

FIG Climate Compass Task Force

**The Surveying Profession's Global Response
to Tackling the Climate Agenda**



Draft Terms of Reference

1. Background

1.1. Context

The climate crisis represents the single greatest challenge humankind faces to ensure our planet remains sustainable and our people remain resilient. This theme underpins the FIG Council's vision of sustainability over the term 2023- 2026. For the benefit of society, concerted action by FIG Members is needed to help meet a range of climate challenges such as greenhouse gas emissions, biodiversity loss, deforestation and large-scale land use change, desertification, urban sprawl into agricultural land, water scarcity, pollution of the seas and more. The expertise of FIG Members means they are well positioned to make a major contribution to addressing a wide range of land and water related climate change issues.

The FIG Council has identified climate as a key issue for FIG over the next 4 years (2023-2026). Because of the importance of climate change to the global community, FIG wishes to examine and actively promote the engagement and role that surveyors can have in contributing to the climate change agenda. FIG wishes to lead its members so that they can fully understand, articulate and use their expertise and knowledge to tackle the important challenges in climate action. It will do this by setting up a Climate Compass Task Force (TF).

This Climate Compass Task Force will **elevate the work that has already been done and is continuing to be done by the FIG Commissions, Task Forces and other groups globally**. It will act as a portal to provide **a clear picture of the role that surveyors, as a global profession, play in measuring, managing and mitigating the present and future impacts of climate change**.

This TF will be an inter-generational effort with the Young Surveyors taking a lead role as the driving force for the future. The TF is tasked with articulating the balance that surveyors need to achieve in our professional and societal roles as we address the challenges climate change presents and the contribution we can make towards enabling countries to meet challenging net zero and biodiversity targets. The surveying profession needs to balance infrastructure delivery and economic growth with measures to increase the sustainable productivity of land to feed the planet's population. The challenge is to deliver growth in a sustainable and ethical manner, in particular the management of the inevitable trade-offs arising from the tension between the competing goals of development, conservation and sustainability. The surveyor, as a pragmatic land, built and natural resources and hydrographic professional, is uniquely qualified to address the broad range of issues presented by the effects of climate change, enabling her/him to make a unique contribution to the change necessary to mitigate and adapt to the inevitable consequences of climate change that are happening now and into the future.

Climate change is a fast-moving thematic area which has moved to a crisis mode. The TF will complement and build on the important work already done by previous FIG TFs such as on climate change (2014) and the Sustainable Development Goals (2022), work undertaken for strategic partners such as GLTN, FAO and others (see below) and the work done by the other FIG working groups such as dealing with the mapping of plastic waste in our waterways and oceans. This TF will identify, evaluate and adopt the emerging and rapidly evolving climate related knowledge from within and from outside the profession. FIG members are on the critical path of the sustainability of the planet because of their global to local work on geospatial information management, land administration and land management, spatial planning and valuation, BIM and so on. The TF's ambitious agenda to address climate change will imagine our professional contribution, inspire our members and ensure the TF work to address climate change improves our professional capacity and standing in society.

The TF ToR outlined in this document, is intended to evolve and be finalised after discussion with volunteers from Member Organizations at a workshop held during the FIG Working Week in Orlando 2023. This TF will also consider how FIG might be able to partner and collaborate with other global agencies involved in such studies and climate action. The intent is not to replicate the work of others. Rather it is to understand and highlight the unique contribution that surveyors can make in assisting the global community, to adapt and above all be clear on where our expertise makes a difference in tackling the challenges of the climate agenda.

A key focus of this TF will be its Communications Strategy, which is the foundation for outreach, capacity development, awareness raising and harvesting knowledge, to be able to strengthen the surveying profession's ability to act on global climatic challenges. (additional information on this TOR and its focus can be found in [Appendix 1](#)).

2. Rationale

2.1. Positioning FIG work within the United Nations climate agenda

The United Nations recent meeting of governments, known as COP27, reiterated that urgent action is required to save people and the planet. Future generations face an uncertain outlook characterised by an increasingly hostile climate and greatly diminished resources (Intergovernmental Panel on Climate Change) and land professionals, with their critically important skills and knowledge, need to contribute to addressing the climate crisis challenges.

The COP27 **implementation** plan states that the limitation of global warming to 1.5 degrees requires rapid, deep and sustained reductions in greenhouse gas emission reductions. It also emphasises the protection, conservation, and restoration of nature and ecosystems in achieving this, including water and water-related ecosystems. Land use change contributes 23% percentage of green-house gas emissions every year (IPCC). The COP27 plan **promotes** the immediate and large-scale implementation of both mitigation and adaptation measures to address climate change. All of this plays out in the very areas that our profession operates namely land, the built environment and natural resources sectors.

The United Nations Convention to Combat Desertification advocates for "land restoration, which is the process of avoiding, reducing, and reversing land degradation to recover the biodiversity and ecosystem services that sustain all life on Earth". Land professionals are centrally involved in land use change and can make a major contribution through their work to addressing climate change through 'avoiding' degradation, 'reducing' land use change impact and 'restoring' degraded land. Land professionals, with a focus on hydrography, also have major roles to play in protecting freshwater and oceans, including through the Sustainable Development Goal 11, 13 and 14.

COP27 also encourages non-governmental organisations to include youth in processes for designing and implementing climate policy and action and to recognize the importance of intergenerational equity and maintaining stability of the climate system for future generations. Hence the vital role of the Young Surveyors in this TF.

While the UN Sustainable Development Goals set overall goals for humanity, government and non-government organisations, the United Nations (UNFCCC, CBD, UNCCD) Rio Convention processes are setting more detailed and urgent climate related goals. These are based on land degradation, biodiversity and carbon related goals, which have land (property and buildings) use change and water (oceans and terrestrial) implications for land professionals.

The discussion on climate actions at global level has too often neglected key aspects of the roles played by surveyors on the ground. However, there is now a strong emerging interest in linking land use, land tenure, the blue economy and geospatial information more closely in a practical way and getting to grips with what happens on the ground. UNCCD and FAO have been involved in the production of several new reports on this and are doing more work in this area. The UN and many national and local governments are innovating in this very fast-moving area of work. FIG has strong partnerships with these international organisations and can make an important contribution to this work. FIG national organisations are closely linked to their governments and can also contribute to this work.

2.2. Building on FIG work on climate agenda to date

FIG and its Commissions work on Climate Change (2014) and the UN Sustainable Development Goals (SDGs) (2022) has already laid the ground for this climate change work and this TF will build on all this work (see below). The FIG Council has already set the tone for this TF with the creation of a number climate related TFs and products.

1. An overarching TF on 'FIG and the Sustainable Development Goals' (2019-2022), which overviewed the work of all the different Commissions on their mandate and the SDGs. A number of FIG publications and statements on the sustainable development goals in relation to each of the Commissions mandates (July 2022) emerged from this. Publications include (but are not limited to):
 - a. P.Dijkstra, K.Schroten, S.Emens, C.Lemmen (Kadaster International) (2020) Ten Years to go to Achieve the Sustainable Development Goals
 - b. Commission 1 Professional Standards and Practice: 'International Boundary marking'; 'Surveyors: The Peace Makers'; 'Maritime Boundaries to further promote peace' (upcoming)
 - c. Commission 3 Spatial Information Management jointly with Commission 8 Spatial Planning: 'Geospatial Data in the 2020s – transforming power and pathways to sustainability'
 - d. Commission 8 Spatial Planning: 'Water governance in Africa', 'Land consolidation'
 - e. FIG Task Force on Surveyors and Climate Change (2014) The Surveyors Role in Monitoring, Mitigating, and Adapting to Climate Change, FIG Publication no.65.
2. Products created jointly with partners including:

- a. Chigbu, E., 2022, Strengthening tenure and resource rights for land restoration, Global Land Outlook Second Edition Working Paper, UNCCD, Bonn.
- b. ICMS Coalition, 2021, ICMS: Global Consistency in Presenting Construction Life Cycle Costs and Carbon Emissions.
- c. Mitchell, D. and McEvoy, D. 2019, Land tenure and climate vulnerability, UN-Habitat, GLTN, RMIT. Nairobi, UNON.
- d. McDermott, M. and Co-authors M.Myers and C.Augustinus, (2018) Valuation of Unregistered Lands A Policy Guide, UN-Habitat/Global Land Tool Network, Nairobi, UNON.
- e. Chigbu, E., 2016, Tenure responsive land use planning: A guide for country level implementation. Report 6, UN-Habitat/Global Land Tool Network, Nairobi, UNON.

This TF on land, water and climate will build on all this work of the Commissions and the knowledge generated, FIG's professional networks, as well as its national Member Associations and regional academic networks. It will also build on the climate related work being undertaken by its Commissions during 2023-2026.

Without professional commitment and cooperation, future generations face an uncertain outlook characterised by an increasingly hostile climate and greatly diminished resources. Society is increasingly recognising that without urgent and sweeping changes we are committed to a future where we will lose the ability to influence the climate as a number of feedback mechanisms become increasingly apparent. The immediacy of the issue applies not only to mitigation measures but also to adapting to the impacts of claimed change that are already being experienced. Above all, this plays out in the very areas that our profession operates - land, the built environment, the natural resources sector and the blue economy.

2.3. Communication Strategy

The Communication Strategy of the TF will be a major part of the work of this TF. The TF's communications strategy **goal** is to strengthen professional commitment and cooperation amongst young and seasoned surveyors globally regarding climate change. **This TF will build on the work of the commissions and the knowledge already generated about the roles surveyors can play to solve the climate challenges.** Central to being able to achieve this is the TF's Communications Strategy.

This communication strategy main purpose is to facilitate **four key objectives of this TF**:

1. Harvest existing knowledge within FIG,
2. update and build new knowledge in this fast-moving area of work,
3. Share knowledge across FIG networks, and
4. Identify ways forward and undertake a gap analysis.

Communications **messaging** will be focused on:

1. Raising awareness of opportunities that exists for surveyors everywhere to play a role in addressing the climate crisis
2. Showcasing opportunities for engagement for surveyors, no matter their age, geography or discipline, in being able to engage with the work of this TF in small and large ways
3. Spreading the message of the work of this TF to further awareness and further the opportunity for engagement

There are also several **platforms** which will be used to reach these target audiences with communication messages:

- Workshop during FIG Working Week 2023 in Orlando
- Special technical sessions held at Working Weeks 2023-2026 (hybrid) (see Work Plan)
- FIG website page (virtual)
- 'Conversations and Consultations' webinar series (held at least twice a year virtually)
- Thematic Seminars (held at least once a year explore climatic themes, virtual or hybrid)
- Email
- Newsletters, and
- Social media.

3. Outcomes

Considering the above, Council has proposed a Task Force that:

- Brings together a cross generational TF of young surveyors and seasoned surveyors

- Proposes that it be co-chaired by a young surveyor and a seasoned surveyor and nominates: Roshni Sharma (YS Network) and Clarissa Augustinus (FIG Honorary Ambassador), supported by a core team (see below).

At the General Assembly at the Orlando FIG 2023 Work Week this TF will:

- Meet with the *TF on Sustainable Development* and Commissions Chairs to ensure that this TF builds upon their previous and future work.
- Hold a working session to present this draft TOR for discussion and validation.
- Ask the Core TF members to invite volunteers from among the Member Associations to contribute to finalising this TOR and to volunteer to be part of this TF's work and outreach.
- Present a co-designed ToR for approval by the 2nd General Assembly on Thursday 1st June, 2023.

The final report from the TF will be delivered at the FIG Congress in Cape Town (2026).

3.1. Supporting surveyors to engage with the climate crisis

This TF is a leadership group composed of young surveyors and seasoned surveyors across all FIG regions. **Its task is to ensure the global surveying professional is empowered and united to take tangible preventative action on climate change impacts.** The intention is to strengthen the role of surveying professionals in the work being done to address the climate crisis and to ensure our professional relevance and contribution to society within our expertise.

Outcome 1: The work of the TF will **support surveyors by increasing awareness and capacity** about their roles and impact so they can engage even more with the climate crisis and help countries to meet their net zero and biodiversity targets. Young surveyors and seasoned surveyors will be its target audiences.

Outcome 2: The work of the TF will **support surveyors to reach out** to other global and national audiences and partners through the collection, development and sharing of relevant land, building, natural resources and climate related knowledge, and the **identification of areas** in which surveyors have the professional expertise to contribute to actions and studies that the global climate action agenda needs.

3.2. Validating the Terms of Reference for the Task Force

The TF will present this draft Terms of Reference **for consultation** with Commissions, other relevant TFs and Member Organizations at the FIG Working Week 2023 in Orlando, as a precursor to finalising the TOR and the Four-Year Work Plan to go for confirmation to the General Assembly on 1st June 2023.

3.3. Work Programme

This TF will have an ambitious working programme that includes a range of thematic seminars and open discussion prior to the submission of a final report, submitted at the FIG Working Week 2026 in Cape Town. The elements outlined in the previous section will be used to create a Four-Year Work Plan for the TF, which will be created in Q1 2023 and will indicatively include the following milestones (subject to discussions and decision-making among the TF Core Team):

Year 1	Terms of Reference and task force membership confirmed by the FIG Council	WW23 Orlando
	Task Force holds a special technical session for presentations, discussion, coordination, and work planning (hybrid)	WW23 Orlando
	Task Force Committee develops Four-year Work Plan and Year 1 Work Plan	Q2
	Task Force establish 'Conversations and Consultations' webinar series (virtual)	Q2
	Climate theme seminar: Land (virtual)	Q4

Year 2	Task Force holds special technical session for awareness raising capacity development, knowledge harvesting (hybrid)	WW24 Ghana
	Task Force establishes structure for final report	Q2
	Task Force continues 'Conversations and Consultations' webinar series (virtual)	Ongoing
	Climate theme seminar: Water (virtual)	Q4
Year 3	Task Force holds special technical session for awareness raising capacity development, knowledge harvesting (hybrid)	WW25 Brisbane
	Task Force continues 'Conversations and Consultations' webinar series (virtual)	Ongoing
	Climate theme seminar: Air (virtual)	Q3
Year 4	Task Force has final meeting and presents final report (hybrid)	WW26 Cape Town

4. Composition of the Task Force

The TF Co-Chairs will be from two different FIG regions. Co-Chairs will be responsible for creating the Work Plan for each year of the TF, as well as a Four-year overall work plan for the TF. Co-Chairs will be responsible for undertaking annual reviews of the TF's performance and annual reporting to FIG Council. The TF Core Team will consist of a minimum of 8 members. Across these there is a representative from each FIG region, and a fair mixture of Young Surveyors and seasoned surveyors. Core team membership currently stands as:

Name	FIG Region	Gender
Roshni Sharma	Asia & Pacific	F
Clarissa Augustinus	Europe	F
Angela Anyakora	Africa	F
David Elegbede	Africa	M
Dr Kwabena Asiamah	Africa	M
Simon Ironside	Asia & Pacific	M
Cromwell Manaloto	Europe	M
Clarissa Augustinus	Europe	F

Cemal Özgür Kivilcim	Europe	M
Ferah Pirlanta Köksal	Europe	F
Gordana Jakovljevic	Europe	F
Enrico Rispli	Europe	M
Paula Dijkstra	Europe	F
Rigoberto Moreno	South America	M

5. Approval

These Terms of Reference have been approved by GA on <DATE>.