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Science Day 2024: 9 July 2024

The second edition of Science Day brought ideas and examples for “Harnessing the Power of Science for the SDGs: Evidence-Based Implementation Successes Worldwide.” Participants from academia, government, and non-governmental and intergovernmental organizations discussed strategies and case studies for accelerating Sustainable Development Goal (SDG) implementation while ensuring they are as evidence-based, strategic, and effective as possible.

Speakers during the three-hour event, which took place as a special event for the 2024 session of the High-Level Political Forum (HLPF), highlighted the need to enhance the interdisciplinarity of the science-policy interface. These ideas built on the opening keynote address from Ko Barrett, Deputy Secretary-General, World Meteorological Organization (WMO), and her call for extending science across disciplines, across the “science and policy decision chain,” and across diversity and inclusion. Many speakers built on the first item in particular, stressing the need to incorporate the social sciences and not just the physical sciences into research. A specific need for social



Welcoming slide to Science Day at HLPF 2024

science input was noted to be for capacity building for those who moderate cross-disciplinary teams and collaboration among ministries.

Speakers also discussed mechanisms for strengthening the science-policy interface. The role of the Global Sustainable Development Report (GSDR) in informing SDG implementation was discussed in this regard, with speakers pointing to the fact that authors for the 2023 edition found there were more scientific studies on SDG interlinkages available than when the previous edition was drafted as evidence that researchers are looking closer at the SDGs and their interlinkages. A speaker noted international processes have developed science-policy interfaces such as the Intergovernmental Panel on Climate Change (IPCC) and suggested national governments should adopt related structures. Participants discussed the need for better communication of scientific findings and a recognition among scientists that politics often intervene between scientific findings and policy formulation and implementation. Speakers also discussed the importance of knowledge brokers – those who are at the center of the science-policy interface and can help facilitate the translation of scientific findings and communication. Youth speakers highlighted the need to adopt human-centered artificial intelligence (AI) guidelines and highlighted the importance of partnerships that empower youth.

Speakers also stressed the need for the scientific community to engage in the agendas for the September 2024 Summit of the Future and the 2025 Financing for Development conferences, as well as Science Day 2025.



(L-R) **Haoliang Xu**, Associate Administrator, UNDP; **Ivonne Lobos Alva**, SEI Latin America; **Ko Barrett**, Deputy Secretary-General, WMO; and **Laurel Patterson**, UNDP

Science Day 2024 was co-convened by the Stockholm Environment Institute (SEI), the UN Development Programme (UNDP), the Sustainable Development Solutions Network (SDSN), the International Science Council (ISC), and the UN Department for Economic and Social Affairs (DESA). It took place on 9 July 2024, on the side of the 2024 meeting of the High-Level Political Forum (HLPF), at UN Headquarters in New York, US.

Report of Science Day 2024

Laurel Patterson, UN Development Programme (UNDP), and Ivonne Lobos Alva, Stockholm Environment Institute (SEI) Latin America, co-moderated Science Day 2024. Patterson opened the special event and encouraged participants to bring precision in their discussions on how we can best address the opportunities, successes, and possibilities to scale solutions for SDG implementation.

Haoliang Xu, Associate Administrator, UNDP, discussed where opportunities lie for the strategic use of science for SDG decision-making. Noting survey results have found that 53% of the global population is more worried about climate change than they were one year ago, and that four of five people want their government to take stronger action to address it, he stressed the need for policies that are grounded in science. He called attention to UNDP's SDG Push initiative, which seeks to harness science to identify how countries can achieve their priorities. He also highlighted that the SDG governance targets are the most frequently mentioned entry points for implementing the SDGs.

Opening Session

Ko Barrett, Deputy Secretary-General, World Meteorological Organization (WMO), addressed the theme "The future is interdisciplinary." She stated that the complex challenges of today require the interdisciplinary understandings of tomorrow and called for extending science in three directions. First, across disciplines, because we need interconnected science to inform

our solutions. She called for enabling collaboration across the sciences and prioritizing interdisciplinary research, including rethinking how we fund science.

Second, she called for extending science across the "full science and policy decision chain." She noted the need to translate science into information that practitioners can use in policy, and for more policy makers to be conversant in science. To achieve this, she called for incentivizing career paths that "speak the language" across science and policy domains.

Third, she emphasized the need for diversity and inclusion. She highlighted the need to embrace local knowledge and examine complex solutions from all sides, stating "if you want to solve a complex problem, you don't bring the same people from the same university to examine" it.

Barrett closed noting that "brilliance exists in every corner of our big, beautiful world, but the resources to encourage that brilliance, to support that brilliance are unevenly distributed."

Lidia Brito, UN Educational, Scientific and Cultural Organization (UNESCO), delivered a video address in which she noted that research outputs need to focus on challenges that decision makers currently face, such as plastic pollution. She stressed the importance of open science for democratizing the scientific process. She highlighted that international decision-making process have created a number of platforms to implement the science-policy interface, but few such platforms exist at the national decision-making level. She called for building a "science culture" where everyone can engage in and benefit from science.

Harnessing the Power of Science for the SDGs: Evidence-Based Implementation Successes Worldwide

Laurel Patterson moderated a panel discussion on "Harnessing the Power of Science for the SDGs: Evidence-Based Implementation Successes Worldwide." Panel members included: Verónica Tomei, Commissioner for the 2030 Agenda, German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety, and Consumer Protection; Astra Bonini, Chief, Integrated Policy Analysis Branch, UN Department of Economic



(L-R) Ko Barrett, WMO; Laurel Patterson, UNDP; and Haoliang Xu, UNDP



Panel on Harnessing the Power of Science for the SDGs: Evidence-Based Implementation Successes Worldwide (L-R) Sandra Sookram, University of the West Indies; Astra Bimini, UNDESA; Veronica Tomei, Germany; Laurel Patterson, UNDP; and Morgan Seag, ISC

and Social Affairs; Sandra Sookram, Director, Sir Arthur Lewis Institute of Social and Economic Studies, The University of the West Indies; and Morgan Seag, International Science Council.

The importance of scientific research and data for the SDGs was highlighted. The UN Member States' decisions to mandate annual SDG Progress Reports and quadrennial Global Sustainable Development Reports (GSDR) were identified as two key inputs that now help to drive the 2030 Agenda. Bonini pointed to the fact that the research process for the 2023 GSDR found researchers were looking more closely at SDGs and interlinkages than they had prior to the preparation of the 2019 GSDR points to the engagement of scientists in SDG implementation challenges. She noted the GSDR's call for such research to become more context specific for poor and middle-income countries.

Speakers proposed additional areas that require more research. Ideas included the need to pay attention to the full science-policy cycle, including real-time research that focuses on policy makers' implementation of scientists' recommendations. Sookram highlighted the quality of economic growth and whether it is inclusive, sustainable, and contributes to citizens' well-being, and the role of human capital in driving sustainable development as key areas for further research. Seag highlighted the need for ensuring the scientific community can orient its work towards actionable policies. She stressed the importance of adopting a mission-oriented approach to science to co-design and co-implement solutions to complex sustainability challenges across a wide range of actors, including scientists, policy-makers, local communities, and others.

The role of the IPCC in systems thinking and foresight for developing its climate change scenarios was highlighted as an example for identifying research needs. Platforms that bring together diverse voices, such as the UN, were also noted as valuable in bridging science and policy. Bonini noted the upcoming Summit of the Future will bring a foresight focus to global challenges and highlighted the need to build resilience and trust.

Tomei noted that Germany has established cross-ministerial teams based on the six entry points for transformation identified in the 2019 GSDR (Human well-being and capabilities; Sustainable and just economies; Sustainable food systems and healthy nutrition patterns; Energy decarbonization with universal access; Urban and peri-urban development; and Global environmental commons). She said scientific evaluations of these teams will be undertaken and noted that challenges include building capacity to moderate transdisciplinary processes across ministries.

In a video address, Gioianni Peirano Torriani, President, Board of Directors of the National Center for Strategic Planning for Peru, discussed the value of UNDP's SDG Push initiative for Peru's national planning.

Maria Teresa Parreira, youth delegate with the Major Group for Children and Youth (MGCY), highlighted the need for human-centered AI guidelines, and noted that youth are key



Youth delegates with MGCY, **Maria Teresa Parreira** and **Anika Pallapothu**

players in the adoption of technology. Anika Pallapothu, MGCY, emphasized the immense potential for AI, but said it requires responsible and informed development with the involvement of youth.

During the discussion, audience members called attention to the needs of local communities in engaging with researchers and research agendas. The need for training to build social media and digital literacy and the ability to sift through information on social media platforms was stressed. The importance of ensuring the 2025 Financing for Development conference addresses the need for funding for science and research was also noted. Another speaker emphasized the role of knowledge brokers and suggested we need to identify who they are and to support them.

Case Studies of Science in Action

Co-moderator Ivonne Lobos Alva, SEI Latin America, chaired presentations of case studies of science in action.

Norichika Kanie, Keio University and 2023 GSDR author, presented an SDG certification scheme in Japan that works with small- and medium-sized enterprises. He said the scheme divides sustainability into stages, with steps identified for achieving certification. He also discussed a certification scheme for the fashion industry and noted it was driven by a trading company that saw improved sustainability as a business investment.

Kerry Ryan Chance, University of Bergen, presented results from a research project on "Habitable Air: Urban Inequality in the Time of Climate Change." She noted the research assessed the quality of air pollution monitors, as well as the quality of air, and identified context-specific challenges for gathering and interpreting data. She reported that being embedded in the local community allowed researchers to properly interpret data.

Lori Foster, President, International Association of Applied Psychology, discussed opportunities to use behavioral science to raise the voice of scientists. She asked if "social proof," through which individuals follow the actions of others, could work at the institutional level. Noting the social challenges of



Lori Foster, President, International Association of Applied Psychology

interdisciplinary collaboration, she called attention to the science of teamwork, including the importance of psychological safety.

Mark Wuddivira, University of the West Indies, St. Augustine, and President of the Caribbean Academy of Sciences, discussed the process of developing a consortium to mobilize scientific resources for food security in small island developing states. He noted the consortium was developed to support a government request for support of its goal to reduce food import bills by 25% by 2025.

Magdalena Stoeva, Secretary General, International Union for Physical and Engineering Sciences in Medicine, discussed the importance of training as healthcare becomes more technologically dependent.

Closing Session

Joyeeta Gupta, University of Amsterdam, highlighted speakers' agreement that there is a need for interdisciplinary knowledge, better science policy interfaces across the decision chain, and better inclusion of all voices, including youth and Indigenous Peoples. She noted calls for mechanisms at the national level including scientific literacy, development of actionable knowledge, and investment in human capital,



Magdalena Stoeva, Secretary General, International Union for Physical and Engineering Sciences in Medicine



Joyeeta Gupta, University of Amsterdam

including for youth. Gupta also noted that the session had raised questions for further examination, such as how we can better communicate science to the community in terms that can mobilize the public and how we can better include behavioral science in decision making.

Highlighting speakers' emphasis that governance targets are entry points to unlock SDG implementation processes, Gupta identified a number of issues that were not raised but should be added to research agendas. These topics included: how the current economic inequality was created; how tax justice can help raise resources and control inequality; how investors and asset managers can be held accountable; the conditions under which vulnerable people can move off fossil fuels and plastics; and how multilateral relations can be strengthened to promote cooperation.

Lobos Alva thanked participants and looked forward to seeing them at HLPF 2025 for the third Science Day. She closed the special event at 1:03 pm.

Glossary

AI	Artificial intelligence
GSDR	Global Sustainable Development Report
HLPF	High-Level Political Forum
IPCC	Intergovernmental Panel on Climate Change
MGCY	Major Group for Children and Youth
SDG	Sustainable Development Goal
SDSN	Sustainable Development Solutions Network
SEI	Stockholm Environment Institute
UN DESA	United Nations Department for Economic and Social Affairs
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WMO	World Meteorological Organization