

Thematic Session 3: Building resilience against future shocks through structural changes and investment in sustainable infrastructure.

Thank you very much H.E. (President of ECOSOC)/ Mr. Moderator; distinguished panelists, discussants & colleagues.

The Scientific and Technological Community (STC) – co-organized by the International Science Council (ISC) and the World Federation of Engineering Organizations (WFEO) – underlines the important role that science and engineering can and must play in building a resilient and sustainable future.

We call on UN System and Member States to establish trust and confidence in the scientific, engineering and technology community. Strengthen evidence-, science-, and data-based reporting. Encourage knowledge sharing on impact of policies and measures

- 1) How can we restructure our social and economic systems to build resilience against future shocks?

Transform the current economic, and financial systems, so as to create a more resilient future against similar shocks.

Work together toward an inclusive open access to existing and emerging scientific and engineering knowledge; tools, approaches and solutions.

- 2) What areas of infrastructure investment should be prioritised in the context of global recovery drive?

Stimulus packages should focus on promoting and investing in sustainable and climate resilient infrastructure.

Adopt nature-based solutions to advance multiple SDGs, avoid unintended negative impacts.

Engineering community (WFEO/ ASCE) has developed a roadmap and is developing performance standards for resilient and

sustainable infrastructure^{1,2}

3) What are the crucial policy measures for mobilizing resources for sustainable infrastructure?

Enable and remove barriers to stimulate transformative change to arrest and hopefully reverse destruction of biodiversity, climate change and depletion of resources..

Reform current governance structures in light of lessons learned to better cope with future pandemics, environmental degradation, and to accelerate transition to climate-neutral and sustainable economies.

Promote interdisciplinary approach to science and engineering necessary to addressing sustainability challenges and accelerate transformations.

Adopt equitable regulations that would encourage Public Private Partnerships including fair risk sharing mechanisms.

4) In what areas are international cooperation and coordination needed the most to build resilience through infrastructure investment and to match resources and needs?

UNESCO's Engineering Report (WFEO Contribution) highlights the crucial role of engineering in achieving each of the SDGs.³ An inclusive and gender balanced profession can respond to implementing the SDGs.

Invest in education, research and capacity building programs that embrace SDGs across the entire spectrum going forward.

Promote greater understanding of the crucial role played by scientists, and engineers in creating a more sustainable world.

¹ ASCE Five-Year Roadmap to Sustainable Development <https://www.asce.org/Sustainability-Roadmap/>

² ASCE Requests comments on ASCE/COS 73-XX *Standard Requirements for Sustainable Infrastructure* <https://www.asce.org/templates/press-release-detail.aspx?id=39661>

³ WFEO Engineering for Sustainable Development: Delivering on the Sustainable Development Goals <http://worldengineeringday.net/wp-content/uploads/2021/03/UNESCO-Engineering-Report-Engineering-for-Sustainable-Development-EN.pdf>

5) What kind of reforms, systems and transformation are needed to mobilize resources for sustainable infrastructure in developing countries?

Good governance, stability, transparent procurement and delivery processes. WFEO model code of ethics⁴, the model code of practice for sustainable development and environmental stewardship⁵ and the WFEO model code for climate adaptation⁶.

Efforts are ongoing by the WFEO in collaboration with the International Engineering Alliance (IEA) to support capacity building for engineers in Africa and Asia.

Thank you.

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Co Chair S & T MG

⁴ WFEO Model Code of Ethics

https://www.wfeo.org/wp-content/uploads/code_of_ethics/WFEO_MODEL_CODE_OF_ETHICS.pdf

⁵ WFEO Model Code of Practice for Sustainable Development and Environmental Stewardship

<https://www.wfeo.org/the-code-of-practice-for-sustainable-development-and-environmental-stewardship/>

⁶ WFEO Model Code of Practice on Principles of Climate Change Adaptation for Engineers

<https://www.wfeo.org/code-of-practice-on-principles-of-climate-change-adaptation-for-engineers/>