



Discussion Paper for the GRC Regional Meetings organised in October-
November 2025

Research for Sustainable Communities

Please note this version served as a basis for the discussions that took place at each Regional Meeting. This version was NOT amended following the meetings.

Research for Sustainable Communities

A Discussion Paper for the Global Research Council (GRC) 2025 – 2026

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This paper was made possible through the facilitation of NSERC and TSRI, and is intended to foster dialogue and exchange among Global Research Council (GRC) participating organizations. The views expressed in this paper do not necessarily reflect those of any individual GRC participating organization.

Introduction

As the Global Research Council gathers to advance equitable, inclusive and sustainable science, technology and innovation for global sustainability, human development and well-being, it is timely to rethink what research for sustainable communities and cities means. This discussion paper calls for research on the future of our communities, addressing social vulnerabilities, inequities and affordability, climate change mitigation and adaptation measures, resilience, access to health systems and education and well-being. Such an approach is particularly urgent given the rise of the climate emergency, growing inequalities, and rapid urbanization especially in the Global South.

With over 60% of the Sustainable Development Goals directly linked to communities and cities, they are central to addressing critical global challenges such as climate change, biodiversity loss, inequality, migration, and conflict. While all 193 UN countries have adopted the 2030 Agenda for Sustainable Development, only 35% of targets are on track¹ and there are serious implementation challenges to transform cities and communities into zero-emission, biodiverse, inclusive, healthy, mobile, sustainable and livable places.

The international agreements addressing climate change—such as the Sendai Framework for Disaster Risk Reduction², the Paris Agreement on Climate Change³, the Sustainable Development Goals

¹ <https://unstats.un.org/sdgs/report/2025/The-Sustainable-Development-Goals-Report-2025.pdf>

² <https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030>

³ <https://unfccc.int/process-and-meetings/the-paris-agreement>

(SDGs)⁴, and the New Urban Agenda (NUA)⁵ - underline global commitment to sustainable development. However, their effective implementation hinges on local action and multi-level government support. Despite a broad consensus on the general directions and targets for sustainable urban development, progress remains slow and encumbered by numerous challenges. These include resistance to change, entrenched poverty, marginalization and lack of resources, fragmented responsibilities, political ideologies, the absence of legislative mandates, insufficient community engagement, inadequate financial mechanisms and missing digital tools to rapidly develop and compare scenarios. These barriers collectively hinder the adoption of integrated and inclusive strategies critical for achieving sustainable urban transformation.

Furthermore, best practices tailored to specific local contexts often address only isolated aspects of the sustainability matrix. Limited efforts are made to adapt and transfer these practices to different settings, exacerbating the complexity of the problem⁶. Each community operates within a unique context, with diverse stakeholders dealing with "wicked problems" characterized by conflicting interests, such as eco-districts inadvertently contributing to gentrification if they are not designed with community input and affordable housing in mind. The introduction of green policies and infrastructure in urban neighbourhoods can lead to rising property values, often resulting in the displacement of longtime residents.

Research for sustainable communities seeks to address these challenges by co-creating, testing, and scaling solutions that overcome multiple barriers. It integrates diverse knowledge domains (legal, financial, participatory, technical, social and health) to enable successful transformation projects. Sustainable research needs to combine state-driven and community-based strategies: innovate in legislative and regulatory mechanisms as well as in new financing schemes to govern, regulate and fund the sustainability transition, paired with community-led innovation and collaborations to ensure effective, context-sensitive implementation. A systematic power-sharing approach is essential for driving the systemic change required to achieve sustainable futures.

As humans live in communities in very different contexts, there is a uniting element of focusing research on sustainability in communities. While it is an open question of whether comparable methods can be applied to communities in the Global South or North, there is a strong need to exchange best practices and jointly drive research towards global impact.

We urgently need research to support the transformation of our cities and communities into sustainable and liveable places — research that investigates who drives change (including policymakers, urban planners, community leaders, private sector actors like developers and investors, and other influential or less accountable stakeholders), and who is included or excluded from shaping decisions and experiencing the outcomes. This includes understanding how groups with less power — such as low-income residents, informal workers, small business owners, migrants, youth, and

⁴ <https://sdgs.un.org/goals>

⁵ <https://www.urbanagendaplatform.org/nua>

⁶ Ersoy, A., & Van Bueren, E. (2020). Challenges of Urban Living Labs towards the Future of Local Innovation. *Urban Planning*, 5(4), 89–100. <https://doi.org/10.17645/up.v5i4.3226>

marginalized communities — are often left out of planning processes, despite their vital knowledge, lived experience, and stake in the future of their communities.

1. Sustainable Community Futures and the SDGs

Priority 1:

Facilitating a transdisciplinary research **agenda** centered on impact, empowering communities to implement the SDGs and enable a just, inclusive and equitable climate transition.

Context:

An SDG-oriented science agenda must foreground **locally defined priorities and co-created knowledge**. It needs multiple stakeholders from the community, public and private sector and academia in the discussion to design, finance and implement sustainable solutions that improve community well-being. It needs to address how sustainability transformation can be achieved in communities in highly vulnerable contexts, especially, but not only, in the Global South. Power imbalances need to be addressed, as locally defined priorities are also prone to inequities.

Discussion Questions:

- How can sustainable transformation strategies be designed and implemented with **community co-governance** and participation, when large investment in infrastructure, health, buildings and transport systems require the contributions of the private and public sector?
 - How can research funding agencies and policy frameworks foster interdisciplinary and cross-sectoral research teams that are capable of addressing the complexity of sustainable community transformation and achieving systemic change?
 - How can Indigenous and community knowledge be recognized as valid sources for the development of sustainable communities?
 - What forms of collaboration between researchers, communities, policymakers, and private sector actors are needed to co-create solutions that reflect local priorities while also contributing to systemic sustainability transitions?
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2. Toward an Equitable and Just Transition

Priority 2:

Promoting a **global knowledge system** for transformation pathways that is open to all, not only for access, but for equitable design, development and participation.

Context:

For a just transition, knowledge systems must move beyond access to ensure fairness, inclusivity, and meaningful participation. Current gaps — such as unequal access to tools, language barriers, and imbalances between the Global North and South — highlight the need for more open, collaborative, and community-driven approaches to knowledge creation and use.

Discussion Questions:

- How can the GRC support **non-commercial open source tools** and **multilingual, accessible, community-controlled platforms**, which provide access to sustainability related data and scenario model results?
- How can global urban transformation processes be addressed in their interplay with environmental and socio-economic challenges at local scales? How can research support multi-scale approaches to align national sustainability targets with concrete local solutions?
- How can knowledge and best practices be shared and leveraged between the Global North and Global South to co-develop transformation pathways that ensure equity and justice, while respecting diverse local contexts and capabilities?

3. Aligning Science, Technology, and Innovation (STI) with sustainability goals

Priority 3:

Promoting G20 STI alignment with sustainability **capacity-building**.

Global science remains skewed by growth oriented priorities and legacies of nation states. Research partnerships must shift from extractive to **reciprocal, generative, solidarity, and trust building**. This may require shifting funding priorities, evaluation systems, and institutional incentives to emphasize solidarity, inclusivity, and long-term impact. Strengthening sustainability capacity may ensure that the outcomes contribute equitably to both local and global goals.

When it comes to technology and innovation, there is a limit to what the public sector and academia can do, unless the large innovation capital flows in the business sector are turned in a more sustainable direction. The GRC can have a role in setting the direction together with some major global players related to influencing the business community (World Economic Forum or others). Innovative procurement may also be a topic in this context.

Discussion Questions:

- How can STI investments informed by sustainable research principles support sustainable transformations of communities and cities worldwide?
 - What mechanisms ensure equitable and inclusive **benefit-sharing, knowledge sovereignty and responsible internationalization** in sustainability research?
 - How can more responsible research assessment practices facilitate the advancement of sustainability goals?
 - What models of STI partnerships can best foster reciprocity, long-term trust, and equitable participation across diverse regions and disciplines?
 - How do the capacity-building needs of the Global North and Global South differ, where do they overlap, and how can STI alignment help both regions work together toward sustainability goals?
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4. Integrating AI and digital tools into Sustainable Research

New Cross-Cutting Priority:

Digital representations of our communities and the world at large allow unprecedented options to test sustainability transformation pathways. It is crucial that the data and models, and access to them, are equitable, inclusive, avoid bias and are not manipulated by corporate interests. There is an urgent need to address the implications of **AI for sustainable community development and transformation**, ensuring secure access to data and enabling data democratization to enhance safety and equitable access to information.

Discussion Questions for AI Governance and applications:

- What is appropriate AI for local communities? What data should be collected and what purpose does it serve? How do we ensure data sovereignty? What is the relation between community development level and possible AI applications?
- How can AI tools be built on equitable and inclusive incorporation of cultural, linguistic, and ethical diversity information, avoid bias and work with reliable data?
- How can AI and digital tools be balanced with conventional research approaches to ensure reliability and cross-checking of solutions?
- Who owns the AI infrastructure for science-based decision making and digital tools in a sustainable community context? How do we prevent **corporate capture** of knowledge commons?
- How do we ensure **informed consent, data justice**, and participatory design in AI-mediated scientific processes?
- How can access to computational infrastructure and AI expertise be expanded to empower transdisciplinary teams in sustainability research?

5. Policy, Governance and Financing a sustainable transformation

Final Point:

Policy fragmentation, barriers in governance, financing and business models hinder progress towards sustainable communities. A **multi-level, pluralistic policy, governance and financing model** is needed. Sustainable research needs to tackle the multiple dimensions of sustainable transformation processes, with inclusive and equitable leadership and participation by diverse communities being integral to the process, but well aware that only a broad mobilisation of multi-level public and private stakeholders can lead to the speed of change that is needed. The GRC can facilitate collaboration by mobilising partnerships for multilateral funding programs to support collaboration and progress monitoring of community transformation research.

Discussion questions:

- Should the GRC set up a **Global Observatory for Sustainable Communities** to effectively monitor the advances in community and cities sustainability, which are supported by research, and assess the research impact?
- What steps are needed to develop and recognize diverse research practices for sustainability through international and regional alliances in a way that centers the voices and priorities of the Global South and equitably includes a diversity of representatives from local communities?
- What strategies can be employed to scale up non-commercial open access models and shift control of research infrastructure from commercial entities to academic and civic institutions?
- How can policies and funding priorities be aligned across local, national, and global levels to reduce fragmentation and accelerate sustainable transformations?
- Which governance frameworks are best suited to integrate multiple dimensions of sustainability and ensure effective collaboration among community, public, and private stakeholders at local, national, and global levels?
- What innovative financial models can mobilize public and private investment for sustainability research while ensuring equity and long-term impact?

Summary: research for sustainable, inclusive communities

The paper positions research for sustainable communities as a shift from research on communities to research with and for communities, grounded in justice, equity, and resilience. Instead of measuring research success only in terms of publications, data, or global visibility, the paper argues that impact should be assessed by whether communities are more resilient, empowered, and able to shape their

own futures because of the research. That flips the logic: research is no longer judged only by what it produces, but by the transformations it enables in people's lives and local systems.

By developing a joint vision for sustainable communities, the GRC can move from the broad and universal principles of the SDG to support localized solutions for communities across the globe. Decarbonization strategies, governance, policy and business research, AI, and global STI policy must be intentionally designed to equitably and inclusively serve the public good, especially those historically excluded. **The question remains not simply *how to create sustainable and liveable communities*, but *who makes change happen and who is included - both locally and globally?***

We suggest that the GRC facilitates multilateral mechanisms for collaboration, financing, and monitoring research efforts on sustainable and inclusive communities. Such research needs to encompass the multiple dimensions of sustainability, align closely with the communities' priorities and accelerate the implementation of sustainability measures, especially when vulnerable population without access to resources or capital is concerned.

Implications for Funders:

- Provide **flexible, long-term funding** that supports trust-building and continuity.
- Reward **relational and participatory labour** (translation, facilitation, stewardship).
- Support **interdisciplinary and transdisciplinary approaches** that integrate social sciences, humanities, and local knowledge with STEM fields.
- Create mechanisms to **scale community-led innovations** while respecting local sovereignty.
- Ensure that endorsed Statements of Principles lead to **actionable guidance** for implementation at council and national levels.