UNOPS

SUSTAINABLE INFRASTRUCTURE PARTNERSHIP

UN environment
United Nations Environment Programme

Workshop on Inclusive Infrastructure

14-15 November 2019 | Geneva
Summary report

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1. INTRODUCTION

UN Environment and UNOPS jointly organized a workshop on inclusive infrastructure on 14-15 November 2019 in Geneva. This summary report synthesizes the workshop proceedings, discussions, findings and outcomes to communicate the key messages more widely and facilitate further discussion and development of a roadmap for next steps.

1.1 Background

The workshop was organized under the chapeau of the Sustainable Infrastructure Partnership (SIP). While it is widely recognized that infrastructure enables development and fosters economic growth and development, its benefits are not always equally shared. Socio-economic inequalities often manifest themselves in access to infrastructure and the delivery of basic services, such that vulnerable and marginalized groups of the population are excluded from experiencing the positive outcomes of infrastructure development and are sometimes adversely affected by it. The workshop aimed to provide a platform for participants to identify some of the physical and social barriers to inclusive infrastructure development and share ideas for improving infrastructure projects such that they have a positive impact on excluded and vulnerable groups.

1.2 Workshop objectives

The workshop brought together a wide range of stakeholders with experience and expertise in social development, economic empowerment, environmental protection and the built environment to address the issues around inclusive infrastructure. With so many organizations and experts working on different aspects of the issue globally, the workshop aimed to trigger a concerted effort to address this highly complex issue. The objective of the workshop was to identify various physical and social barriers and co-develop solutions for overcoming them so that infrastructure addresses diverse user needs. The final objective was to come up with a series of actionable recommendations for the participants to collectively take forward. The outcomes of this workshop are expected to directly inform the development of SIP guidance and an analytical report on inclusive infrastructure.

1.3 Discussion framework

The workshop structure included three sessions focusing on: 1) identification of key challenges when developing inclusive infrastructure, 2) identification of potential solutions for those challenges, and 3) recommendations for actions for the group of participants to take forward. Each of these three sessions included a plenary and breakout groups. The detailed agenda can be found here and details of workshop proceedings are provided in section 2 of this report.

For the first two sessions, a framework was developed using the three stages of infrastructure lifecycle, that is, planning, delivery and management stages. As countries face distinct challenges in each of these three stages when trying to achieve inclusive infrastructure service delivery, the framework provided a good starting point for conversations during the breakout sessions for identifying specific challenges and targeted solutions that can be implemented to streamline the inclusion process. The challenges and solutions pre-identified by workshop conveners can be found in the background note.

1.4 Participants

There were 56 participants attending the workshop representing a diverse range of organizations including UN agencies, the private sector, academia, NGOs, development banks, and other development agencies. They shared their perspectives and experience to identify specific challenges and opportunities for planning, delivering and managing more inclusive infrastructure and recommended concrete follow-up actions to be taken forward (see Appendix for the list of participants).

2. WORKSHOP PROCEEDINGS

This section details the proceedings of the workshop and minutes of the discussions during the opening session and the subsequent three sessions on challenges, solutions and recommendations for actions. In the first two plenary sessions, the following four speakers were invited to give presentations and share their perspectives on different aspects of the topic:

- Morag Baird, Director, Global Infrastructure Hub (GIH)
- Dr Coraline Goron, Assistant Professor of Environmental Policy, Duke Kunshan University
- Dr Stephanie Hirmer, Lecturer on sustainable and inclusive infrastructure, University of Cambridge and University of Oxford
- Dr Renu Khosla, Director, Centre for Urban and Regional Excellence (CURE)

The purpose of the presentations was to stimulate discussions during the subsequent breakout sessions. The discussions during the plenary and breakout groups in each of the three sessions have been summarized here.

2.1 Opening and introduction

Infrastructure has a considerable impact on society. Once it is in place, it sets the pattern for how we use resources. Infrastructure is also key to the achievement of the Sustainable Development Goals -- 92% of the SDG targets are influenced by the provision of infrastructure services. A significant aspect of the SDGs is inclusion -- in fact, the third most used word in the SDGs is "inclusive". The issue of inclusion in infrastructure, however, is complex. This is why we came together to discuss the challenges in planning and developing inclusive infrastructure, and to frame solutions as well as actions.

The workshop was framed around identifying the challenges while planning, delivering, and managing inclusive infrastructure, in order to improve solutions and develop actions. A diverse group of people with different perspectives and interests were in attendance. The workshop was a step forward in bringing their perspectives together in order to develop concrete solutions to make projects more sustainable and to select more sustainable projects in general.

On a global level, major gaps need to be filled in infrastructure, but public resources are limited. Upcoming decisions will also have important climate and social implications. In order to support the process, this workshop served to inform the development of SIP guidance and help produce an analytical report on inclusive infrastructure, as outlined in the final section of this document.

2.2 Session 1 – Framing the Challenge: Addressing the Needs of All Plenary

Social inclusion is essential for a productive society. Yet, various groups in society are vulnerable and excluded. For example, there are disparities by regions (inequalities between rich and poor, urban and rural, country to country and region by region) when accessing water, electricity and sanitation. Inclusive infrastructure can help reduce geographic divides and poverty and increase gender equality and social stability by improving affordability and accessibility.

In this way, infrastructure plays a central role in development, as it can enhance social inclusion, ensure that no individual or social group is left behind, enable access to services for low-income user groups, and create other benefits such as job creation and civic engagement.

Morag Baird framed the challenge related to inclusive infrastructure development, drawing on the framework of the Inclusive Infrastructure Reference Tool developed by GIH. Key challenges identified in her presentation included:

a) Stakeholder identification, engagement and empowerment: Who is being overlooked when stakeholders are defined as those with the power to implement decisions?
b) Governance and capacity building: Leaders have the ability to transform visions of inclusion into reality, but are they doing it? Are resources being targeted and assets being developed for inclusive outcomes?
c) Policy, regulation and standards: What systems exist to guide goals and visions towards implementation? Are policy and legislation followed through and standards implemented?
d) Project planning, development and delivery: Is inclusion considered throughout the project lifecycle? Is it part of the overall project strategy or is it an afterthought?
e) Private sector roles and participation: Can public and private incentives be aligned beyond innovation and job creation targeting inclusion?
f) Affordability and optimizing finance: Is inclusive infrastructure affordable for the end-user and the government in terms of socio-economic returns and fiscal sustainability?

These challenges were applied on a project-level by Dr Coraline Goron, who critically examined the global energy interconnection project and ultra-high voltage grids in China. She identified a “cognitive disconnect” between rhetoric and reality. The key points of her presentation were:

- We need to assess whether inclusion is really at the heart of projects being analyzed. Previous energy projects at a global scale got caught in problems directly relating to inclusiveness, such as the Desertec initiative, which included the creation and allocation of revenue, the distribution of property, and the access and usage of electricity.
- China is mobilizing investments ahead of the USA and the EU in order to triple its energy production by 2030. Ultra-high voltage grids are meant to support the transfer of energy from China’s Western regions to the East.
- The neglect of local distribution grid development, however, leads to significant problems.
- This emphasizes the necessity to integrate infrastructure planning across spatial scales in order to improve inclusiveness, especially towards the rural population.
- It is necessary that local and national governments cooperate, as current trends are leading to uneven resource distribution and imbalanced economic development could be locked in for decades.

Additional concerns include the harmful environmental effects of China’s energy mix that has high-levels of coal-fired power generation and the adverse impact of the project on marine ecosystems. In a subsequent discussion, the “last mile” for energy projects was identified as a key challenge in the development of inclusive energy infrastructure systems.

Breakout group

The breakout groups discussed key challenges in relation to the stages of infrastructure planning, delivery and management.

<u>Key challenges in the planning stage include:</u>

- Governance: the absence of national obligations and standards
- Ineffective assessment and inclusion of needs and priorities of relevant stakeholders in infrastructure planning
- Lack of proper data and key performance indicators

Governance: There is often a lack of capacity at the local level, which creates dependence on the federal/ national government in terms of coordination, planning and assessment. Challenges to good governance include vertical and horizontal coordination, diversity, short-term planning, decision making, transparency and accountability.

Stakeholder engagement: The current challenge starts with the identification of relevant stakeholder groups whose needs should be served and who might be impacted by the infrastructure project in question. Stakeholder consultations are too often ineffective as identified needs and priorities of all relevant stakeholder groups, including local communities, are not integrated into the objective of infrastructure development. This requires a mindset change, with the challenge of establishing a national vision focusing on serving these needs and ensuring their inclusion in infrastructure planning.

Lack of proper data: This includes the lack of capability to collect, analyze and use data for decision-making. It is part of the wider challenge of missing key performance indicators of good infrastructure, which can inform the planning processes.

<u>Key challenges in the delivery stage include:</u>

- Information sharing gap between planning and delivery
- Procurement issues: procurement process lacks penalties and rewards for addressing diverse user needs. Budgets do not allow for considerations to mainstream inclusion.
- Lack of communication with private and public key actors and lack of consultation with relevant stakeholders

Information sharing gap: Information is not effectively shared from one stage to another, leading to a lack of understanding of what is the situation on the ground. Considerations of inclusion within the planning stage can thus become lost in the delivery stage.

Procurement issues: An overall lack of intergovernmental coordination, conflicts of interest, and lack of capacity to deliver on inclusion pose severe challenges. Delivery is often not aligned with design standards and legislation that enforce the implementation of inclusion in infrastructure delivery, including through the procurement process, fixed timelines and budgets.

Lack of communication: Delivery timelines generally provide little scope for delivering on inclusion, as consultations are perceived as time-consuming. The delivery often does not adjust to changes in the needs and priorities of relevant stakeholders, especially local actors. Neither is there a demand from private sub-contractors to consult with stakeholder groups and deliver on their priorities.

Key challenges in the management stage include:

- Stakeholders' engagement in operation and maintenance remains limited, which causes a disconnect between the infrastructure service provision and the needs and priorities of the users and local communities.
- Standardization and accessibility of data required to inform infrastructure management decisions remain limited.
- Insufficient preventative and reactive maintenance result from the lack of monitoring tools benchmarking performance over time. The lack of regulatory policies intensifies these challenges.

2.2 Session 2 – The Social, Economic, and Environmental Nexus
Plenary

The focus of this section is the connection between social, economic and environmental sustainability in order to aim for maximization of synergies and minimization of trade-offs.

Dr Stephanie Hirmer spoke about her User-Perceived Value (UPV) approach, which aims to meet users' priorities in infrastructure development. The following were key takeaways from the presentation:

- Infrastructure design solutions can take many forms, but their spatial and temporal impact can vary depending on the local context and buy-in.
- To understand the true impact, there is a need to move beyond short-term social, economic and environmental costs and outweigh these against the potential long-term and transformative social, economic and environmental benefits.

- Understanding what is important to rural communities – by means of the User-Perceived Value approach[1] – one can ascertain the potential benefits of infrastructure to its users at different stages of the project cycle and facilitate these by means of appropriate design decisions.

For Dr Hirmer, the benefits of infrastructure are clear. When done right, it can have a positive transformative impact on development, across multiple sectors. There are also environmental benefits resulting from infrastructure. She used the example of rural electrification, where the replacement of traditional to modern forms of cooking can preserve land and subsequently stem biodiversity loss, as well as reduce CO2 emissions: having a local- and global- scale impact.

However, Hirmer also pointed out the importance of considering the broader environmental impact. This is especially important for rural projects—rural communities rely heavily on natural resources to meet their basic needs. The implication of considering any project in isolation can be illustrated in the following example. A UPV interviewee in Uganda explained the impact a project to preserve the local National Park had on the community requiring community members (mainly women) to travel long distances to collect firewood. While this project of banning the collection of wood had a positive environmental impact overall, the real human and social impact of those relying on natural resources cannot be understated or ignored; especially when no viable alternative was offered. Here an additional modern cookstove project could have been the solution; as was inferred by locals during the UPV interview. Hirmer used these examples to highlight the challenges and complexities planners face when designing and implementing new infrastructure solutions.

Dr Renu Khosla introduced the work of her NGO, Centre for Urban and Regional Excellence (CURE) which helps to provide infrastructure services to local communities, namely by developing water resilience systems. The presented projects focus on the Indian city Agra and reimagine water solutions for slums. The following were key points raised:

- CURE believes that poor communities with their wisdom can be important resource generators, and using this principle, the NGO has successfully used an ecological approach to slum upgrading.
- Installing community-based rainwater collection systems has resulted in social empowerment/ increased social inclusion, for instance, through increased enrollment of girls in schools.
- Providing democratized spatial data is necessary to show local governments where the impact of policies and investments is not reaching the target, in order to improve social inclusiveness.

In cooperation with the local government, CURE has constructed seven rainwater collection systems in certain community spaces, such as mosques and schools. This resulted in 1 million litres of water being collected per year for drinking and cooking. It empowered children and women in the communities and enrollment in schools increased, particularly for girls. Cooking times decreased since the water was cleaner, giving women more time to pursue other activities.

Thus, it is evident that within this ecological approach to urbanism, communities are transformed in such a way that people become part of the ecological system and gain access to fundamental resources such as clean water and sanitation. To achieve this, planning should be data-driven. For example, CURE has developed a tool called URBMAN, which is a volunteer information system crowdsourcing data from local governments.

Key challenges identified are that slum dwellers live on illegal land in overcrowded conditions. Due to these circumstances, they generally remain voiceless, and policies do not accommodate their needs. It is particularly hard to influence government action due to their traditional ways of working and resistance to new approaches.

Other challenges discussed in the plenary focused on scaling up the presentations' project-based local initiatives. Needs assessment tools can be applied in various circumstances, but governments must have the willingness and capacity to use

[1] The UPV approach is a novel data-collection method complementary to needs assessments. It uses an indirect probing technique to truly understand what is important to project users when it comes to infrastructure.

them. It is important to advise governments to strengthen their procurement processes and build institutional capacity in order to scale up these initiatives. Cooperating as civil society organizations can also be a powerful tool in order to lobby government and support the capacity-building of smaller NGOs.

Breakout group

The breakout groups discussed solutions in relation to the stages of infrastructure planning, delivery and management.

Solutions in the planning stage:

- Governments should take environmental and social considerations into account at the national level and have a long-term view with a high-level political mandate for inclusive infrastructure planning.
- Development of best practice guidelines, including the use of environmental, social and human impact assessments.
- Definition of data needs and building information-sharing platforms will democratize data and increase its accessibility.

The groups identified inclusive policymaking as a good solution to achieve inclusion within infrastructure planning. This involves the government setting national obligations for environmental (e.g., biodiversity) and social safeguards. National action plans should be based on integrated planning approaches and should incentivize inclusion during the delivery stage.

Solutions in the delivery stage:

- Develop a more transparent procurement process with templates for goods and services contracts.
- Capacity building for procurement authorities to develop and manage requests for proposals and contracts.
- Engage a wider range of relevant stakeholders in the delivery process.
- Use sub-budgeting and a mix of public and private finance.

Good procurement processes can be achieved by using contracts and tender documents with a focus on the inclusion of local actors within the project implementation. Collaborations between the private sector and NGOs can enhance transparency in the process.

Central and local governments should cooperate in order to include third parties such as local NGOs that can convey the local communities' needs and priorities. Stakeholder engagement processes should be held for each stage of infrastructure development, and, most importantly, the identified needs and priorities should be considered during implementation.

Delivering on inclusive infrastructure might entail higher costs due to the constant alignment with identified needs. However, a mix of public and private finance can help overcome funding gaps.

Solutions in the management stage:

- Upgrading and retrofitting of infrastructure should be based on the needs of the relevant stakeholders, for example, through community-led initiatives for monitoring, assessment, evaluation and adjustment.
- Evaluation and monitoring tools should be based on appropriate data and should adapt to developing technologies. Data transparency and availability are central in order to be able to assess whether infrastructure is still fit for an inclusive purpose.
- Risk-modelling and scenario planning are important to reduce climate-induced and other risks in all stages. Targeted funds for, inter alia, project-led climate activities can reduce the costs of later upgrading and retrofitting.

Summary of day one

Infrastructure development impacts almost everyone and everything, from ecosystems and the climate to the economy and a nation's population. Therefore, infrastructure development needs to ensure that everyone gets equal access to its services. Some of the challenges to address include gender inequality, the technology access gap and the needs of an ageing population. Low-income communities are also more susceptible to environmental degradation. Infrastructure is central to addressing these issues. It is important that from the beginning, small-scale and project-level challenges are identified and solutions for integration are discussed. The implementation of existing tools for social and environmental impact assessment can support this process to ultimately achieve inclusiveness through infrastructure projects.

Nevertheless, scale does matter, as the challenges are colossal and systemic. The issue of inclusion matters beyond the project and sector level. It is important for planning to be proactive at the macro level. The following question was raised in discussions - is it possible or desirable to take infrastructure out of politics and achieve truly integrated infrastructure with the long-term in mind?

2.3 Session 3 – The Way Forward

Plenary

The plenary session on day two served as a check-in session to discuss the previous day's findings and identify gaps to address. After mainly project-level observations on day one, subsequent discussions had a greater emphasis on system-level approaches. These were the key points raised:

- Coordination is central for achieving inclusive infrastructure, including coordination (a) between national ministries; (b) between the public and private sector; (c) between international organizations and donor institutions; and (d) between international organizations and national leadership.
- Industrial parks can achieve positive social and environmental synergies through integrated infrastructure systems and job creation. They can serve as experimental spaces to scale up and transfer learning to other areas.
- The procurement process is important for projects to be implemented sustainably and inclusively, but its relevance is limited for a systems-level approach.

A central theme within the plenary discussions was coordination. Inter-ministerial coordination and coordination across levels of governance are essential so that infrastructure on different levels and in different sectors serves similar purposes and can be integrated. For instance, Australia is currently improving its inter-ministerial coordination on the development of infrastructure to benefit from cross-sectoral synergies. In order to get the private sector on board for the planning and development of inclusive infrastructure, it is important to build up a business case around it, possibly across sectors. Donor institutions are a key target group to coordinate with in order to prioritize inclusion in the agenda of infrastructure development in developing countries. For example, in the case of Africa, where the German Marshall Plan for Africa and Chinese initiatives are being implemented, it was necessary to coordinate with key decision-makers in these institutions, which ultimately led to the mobilisation of financial resources.

The UN was recognized by the participants as well-placed to lead these coordination discussions. However, the discussions led to the conclusion that inclusivity cannot be sustainably prioritized in infrastructure agendas in developing countries if national leadership is not convinced of the benefits. Thus, coordination with national leadership is also key for the successful shift towards inclusive infrastructure. More and more countries are building long-term visions which are in line with national ownership of their own infrastructure. It will be important to support the development of national action plans and establish visions, to benchmark development towards the achievement of targets and goals.

Another key point of discussion was industrial parks, which serve as examples of infrastructure systems that might provide synergies and positive social externalities. Industrial parks were frequently mentioned as experimental spaces to scale up and transfer learning to other areas. They have become increasingly popular and let us rethink individual infrastructure systems for individual industries. Critical remarks were also raised, however, as industrial parks are often built in areas that are not in proximity to communities and cities. The remote location of such projects can limit the achievement of intended economic and social benefits. Environmental benefits can also be reduced with poor planning decisions. For example, entirely new wastewater systems would need to be established that are difficult to integrate into existing systems. It is thus required to always reflect on the possibility of integrating new infrastructure into existing systems.

Finally, the procurement process was once again discussed as key to achieving inclusive infrastructure, as private construction companies are currently building large projects without considerations for disadvantaged and marginalized groups by taking advantage of existing loopholes in order to increase their profit margins. International agencies should focus on supporting contracting agencies and perhaps provide independent supporting mechanisms. Introducing guarantees in the procurement process can, furthermore, facilitate the localization of contractor solutions and ensure the inclusion of local needs. Overall, approaches that focus on making the right choice of projects need to be oriented at the systems-level.

Breakout group

In the final breakout session, the groups each identified four key actions, moving forward, on how to implement the solutions. These actions were later ranked by the participants. The most important actions to take forward were:

1. **Inter-agency collaboration and partnership around inclusive infrastructure to promote integrated approaches and consolidation of standards, guidelines and methodologies.**

2. **Bottom-up disaggregated data collection and management, especially on human/social and environmental aspects.**

3. **Bringing together a national civil society coalition on climate-smart and socially inclusive infrastructure. Connecting the coalitions to governments and potentially across countries.**

4. **Changing mindsets – establishing the role of infrastructure through training and MOOCs**

The four identified actions reflect the discourse of the entire workshop well. The need for inter-agency collaboration and partnership was identified as the most important step forward. Moreover, the need to consolidate standards, guidelines, and tools and methodologies was based on the perception that there are many standards and guidance documents out there that do not necessarily align with each other and may not be useful for governments and the private sector to achieve the desired outcome. The relevant institutions should coordinate their expertise and networks in order to unify guidance and assessments for the purpose of making them more useful for practitioners and raising awareness of inclusion for key decision-makers. The UN can play a central role in the process as the organization is mandated to coordinate and develop standards and normative frameworks for all nations. This can inform the development of current UN-led partnerships, such as the Sustainable Infrastructure Partnership.

The first action is linked to the call for a mindset change, the fourth recommended action. UN agencies, governments, the private sector and civil society should coordinate to define the role infrastructure can play in today's societies. Socio-economic inclusion needs to be prioritized in the development agenda and into changing mindsets. This, ultimately, requires training around what we mean by infrastructure. Many practitioners working on the development of health clinics and hospitals, for example, may not consider themselves as working on infrastructure. Based on the group's expertise, a Massive Open Online Course (MOOC) could be built for training purposes.

Furthermore, the need to work towards improving bottom-up disaggregated data responds to the identified challenge of lack of capacity to collect, share and utilize data for decision-making. As a solution, the extent and type of data on inclusive infrastructure should be clarified and clearly communicated with statisticians and practitioners. This is related to the consolidation of guidance in order to show decision-makers how to deploy data collection and management systems.

Finally, the urgent need for better civil society representation in infrastructure planning and development requires innovative actions to be taken. Some civil society organizations have developed small-scale solutions to enhance the positive impact of infrastructure for local communities and disadvantaged groups of the population. Discussions at the workshop centered around how to scale these solutions up to the regional and national levels. National civil society coalitions could enhance coordination on inclusive infrastructure solutions and improve communication, with governments as well as across countries, to explore ways of upscaling. The conversation on infrastructure is widely owned by the finance sector; bringing NGOs more prominently into the debate will have a positive long-term impact on inclusive infrastructure development.

Other important actions include the integration of infrastructure solutions among social and environmental spheres. This can involve nature-based as well as labor-based solutions. Measurements for social inclusion should be developed, and assessments of the current social and environmental contexts should be pursued. These considerations should also be better integrated into existing finance mechanisms.

3. CONCLUSIONS AND NEXT STEPS

3.1 Key takeaways

During the workshop, there was a very high level of engagement from the participants, and they provided valuable inputs and diverse perspectives on the subject. It became very clear that inclusive infrastructure development is one of the most pressing and complex issues of our time, and bringing a group of experts from different backgrounds is only the first step in the right direction. It was discussed that while further action needs to be taken, it would be of value to consult and involve a wide range of stakeholders, especially ensuring more active engagement of the private sector, since they are implementing and investing in a large proportion of infrastructure that is developed.

During the discussions, it was evident that there are a number of available resources and initiatives around the subject matter, and there is a need to create a consolidated resource pool. At the end of the workshop, many of the participants expressed a strong interest in staying engaged and informed about future endeavors around inclusive infrastructure development.

3.2 Next steps

The outcomes of the workshop will directly inform the development of SIP guidance and an analytical report on inclusive infrastructure. This work will build upon key ongoing initiatives, such as the G20 Principles for Quality Infrastructure Investment and Global Infrastructure Hub's Reference Tool for Inclusive Infrastructure. The convened Expert Working Group will produce the draft guidance framework for peer review by the end of 2019 and consult Member States over the first half of 2020 through a series of regional consultation workshops. The Good Practice Guidance Framework will then be finalized before the United Nations Environment Assembly 5.

The four actions identified by the participants in the final breakout group provide a roadmap for the next steps that can be undertaken by the group. If there are one or more of the four action areas that you or your organisation would like to contribute to, kindly contact Rowan Palmer (rowan.palmer@un.org) to share your enthusiasm and suggestions.

We would also like to invite you to share relevant resources, good practice examples, tools and methodologies, and research material to contribute to an open resource library to support governments, infrastructure professionals and relevant stakeholders in planning, delivering and managing more inclusive infrastructure.

APPENDIX

List of participants

Surname	First Name	Organisation Represented
Aizawa	Motoko	The Observatory for Sustainable Infrastructure
Al Farra	Hadeel	QHR FOUNDATION
Athanas	Andrea	African Wildlife Foundation
Baird	Morag	Global Infrastructure Hub
Bajpai	Surabhi	Ernst & Young
Bajpai	Apoorva	UNOPS
Bracken	Kalin	World Economic Forum
Braun	Till-Niklas	UNEP
Cakarmis	Teodora	UNEP
Carbone	Giulia	IUCN
Casier	Liesbeth	IISD
Chen	Alice	WFP
Chen	Yaxuan	UNEP
Cheng	Shuaihua Wallace	UN World Food Programme
Chongsermsirisakul	Pathawit	Panyapiwat Institution of Management, Thailand
Contreras Casado	Christina	Harvard University
Crosskey	Steven	UNOPS
Danks	Fiona	UNEP-WCMC
Dao-Bai	Beruchya	UNEP
Del Rossi	Amelia	AWF
Diarra	Ella	International Union for Conservation of Nature (IUCN)

Downing	Louis	Global Infrastructure Basel (GIB) Foundation
Filipas	Angela	European Investment Bank
Gondard	Cecilia	European Network on Debt and Development (EURODAD)
Goron	Coraline	Duke Kunshan University (joined remotely)
Gosmann	Hugo Leonardo	Independent Consultant
Gu	Beibei	Zoi Environment Network
Hirmer	Stephanie	University of Oxford
Huang	Doudou	UNEP
Iamurai	Siripen	Thailand ,SiPa Research Citing and Reference
Khosla	Renu	Centre for Urban and Regional Excellence
Kim	Jinseok	UNEP
Lieuw-Kie-Song	Maikel	ILO
Losos	Elizabeth	Duke University (joined remotely)
Mezzalama	Roberto	Golder
Morgan	Geoffrey	UNOPS
Mugayi	Hope	UNOPS
Newman	Kate	World Wildlife Fund
Nyembo	Male Bernard	New Vision International (NVI)
Odegbile	Adebiyi	UNEP
Palmer	Rowan	UNEP-WCMC
Qazi	Zainab	UNEP
Qian	Chengchen	UNEP
Qian	Peihan	UNEP
Reynaud	Nathalie	Reynaud Consulting

Rodriguez	Judith	Harvard University
Ruiz	Veronica	IUCN
Saner	Raymond	Fondation pour un Centre pour le Développement Socio-Eco-Nomique
Sen	Salil K	IMT-BS, Evry, France
Sheng	Fulai	UNEP
Smith	Paul	UNEP
Stone	Steven	UNEP
Taborga	Amalia	University of Geneva
Tsukamoto	Mito	ILO
Vujacic	Marko	UNOPS
Yeremenko	Nadiia	UNECE