WORKING WEEK 2025 AND Locate25|G THE NATIONAL GEOSPATIAL CONFERENCE

Collaboration, Innovation and Resilience: Championing a Digital Generation

FIG Geospatial Council of Australia

Brisbane, Australia 6–10 April

FIG SUSTAINABLE DEVELOPMENT GOALS
International Federation of Surveyors supports the Sustainable Development Goals

Unlocking the Power of Geospatial Data for Sustainable Development by the Surveying Community

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Abstract Text

- The 2030 Agenda for Sustainable Development, a comprehensive plan of action for people, planet, prosperity, peace, and partnership, serves as a blueprint for a sustainable world (UN General Assembly, 2015). Fundamentally, the 17 Sustainable Development Goals (SDGs) and 169 targets guide the agenda, with urgency emphasized due to pressing issues such as pressure on land and sea, threats of calamities, extreme poverty, inequality, mistreatment of women, warfare, terrorism, and the ongoing refugee crisis.

- Recognizing the crucial role of professionals in the Land and Built environment in achieving the 2030 Agenda, the FIG General Assembly established the Joint FIG and the Sustainable Development Goals Task Force (FIG SDGs TF). The Task Force's primary objective is to integrate the SDGs into FIG and its member associations by 2026.

- Actively engaged in raising awareness within the FIG community, the Task Force aims to inform and inspire the FIG community to diligently contribute to measuring the targets and indicators outlined in the SDGs, viewing this commitment as a way of serving society for the benefit of both people and the planet.

- With this paper the Task Force describes how the FIG community and surveyors globally can contribute to bridge the critical data gap by raising awareness and a surge of implementation. The recent Sustainable Development Goals Report from 2024 will be used to identify priorities for FIG to unlock the power of geospatial data for sustainable development by the surveying community.

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Objective of the FIG Task Force on SDG's

To ensure that **'in 2026 the understanding of the 2030 Agenda and the relevance of the SDGs for our profession are embedded within FIG'**
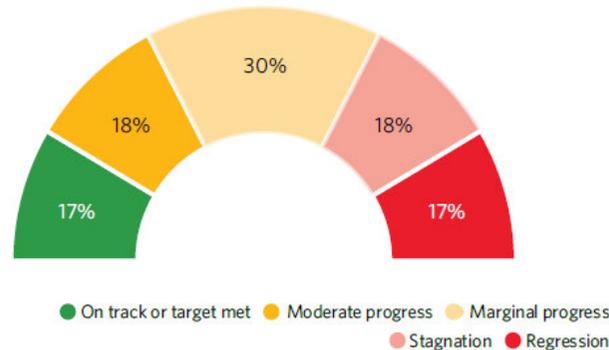
It is up to the SDG TF to inform and inspire the FIG community about how we as profession can best contribute to achieve the SDGs

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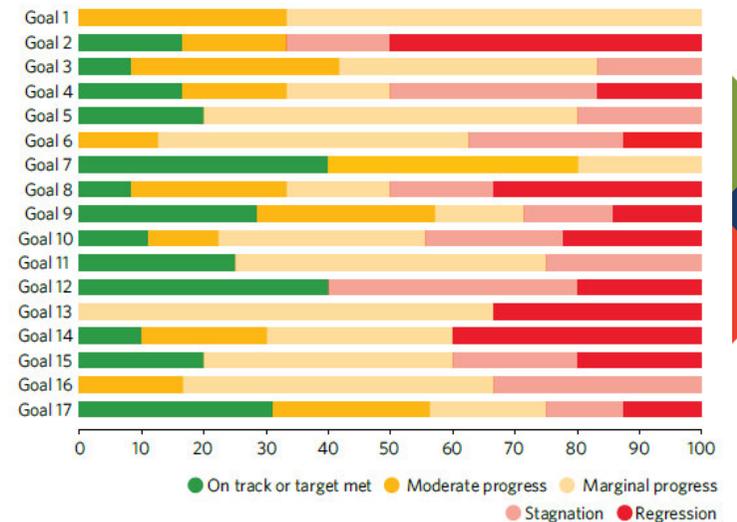# The current status of the SDGs: severely off track

From the SDG Progress Report

- Inequalities keep growing.

- The climate crisis continues to escalate.

- Biodiversity loss is accelerating.

- Progress towards gender equality remains disappointing.

- And conflicts in Ukraine, Gaza, Sudan and beyond have left an unprecedented 120 million forcibly displaced people worldwide.

https://unstats.un.org/sdgs/report/2024/

Overall progress across targets based on 2015–2024 global aggregate data

30%
18%
18%
17%
17%

- On track or target met
- Moderate progress
- Marginal progress
- Stagnation
- Regression

Progress assessment for the 17 Goals based on assessed targets, by Goal (percentage)

Goal 1
Goal 2
Goal 3
Goal 4
Goal 5
Goal 6
Goal 7
Goal 8
Goal 9
Goal 10
Goal 11
Goal 12
Goal 13
Goal 14
Goal 15
Goal 16
Goal 17

0 10 20 30 40 50 60 70 80 90 100

- On track or target met
- Moderate progress
- Marginal progress
- Stagnation
- Regression

Case SDG Indicator 5.a.1

🏠 **Data**   Assessment of country capacity   Methods and tools   Resources ⌄   Events

5 GENDER EQUALITY

Indicator 5.a.1 - (a) Percentage of people with ownership or secure rights over agricultural land (out of total agricultural population), by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure

This indicator is divided in two sub-indicators. Part (a) is an incidence measure. It measures how prevalent ownership or secure rights over agricultural land are in the reference population. Part (b) measures the share of women among owners or rights-bearers of agricultural land. Therefore it can be used to monitor the under-representation of women among the owners or holders of agricultural land. This is a de facto indicator which will measure progress towards SDG Target 5.a.

Target 5.a

Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.

https://www.fao.org/sustainable-development-goals-data-portal/data/indicators/5a1-women-ownership-of-agricultural-land/en

Case SDG Indicator 5.a.1

5. Minimum set of data

Based on the definitions mentioned above, a minimum set of data is needed to calculate indicator 5.a.1 as outlined in the table below.

Table 1: minimum set of data needed to calculate indicator 5.a.1

Whether or not the household has operated **land** for agricultural purposes and / or raised **livestock** over the past 12 months	To identify adult individuals living in agricultural households, by sex
Sex of the selected individual	
Age of the selected individual	
Whether or not the **individual owns or holds** any **agricultural land**	To identify land owners and/or rights bearers over the agricultural land based on the 3 proxies
Whether or not any of the land owned or held by the individual has a **legally recognized document** that allows protecting his/her ownership/tenure rights over the land	
Whether or not the individual is **listed as an owner or holder** on any of the legally recognized documents, either alone of jointly with someone else	
Whether or not the individual has the **right to sell** any of the agricultural land, either alone or jointly with someone else	
Whether or not the individual has the **right to bequeath** any of the agricultural land, either alone or jointly with someone else	

Countries may wish to expand the list of data items to be collected based on their specific needs and interests. Nevertheless, it is fundamental that the minimum set of data remains stable and consistent worldwide, in order to ensure comparability across time and country. Moreover, countries are required to adjust the list of legally recognized documents based on their national context.

6. Recommended data sources

Indicator 5.a.1 can be collected through agricultural surveys/censuses or household-based surveys having a suitable coverage of agricultural households.

https://openknowledge.fao.org/server/api/core/bitstreams/170e69fc-1e4f-4ef7-a14e-b62ba5d0b6df/content

UNGGIM - WGGI

- Aim
  - Focused on bringing Geography to the SDG indicators
  - Membership accross Member State statistical and geospatial agencies, custodian agendies, Civil Society and Academia
- Resources
  - SDG Geospatial Roadmap
  - GeoSpatial In Action
  - Shortlist on the SDGs indicator through a geographical lens
  - Position paper : Rescuing the SDGs with Geospatial Information: How Geospatial Information can transform the production, measurement, monitoring and dissemination of the SDG indicators.

UN-GGIM

Functional Groups

In pursuance of the objectives of setting the agenda for global a platform for the development of effective strategies and me information, the Committee of Experts has created several fu on decisions adopted at the annual session.

High-level Group

1. High-level Group of the Integrated Geospatial Information

Subcommittee

1. Subcommittee on Geodesy (formerly WG on Global Geode

Expert Groups

1. Expert Group on the Integration of Statistical and Geospati
2. Expert Group on Land Administration and Management

Working Groups

1. Working Group on Geospatial Information for Disaster Risk
2. Working Group on Policy and Legal Frameworks for Geosp
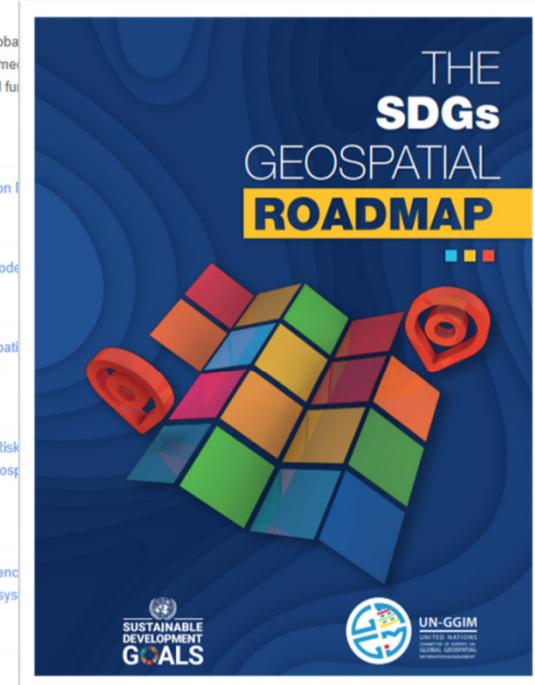3. Working Group on Marine Geospatial Information

Task Teams

1. Task Team on Geospatial Information for Climate Resilienc
2. Writing Team on the Future Geospatial Information Ecosys

Working Group of the IAEG-SDGs

Working Group on Geospatial Information

Past Working Groups

1. Working Group on Development of a Statement of Shared Principles for the Management of Geospatial Information
2. Working Group on Trends in National Institutional Arrangements in Geospatial Information Management
3. Working Group on Global Fundamental Geospatial Data Themes

THE SDGs GEOSPATIAL ROADMAP

SUSTAINABLE DEVELOPMENT GOALS   UN-GGIM UNITED NATIONS

Bringing Geography to the SDG Indicators

Outcomes of the Rescuing Paper

SUSTAINABLE DEVELOPMENT GOALS

- **Identifying issues with how things are reported within the global database**

  - Under-reporting -> need Geographic disaggregation within the statistics.

- **Reviewing the Indicator Metadata**

  - Proposing quick-wins, methodological advancements that help improve the reporting of the indicators

  - Much of the SDG metadata is drafted following a "bottom-up" approach, and the geospatial/EO-based "top-down" approach is not considered. It is reasonable to consider that metadata guideline was developed as part of the indicator ideation and does not take into consideration geospatial capabilities that we unknown to those who developed the initial metadata

- **Providing enhanced guidance on how geography impacts the indicators**

  - e.g. some SIDS are one MODIS pixel – but this will work for other countries. What guidance could (and should) be developed to help break down the challenges that countries (and SDGs Custodians) have with reporting.

https://unstats.un.org/UNSDWebsite/statcom/session_56/documents/BG-3e-Rescuing-the-SDGs-with-Geospatial-Information-E.pdf

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Assessment of the 2024 Progress Report for FIG + GeoSpatial in Action

- Approach
  - Checked each SDG in the SDG progress report + the extended SDG report Described key facts from the SDG Progress Report that describe the current progress and challenges
    - Identified for which commissions the SDG + indicator are most relevant (used table where SDGs are linked to commissions)
    - Identified items that are relevant to the FIG Community
  - Checked report GEOSPATIAL IN ACTION Data and Insights for the Sustainable Development Goals
  - Proposed key messages for the FIG community that can be shared and reused for social media
  - Used AI Prompt provide three key messages for members of FIG (International Federation of Surveyors) in relation to SDG 16 (NAME SDG), based on the provided input of the previous paragraphs.

Relevant SDGs for each FIG Commission

	Com. 1	Com. 2	Com. 3	Com. 4	Com. 5	Com. 6	Com. 7	Com. 8	Com. 9	Com. 10	YSN	ARN	AP RN	Stand-ar
1 NO POVERTY							ℹ📝	ℹ	ℹ		ℹ	ℹ		ℹ
2 ZERO HUNGER							ℹ📝	ℹ📝	ℹ		ℹ			ℹ
3 GOOD HEALTH AND WELL-BEING			ℹ											ℹ
4 QUALITY EDUCATION		ℹ									ℹ	ℹ		ℹ
5 GENDER EQUALITY	ℹ		ℹ				ℹ📝				ℹ			ℹ
6 CLEAN WATER AND SANITATION				ℹ	ℹ	ℹ		ℹ			ℹ			ℹ
7 AFFORDABLE AND CLEAN ENERGY				ℹ	ℹ	ℹ					ℹ			ℹ
8 DECENT WORK AND ECONOMIC GROWTH												ℹ		ℹ
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE			ℹ		ℹ	ℹ			ℹ	ℹ				ℹ
10 REDUCED INEQUALITIES	ℹ		ℹ				ℹ					ℹ		ℹ
11 SUSTAINABLE CITIES AND COMMUNITIES			ℹ📝	ℹ		ℹ		ℹ📝	ℹ	ℹ	ℹ	ℹ		ℹ
12 RESPONSIBLE CONSUMPTION AND PRODUCTION														ℹ
13 CLIMATE ACTION			ℹ	ℹ	ℹ	ℹ			ℹ					ℹ
14 LIFE BELOW WATER			ℹ	ℹ📝	ℹ							ℹ		ℹ
15 LIFE ON LAND			ℹ📝		ℹ		ℹ📝	ℹ						ℹ
16 PEACE, JUSTICE AND STRONG INSTITUTIONS	ℹ						ℹ					ℹ		ℹ
17 PARTNERSHIPS FOR THE GOALS									ℹ					ℹ

ℹ In cases where the FIG Commission can play a role in creating awareness and contribute to achieving the SDG's, this icon is present.

📝 In cases where the FIG Commission can play a role in measuring the Indicator, this icon is present.

Example SDG 2 – Zero Hunger

SDG 2: Zero Hunger - EXAMPLE

Relevance of SDG for FIG

The SDG is relevant for the following commissions:
- Commission 7
- Commission 8
- Commission 9

Identified relevant items for FIG Community

The following items from the progress report are relevant for the FIG Community:
- In 2023, about 733 million people faced hunger, and 2.33 billion people experienced moderate to severe food insecurity.
- Achieving zero hunger requires intensified efforts to transform food systems so they are sustainable, resilient and equitable.
- Productive and sustainable agriculture is key to ensuring the attainment and continued satisfaction of human needs in present and future generations
- While more detailed analysis is required to investigate the root causes of varying rates of progress, evidence suggests that all regions urgently need to take sustained, concerted actions to improve productive and sustainable agriculture by 2030. Small-scale food producers play essential roles in agricultural and food production systems, enhancing resilience and fighting hunger. Despite their significant contributions, however, they are often among the most vulnerable groups in rural areas and within the broader agrifood system.
- In 95 per cent of countries with available data, the average annual income of small-scale producers is less than half that of larger-scale producers. This income disparity persists across countries, regardless of income level. Small-scale food producers headed by men typically generate higher incomes than those headed by women. The latter had incomes that were less than 70 per cent of those earned by the former in nearly 50 per cent of countries with available data.

The Progress of the relevant FIG Related Targets

Relevant Targets

The following targets are relevant for FIG:
2.3 Small-scale food producers
2.4 Sustainable

Key message on progress of the target (from extended report)

- 2.3.1 There are Labor productivity and gender disparities among food producers.
- 2.3.2 There is an Income gap among food producers

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- 2.4.1 The world is at a moderate distance to achieving productive and sustainable agriculture

Detailed Description of the Targets and the Progress (including findings + our role)

Target 2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

- **Indicator 2.3.1** Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size

Key messages for the FIG community that can be shared and reused for social media

Here are three key messages for members of FIG (International Federation of Surveyors) in relation to SDG 2 (Zero Hunger), based on the provided input:

- **Transforming Food Systems**: Achieving zero hunger requires intensified efforts to transform food systems to be sustainable, resilient, and equitable. Geospatial information and Earth observation are crucial in providing insights to evaluate crop conditions, mitigate climate risks, support farming operations, and monitor land degradation. These tools help create and maintain secure and sustainable food systems essential for feeding the global population.
- **Supporting Small-Scale Food Producers**: Small-scale food producers play essential roles in agricultural and food production systems, enhancing resilience and fighting hunger. Despite their significant contributions, they are often among the most vulnerable groups. Geospatial data can help identify and monitor natural resource use, providing relevant information for policies and actions to support these producers, ensuring they receive the necessary resources and support to thrive.
- **Evidence-Based Decision Making**: The issue of world hunger requires sound and timely evidence-based geospatial data for decision-makers and farmers alike. New solutions, such as improved disaggregated crop statistics using remote sensing and geospatial technologies, are being developed to support national capacity development. These tools and methodologies, like the Global Agro-Ecological Zones, provide critical data for assessing global land resources and supporting sustainable agricultural practices.

Example SDG 5

Indicator / Target relevant for FIG Commissions	Key messages on progress
5.1. End all forms of discrimination against all woman and girls everywhere 5.1.1. Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex.	**Marginal progress.** Significant acceleration needed for legal frameworks on gender equality. Overall progress is insufficient, particularly given lags on structural issues such as gender-responsive laws, policies and budgets.
5.2. Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation. Specific indicators? ALL?	**Insufficient data** on violence against women & girls. Evidence illustrates that women disabilities are disproportionately affecte Violence against women is pervasive, a harmful practices, such as child marriag female genital mutilation, severely impa despite declines in recent decades.
5.5. Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life. 5.5.2. Proportion of woman in managerial positions.	**Stagnation** on women in leadership targ Data from women in managerial position regression to 2016 figures. Women's access to political and manag positions and their ability to make choic about their sexual and reproductive hea remain notably low.
5.A. Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws. 5.A.1(a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex. 5.a.1(b) share of women among owners or rights-bearers of agricultural land, by type of tenure. 5.a.2 Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control.	**Insufficient data** on equal economic rig women. Social norms continue to perpetuate discrimination, preventing women from gaining an equal footing with men..

3. **Challenges in measuring gender related data remain**
   - There are 53 gender-specific indicators across the SDG framework but only 12 of the 53 gender-specific indicators have data regularly produced.
   - Accurate, disaggregated data is critical to address disparities in access to services and inform gender-responsive policies.
   - Improved data and measurement standards are necessary to capture the experiences of women, especially those with disabilities.
   - Dedicated investments are needed to build technical capacity and generate robust data to inform policies and develop strategies.

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24–29 MAY 2026
Cape Town, South Africa

The Future We Want – The SDGs and Beyond.
Where we are, Where we want to be.

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