (video message)

Panel 1: Using science-based decision-making to counter COVID-19

- **Ms. Susan Athey**, Economics of Technology Professor at Stanford University Graduate School of Business
- **Ms. Socorro Escalante**, Coordinator, Essential Medicines and Health Technologies, Division of Health Systems and Services, World Health Organization Regional Office for the Western Pacific
- **Mr. Paulo Gadelha**, former President, Fundação Oswaldo Cruz (Fiocruz), member of the 10-Member Group of the UN Interagency Task Team on STI for the SDGs
- **Mr. Houman Haddad**, Chief of Emerging Technologies, World Food Programme
- **Mr. Vaughan Turekian**, Executive Director of the Policy and Global Affairs Division, National Academies of Sciences, Engineering and Medicine; member of the 10-Member Group of the UN Interagency Task Team on STI for the SDGs

Panel 2:

- a) Global session: Regional perspectives on harnessing technology to limit the worst effects of COVID-19

Moderator: **Ms. Tanya Lewis**, Associate Editor, Health and Medicine, Scientific American

- **Ms. Buthaina Mohammed Al Kindi**, Senior Executive, e-Transformation, Ministry of Transport, Communications and Information Technology, Sultanate of Oman; contributor to the Compendium on Digital Governance Initiatives in Response to the COVID-19 Pandemic
- **Mr. Victor Konde**, Officer-in-charge, Green Economy, Innovation and Technology Section, UN Economic Commission for Africa (UNECA)
- **Mr. Nebojsa Nakicenovic**, former Deputy Director General and CEO of the International Institute for Applied Systems Analysis (IIASA); former member of the 10-Member Group of the UN Interagency Task Team on STI for the SDGs
- **Ms. Seong Ju Park**, Deputy Director, Ministry of the Interior and Safety, Republic of Korea; contributor to the Compendium on Digital Governance Initiatives in Response to the COVID-19 Pandemic
- **Mr. Jonathan Wong**, Chief of Technology and Innovation at the UN Economic and Social Commission for Asia and the Pacific (UN ESCAP)

- b) Regional session: Technological and science-based solutions in Western Asia (in Arabic)

Moderator: **Mr. Fouad Mrad**, Senior Programme Manager, Technology for Development, UN Economic and Social Commission for Western Asia (UN ESCWA)

- **Mr. Ziad Abdallah**, Central Administration for Statistics, Lebanon
- **Ms. Ahlam Al-Rosan**, Department of Statistics, Ministry of Planning and International Cooperation, Jordan

Concluding remarks

Mr. Fouad Mrad, Senior Programme Manager, Technology for Development, UN Economic and Social Commission for Western Asia

HIGHLIGHTS FROM QUESTIONS RAISED BY PARTICIPANTS

About 1,025 participants registered in advance for the event, and they submitted about 40 questions for the panelists. Participants represented at least 100 countries including from Africa, Asia, North America, South America, the Caribbean, Europe and Australia. Several questions were addressed during the event, including one from Facebook. UN DESA will use the others to inform future sessions of online dialogues and analytical work.

Here are some highlights from the questions submitted.

FINANCE AND ENTREPRENEURSHIP

- How do we encourage and formalize startups that focus on data and measure the efficiency of programs meant to provide COVID-19 relief? (Temistocles Guerra Vargas, San Jose, Costa Rica)
- What are good practices for financing, donations, procurement, and technical assistance? (Andre Mboule, Yaounde, Cameroon)
- What are some trends in innovations or disruptions that could help with COVID-19 and SDG implementation? (Manohar Velpuri, USA)
- What kinds of tech jobs are being created from COVID-19 responses? (Katayoun Sephiri, Tehran, Iran)
- How shall countries without budgets cope with lack of capacity as it relates to STI and COVID-19? (JCarolyn, Uganda)
- What are some examples of frontier technologies for COVID recovery? (Iman El-Banhawy, Cairo, Egypt)

GOVERNANCE

- What are some of the ways to make digital connection an essential good--not just a luxury service--like water? (Peride Blind, Guatemala City, Guatemala)
- How can we prevent unfairness and discrimination in tech policy? (Jennifer Aisha Yates, Abuja, Nigeria)
- What are the three most challenging barriers to the adoption and implementation of technological and science-based solutions to the COVID-19 challenge in developing countries, especially African countries? (Hubert Foy, Georgia, USA)
- How can science-technology links for sustainable development be developed through South-South and Triangular Cooperation? (Peride Blind, Guatemala City, Guatemala)
- Various stakeholders in developing countries are facing hurdles in survival and strengthening of their emerging entrepreneurs. What kinds of policies have been effective in correcting this? (Muhammad Subhan Qureshi, Peshawar, Pakistan)
- How much are the SDGs being affected by COVID-19? (Faisal AlFadl, Riyadh, Saudi Arabia)
- Why is it that technology and science-based solutions are so slow to respond to the growing pandemic? (Rabindra Shakya, Lalitpur, Nepal)

MEDICINE/HEALTH

- How are some of these vaccines that require low freezer temperatures going to be delivered to rural constituents? How will tech be deployed for that? (Jean Sack, Fallston, Maryland, USA)
- How can STI be used best to spread information about the distinction between Malaria and COVID-19 in Africa since both have similar symptoms? (Chimaobi Ubochi, Abuja, Nigeria)
- What do you think about this idea: We have an opportunity to leverage tech to deal with last-mile, under-resourced communities in off-grid and under-electrified health clinic catchment areas in order to deal with the current crisis and to build back better to prepare for future challenges. (Sarah Baird, Buffalo, NY, USA)

SOCIETAL ISSUES

- What solutions do you suggest for the disabled who are in severe need of technologies? (Masoome Amidi, Qazvin, Iran)
- What are policies and technical solutions that have enabled the most vulnerable and marginalized sections of society (rural children and women) during the COVID-19 pandemic? (Ravinder Singh, Baru Sahib, India)
- What is the role of Indigenous science, remedies and solutions in dealing with COVID? (King El Rey, Atlanta, Georgia, USA)
- How is the UN promoting the use of technology to assist elderly persons? (Curtis Doebbler, San Antonio, Texas, USA)
- Do the panellists believe that inability to pay should no longer be a barrier to being able to access or publish research that can help address global development challenges, not least COVID-19? (Stephen Wyber, Netherlands)
- Do you think that the problem is in the existence of COVID-19, or that COVID has put the world in a real confrontation with the capabilities of states and human rights? (Basema Al Omari, Dubai, UAE)
- How can we use technology to improve the livelihoods of the rural communities where youth have migrated back to the village due to the COVID-19 pandemic? (Pradeep Mehta, Nainital, India)

TRUST IN SCIENCE

- In countries that have followed scientific guidance during the pandemic, how have they overcome efforts to undermine public trust in science and public health? (John Clymer, Washington, DC, USA)
- What are the solutions for misinformation, disinformation and hate speech related to COVID-19? (Will Ferroggiaro, Washington, DC, USA)

STAKEHOLDER ENGAGEMENT

- What are ways to engage stakeholders to support this cause of tech for COVID-19 recovery? (Elias Changa, Lusaka, Zambia)
- How can Civil Society Organizations incorporate vulnerable groups into policies to make them technologically literate and able to recover economically and health-wise from COVID? (Aisha Ahmed, Katsina, Nigeria)
- Are there any facilitation mechanisms to help spread and replicate solutions? (Demba Ndiaye, Washington, DC, USA)

FOOD SCIENCE

- Please more about the role of food and the best types of food for the COVID-19 time, also about the regulation of biocidal products used a lot during COVID. These compounds are used widely in all developing countries with no regulations. (Ahmad Madavi, Tehran, Iran)

EDUCATION

- What are examples of effective, large-scale tech-based education solutions? (Pramila Manoharan, Patna, India)