

# Environmental Sustainability in the Digital Age Convening

## *Meeting Synthesis*

Date: May 6, 2021

Time: 1:00 – 3:00 pm (EDT)



Regional convening co-hosted by:

UN Environment Programme's North America Regional Office  
in partnership with the Canada Hub of Future Earth through  
the Sustainability in the Digital Age initiative



## OVERVIEW

On May 6 2020, the United Nations Environment Programme (UNEP) North America Office, in partnership with the Canada Hub of Future Earth, and Sustainability in the Digital Age, held a virtual, high-level convening on *“Building Strategic Foundations for Digitally-Driven Transformations.”* This was the first of a series of regional consultations facilitated by UNEP to generate input into the development of the new Digital Transformations enabling subprogramme.

The convening, facilitated by Aaron Williamson, took place over a two-hour session and engaged 18 participants from North America representing the private sector, science and research communities, and civil society. During the convening, participants explored where we could begin to leverage ongoing work to accelerate action on the planetary crises we are facing. This high-level convening was conducted under the Chatham House Rule<sup>1</sup>.

After welcome remarks from the Director of UN Environment Programme’s North America Regional Office and the Executive Director of Sustainability in the Digital Age, participants engaged in targeted discussions around questions provided by the facilitator in different groupings in break-out sessions. The convening concluded with reflections in the full group on priority actions needed by different stakeholder groups, including the potential role of UNEP in this space. All participants indicated a willingness to collaborate and share data and insights to address the world’s most pressing problems.

This synthesis report describes the main themes of the discussions held at the convening as well as participants’ reflections on the potential role of UNEP in leveraging digital transformations to enhance environmental sustainability.

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<sup>1</sup> *“When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.”* (from: <https://www.chathamhouse.org/about-us/chatham-house-rule>)

## CONVENING THEMES

Five cross-cutting themes were distilled from notes taken during the course of the convening. These themes are discussed below, noting that there is overlap between the themes given that they were raised as interrelated points in a collective conversation and not as independent concepts.

### 1. Bridging local, regional, and global gaps through data

A main point of discussion centred around the need to bridge spatial scales and data transformation gaps, focusing in particular on enhancing data accessibility, capacity building, and learning from existing data initiatives already operating across scales as promising ways forward. There was a willingness by participants to support UNEPs efforts in this direction. Participants discussed the importance of recognizing the differences between how global and local environmental data can be utilized in practice, noting that averaged global data are not always appropriate for addressing planetary crises and highlighting a lack of sufficiently granular data in some parts of the world. To address this data gap, participants emphasized the need to strengthen technological solutions in partnership with technology companies with the goal of connecting global and local efforts. They also raised the need to downscale digital data and to make it easily accessible for all, especially in data-sparse regions.

There was also support for bottom-up approaches, empowering local people to identify data needs and to fill gaps. Participants stressed the importance of directly engaging people affected by planetary crises in order to ensure context-specific strategies. This includes, for example, problem definition and building a sense of ownership within stakeholder groups regarding the use of digital technologies to tackle environmental issues. This would enable the development of more locally acceptable, relevant, and personalized information and solution options. Participants emphasized the need to think holistically about the collection and use of data and the deployment of digital technologies, including impacts both positive and negative from local and regional to global scales.

### 2. Accelerating data-sharing

Closely linked to the first theme, and providing a potential mechanism for addressing some of the issues raised around bridging gaps through data, data-sharing was raised by participants as having the potential to address the data divide among nations, regions, organizations, and

stakeholders. Participants emphasized the need for private sector organizations and governments to acknowledge the fundamental need to address data and information gaps and to collaborate through data-sharing initiatives. They highlighted initiatives such as the [UN Global Pulse](#) as particularly promising, stressing the importance of providing data access to students and researchers, who would then be in a position to create novel data products to address pressing global issues. Part of developing these products and approaches will be the consideration of the types of business models that can support the collection and processing of data on an ongoing basis. Participants noted that different organizations prioritize and utilize different types of data, which can help to inform the roles they can play in data-sharing initiatives and can form a starting point for relationship-building. Participants emphasized that, for data-sharing to yield productive outcomes, it is important to establish trust within the group regarding the sources and reliability of data as well as the goals and ultimate end-uses to which the data shared will be put. Participants also highlighted the need to ensure inclusiveness in data-sharing efforts, explaining that building both trust and willingness to engage amongst all partners was critical to increasing the relevance of the datasets created to different contexts and to co-developing acceptable approaches to data-sharing.

Participants noted that data fragmentation, in terms of quality and availability, continues to be a significant challenge in accelerating data-sharing. They emphasized the need to consolidate efforts through partnerships in order to address this fragmentation and to leverage the best available data to inform data-driven decision-making. Participants also pointed to data resolution, frequency, and the maintenance of datasets as key points of discussion that must be addressed in data-sharing initiatives moving forward, as well as the need to be more thoughtful about the purposes for which data are produced and shared. **These steps will help the private sector more easily identify entry points to collaborating in developing data products in a constructive manner to inform decision-making.**

### 3. Strengthening partnerships, collaboration, and trust

Another issue raised during the convening had to do with building collaborations between different stakeholder groups at the digital transformation and environmental sustainability nexus. **Participants stressed the need to accelerate relationship-building within the context of digital transformations and emphasized the potential of UNEP to become active in this space.** A main point of discussion was around how to effectively engage private sector technology companies and other stakeholders in the sustainability space, and leverage ongoing efforts, without constraining

innovation. The creation of a global data commons as well as spaces for stakeholders to think collectively and critically about digital technologies, to build trust, and to form new types of partnerships, were raised as promising options.

Participants also discussed the framing and format of potential collaborations more concretely. They highlighted the importance of characterizing the incentives for and objectives of collaborations, identifying priority areas for collaboration and complementary strengths that different stakeholders bring to the table, and developing metrics for the success of collaborative efforts. Participants suggested creating pilot projects to implement test cases for new forms of collaborations along these lines, building on the success of new models for collaboration forged during the COVID-19 global pandemic. They stressed the importance of sharing successes and lessons learned in a more coordinated and systematic manner to collectively move forward digital transformations in a positive way. The development of digital public goods was also raised as a goal around which to build collaborative partnerships that would have positive societal outcomes.

#### 4. Building digital literacy

A fourth theme raised by convening participants centred around digital literacy. One aspect of this discussion highlighted the fact that many decision-makers cannot navigate the ever-expanding digital ecosystem and the vast datasets now available, creating an information overload that limits the utility of digital innovations for governance. There were calls for UNEP to work together with scientific institutions and private sector organizations to build the digital literacy needed to harness the potential of the digital ecosystem to strengthen environmental governance. Iterative hypothesis testing, for example, could enable rapid identification of which strategies are working best, maximizing the efficiency of efforts to build digital literacy.

In addition to decision-makers, participants also highlighted the need to engage a broader diversity of stakeholders in digital literacy initiatives, stressing that it will be critical to avoid dismissing the capacity of citizens to hold complexity in digital spaces. Participants also discussed the need to enhance understanding across a diversity of stakeholder groups about the relationship between sustainability and digital transformation. This includes creating spaces to learn about the opportunities of leveraging digital transformations as well as to think critically and collectively about the risks and challenges. One suggestion was to encourage different types of conversations to engage different actor groups, for example using storytelling to explore and promote digital solutions to planetary crises with local communities. Building capacity and trust with local

populations would also have the added benefit of addressing some of the challenges related to filling data gaps in local environments where lack of trust is currently a barrier. Participants also discussed the importance of engaging students in this work, which could yield a more creative and innovative lens on digital solutions.

## 5. Ensuring reflection in digital transformation processes

The final theme emerging from the discussions was around the need to take a reflective approach to developing and utilizing technology, and to participating in digital transformations in general. Participants noted that digital technologies are not a panacea to sustainable development—they are not the optimal solution for every problem and can have both positive and negative impacts on human and environmental systems. Participants stressed the need to work together to identify and increase acknowledgement of the strengths and limitations of algorithms as well as the need to allow for space to address problems through both digital and non-digital means. This will be important to ensure that, ultimately, the solutions prioritized actually are the most effective way to meet societal needs. Participants suggested that normalizing the consideration of low-technology solutions in addition to or instead of high-tech options could help, as these solutions may be more relevant locally, less expensive, and provide a better fit with existing norms, practices, and structures.

Linked to this, it will be important to identify inflection points and to build our understanding of where digital solutions may inadvertently lead to negative impacts. Participants discussed the importance of designing solutions with human and planetary well-being as primary goals in mind. As an example, participants noted the significance of digital advertising in today's world, and its role in driving consumption as well as its potential to create opportunities for transformation. The impact of digital transformations on environmental systems was discussed, including concerns over the growing energy needs of operations related to information and communications technologies. But participants also recognized the potential of digital transformations to open up opportunities to measure and monitor environmental systems, providing new mechanisms through which to strengthen environmental governance. The pivotal point will be to ensure that opportunities are harnessed appropriately and thoughtfully to tackle planetary crises, in line with the themes discussed during this convening.

## THE ROLE OF UNEP

The convening also provided a space for collective reflection on the potential role UNEP could play in leveraging digital transformations for positive environmental sustainability outcomes. Overall, the consensus was that UNEP's role should be to act as a broker between actors and groups. This was discussed in two main contexts.

### 1. UNEP to broker the development of a framework for data-sharing, including the consideration of digital environmental principles, standards, and norms

Participants stressed the importance of developing a central platform for data-sharing. They emphasized that UNEP could help facilitate this by working with private sector stakeholders, in particular from big tech companies. Key to building such a platform will be the development of frameworks to help guide digital transformation processes and to illustrate the different ways in which these processes can influence environmental sustainability. Again, participants see UNEP as playing a key role in this space. **One challenge with data-sharing raised by participants is the lack of clear goals, lessons learned from best practices, principles, and standards, which are important for building trust amongst different stakeholders. UNEP could work collaboratively with researchers, governments, intergovernmental bodies, and the private sector to broker the development of a framework to make these types of information explicit in data-sharing arrangements.** Given that different organizations have different data protocols, collaborative efforts will also be needed in order to take stock and prioritize the data needed to address planetary crises, to develop principles to guide data-sharing, and to ensure that datasets are interoperable and broadly accessible. A framework on digital environmental principles, standards, and norms could address this and also have the additional benefits of nurturing partnerships and building confidence in government and other key stakeholders.

Participants also noted the important role of UNEP in raising general public awareness on open data, data-sharing, and best practices in data management. Such awareness-building can be best accomplished through engagement and education efforts. Building digital literacy and a broad understanding of the need for open data and data-sharing amongst youth, researchers, and decision-makers will not only help to develop the necessary capacity to create a collective, central data repository, but can also help to further our understanding of how different stakeholder groups can most effectively contribute to driving positive and inclusive actions stemming from digital transformations across sectors and spatial scales.

## 2. UNEP to broker conversations between researchers, private sector stakeholders, decision-makers, and other stakeholders

Participants saw an important role for UNEP in orchestrating the needed conversations and collaborations between researchers, big tech companies, the public, and decision-makers. Participants encouraged UNEP to broaden its mechanisms for engaging in partnerships and collaborations, in particular emphasizing the need for UNEP to engage more directly with big tech companies. UNEP can play a pivotal role in influencing and providing incentives for these companies to contribute to the creation of digital public goods through the development of open data and data-sharing arrangements to enhance global access to finer resolution data. **UNEP is also in the unique position of being able to forge the connection between the needs of policy-makers on the one hand and private sector stakeholders who are willing and able to engage on the other. Connecting the demand with the supply in such a way was seen as a crucial role for UNEP to play moving forward, and one which most other groups would likely be unable to perform as effectively.**

Participants also stressed the important role UNEP has to play in aligning efforts and goals across different partner organizations and in integrating digital transformation processes within the broader United Nations system. They stressed the particular importance of providing policy and technical support to all collaborating partners. Such support can include providing information on best practices in digital environmental data policy, supporting expanded data accessibility, especially in data-sparse regions, and sharing insights into how best to transform data into evidence-based action. This role includes working across disciplines and sectors and finding points of convergence and complementarity amongst ongoing efforts without downplaying innovation by any stakeholder. UNEP could also help to clarify and elaborate the roles and responsibilities of different partner organizations regarding data needs, data provision, and data maintenance, which would include supporting the development of business models. Finally, UNEP should ensure that no one is left behind in being able to leverage digital transformations and that everyone has access to high-quality data. To this end, UNEP could create a space to foster knowledge-sharing, where everyone—ranging from students to governments and everyone in between—can make their data needs known to the public and which could help connect them to organizations and other resources to meet these needs.



## NEXT STEPS

Following the convening, and the willingness from participants to advance these conversations and support UNEP's digital transformation process, the UNEP North America Office, the Canada Hub of Future Earth, and Sustainability in the Digital Age are exploring how best to continue engaging this group moving forward. This team will also be developing a report expanding on findings of the convening in relation to the work done by the Coalition for Digital Environmental Sustainability (CODES) to feed into this effort as well.

