

## **2021 ICSD Parallel Session Topics**

### **Achieving Gender Equality across all 17 SDGs by Closing Gender Gaps in Knowledge and Standards**

*Elizabeth Pollitzer, Prof. Heisook Lee, Ylann Schemm, Ray Walshe, Mika Juha Vepsalainen, & Tauno Kangur*

The UN 2020 SDG Progress Report identifies a number of problems in achieving gender equality ambitions of Agenda 2030. This session will focus on obstacles to progress created by gender gaps and biases in sustainability science research; gender-related indicators for SDGs; and in models of interactions between SDGs designed to identify significant co-benefits and trade-offs. Current approaches to mapping interlinkages between SDGs tend to marginalise the influence of SDG5 on other SDGs and overlook gender equality as a co-benefit of implementation efforts involving other SDGs. Because gender acts as a system of institutionalised differences between women and men that advantage men over women across a wide range of social, economic, legal and ecological conditions of their lives, every Goal holds the opportunity to advance gender equality, including the silent on gender SDGs. Questions to consider: What is needed during the Decade of Action to achieve SDG5 and to improve understanding of gender among SDG analysts and policy makers looking for the best implementation strategy? How can science-society-policy partnerships help improve gender-related content of the knowledge and evidence designed to inform implementation policy and practice. Who should set standards for a) equitable participation in SDG-related decision-making and implementation actions; b) ensuring equal quality of outcomes for women and men in relation to each Goal; and c) inclusion of gender equality considerations in sustainability reporting?

### **Advanced Transportation and Communication Technologies for Achieving the SDGs**

*Prof. Steven Jones & Prof. MJ (Thinus) Booyen*

The proliferation of mobile communications technologies have led to a fundamental change in how people use and interact with transportation services. And as the world continues to address the reality of the COVID pandemic, there will be increasing emphasis placed on mobile communications technologies as a “substitute” for physical transportation. In other words, as societies continue to strive towards the SDGs, robust socioeconomic inclusion will depend on a combination of new transportation and communication technologies. This session will provide a platform to explore and share the latest research illustrating this potential with the broader development-focused audience of the 2021 ICSD.

### **Approaches to Transform Universities into Active Agents for an Inclusive and Sustainable Planet**

*Julio Lumbreras & Tahl Kestin*

The SDSN guide on “Accelerating Education for the SDGs in Universities” calls for universities and higher education institutions to mainstream education for the SDGs (ESDGs) to all their learners. Towards this end it provides a range of practical information, resources and case studies to inspire and help different stakeholders within and outside universities to take action. However, the guide also recognizes that the

scale of the change that needs to take place in order to mainstream ESGs across the sector is enormous and urgent. This is addressed in Chapter 4, which advocates the need for a massive transformation in how universities operate across all areas, and showcases some inspiring examples of such transformations. This session calls for more examples for how universities are transforming their governance, organization or their teaching, learning, researching, and doing to allow a massive shift in their contribution to a more inclusive and sustainable Planet. The format of this session will be slightly different, with presentations of 7-10 minutes to allow for more discussion and dialogue. Further, the submission of a conference paper is optional.

### **Developing the Clean Energy Transition: Innovation, Case-Studies, and Applications Towards an Inclusive and Sustainable Planet**

*Prof. Francesco Guarino & Prof. Maurizio Cellura*

The topic of the session aims at investigating the role of the energy sector - within its several cross-cutting implications - towards the achievement of a true inclusive and sustainable planet. The session scope includes modeling and simulation work of sustainable energy systems and solutions, innovative case-studies, methodological advancements and innovative designs of sustainable technical systems as well as solutions towards the achievement of true social inclusiveness in this sector.

### **Entrepreneurship Models to Advance Sustainable Solutions**

*Ebin Ephrem Elavathingal & Dr. Madan A Sendhil*

Sustainability Entrepreneurship embraces a global perspective that reaches across Entrepreneurship as well as private and public sectors. We will work together to develop concrete solutions and achievable implementation plans. These solutions will incorporate research, policy, finance, education, and innovative thinking, in order to create the resilient and sustainable built environments of tomorrow. The research happening across the planet has to be converted into commercial viable solutions, Sustainability Entrepreneurship will help to understand the possibilities for accelerating it.

### **Green Deal Approaches and the Transformation of External Relations**

*Adolf Kloke-Lesch, Svea Koch, & Dr. Christine Hackenesch*

Several nations have developed agendas with the aim to achieve climate neutrality and the other transformations in the fields of biodiversity, circular economy, and agri-food systems while strengthening the economy at the same time. However, they often lack clarity as to how these approaches will be translated in their relations with other countries and regions, richer and poorer alike, and in specific external policy fields, such as trade, investment and security policy. The transformation towards sustainable development requires not only the transformation of specific domestic sectors but also of the relations between countries and regions. This includes tackling negative spill-over as well as positive concepts of co-transformation. How can this be achieved and what is needed? The session will bring together analyses and perspectives from different countries and regions.

## **How Digital Innovation Leads to Inclusivity and Sustainable Development Resilience**

*Prof. John Dilyard, Shasha Zhao, & Dr. Jacqueline You*

The COVID-19 pandemic has accelerated the adoption of digital and industry 4.0 technologies across firms of all sizes and sectors and has highlighted the significant and necessary value of digital technologies in supporting and/or enhancing organizational resilience in dealing with a global problem. The use of digital technologies not only has enabled firms to better mitigate disruptions that arose during the pandemic, but it also has allowed the inclusion of more actors to determine solutions to those disruptions. The lessons learned from the response to COVID-19 can, and should, be applied to another global problem: How to create an inclusive and sustainable planet. The goal of this theme is to collect, highlight and present research on how the use of digital technologies is being used by all entities engaged with sustainable development (e.g., firms of all sizes, governments, agencies, communities) to involve a broader array of actors in determining innovative and resilient approaches to sustainable development.

## **Indigenous Approaches to Sustainable Development Research**

*Tamara Stout & Dave Wilsey*

Indigenous approaches to sustainable development research includes Indigenous controlled research and respectful research partnerships with Indigenous communities. Doing work in a “good way” is central to Indigenous ways of practice. This session will examine case studies and projects undertaken through such research.

## **Interdisciplinary Research for Sustainable Blue Growth**

*Mounir Ghribi, Prof. Maria Cristina Pedicchio, Prof. Phoebe Koundouri, & Prof. Nikos Theodossiou*

This session will focus on interlinking governance, industry, and academia, which are often disconnected, to invigorate sustainable blue growth in maritime sectors. This includes maximizing the impact of investing in the improvement of existing skills (upskilling) and training in new skills (reskilling) throughout vocational and higher education to build strong blue skills partnerships.

## **Language of Sustainable Development: Making Sense of the 2030 Agenda Within and Across Contexts**

*Meredith Storey, Kayla Colyard, & Amanda Abrom*

“Sustainable development” is a term that comprises a variety of contexts and connotations, encompassing everything from “environmentalism” to “circular economy” to “social inclusion.” And while the comprehensiveness of the term can be perceived as a strength in addressing a complex global agenda, the diverse and sometimes competing vocabulary that makes up “sustainable development” can create confusion and roadblocks for communication, both within and about the field. This research theme will address the raw issues of language in the sustainable development discourse, and aim to capture a more nuanced understanding of what makes up “sustainable development,” particularly as it relates to education for sustainable development in the higher education sphere. The theme will

showcase research in the areas of rhetoric and linguistics as they relate to sustainable development, including issues of localization, translation, and jargon.

### **Localizing Agenda 2030 at the Regional Level**

*Dr. Vera Barinova & Dr. Natalya Ryazanova*

Most countries have already responded to Agenda 2030 – they have prepared national voluntary reviews, some of them have adopted national sustainable development strategies, and others have appointed official bodies responsible for the localization and implementation of SDGs and have included SDGs in the budgetary process. However, it is necessary to implement global agendas at regional and local levels where there is a unique capacity to implement and monitor sustainable development, prosperity and well-being at the local level. This session will discuss what regions can do for sustainable development and what they are already doing, putting forth case studies and proposing new solutions.

### **Mainstreaming Disaster Risk Reduction and Climate Change Adaptation in Land Use and Development Planning**

*Prof. Dr. Raza Tabassam, Prof. Carmelita R.E.U. Liwag, & Hussain S. Lidasan*

In a matter of weeks, the COVID-19 outbreak has changed the world in completely unprecedented ways. To come up with local risk-sensitive land use and sustainable development plans, it is required to mainstream Disaster Risk Reduction, including Pandemic and Climate Change Adaptation, into urban, rural and regional land use and development planning. The aim of this session focuses on sharing the role of land use and development spatial planning towards physical, economic, socio-ecological, and institutional resilience in terms of climate resilience and disaster risk reduction, including varieties of decision-support framework and tools that have emerged to support interlinkages between dynamic and social-ecological systems. Strengthening resilience to socio-ecological systems in both urban and rural areas through land use and development planning will be crucial in improving our understanding and achieving sustainable development goals (SDGs).

### **Partnerships and the Sustainable Development Goals**

*Patrick Paul Walsh, Enda Murphy, & Aparajita Banerjee*

The interconnected nature of the SDGs calls for a ‘whole-of-society’ and a ‘whole-of-government’ approach in implementation within a country (UN 2015). This means that effective partnerships between different state and non-state sectors or the whole of society, and within government departments or the whole government are essential for achieving the 169 targets under the SDGs. Such an approach warrants multiple intra-sectoral and inter-sectoral entities to work collaboratively or in partnership, co-sharing resources along with expertise and responsibilities to address complex and multifaceted social, economic, and environmental problems of mutual interest. The concept of partnership is of such critical importance in achieving the SDGs that the UN deems it as one of the “5Ps of sustainable development” along with people, planet, prosperity, and peace. The highly interdependent and interconnected nature of the 17 SDGs makes their implementation a complex

process requiring an all-out approach involving all sectors of the society to share responsibilities and contribute their unique skills, expertise, and resources, providing a unique outline of partnership theory and its application to the SDGs. This session is particularly interested in papers that:

- Outline partnership theory and its application to the SDGs;
- Explores the relationship between partnerships and SDG Implementation;
- Investigates the role/links between governance, partnerships and SDG implementation;
- Outlines the nature of partnerships: alternative forms, their multi-level forms and barriers to take-up; and
- Outlines key SDG partnerships cases studies - local, national and international – that highlight partnership success stories for practitioners.

### **Repairing SDG 4 and the Right to Education**

*Prof. Jan de Groof, Prof. Klaus Beiter, & Prof. Gerencser Balazs*

SDG 4 is purportedly linked to the right to education. Both SDG 4 and the right to education (as formulated in formal international human rights instruments) oblige states to provide education to all as a matter of human rights. Yet, SDG 4 suffers from structural deficits, and so does the right to education in its current formulation. In as far as SDG 4 is concerned, the problem lies in the fact that, despite all efforts of bringing the SDGs closer to human rights (than the MDGs were), this endeavor has not been successful in various ways. In the case of the right to education (which SDG 4 is to fulfil), the problem is the lack of an up-to-date formulation of that right. Hence, a two-pronged approach would be necessary: on the one hand, the structural deficits in SDG 4 (no genuine commitment to “free” education, failure to limit the role of private actors in education, purely outcome-based approach to measuring progress in education, and so on), need to be taken seriously and attended to. On the other, the right to education would benefit from a global restatement (best in a soft law format) which gives consideration to the real underlying impediments to fulfilment: unsustainable lifestyles and societies, a global failure to understand the right to education as imposing not only domestic, but also transnational obligations, global tax injustice, a restrained definition of “free” education, unbridled privatization, and a failure to comprehensively define and implement education that advances acceptance of “otherness”, facilitates personal liberation, and enables societal revolution. Any such reinvigorated global standard would have to be replicated and concretized in regional and national education law. As SDG 4 seeks a close relationship to the right to education, “repairing” the right to education also “enhances” SDG 4. Appreciating that SDG 4 and the right to education are key to sustainable development, the attainment of the other SDGs, and the realization of all human rights, doing the necessary repair work to both is a prerequisite to uplifting humanity and saving the planet.

### **Resetting Tourism after COVID-19 with the SDGs**

*Brooke Hansen & Dr. John Buschman*

The tourism industry was making strides towards sustainability with declarations, certifications, and changing trends in tourism sectors towards green lodging, carbon offsets for travel, visitor pledges and

more, but the efforts were still not encompassing enough to move the needle on transitioning one of the world's largest industries to a new paradigm. With all the lessons Covid-19 has brought to re-evaluate tourism's impact on human, ecological and economic systems, the time is now to reset to sustainable tourism with the SDGs as a driving force.

### **SDG Learnings from COVID-19 for Science-Informed Decision-Making**

*Liliana Diaz, Mohamed Cheriet, & Luce Beaulieu*

*Proposals for this panel can be sent in French or English.* Science-informed decision-making is an increasingly urgent need, as demonstrated by the management of the global COVID-19 pandemic. Many lessons must be learned in order to equip decision makers and citizens to better understand the risks and impacts of public policy decisions. Localizing the SDGs requires a major understanding and dialogue between public and private sectors, various scientific domains and often distant political actors. What are the challenges for scientists in supporting decision makers and citizens in achieving the SDGs? What are the learnings and the new management challenges brought by COVID-19 and the resulting socio-ecological transition pathways? In regards to a post-COVID world, what should be our common goals in terms of resilient and green economic recovery? These questions are at the heart of this panel presented by the Institute in Environment, Development and Society (Institut EDS) of Laval University and the Interdisciplinary Research Center for the Operationalization of sustainable Development (CIRODD).

### **SDG6 implementation in LMICs and how National Water Policies can accelerate progress**

*Zulfiqar Umrani & Faria Aslam Uqaili*

The world is facing water scarcity which is going to become worse due to the impact of climate change and a growing population. Like most of the Global-South, Pakistan is also struggling to achieve the SDG6 targets by 2030. Pakistan's neighbors, like China and India, have started aligning their National Water Policies (NWP) with the SDG6 targets to accelerate implementation. This session explores the current progress on SDG6 in low- and middle-income countries (LMICs) and what are barriers to its success. The NWPs are evaluated through a "Framework for analyzing NWPs" and it is compared with water policies from other countries. They are discussed for their alignment with the SDG6. Water experts, well-versed with the NWP, will talk regarding the challenges to SDG6 achievement, the effectiveness of the NWP and any possible future considerations in the policy. This will allow us to propose recommendations for the future policy review of the NWPs in LMICs.

### **Sustainability and Circular Economy Assessment**

*Prof. Alex Godoy & Jorge Gomez-Paredes*

This theme is looking to understand new approaches to assess the Circular Economic contribution to sustainable development. We are interested in cutting-edge research about new methods and strategies to assess how the circularization processes can help achieve sustainable development goals.

## **Sustainable Development Goals in Construction**

*Prof. Dillip Das & Prof. Fidelis Emuze*

The session will address how scholars and practitioners are advancing the implementation of SDGs in construction. It will cover technical and social issues in construction. Technical issues will include planning and on-site construction processes and operational life of built environment assets. Social issues will include making the workforce (off-site and on-site) more inclusive with increased women participation.

## **Sustainable Finance for the Implementation of the Paris Climate Agreement**

*Dr. Phoebe Koundouri & Dimitris Dimitriadis*

Significant financial resources are necessary for the achievement of climate targets across the globe. As the world recovers from the COVID-19 pandemic, there is an opportunity to transform our economies in a way that will trigger exponential change in strengthening social, economic, health, and environmental resilience. This session will discuss mobilizing financial resources for climate action as an economic recovery model to the pandemic.

## **Systems Approaches for Sustainability**

*Prof. C. Kendra Gotangco Gonzales & Prof. Francesco Romagnoli*

Sustainability is not only a broad field but also a complex and transdisciplinary one. Systems thinking approaches can help distill insights on and potential solutions for sustainability issues by encouraging deep and interconnected thinking. Such analysis recognizes the roles of cultural paradigms, institutional structures and feedback processes in generating the trends that we observe today, and in this way, helps identify leverage points for effective interventions. This session will explore research approaches that employ systems thinking principles towards applications in sustainable development, particularly of cities and communities.

## **Water-Energy-Food Nexus Research Impact and Stakeholder Engagement**

*Prof. Bassel Daher & Prof. Rabi H. Mohtar*

What is happening in our world at this very moment, as we face a historic global pandemic, is a bold example of the complex and interconnected challenges we must expect to address as we move toward implementing the 2030 agenda. With trends of the growing global population, growing urbanization, and climate change impacts, the tightly interconnected water, energy, and food systems are facing further pressures. Addressing such challenges requires the development of research that cuts across disciplinary boundaries and integrates knowledge, tools, and methodologies from different disciplines including engineering, life and health sciences, and physical, economic, social, and behavioral sciences. It also requires the active participation and engagement of multiple stakeholders from government, industry, private, and public sectors. This session focuses on unlocking new potential for addressing

interconnected water-energy-food resource challenges through bridging research with innovative methods for stakeholder engagement.