

INTERNATIONAL
LAND
COALITION



A TECHNICAL GUIDE FOR GOVERNMENTS & COMMUNITIES

**REPORTING ON THE KUNMING-MONTREAL
GLOBAL BIODIVERSITY FRAMEWORK (KM-GBF)
HEADLINE INDICATOR 22.1**



LandMark



WRI

AIMForests

ABOUT THIS GUIDE

This guide serves as a general resource to support national reporting on the *Kunming-Montreal Global Biodiversity Framework's (KM-GBF) Headline Indicator 22.1* on land-use change and land tenure in the traditional territories of Indigenous Peoples and local communities (IPs and LCs). The guide is meant for multiple audiences: national government officials responsible for reporting, civil society working with relevant land data and on topics relevant to land use and tenure, as well as organizations representing Indigenous Peoples and local communities who hold, generate, or can help provide traditional knowledge, lived experiences and community-based data to be used in monitoring and reporting.

The guide sets out what the indicator measures, why it matters, what governments are asked to report, and possible sources of data. It also shows how data from national administrative and statistical systems, community-based processes and global datasets can be brought together into a national report and how diverse actors can contribute to such a process. The guide offers a common framework, not a single reporting model. Countries differ in their land governance systems, legal frameworks, institutions, data environments and relationships with Indigenous Peoples and local communities. Each Party is expected to adapt its approach to reporting on the indicator to its own context.

The companion Headline Indicator 22.1 metadata sheet¹ provides full technical detail on the indicator with a step-by-step methodology, computation formulas, and data-quality criteria for each component. This guide references it throughout and is best read alongside it.

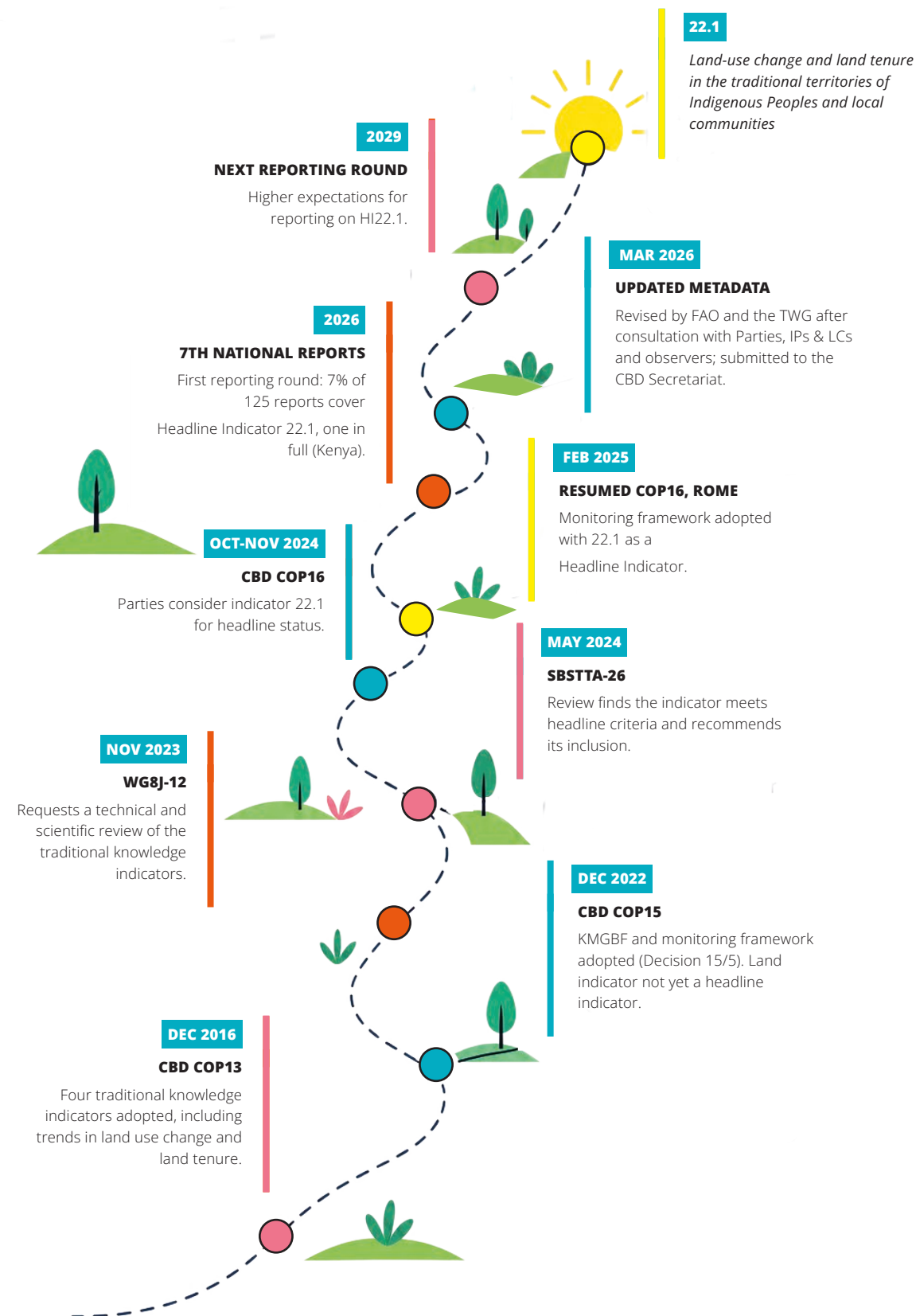
Headline Indicator 22.1 was developed by a Technical Working Group led by the Food and Agriculture Organization of the United Nations (FAO), which was eventually identified as the custodian agency for the indicator, and including the International Land Coalition (ILC), Forest Peoples Programme (FPP), World Resources Institute (WRI), the International Work Group for Indigenous Affairs (IWGIA), CIFOR-ICRAF, as well as Prindex, LandMark, the Indigenous Navigator, and the Rights and Resources Initiative (RRI), among others.

¹ See the updated metadata: <https://www.cbd.int/doc/c/8f2f/6c26/b6416adf45ed77c1a58137dd/sbstta-28-inf-04-en.pdf>

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Figure: The road to Headline Indicator 22.1



BACKGROUND

At its sixteenth meeting, the Conference of the Parties to the Convention on Biological Diversity (**CBD COP DEC16/31**) adopted the revised monitoring framework for the Kunming-Montreal Global Biodiversity Framework (KM-GBF), including Headline Indicator 22.1 (HI22.1),² defined as follows:

Land-use change and land tenure in the traditional territories of Indigenous Peoples and local communities.

In retaining Headline Indicator 22.1, Parties recognized secure land tenure as a crucial enabling factor for sustainable use and biodiversity outcomes across the KM-GBF. In doing so, they also reinforced prior decisions supporting development of the four traditional knowledge indicators (TKIs), one of which formed the basis for the current indicator. The adoption of the indicator 22.1 with headline status meant that starting in 2026 – when the monitoring framework was finalized – Parties would be required to monitor and report progress on all headline indicators, including Headline Indicator 22.1, in their National Biodiversity Strategies and Action Plans (NBSAPs) and National Reports (NRs), including the Seventh National Report (7NR) that was due in February, 2026.

According to the draft global report on collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework, presented at SBSTTA-28, of the 129 submissions received,³ only 7% reported on Headline Indicator 22.1 and only one Party – presumably Kenya – submitted the indicator fully as described in the existing metadata.⁴

In its 7NR, Kenya reported on the indicator using the global datasets suggested in the metadata document – from LandMark and Prindex, among others – and reported relevant sub-national data generated by community-based organizations.⁵

The late adoption of Headline Indicator 22.1 during COP16.2, as opposed to the adoption of most headline indicators at COP15 (**DEC15/5**) in Montreal, likely affected a fuller uptake of the indicator in the 7NR cycle. Parties also reported methodological challenges, underdeveloped data collection systems, fragmented land tenure information and legal difficulties in defining Indigenous and traditional territories as some of the constraints relating to the indicator.

² Headline Indicator 22.1 was developed by a Technical Working Group technically coordinated by the Food and Agriculture Organization of the United Nations (FAO), the custodian agency for the indicator, and including the International Land Coalition (ILC), Forest Peoples Programme (FPP), World Resources Institute (WRI), the International Work Group for Indigenous Affairs (IWGIA), CIFOR-ICRAF, Prindex, LandMark, the Indigenous Navigator, and the Rights and Resources Initiative (RRI), among others.

³ <https://www.cbd.int/article/2026-NationalReports>

⁴ Results from the draft global report on collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework: <https://www.cbd.int/doc/c/5611/c35f/aa96bdcd816f5952d586a777/sbstta-28-02-add1-rev1-en.pdf>

⁵ <https://www.landcoalition.org/en/latest/people-centred-data-kenya-philippines/>

REPORTING REQUIREMENTS OF HEADLINE INDICATOR 22.1

Headline Indicator 22.1 is used for headline reporting of Target 22.
Target 22 reads as follows:

Ensure the full, equitable, inclusive, effective and gender-responsive representation and participation in decision-making, and access to justice and information related to biodiversity by Indigenous Peoples and local communities, respecting their cultures and their rights over lands, territories, resources, and traditional knowledge, as well as by women and girls, children and youth, and persons with disabilities and ensure the full protection of environmental human rights defenders.

- The measurement of the Headline Indicator 22.1 is operationalized through three components (**a**, **b**, and **c**) that are aggregated into one average value (**d**):
- ➔ **(a) Legal recognition:** Proportion (%) of lands and territories held or used by Indigenous Peoples (IP) and local communities (LC) with legal recognition or legally recognized documentation.
 - ➔ **(b) Perceived tenure security:** Proportion (%) of IP and LC communities and individuals where there is perceived security of tenure.
 - ➔ **(c) Land condition:** Proportion (%) of IP and LC lands and territories that is categorized as non-degraded relative to a baseline year.
 - ➔ **(d) Final aggregate value:** the average value of components **a**, **b**, and **c**.

It is important to note that if one of the first three components (**a**, **b** or **c**) is unavailable, component **d** cannot be calculated.

WHY AN AVERAGE?

Combining the three components into one value gives Parties a single headline figure that can be monitored over time and across reporting rounds, consistent with other headline indicators. Each component captures a different dimension of tenure: formal recognition, perceived tenure security, and the condition of the land. Combining them gives an aggregate value of land tenure and use, while giving them equal weight avoids ranking one dimension above the others. All three components are expressed on the same scale, where 100% represents the most desirable outcome. When they are averaged, the aggregate value can be interpreted the same way as it would be for each component, as a proportion of the ideal or desired value. Given that an average can also have the effect of obscuring large differences between components (e.g., high levels of legal recognition alongside low levels of perceived tenure security), Parties are asked to report the three component values individually in addition to the aggregate value.

THE MEASUREMENT OF THE INDICATOR

The methodology of Headline Indicator 22.1 recognizes the different levels of data availability and quality in different country contexts. For that reason, the metadata proposes a stage-based approach to reporting, accommodating varying types and qualities of available data for each of the three components. This approach also accounts for the diverse data sources that may be available for each of the three components. While Parties remain responsible for reporting under the CBD, **Decision 15/5** invited Parties and relevant organizations to support community-based monitoring and information systems and citizen science and their contributions to implementing the monitoring framework. As such, the measurements for Headline Indicator 22.1 consider diverse data sources that may contribute to reporting on each of the components. See the section “Roles and Responsibilities” for more detailed information on the different actors and their responsibilities in the reporting process.

COMPONENT (a): LEGAL RECOGNITION

This component measures the amount of Indigenous Peoples and local community land that is legally recognized or documented as a proportion of the total amount of land that these groups hold or use.

On component (**a**) of the measurement of indicator 22.1, the method and means of computation proposed is as follows:

COMPONENT (a)
*Proportion of IP&LC lands that are documented and recognized
(IP&LC = Indigenous Peoples and Local Communities)*

Proportion of IP&LC lands that are documented and recognised

=

Area of IP&LC land recognised and documented (ha)

Area of land held or used by IP&LC (ha)

For component (**a**), two stages are proposed related to data availability and accuracy. Stage 1 draws on numerical or statistical data, including from secondary sources. Stage 2, instead, would draw the same numbers using georeferenced data. For both stages, the same numerator and denominator figures would be reported, but the kind of data that would be informing those figures would be different. This will also have an effect on reporting for component (**b**), which measures levels of tenure security in the areas identified in component (**a**), as well as on reporting for component (**c**), which requires georeferenced data. This will be further discussed in coming sections.

As per the metadata, key data sources for component a are as follows:

- ➔ National sources of data, including administrative data
- ➔ LandMark
- ➔ Rights and Resources Initiative (RRI) Who Owns the World Land?
- ➔ The Afro-Descendant Atlas
- ➔ The Indigenous Navigator
- ➔ The ICCA Registry
- ➔ FAO Global Land Observatory (GLO)
- ➔ Community-based monitoring and information systems (CBMIS)

See the sections “Data Sources for Reporting on Indicator 22.1” and “Example Calculations of Indicator 22.1” for more detailed information on available data sources/inputs and how to calculate this component.

For detailed formulas, the full list of data sources by stage, and guidance on choosing the right stage for your context, see the Headline Indicator 22.1 metadata sheet.

COMPONENT (b): PERCEIVED TENURE SECURITY

This component measures the proportion of Indigenous Peoples and local communities that perceive their tenure to be secure.

On component (b) of the measurement of indicator 22.1, the method and means of computation proposed is as follows:

COMPONENT (b)
Proportion % of the adult population in the area determined in denominator of component (a) who perceive their community tenure to be secure

Proportion % who perceive community tenure to be secure

=

Adult population in the area determined in denominator of component (a) who perceive their community tenure to be secure

Total adult population in the area determined in denominator of component (a)

For component (b), five stages are proposed related to data availability and accuracy. Stage 0 draws on proxy data reported through national surveys and may apply to a region larger than the area indicated in component (a).

Stages 1-3 use data collected through interviews with a national sample of community leaders, directly with leaders of those communities in question, and through focus group discussion (methods) within the community. Stage 4 data, considered to be the most accurate or precise data for the component, would be collected directly through surveys of the community members in question.

As per the metadata, key data sources for component a are as follows:

- ➔ National sources of data, including administrative data
- ➔ Prindex
- ➔ International Land Coalition (ILC) LANDex
- ➔ Community-based monitoring and information systems (CBMIS)

See the sections “Data Sources for Reporting on Indicator 22.1” and “Example Calculations of Indicator 22.1” for more detailed information on available data sources/inputs and how to calculate the component.

For detailed formulas, the full list of data sources by stage, and guidance on choosing the right stage for your context, see the Headline Indicator 22.1 metadata sheet.

COMPONENT (c): LAND CONDITION

This component measures the proportion of Indigenous Peoples and local community land that is stable or improving (considered non-degraded) relative to a baseline year, using a land use or land cover change matrix to classify transitions into categories of 1) degraded, 2) neutral, or 3) improved.

On component (c) of the measurement of indicator 22.1, the method and means of computation proposed is as follows:

COMPONENT (c)
Land use change in lands and territories held or used by Indigenous Peoples and local communities

Proportion % of non degraded land in IP&LC territories

=

Area of nondegraded land in territories held or used by Indigenous Peoples and local communities in reporting year

Total area of territories held or used by Indigenous Peoples and local communities

For component (c), two stages are proposed related data availability and accuracy.

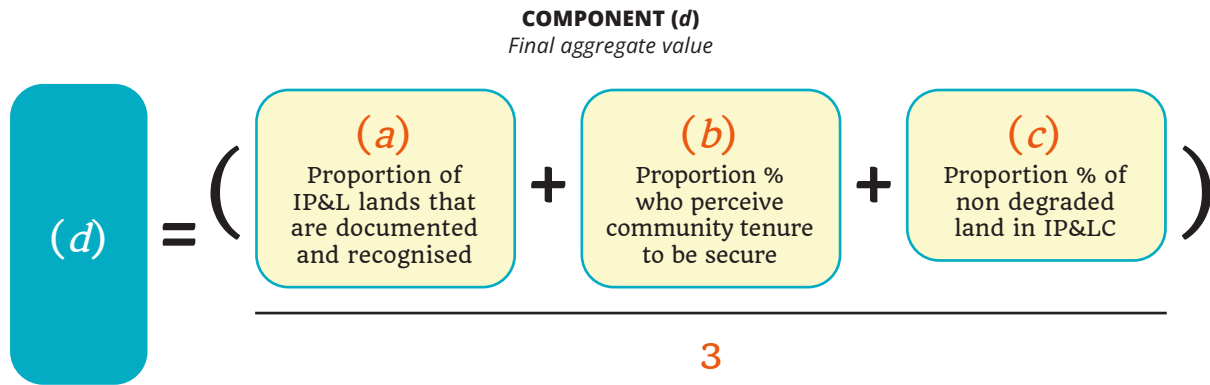
Stage 0 draws on numerical data such as FAO Forest Resources Assessment (FRA) figures on Indigenous and community forest ownership and management as a proxy for land condition, and can be combined with data from component (a) on total area of Indigenous and community lands. Stage 1 draws on georeferenced data on Indigenous and community lands, which can be obtained from national cadasters and community-based sources, as well as global sources such as LandMark and the ICCA Registry. Stage 1 data must be combined with geospatial data on land use or land cover change in order to calculate the proportion in a non-degraded land condition. The Stage 0 method is only a viable option for countries where Indigenous and community lands are likely forested, and Stage 1 is strongly preferred as the more accurate measurement for component (c). See the sections “Data Sources for Reporting on Indicator 22.1” and “Example Calculations of Indicator 22.1” for more detailed information on data sources and how to calculate the component.

For the detailed formulas, the full list of data sources by stage, and guidance on choosing the right stage for your context, see the HI22.1 metadata sheet.

COMPONENT (d): FINAL AGGREGATE VALUE

Component (d) averages the three component values into a single headline value, showing the overall state of land use and tenure in the traditional territories of Indigenous Peoples and local communities.

On component (d) of the measurement of indicator 22.1, the method and means of computation proposed is as follows:



The final value is the simple average of components (a), (b) and (c). As a headline indicator, 22.1 needs a single figure that Parties can report and track across reporting rounds. The three components are weighted equally because each captures a different dimension of tenure: what is legally recognized, how secure people feel, and the state of land use. None of these on its own gives the full picture. Because an average can hide large differences between components, Parties should report the three component values alongside the final value.

Data for components a, b, and c may not be available for all countries. In cases where one or more data points for a component is missing, the aggregate (average) value for (d) will not be calculated.

ROLES AND RESPONSIBILITIES

Under the Convention on Biological Diversity (CBD), Parties hold responsibility for official national reporting on progress toward KM-GBF goals and targets. Meeting this obligation under Target 22, which concerns the full, equitable, inclusive, effective and gender-responsive representation and participation of IPs and LCs in decision-making, requires inclusive processes that precede formal submission. The KM-GBF’s whole-of-government and whole-of-society approach, together with the principle of respect for the rights, knowledge and contributions of IPs and LCs, supports collaborative, participatory approaches to data collection as a core element of national reporting rather than an optional complement to it. These roles are distinct but mutually reinforcing. National reporting by Parties is strengthened when it draws on, and is informed by, evidence generated by IPs and LCs and supported by civil society, research organizations and global data initiatives. Conversely, the independent contributions of non-State actors enrich the overall evidence base available to the Convention, including where perspectives may differ from official figures.

- ➔ **Government ministries and agencies.** Acting on the Party’s responsibility for national reporting under the Convention, they coordinate the process, hold administrative and cadastral data, compute the indicator and submit the National Report. This includes the CBD national focal point and possibly focal points from land administration, environment and Indigenous affairs agencies. In line with the whole-of-government approach, they should convene participatory processes ahead of submission.
- ➔ **Indigenous Peoples, local communities and their organizations.** IPs and LCs hold and generate data (e.g. community maps, CBMIS, customary records), validate figures for their territories, and use results for advocacy and land management. They may also report through their own channels. Consistent with the whole-of-society approach and the GBF’s commitment to their full and effective participation, they should collaborate with the government on data collection, with respect for free, prior and informed consent and data sovereignty.
- ➔ **Global data initiatives.** They provide complementary datasets and methodological support where national coverage is incomplete or under development.
- ➔ **Civil society and research organizations.** These organizations can further support mapping, data collection and technical work, and may facilitate dialogue between governments and IPs and LCs.

FROM IDENTIFYING DATA TO A NATIONAL REPORT

Reporting on Headline Indicator 22.1 requires more than data collection. Information held by different actors must be consolidated, verified, harmonized and discussed before a figure is included in the National Report (NR). The six steps below describe this process. They are not strictly sequential, and Parties may adapt the order, the institutions involved and the level of detail to national context and circumstances.

Table 1. Summary of possible actions by different actors for reporting on Headline Indicator 22.1.

STEP	ACTION	DESCRIPTION	ACTORS
1	Identify, collect and generate data	Inventory available data for each component, including cadastral and administrative records, national surveys, participatory maps, CBMIS and global datasets. Identify gaps by component and geographic area.	Government ministries and agencies; IPs and LCs and their organizations; global data initiatives.
2	Validate and cross-reference	Compare multiple sources for the same areas and components. Where figures diverge, establish the cause (definitions, dates, methods, coverage). Review available data in an inclusive, multi-actor setting with relevant institutions, facilitators and communities.	Government ministries and agencies; IPs and LCs and their organizations; global data initiatives as relevant.
3	Align	Harmonize definitions, boundaries, reference periods and land cover categories to enable data integration. Record all decisions and adjustments made.	Government ministries and agencies; IPs and LCs and their organizations; global data initiatives as relevant.
4	Compute the indicator	Calculate components (a), (b) and (c) following the stages proposed in the metadata, including the aggregate value (d) if viable. Document which stages and sources were used for each component.	Government ministries and agencies
5	Consult	Share draft results with Indigenous Peoples, local communities, civil society, other relevant actors and relevant ministries before submission. Record their comments and how they were or will be addressed.	Government ministries and agencies Indigenous Peoples, local communities and their organizations, civil society and other relevant actors.
6	Report	The national focal point submits the figures, sources and methodology in the National Report and uses them to inform NBSAP updates.	Government ministries and agencies.

In parallel with official reporting, IPs and LCs may share their own data and experience through complementary channels. Integrating and cross-referencing official and community-generated information should, where possible, support continuous dialogue among governments, IPs and LCs and their organizations, civil society and other relevant actors. Such dialogue can strengthen indicator reporting as well as national policy and decision-making on land-use change, land tenure rights and biodiversity conservation.

This approach is consistent with Section C of the KM-GBF, which describes the Framework as being for the whole of government and the whole of society. Its implementation depends on political will and recognition at the highest levels of government and on action and cooperation by all levels of government and all actors of society.

DATA SOURCES FOR REPORTING ON INDICATOR 22.1

Reporting on Headline Indicator 22.1 can draw on community-generated, national and global data. Starting with national sources of data, including administrative data, reflects the national context and existing data infrastructure. This can be verified with relevant institutions. If National sources of data are unavailable, or even if they are, look to global datasets to fill gaps or complement national sources, not replace it. Community-based monitoring and information systems (CBMIS) can provide direct assessments from relevant communities, further grounding and complementing existing official and global data sources.

Table 2. Summary of data sources and applicability for reporting on Indicator 22.1.

SOURCE	COVERAGE	(a) LEGAL RECOGNITION	(b) PERCEIVED TENURE SECURITY	(c) LAND CONDITION
National sources of data, including administrative and community-based data	National	✓		✓
LandMark	Global	✓		✓
Who Owns the World's Land? (RRI)	73 countries	✓		✓
Afro-Descendant Atlas	15 LAC countries	✓		✓
ICCA Registry	Global, submission-based	✓		✓
FAO Global Land Observatory	Global	✓		
Indigenous Navigator	29 countries	✓	✓	
Prindex	140+ countries		✓	
LANDex	ILC member countries		✓	
FAO Forest Resources Assessment	Global, forest only			✓
GLAD Land Use/Land Cover (30 m)	Global			✓
ESA CCI Land Cover (300 m)	Global			✓

NATIONAL SOURCES OF DATA

National sources of data, including administrative and cadastral records and community-based monitoring and information systems (CBMIS), can be used to report on all three components of Headline Indicator 22.1: (a), (b) and (c).

National reporting should draw on local and national land tenure data, including administrative and cadastral records as well as local tenure security data generated through participatory mapping and community-based monitoring and information systems (CBMIS). Coverage, methodology, and data quality vary considerably by country, depending on national administrative capacity. Data on customary lands and territories may also be held by customary institutions, such as traditional authorities, councils of elders or community land governance bodies, and may not appear in cadastral records or CBMIS. Only lands that are legally recognized count towards the numerator of component (a), regardless of the data source. However, countries are encouraged to report both the numerator and denominator of component (a) separately, including land that is legally recognized as well as that which is used or held by Indigenous Peoples and local communities but not legally recognized. Both numbers make visible the extent of customary tenure without legal recognition.

GLOBAL SOURCES OF DATA

These are datasets compiled across countries by international and regional initiatives, including community-driven platforms. Some cover only a subset of countries. They can fill gaps in, or complement, national and community-based data. The list is not exhaustive.

TENURE AND TERRITORY COMPONENTS (a) AND (c)

These sources document the location, extent, and recognition status of Indigenous Peoples' and local communities' lands. The list includes many relevant sources, but is not exhaustive of all data options.

LANDMARK

LandMark is an online, interactive platform that maps Indigenous Peoples' and local communities' lands globally. It is governed by a Steering Group of local, regional, and international land rights-focused organizations, with the International Land Coalition and World Resources Institute serving as co-secretariat. It was designed to support communities in their advocacy for land rights and secure tenure over their lands. LandMark compiles data contributed by community-based organizations, NGOs, research institutions, and governments, with an objective of presenting a holistic picture of Indigenous Peoples' and local communities' land tenure for each country both geospatially and statistically.

While the initiative aims for global data coverage, data completeness varies widely from country to country, and gaps tend to be largest where government recognition of Indigenous Peoples' and local communities' rights has historically been weakest. Data is updated on a varying basis as it becomes available. Pre-calculated numerical statistics for components a, b, c, and d that Parties can download and use to report on Indicator 22.1 for their country is available at:

<https://landmarkmap.org/data-methods/access-data>.

LandMark also offers numerical and geospatial data that can be incorporated into Parties' own calculations for components (a) and (c).

The numerical data on LandMark includes national-level estimates of the total area of each country's land that is held or used by Indigenous Peoples and local communities and the portion that is acknowledged by government in the dataset "Percent of Country Held and Used by Indigenous Peoples and local communities". The geospatial data on LandMark are available as maps of Indigenous and community lands that are classified by recognition status, for which the mapped areas can be summed to the total area of Indigenous and local community lands and proportion that is acknowledged by government. For component (c), the mapped areas of Indigenous and community lands can be combined with geospatial data on land condition.

LandMark can be used to report to the following components of indicator 22.1:

- ➔ Component (a)
- ➔ Component (c)

WHO OWNS THE WORLD'S LAND?

This **report from the Rights and Resources Initiative (RRI)** provides numerical data on the extent of lands legally recognized as designed for and owned by Indigenous Peoples and local communities across 73 countries, covering 85% of global land area. It also estimates the land area that Indigenous Peoples, Afro-descendant, and local communities traditionally hold and use, but to which their rights are not yet legally recognized by national governments. As a periodic publication, the latest edition covers the 2015–2020 period. The numerical data can be used to report the total area of each country's land that is held or used by Indigenous Peoples and local communities and the portion that is legally recognized by the government for components (a) and (c).

"Who Owns the World's Land?" can be used to report to the following components of indicator 22.1:

- ➔ Component (a)
- ➔ Component (c)

AFRO-DESCENDANT ATLAS

This **Atlas** maps the ancestral territories, rural settlements, and collectively owned lands belonging to Afro-descendant peoples in 15 Latin American and Caribbean countries, along with the status of recognition of their territorial rights. Its geographic scope covers Latin America and the Caribbean and it is updated on a varying basis as data become available. Recognizing the contributions of Afro-descendent peoples as a distinct community within the goals of the CBD and KMGBF brings visibility to communities historically overlooked in biodiversity policies. This is supported by a dedicated decision calling on Parties to incorporate the contributions of Afro-descendent peoples into implementing the CBD and KMGBF. The data on Afro-descendant territories from the Atlas would need to be combined with other sources of data to provide a complete picture of Indigenous and local community lands for a country.

The Afro-descendant Atlas can be used to report to the following components of indicator 22.1:

- ➔ Component (a)
- ➔ Component (c)

FAO GLOBAL LAND OBSERVATORY (GLO)

The **GLO** generates, analyzes and makes available data on the status of land tenure and governance issues to support the monitoring of global commitments. More specifically, the GLO brings together land data generation and monitoring initiatives to strengthen analyses on the status quo and trends related to land tenure and land rights and governance. This is complemented by undertaking policy research that feeds the development of specialized reports on the relevance of responsible governance of tenure to promote food security, reduce inequality and enhance the sustainability of agri food systems in the long term. The Status of Land Tenure and Governance (SLTG) reports are released on a three-year cycle. The numerical data from GLO can be used to report the total area of each country's land that is held or used by Indigenous Peoples and local communities and the portion that is legally recognized by government for components (a) and (c).

The GLO can be used to report to the following components of indicator 22.1:

- ➔ Component (a)
- ➔ Component (c)

ICCA REGISTRY

The **ICCA Registry** is an online community-driven platform where Indigenous Peoples and local communities submit data, maps, case studies, and photos documenting territories they conserve (Indigenous and community-conserved areas or "territories of life"). The ICCA Registry is managed by UNEP-WCMC in collaboration with ICCA custodians and the ICCA Consortium, which is an international membership organisation dedicated to promoting the appropriate recognition and support of territories and areas conserved by IP&LC. The ICCA Registry is governed through a steering committee of Indigenous Peoples, local communities, and other partners who provide advice and support to UNEP-WCMC on the implementation and future direction of the ICCA Registry. Data are submitted to the ICCA registry as numerical (non-spatial) or geospatial depending on the preference of the community. As of 2026, the ICCA Registry includes 334 ICCAs in 26 countries.

The ICCA Registry can be used to report to the following components of indicator 22.1:

- ➔ Component (a)
- ➔ Component (c)

TENURE SECURITY DATA: COMPONENT (b)

These sources document perceptions of tenure security.

PRINDEX

Prindex, an initiative of the Global Land Alliance, provides survey-based data on how secure people feel in their land and housing tenure across more than 140 countries. Because it measures perceived tenure security, it provides global data for consideration by countries for reporting on component (b).

Prindex can be used to report to the following components of indicator 22.1:

- ➔ Component (b)

INDIGENOUS NAVIGATOR (IN)

The **Indigenous Navigator** is a framework and set of community-based monitoring tools, developed by and for Indigenous Peoples, to systemically monitor the recognition and implementation of their rights, including in relation to biodiversity. Communities have applied the tools across 29 countries in Asia, Africa, the Americas and the Arctic. Recently developed thematic modules on biodiversity, climate change, and human rights and environmental due diligence can provide more comprehensive coverage on biodiversity and the KMGBF. Coverage is limited to the countries and communities voluntarily submitting data. Currently the data can be used for component (b), however, in the future, additional collected data through the IN's Biodiversity Module may be used to report on component (a) and (b).

The Indigenous Navigator can be used to report to the following components of indicator 22.1:

- ➔ Component (b)

LANDEX

LANDex is a global land governance index that puts people at the centre of land data, aiming to democratize land monitoring and build a data ecosystem that captures the complex, diverse experience of land governance. Built with the International Land Coalition's (ILC) members, it includes common indicators that are scored on a 0–100 scale across legal framework, implementation, and outcomes, revealing the gap between global commitments, national legal frameworks, and results on the ground. Recently, LANDex has begun collecting community-level data on land tenure security through a localized tool aligned with SDG 1.4.2, 5.a.1 and Headline Indicator 22.1. This member-generated index is updated when data becomes available.

LANDex can be used to report to the following components of indicator 22.1:

- ➔ Component (b)

LAND CONDITION DATA: COMPONENT (C)

These sources document nondegraded land in territories held or used by Indigenous Peoples and local communities.

FAO FOREST RESOURCES ASSESSMENT (FRA)

The *FRA* is FAO's global assessment of the state of the world's forests, their management and their uses. It is based on official data reported by countries through a network of national correspondents, and covers almost all countries and territories. Data are collected every five years, and 2025 is the most recent reporting year. FRA figures cover forest area only, not other land cover or land use types, and are available as national numerical statistics rather than maps. In Section 4a of the FRA, countries report the area of forest owned by Indigenous Peoples and local communities and in Section 4b countries report the area of public forest with management and/or use rights designated for Indigenous Peoples and local communities through long-term leases or management agreement. For countries where Indigenous Peoples' and local communities' lands are typically forested, this numerical data on forest area could be used as a proxy for non-degraded land condition when geospatial data is not available. Nevertheless, other geospatial data sources are the preferred option for reporting on component (c).

The FRA can be used to report to the following components of indicator 22.1:

➔ Component (c)

GLAD GLOBAL ANNUAL LAND USE/LAND COVER CHANGE DATA (30 M)

Annual global land use and land cover data 2015-2024+ (updated annually) is produced by the Global Land Analysis and Discovery (GLAD) Lab at the University of Maryland, the Global Pasture Watch Consortium, and WRI's Land & Carbon Lab. It is available on the WRI's *Data Explorer* and *Global Nature Watch*. The dataset is based on the methods developed for the GLAD Global Land Cover and Land Use Change 2000–2020 dataset (Potapov et al., 2022) and uses Landsat Analysis Ready Data to characterize land cover and land use at 30-meter spatial resolution. The data provide annual information on major land-cover and land-use classes and enable analysis of changes and transitions among classes for any year between 2015 and the end year. The land use/land cover classes include: bare ground and sparse vegetation, short vegetation, tree cover, wetlands, water, snow/ice, cropland, cultivated grasslands, and built-up land. For calculating component (c), the data must be combined with geospatial data on Indigenous Peoples' and local communities' territories to calculate land use change within these territories.

GLAD data can be used to report to the following components of indicator 22.1:

➔ Component (c)

ESA-CCI-LC (300 M)

The *European Space Agency (ESA)* Climate Change Initiative Land Cover (CCI-LC) project produces annually updated, globally consistent land cover maps classifying the Earth's surface into 22 standardized classes at 300-meter resolution from 1992 to the present. The data enable analysis of changes and transitions among classes for any year between 1992 and the end year. For calculating component (c), the data must be combined with geospatial data on Indigenous Peoples' and local communities' territories to calculate land use change within these territories. Note that the 300-m resolution may be too coarse for countries where Indigenous and local community lands are typically small in area and in those cases, finer-resolution land use/land cover data would be preferred.

ESA-CCI-LC data can be used to report to the following components of indicator 22.1:

➔ Component (c)

EXAMPLE CALCULATIONS OF INDICATOR 22.1

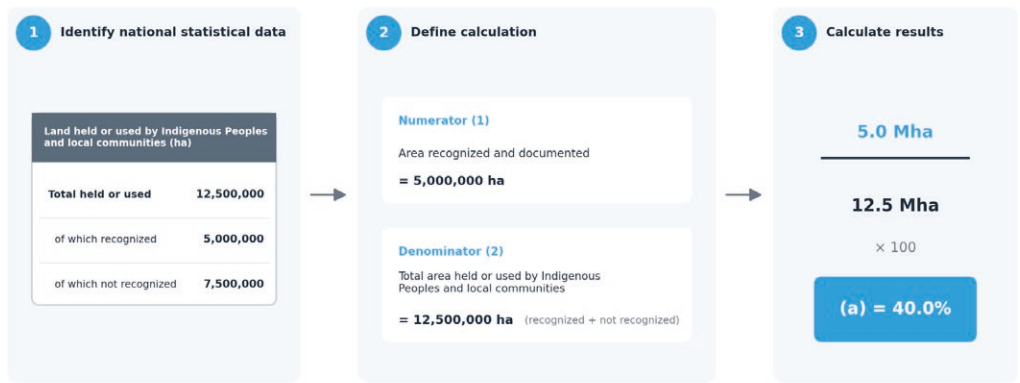
This section provides examples of how to calculate each component of Indicator 22.1 for a hypothetical country and makes reference to available source data.

EXAMPLE CALCULATION: COMPONENT (a), LEGAL RECOGNITION

Component (a) measures how much land held or used by Indigenous Peoples and local communities is legally recognized or documented as a proportion of the total area of land held or used.

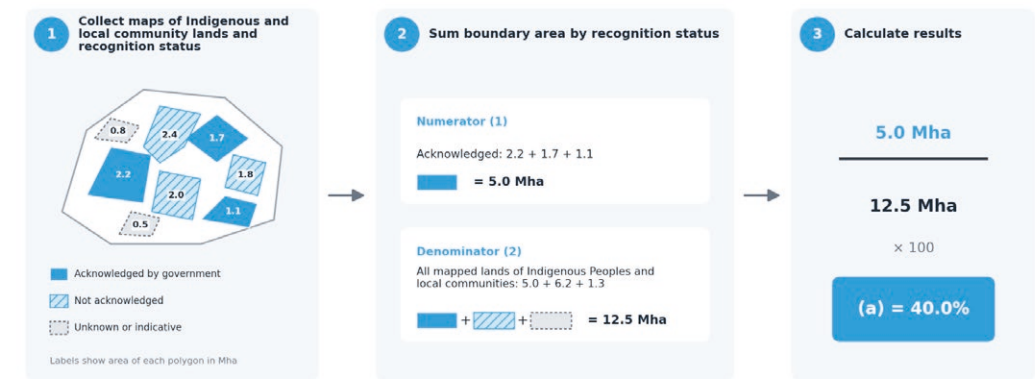
Stage 1 is based on numerical estimates. Examples of global data sources for numerical estimates are LandMark's national data on "Percent of Country Held and Used by Indigenous Peoples and local communities" and RRI's Who Owns the World's Land publication.

Component (a), Stage 1: Numerical data



Stage 2 is based on geospatial data. An example of a global data source is LandMark's geospatial data on Indigenous and local community lands. In cases where geospatial data is known to be incomplete, numerical data from Stage 1 and geospatial data from Stage 2 can be mixed. For example, geospatial data could be used for the numerator (area recognized and documented), while statistical data could be used for the denominator (total area held and used).

Component (a), Stage 2: Georeferenced map data



Stage 2 is the preferred approach. Where mapping is incomplete, Stage 2 and Stage 1 can be combined: e.g., mapped acknowledged area (Stage 2) + estimated total area (Stage 1).

EXAMPLE CALCULATION: COMPONENT (b), PERCEIVED TENURE SECURITY

Component (b) captures how secure Indigenous Peoples and local communities feel in their land tenure and is collected via surveys. Various methods and approaches for collecting this data are described in Stages 0 to 4. An example of a global data source is Prindex's survey-based data on how secure rural people feel in their land and housing tenure.

Component (b): Perceived tenure security

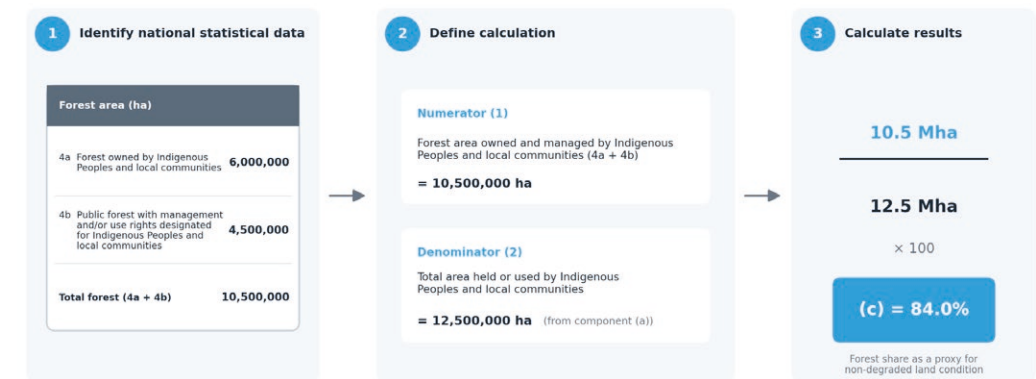


EXAMPLE CALCULATION: COMPONENT (c), LAND CONDITION

Component (c) measures whether land condition in Indigenous Peoples' and local communities' lands is stable or improving (non-degraded) relative to a baseline year using a land use/land cover change matrix to classify transitions into categories of degraded, neutral, or improved.

Stage 1 is based on numerical data. An example of a global data source is the FAO Forest Resources Assessment, which reports in Section 4a the area of forest owned by Indigenous Peoples and local communities and in Section 4b the area of public forest with management and/or use rights designated for Indigenous Peoples and local communities. While this numerical data does not indicate land condition, for countries where Indigenous Peoples' and local communities' lands are primarily located in forested areas, the area of forest within these lands could serve as a proxy for non-degraded land condition in the absence of available geospatial data.

Component (c): Land condition, Stage 1: Numerical data



Stage 2 is based on geospatial data and is the preferred method for calculation. The calculation method involves first developing a map of degraded, neutral, or improved land use/land cover and overlaying it with a map of Indigenous and local community lands to quantify the area of neutral and improved land use or land cover within a geospatial information system (GIS) such as QGIS or ArcGIS. The classification of land use/land cover transitions is based on an assessment of which types of transitions between a baseline year and an end year are considered degraded, neutral, or improved. For example, an area that was classified as tree cover in the baseline year land use/land cover map that was classified as built-up in the end year land use or land cover map would be designated as degraded, while the area that was short vegetation in the baseline year that became tree cover in the end year would be designated as improved. No change or a change that infers no degradation or improvement would be designated as neutral. Table X below provides an example of a land use/land cover change matrix and how land use/land cover transitions from baseline to end year could be classified. An example of global geospatial data source for land condition is the GLAD Global Annual Land Use/Land Cover Change Data (2015-2024+) and a global geospatial data source for Indigenous and local community lands is LandMark.

Note that component (c) on non-degraded land condition is the inverse of the data collected in SDG 15.3.1 on degraded land condition. The same geospatial data and a similar method that Parties use for analyzing land condition and reporting on SDG 15.3.1 for UNCCD could be used for component (c) if combined with maps of Indigenous and community lands and reported as the non-degraded area within those lands.

Component (c): Land condition, Stage 2: Georeferenced data



Numerator = neutral + improved area within Indigenous and local community lands = 11,250,000 ha. Denominator = total area of those lands = 12,500,000 ha.

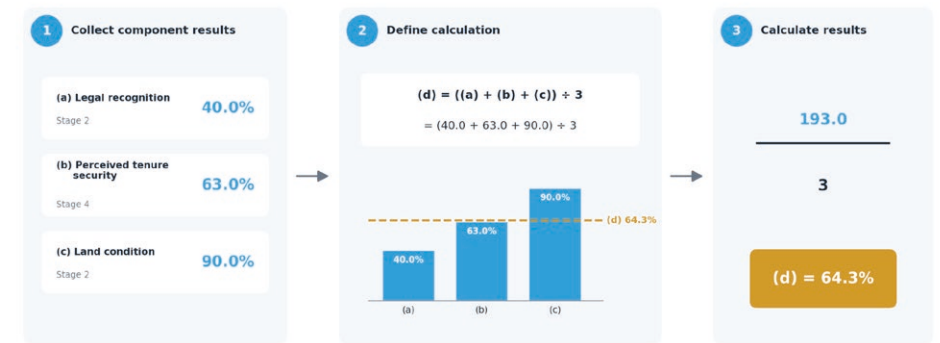
Table 2. Example land cover/land use change matrix that shows transitions from the original (baseline) land cover/land use class to the final (most recent) land cover/land use class and whether the transition is considered improvement (I), neutral (N), or degradation (D).

	Final Class									
	Bare	Built-up	Cropland	Ocean	Salt pan	Short vegetation	Snow/ice	Tree cover	Water	Wetland
Original Class										
Bare	N	D	I	I	I	I	I	I	I	I
Built-up	I	N	I	I	I	I	I	I	I	I
Cropland	D	D	N	N	I	I	I	I	N	I
Ocean	D	D	N	N	N	N	I	N	N	N
Salt pan	D	D	D	N	N	I	I	I	N	I
Short vegetation	D	D	D	N	D	N	I	I	N	I
Snow/ice	D	D	D	D	D	D	N	D	D	D
Tree cover	D	D	D	N	D	D	I	N	N	D
Water	D	D	D	N	D	D	I	D	N	N
Wetland	D	D	D	N	D	D	I	D	N	N

EXAMPLE CALCULATION: COMPONENT (d), FINAL AGGREGATE INDICATOR

Component (d) combines the three components into a single headline value, showing the overall state of land use and tenure in the traditional territories of Indigenous Peoples and local communities. The final value is the average of components (a), (b), and (c).

Component (d): Final aggregate value



Report (a), (b) and (c) alongside (d), with the stage and sources used for each. If any component is missing, (d) is reported as no data.

RELEVANCE OF INDICATOR 22.1 TO OTHER KM-GBF INDICATOR DISAGGREGATIONS

Monitoring land-use change and land tenure in the traditional territories of Indigenous Peoples and local communities is relevant beyond Target 22 of the KM-GBF. Annex II of decision 16/31 lists optional disaggregation by Indigenous and Traditional Territories (ITTs) for six headline indicators:

- ➔ A.1 (Red List of Ecosystems)
- ➔ A.2 (Extent of natural ecosystems)
- ➔ B.1 (Services provided by ecosystems)
- ➔ 2.1 (Area under restoration)
- ➔ 3.1 (Coverage of protected areas and OECMs)
- ➔ 10.2 (Progress towards sustainable forest management)

The data generated by Headline Indicator 22.1 is highly relevant to indicators 2.1 and 3.1, where ITT disaggregation directly supports accounting for contributions made by Indigenous Peoples and local communities to restoration and conservation targets.

Under the programme of work on Article 8(j) (Decision 16/4), Task 1.1 mandates the Subsidiary Body on Article 8(j) to develop guidelines to strengthen legal and policy frameworks for implementing Targets 2 and 3, including on Indigenous and Traditional Territories. Task 1.2 addresses best practices to secure land tenure and governance by Indigenous Peoples and local communities.

These disaggregations are optional and subject to national circumstances and priorities. Parties can apply them, and account for land tenure, when reporting on all area-based indicators and targets.

SYNERGIES ACROSS RIO CONVENTION REPORTING FRAMEWORKS

Several data sources used to report on Headline Indicator 22.1 also feed other international processes, notably SDG indicators 1.4.2, 5.a.1, and to some extent 5.a.2. They also align with numerous principles of the Voluntary Guidelines on the Responsible Governance of Tenure (VGGT). This overlap supports Parties' calls for streamlined reporting and less duplication at national level, rather than Convention-specific data collection.

Land tenure data sit at the intersection of biodiversity, climate and land degradation commitments, so a shared approach to this data can support streamlined monitoring across the Conventions. Rio Convention synergies reinforce this direction.

While the UNCCD currently has no dedicated land tenure indicator, recent decisions are encouraging more work on the topic. In the UNCCD COP17 adopted decision on land tenure (ICCD/COP(17)/L.18), Parties are invited to increase efforts to better understand the differentiated impacts of land tenure insecurity on populations and to develop corresponding indicators. Likewise, the Secretariat was asked to continue assessing global indicators and datasets on land governance and tenure security, including data on Indigenous Peoples, local communities and women’s land rights. This would inform future reporting and the post-2030 strategic framework.

Currently, select countries are piloting the use of land tenure indicators and disaggregations in the UNCCD context.

KEY TERMS

- ➔ **Indigenous lands or territories** refer to the collectively held and governed lands and territories including freshwater, coastal and marine areas – and natural resources of Indigenous Peoples (see relevant frameworks above). As with other community lands, some Indigenous lands may be allocated with group consent for use by individuals and families. Other Indigenous land is managed as common property. In some cases, Indigenous land is held by individuals or families.⁶
- ➔ **Community lands** are all lands that fall under the customary governance of the community whether or not this is recognized in national law. Community land is variously described as the community domain, community land area, community territory, or other terms.
- ➔ **Land held or used** as a proxy for assertions generally by Indigenous groups over their ancestral lands and territories.
- ➔ **Legally recognized land and documentation** refers to the recording and publication of information on the nature and location of land, rights and right holders in a form that is recognized by government and is therefore official.⁷
- ➔ **Indicative areas of Indigenous and community lands** represent areas where Indigenous and community lands likely exist but the clear delimitation, recognition and/or documentation status of these land rights are not available at this time.
- ➔ **Land cover/land use** refers to the observed physical cover of the Earth’s surface and the way people use or manage the land. It includes vegetation and man-made features as well as bare rock, bare soil and inland water surfaces. The primary units for characterizing land cover and land use are categories. For the purposes of this indicator, the following categories are recommended: Forests, shrubland, grassland (herbaceous vegetation), ocean, wetland, bare/sparse vegetation, cropland, built up, snow and ice, permanent water bodies.
- ➔ **Land cover/land use change** refers to the transition from one land cover/land use category to another over time, which is used to assess whether land conditions are improving, stable, or degrading. The change is measured between two points in time: a starting point (baseline) and an end point.
- ➔ **Non-degraded (stable or improving) land cover/land use** is the land where no negative transition has occurred when measuring land use/land cover change, meaning the land either remains in the same land cover/land use category (e.g., forest remains forest) or it moves to a category with equal or higher ecological value (e.g., bare land transitions to forest).

6 **Traditional lands and territories** may include titled and untitled lands, customary use areas, and areas of spiritual/ cultural significance identified by rights-holders, including connected ecological/cultural landscapes, provided documentation and governance safeguards are described in metadata.

7 It is recommended that tenure security reporting within national metadata include both extent (area) and quality, where quality captures: strength of legal protection, effectiveness of enforcement/implementation, and observed conflict/pressure indicators

SOURCES AND FURTHER READING

For the full technical methodology behind Indicator 22.1, including detailed computation formulas, stage definitions, and data-quality criteria for each component, please see the HI22.1 metadata sheet.⁸

- ➔ The indicator was developed by a Technical Working Group technically coordinated by FAO, the custodian agency for the indicator, together with ILC, FPP, WRI, IWGIA, CIFOR-ICRAF, Prindex, LandMark, the Indigenous Navigator and RRI, among others. See also the two-page brief prepared for Parties ahead of COP16. <https://www.landcoalition.org/en/latest/a-land-use-and-tenure-indicator-to-protect-traditional-knowledge/>
- ➔ SBSTTA-28, Updated metadata for the headline indicators for the Kunming-Montreal Global Biodiversity Framework. <https://www.cbd.int/doc/c/8f2f/6c26/b6416adf45ed77c1a58137dd/sbstta-28-inf-04-en.pdf>
- ➔ CBD COP15 Decision 15/4, Kunming-Montreal Global Biodiversity Framework. <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf>
- ➔ SBSTTA-26/INF/11, Technical and scientific review of the traditional knowledge indicators. <https://www.cbd.int/doc/c/283e/eb7c/6a953a1e098b6c46e0f3be8d/sbstta-26-inf-11-en.pdf>
- ➔ CBD COP16 Decision 16/31. <https://dev-chm.cbd.int/doc/decisions/cop-16/cop-16-dec-31-en.pdf>
- ➔ CBD SBSTTA-28 “Updated metadata for the headline indicators for the Kunming-Montreal Global Biodiversity Framework” <https://www.cbd.int/doc/c/8f2f/6c26/b6416adf45ed77c1a58137dd/sbstta-28-inf-04-en.pdf>
- ➔ UNEP-WCMC, “Key decisions agreed as CBD COP16 concludes in Rome,” 2025. <https://unep-wcmc.org/en/news/key-decisions-agreed-as-cbd-cop16-concludes-in-rome>
- ➔ CBD, Seventh National Reports (7NR) submissions, 2026. <https://www.cbd.int/article/2026-NationalReports>
- ➔ CBD Global Review of the KMGBF — implementation review (Kenya submission). <https://www.cbd.int/gbf/implementation/globalreview>
- ➔ International Land Coalition, “People-centred data: Kenya and the Philippines.” <https://www.landcoalition.org/en/latest/people-centred-data-kenya-philippines>
- ➔ State of Land Governance and Tenure, FAO, ILC and CIRAD <https://openknowledge.fao.org/server/api/core/bitstreams/b207367a-880e-412a-afdd-955fa943a518/content>

⁸ See the updated metadata: <https://www.cbd.int/doc/c/8f2f/6c26/b6416adf45ed77c1a58137dd/sbstta-28-inf-04-en.pdf>

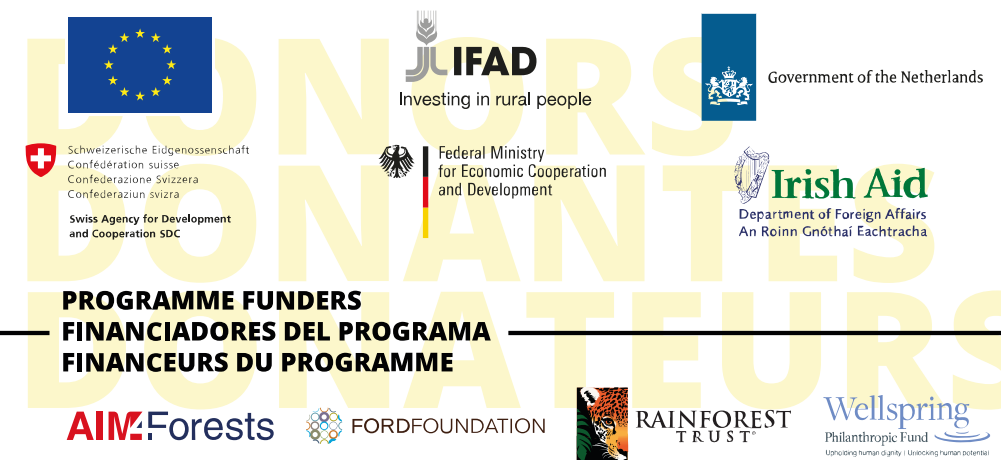
ACKNOWLEDGEMENTS

This guide is the result of a collaborative technical process undertaken through the Technical Working Group (TWG) on Headline Indicator 22.1, technically coordinated by FAO as custodian agency for the indicator, and of the joint AIM4Forests work plan. We thank the experts who contributed their time, knowledge and review:

- ➔ **FAO:** Ward Anseeuw, Senior Land Tenure Officer; Clinton Omusula, Geospatial and Land Monitoring Specialist
- ➔ **ILC:** Eva Hershaw, Data and Land Monitoring Lead and Danique de Ronde, Data and Knowledge Specialist
- ➔ **WRI:** Katie Reytar, Senior Research Associate
- ➔ **FPP:** Maurizio Ferrari, Senior Policy Advisor

We also thank the other TWG members and partner organisations, including IWGIA, CIFOR-ICRAF, Prindex, the Indigenous Navigator and RRI, as well as the Indigenous Peoples, local communities and community-based organisations whose data and experience underpin LandMark and the other sources described here. The guide is published by ILC with the support of the funders listed on page 26.

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THE OVERALL KEY MESSAGE OF THIS GUIDE

Headline Indicator 22.1 gives Parties a common framework to report on land-use change and land tenure in the territories of Indigenous Peoples and local communities. It is most robust when governments, Indigenous Peoples and local communities, civil society and global data initiatives work together: combining national, community-based and global data, validating figures with the communities concerned, and reporting the three components alongside the aggregate value. Secure land tenure underpins both biodiversity outcomes and the full and effective participation of Indigenous Peoples and local communities, and the indicator makes it visible in national reporting.

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