



THE INDIGENOUS NAVIGATOR

Data by and for Indigenous Peoples

Contribution of the Indigenous Navigator Methodology to the Monitoring of Headline Indicator 22.1 under the Kunming-Montreal Global Biodiversity Framework (KMGBF)

Submitted by: The Indigenous Navigator Consortium¹, coordinated by the International Work Group for Indigenous Affairs (IWGIA)

Executive Summary

This submission presents the Indigenous Navigator (IN) framework as a robust, rights-based monitoring framework capable of supporting the development of methodology and operationalisation of Headline Indicator 22.1 under the Kunming-Montreal Global Biodiversity Framework (KMGBF).

Headline Indicator 22.1 requires data on (i) the extent of land under tenure systems of Indigenous Peoples and local communities, and (ii) the proportion of such land experiencing documented land-use change.

The Indigenous Navigator addresses both components through national and community-level surveys anchored in human rights instruments, including the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) and ILO Convention No. 169.

This submission outlines how the Indigenous Navigator framework complements official data systems, generates disaggregated and locally grounded data, and supports integration with national reporting mechanisms under the Convention on Biological Diversity (CBD). The Indigenous Navigator consortium also endorses the methodology proposed by the Technical Working Group, including the International Land Coalition (ILC), Food and Agriculture Organisation (FAO), and PRINDEX.

We urge the Secretariat and Parties to ensure that the methodology for Indicator 22.1 reflects the following principles:

- Full participation of Indigenous Peoples in indicator development and implementation, including through their representative institutions.
- Respect for Indigenous definitions of lands, territories, and resources, including both legal and customary systems.
- Integration of qualitative and quantitative data, recognising the importance of community-generated data and Indigenous knowledge systems.

¹ Asia Indigenous Peoples Pact, Danish Institute for Human Rights, Forest Peoples Programme, Tebtebba and the International Work Group for Indigenous Affairs.

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- A rights-based and gender-responsive approach, grounded in the UNDRIP and other human rights standards.

The development of Indicator 22.1 is not merely a technical or cartographic task. It must also reflect the Parties' commitments on equity, participation, and respect for rights. Indicator 22.1 provides a direct measure of the extent to which Indigenous Peoples' land rights are recognised, secured, and supported, which is in turn essential to their ability to participate fully in biodiversity governance.

Introduction

The Indigenous Navigator is a global framework for monitoring the rights of Indigenous Peoples, designed and implemented by Indigenous organisations and anchored in international human rights standards. It enables communities to collect, own, and use data for self-determined development and advocacy. This submission focuses on its methodological relevance to KMGBF Headline Indicator 22.1.

The Indigenous Navigator framework focuses on crucial areas impacting Indigenous Peoples' lives, including self-determination and autonomy, cultural integrity, land and territories, health, education, and economic and social development.

Human rights-based indicators have been identified for each of these areas and translated into questionnaires and guidance to facilitate data collection at both national and community levels.

Data using the Indigenous Navigator has already been collected in thirty countries across the world.

Indigenous Peoples face some of the most direct consequences of biodiversity loss and climate change due to their close relationships with and reliance upon the environment, ecosystems, and natural resources. These impacts are intensified by historical marginalisation, systemic discrimination, and persistent violations of their rights - and particularly those rights to self-determination and to lands, territories, and resources.

Further, Section C of the KMGBF, adopted in decision 15/4 recognises the vital contributions and important role of Indigenous Peoples as custodians of biodiversity and as partners in its conservation, restoration, and sustainable use. Likewise, it calls on parties to respect, document, and protect Indigenous Peoples knowledge, innovations, values, and practices. It also urges a whole-of-society and a human rights-based approach in the implementation, reporting, and evaluation of the KMGBF. Specifically, it calls on state parties to ensure implementation of the Framework is in keeping with, among others, the UNDRIP and human rights law.



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The Headline Indicator adopted by COP 16.2 on Target 22, *22.1 Land-use change and land tenure in the traditional territories of Indigenous Peoples and local communities*, enables disaggregation across multiple targets and goals of the KMGBF, including Goals A and B, sub-indicators A.1 and A.2 (by Indigenous traditional territories), B.1 (by Indigenous traditional territories), and Targets 1, 2, 3, 5, 8, 9, 10, 20, 22, and 23.

Land-use change and land tenure are interlinked. Accurate, rights-based reporting requires data that reflects both the security and governance of land tenure and the patterns of change taking place within Indigenous traditional territories. Identifying these territories and assessing their legal and customary tenure arrangements is central to monitoring Indicator 22.1.

The Indigenous Navigator framework offers a participatory, rights-based methodology that captures both qualitative and quantitative data for monitoring progress on the recognition, security, and governance of Indigenous lands, territories, and resources. The framework includes comprehensive national and community surveys and are aligned with the UNDRIP and related human rights and environmental standards. These tools have been implemented since 2016, and data is now available and published for 26 United Nations member states with over 308 community surveys representing over 530 communities published across Latin America, Africa, Asia, and the Arctic.

The Indigenous Navigator consortium makes this submission in the hope that its survey instruments, particularly the Community Survey, can offer its tested methodology, together with the indicators, questions, and guidance directly pertinent to the monitoring of both the "land tenure" and "land-use change" components of Indicator 22.1.

This submission seeks to contribute not only to the development of a robust methodology for Indicator 22.1 but also to the broader goal of establishing national mechanisms that integrate Indigenous community-generated data into KMGBF reporting. The Indigenous Navigator stands ready to support this process in partnership with interested Parties and stakeholders.

Introduction to the Methodology of the Indigenous Navigator

The Indigenous Navigator framework was developed using the human rights indicator methodology developed by the Office of the High Commissioner for Human Rights (OHCHR).² It is grounded in the UNDRIP and its underpinning legally binding human rights standards and obligations.

² [Human Rights Indicators: A Guide for Measurement and Implementation | OHCHR](https://www.ohchr.org/en/publications/policy-and-methodological-publications/human-rights-indicators-guide-measurement-and)

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To translate the UNDRIP into a comprehensive monitoring framework, the following methodological steps were taken:

- Structuring the rights contained in the UNDRIP into twelve thematic domains.
- Further dividing the domains into thirty-two sub-categories and identifying the relevant articles of the UNDRIP linked to these sub-categories.
- Defining sixty-six key attributes (or characteristics) of the rights underpinning the UNDRIP based on a joint reading of the provisions in the UNDRIP and binding human rights standards.
- Choosing appropriate global indicators for monitoring states' commitments to these rights; their efforts to realise these rights; and the degree to which these rights are realised by Indigenous Peoples and communities.

This rights-to-indicators mapping is documented in a comparative matrix that anchors the full indicator set.³

The Indigenous Navigator framework includes two core instruments:

- A National Questionnaire with 117 questions, aimed at assessing the legal and policy framework of a given country together with the states' ongoing efforts to implement Indigenous Peoples' rights through programmes, budget allocations, etc.
- A Community Questionnaire with 138 questions, designed to capture community perceptions, experiences, and implementation realities.

The Indigenous Navigator: A Community-Driven Framework for Rights and Development

Key Survey Modules and Relevance to Land-Related Issues

The Indigenous Navigator includes several modules, each designed to capture a different dimension of Indigenous Peoples' rights and well-being. The modules most pertinent to Headline Indicator 22.1 include:

- **Community Survey (Core Module):** This together with the National survey is the foundational tool, designed to support community-based data collection and analysis. The Community Survey has been implemented in 29 countries, with over 308 community surveys published and their data accessible. It contains a wide array of questions that gather first-hand information on the community's direct experiences with their land tenure systems, the extent and recognition of their traditional territories, incidents of land-use

³ [Home | The Indigenous Navigator Tools Database - https://tool.indigenousnavigator.org/the-explorer?c=All&u=All&it=All&ic=All&ka=All&i=All&s=&scope=All&s_c=1&s_u=1&s_a=1&s_ri=1&s_j=1&s_g=1&s_q=1](https://tool.indigenousnavigator.org/the-explorer?c=All&u=All&it=All&ic=All&ka=All&i=All&s=&scope=All&s_c=1&s_u=1&s_a=1&s_ri=1&s_j=1&s_g=1&s_q=1)



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change, conflicts over land and resources, displacement, and the application (or lack thereof) of Free, Prior and Informed Consent (FPIC) in decisions affecting their lands. This module is the primary source of ground-level data directly relevant to Indicator 22.1.

- **National Survey (Core Module):** This module assesses the national legal, policy, and institutional landscape concerning Indigenous Peoples' rights. It includes questions on the state's recognition of Indigenous land rights (both collective and individual), the existence and effectiveness of consultation and FPIC mechanisms, procedures for land demarcation and titling, and national data collection practices related to Indigenous Peoples. The National Survey provides crucial context for interpreting community-level findings and understanding the enabling (or disabling) environment for securing land tenure and managing land-use change.

Together, these modules constitute a holistic monitoring framework that can inform and support the methodology for Headline Indicator 22.1. The Indigenous Navigator not only documents what is happening on the ground but also identifies whether land-use changes are rights-based, consented to, and aligned with Indigenous Peoples' definitions of tenure and territory.

Thematic Focus on Land Rights, Tenure Systems, Drivers of Change, and FPIC

The Indigenous Navigator provides structured, disaggregated, and rights-based data aligned with the analytical needs of Headline Indicator 22.1, particularly in relation to land rights, tenure systems, land-use change, and Free, Prior and Informed Consent (FPIC). These themes are systematically addressed in the core modules and are further contextualised in new focused thematic modules on climate change, human rights and environmental due diligence, and biodiversity.

Central to its focus on land rights, the Indigenous Navigator systematically documents the nature of traditional tenure systems (collective, familial, individual, or non-proprietary conceptions of land), the status of legal recognition by the state, and the security of these tenure arrangements (e.g., through title deeds, customary recognition, or absence of conflict).

The Indigenous Navigator is designed to identify and document the specific drivers causing changes in land use within traditional territories. These drivers are diverse, ranging from state-led development projects and conservation initiatives to private sector operations.

The principle of FPIC is a cornerstone of the Indigenous Navigator framework. Numerous questions across all relevant modules assess whether and how Indigenous communities have been consulted, and whether their FPIC has been obtained before decisions are made or projects are implemented that affect their lands, territories, and resources.



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Thorough guidance accompanying the survey modules ensure that the very process of Indigenous communities utilizing the Indigenous Navigator's framework serves as a powerful capacity-building exercise. By engaging in data collection, analysis, and interpretation concerning their own rights and territories, communities enhance their understanding of their situation, strengthen their ability to document challenges, and build their agency to participate effectively in policy dialogues and advocate for their rights. This inherent empowerment aligns directly with the overarching spirit of the KMGBF, which calls for the full and effective participation of Indigenous Peoples and the strengthening of community-based monitoring systems. It also contributes to the overarching goals of the KMGBF in ensuring that biodiversity governance is inclusive, accountable, and grounded in the lived realities of Indigenous Peoples.

The Indigenous Navigator framework includes a suite of questions that specifically address the multifaceted nature of land tenure in Indigenous and traditional territories:

In relation to Traditional Tenure Systems, Question 39 of the Community Survey ("What are the characteristics of your traditional land and resource tenure system?") allows communities to describe their own customary systems, including whether lands and resources are considered property, managed collectively, by families/clans, or individually. This captures tenure arrangements that may not fit neatly into statutory categories.

The surveys also account for government recognition of land rights at the community level, Question 41 ("Is your right to lands, territories and resources recognised by the government?") assesses the perceived extent of official recognition. This is complemented by the National Survey's Question 41, which examines national legislation for the recognition of Indigenous Peoples' collective rights to lands, territories, and resources.

On the issue of Security of Tenure (Documentation and Agreements), the IN delves into the documentation of land rights. Community Survey Question 42 asks, "Does your people or community/ies have title deeds or other binding agreements in recognition of their collective right to lands or territories?". If yes, Question 43 inquires about the extent (in hectares) of land covered by such agreements. Question 44 further disaggregates this by asking about individual title deeds held by men, women, or couples. The National Survey (Question 43) seeks to determine the approximate proportion of the total Indigenous population in the country holding such titles.

While identifying that characteristics of tenure, recognition and documentation are critical, the Navigator also recognises that documenting land conflicts is key. A critical aspect of tenure security is the presence or absence of conflict. Community Survey Question 45 ("Does your people/community experience conflicts related to land or natural resources?") directly addresses this, and Question 46 follows up by asking about the specific sources/drivers of these conflicts (e.g., extractive industries, settlers, protected areas).



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With regard to measuring the extent of traditional territories, Community Survey Question 40 ("What is the extent (in hectares) of the lands traditionally occupied and used by your people or community/ies?") allows communities to provide their own assessment of the size of their traditional territories, which is a foundational piece of information.

These questions, taken together, provide direct, community-sourced data on the status, recognition, and security of land tenure within traditional territories, aligning closely with the "land tenure" component of Indicator 22.1.

Moving from land tenure to direct data collection on Land-Use Change (Drivers and Incidents)

The Indigenous Navigator is particularly strong in identifying specific incidents and drivers of land-use change from the perspective of the affected communities:

Identifying settlement, land grabbing, and resource extraction without FPIC: Community Survey (Question 47) asks if communities have experienced "incidents of settlement, land grabbing, land use or resource extraction without your free, prior and informed consent" since 2008. The National Survey (Question 45) mirrors this by asking about such incidents at the national level to provide a point of comparison between the communities' realities and the national situation.

Documenting displacement or relocation without FPIC: Community Survey (Question 48) specifically asks about "incidents of displacement or relocation without your free, prior and informed consent". The National Survey (Question 46) addresses this at a broader scale.

A common driver of land-use change and tenure conflict is the establishment of conservation areas without FPIC. Community Survey (Question 55) asks, "Has the State declared any part of the territory of your community/people as a park or protected area, without your free, prior and informed consent?". The National Survey (Question 47) looks at this from a national policy perspective.

These questions enable the identification of specific events, activities, and policies that are driving land-use change and affecting tenure security, as seen from the perspective of Indigenous communities. The data generated here directly contributes to the "land-use change" component of Headline Indicator 22.1.

The Indigenous Navigator consortium recommends that the development of this indicator's methodology must incorporate not only biophysical data but also socio-legal, qualitative, and perception-based data to ensure that the realities and rights of Indigenous Peoples are accurately reflected, where the consortium hopes its tools, methodology and experience can support.



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Aligning commitments to Free, Prior and Informed Consent, Section C of the KMGBF and methodologies for Indicator 22.1

The Indigenous Navigator conducts holistic data gathering across 12 domains of rights secured by the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) – this is particularly crucial when putting the data into context. This comprehensive rights-based framing is essential for interpreting land-related data in context.

Within the domain of self-determination, the Indigenous Navigator framework includes detailed assessment of Free, Prior and Informed Consent (FPIC) at both national and community levels.

The Community Survey includes multiple questions specifically related to FPIC, such as:

- Q30: whether FPIC was obtained for projects affecting lands, territories, and resources,
- Q47–Q49: on land grabbing, displacement, and related impacts,
- Q55: regarding protected areas established without consent.

These are mirrored by parallel questions in the National Survey, which examine the legal and institutional procedures for implementing FPIC at national level. This focus provides essential qualitative data on the *legitimacy* and *process* behind land-use change and tenure-related decisions, contributing to a more comprehensive and rights-based interpretation of Headline Indicator 22.1.

The Indigenous Navigator consortium affirms that FPIC-related data, grounded in community perspectives, are critical for aligning methodologies for Indicator 22.1 with the human rights-based approach outlined in Section C of Decision 15/4 of the Kunming-Montreal Global Biodiversity Framework (KMGBF). FPIC data reflects not only whether changes have occurred, but whether they were just, consensual, procedurally legitimate and in line with international law.

In line with KMGBF commitments, the Indigenous Navigator highlights the importance of localised, community-generated data that can validate, complement, or challenge official sources. National maps may depict a mining concession or a newly declared protected area. However, only community-level data, such as that collected by the Indigenous Navigator, can reveal whether these were established in accordance with FPIC, what their real-world impacts on tenure and livelihoods are, and whether conflicts or displacements have followed.

Such contextual data is indispensable for a meaningful understanding of Indicator 22.1. This indicator must not be interpreted solely through areal measurements of land-use change. It must also assess the conditions under which changes occur, and the security of tenure



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systems impacted by these changes. The Indigenous Navigator offers a tested, operational methodology for capturing this dimension through FPIC-related indicators.

The framework also includes indicators that directly assess tenure insecurity and negative impacts of land-use change, including:

- Q45 and Q46: documentation of land and resource-related conflicts;
- Q48 and Q49: incidents of displacement and adequacy of redress or compensation.

These data points go beyond legal title to examine the lived experience of tenure. Tenure security is not solely about formal recognition—it is about the ability of Indigenous communities to remain on their lands without threat of arbitrary conflict, dispossession, or forced relocation.

The Indigenous Navigator is uniquely designed to identify and document these outcomes, providing the nuanced insights required to fully operationalise Indicator 22.1 within a rights-based framework.

Guidance and Definitions

The Indigenous Navigator (IN) includes detailed guidance alongside its survey instruments, particularly in the form of “How to answer” and “Why ask this question” sections. This guidance is critical for ensuring high-quality, consistent data collection and interpretation. It also provides a normative foundation grounded in international standards such as UNDRIP and ILO Convention No. 169, which is essential for the human rights-based approach adopted by the Kunming-Montreal Global Biodiversity Framework (KMGBF).

This practice, and the published guidance from the Indigenous Navigator, offer four specific contributions to the development of a robust methodology for Indicator 22.1:

A call to standardize definitions, especially for complex terms including “land grabbing,” “FPIC,” or “diverse tenure systems” (customary, collective, familial, individual, etc.), can ensure consistent interpretation by data collectors and communities. These definitions must be framed in accessible language for both Indigenous data collectors and external actors, ensuring consistency of understanding and application across diverse contexts. This clarity supports methodological harmonisation for Indicator 22.1, especially in multi-country or multi-stakeholder monitoring settings.

Clarification and protocols around data collection and methodology. The Indigenous Navigator provides alongside the questionnaire the “Why ask this question” sections. These often link the query to specific articles of UNDRIP, ILO Convention No. 169, or other international human rights standards. This provides a normative basis for the indicators and the data collected, strengthening their legitimacy and comparability across countries and



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contexts. It also provides transparency in methodological choices.

This embedded normative linkage can be directly adopted within the indicator 22.1 methodology, providing a pre-established rationale for why each data point is essential for assessing biodiversity-related land tenure and land-use dynamics.

Finally, in regard to **ensuring data quality**, detailed “How to answer” guidance minimises ambiguity and ensures that data collectors apply consistent criteria. This is especially important when documenting subjective or context-specific issues like: recognition of customary tenure, perceptions of security or insecurity in tenure, and whether FPIC was meaningfully obtained.

Contextualising Headline Indicator 22.1

Headline Indicator 22.1 encompasses two interrelated dimensions: land-use change and land tenure. The complexity of this indicator necessitates an integrated methodology that combines biophysical, socio-legal, and community-generated data.

"Land-use change": In the context of traditional territories, this is interpreted as referring to alterations in the way land is utilized. This includes not only direct conversions between broad categories (e.g., from forest to agriculture, from traditional hunting grounds to industrial mining concessions, or from customary managed areas to state-controlled protected areas) but also the intensification of existing uses (e.g., from subsistence farming to large-scale commercial agriculture) or the abandonment of traditional land uses due to external pressures or environmental changes. Monitoring land-use change effectively requires understanding both the spatial extent and the nature of these transformations.

"Land tenure": This encompasses the diverse and layered systems of rights through which Indigenous Peoples govern and relate to their lands, territories, and resources. These rights can be customary (based on long-standing traditions and practices), statutory (formally recognised by state law), or a combination thereof. Tenure may be collective (held by the community as a whole) or pertain to specific families or individuals within the community, often nested within broader collective systems. Key aspects of land tenure include the recognition of these rights by state and other actors, and the security of these rights against external threats such as encroachment, expropriation, or land grabbing.

"Traditional territories": These are the lands, waters, and resources that Indigenous Peoples have historically owned, occupied, or otherwise used or acquired, based on their customs, traditions, and self-identification. These territories are often defined by Indigenous Peoples themselves and may not align with, or be fully recognised by, official state demarcations or cadastral systems. For Indigenous Peoples, territory encompasses more than geographic space; it is deeply connected to identity, culture, governance, spirituality, and livelihoods.



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The dual nature of Indicator 22.1, encompassing both "land-use change" and "land tenure," calls for a methodology capable of integrating diverse data types. While biophysical data, often derived from remote sensing technologies, can track land cover changes it does not reveal who holds rights to the land, security of those rights, nor whether land-use changes were initiated with Free, Prior and Informed Consent (FPIC). Nor does it capture the impact of these changes on community well-being or traditional governance systems. This complexity reiterates why Indigenous Peoples' generated data and community-based monitoring systems are not just supplementary but essential. Community-generated data, Indigenous-defined indicators, and participatory monitoring frameworks are not optional—they are essential.

Socio-legal and perception-based data must be integrated to assess both the formal and customary dimensions of land tenure, the degree of tenure security, the drivers of land-use change, and the lived impacts on Indigenous Peoples.

A significant strength of the Indigenous Navigator is its ability to capture the diversity of Indigenous tenure systems. Community Survey (Question 39), for instance, offers options like "Lands and resources are not considered property and cannot be held by people or communities," "Lands and resources are held and managed collectively by the community," "Land and resources are held and managed by families, clans or other groups within the community," and "Land and resources are held and managed individually". This typology goes beyond binary models of public or private ownership and allows the recognition of non-proprietary and culturally specific tenure systems, which are often omitted from national cadastral records.

In parallel, the Indigenous Navigator enables the identification of diverse drivers of land-use change. These include: extractive industries, infrastructure, large-scale commercial agriculture, energy projects, establishment of parks or protected areas, and illegal logging. This provides a template for a multi-driver analysis which would be essential to consider for Indicator 22.1, particularly in understanding pressures on traditional territories.

Addressing Data Disaggregation

The KMGBF calls for data disaggregation by Indigenous Peoples, sex, age, and other relevant groups where appropriate. The Indigenous Navigator collects data at the community level, which inherently allows for disaggregation by specific Indigenous Peoples and communities. The initial demographic questions in the Indigenous Navigator's Community Survey facilitate this level of disaggregation.

A comprehensive methodology

The Indigenous Navigator ensures a combination of closed-ended questions (e.g., yes/no, Likert scales) with open-ended comment boxes for qualitative elaboration. This allows for the collection of both quantitative data (e.g., extent of land with titles, number of conflicts) and rich



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qualitative information (e.g., descriptions of customary tenure, experiences with FPIC processes, specific impacts of land-use change).

For a complex, rights-sensitive indicator like 22.1, this dual-layered methodology is indispensable. It allows spatial and statistical data to be contextualised by lived experience, governance processes, and local definitions of tenure and territory. Land-related issues are inherently complex, and such a mixed-methods approach is vital for capturing the full picture. Quantitative data on land-use change (e.g., hectares affected) must be contextualized by qualitative data on tenure security, the nature of drivers, and the adequacy of governance processes.

Core Data Domains

A robust methodology for Indicator 22.1 should aim to collect data across the following interconnected domains:

Status of Land Tenure in Traditional Territories:

- **Legal and Customary Recognition of Traditional Territories:** This includes documenting the existence and status of legal recognition of traditional territorial boundaries (e.g., through collective titles, official demarcation processes, or other forms of state recognition), drawing from Indigenous Navigator Community Survey questions like Q42 and National Survey questions like Q42 and Q43. It must also capture community-defined traditional territories, even if not formally recognised by the state, as per Indigenous Navigator Community Survey (Q40).
- **Nature of Tenure Rights:** Characterizing the types of tenure rights prevalent within these territories – whether customary, statutory, collective, individual, or a mix, and how these are understood and practiced by the community (informed by Indigenous Navigator Community Survey Q39, Q44).
- **Security of Tenure:** Assessing both perceived and actual security. This involves documenting the presence and nature of land-related conflicts (Indigenous Navigator Community Survey Q45, Q46), incidents of land grabbing, encroachment, or illegal resource extraction (Indigenous Navigator Community Survey Q47), and experiences of displacement or relocation (Indigenous Navigator Community Survey Q48). Perception-based data on tenure security, potentially supplemented by tools like Prindex⁴, can complement incident-based reporting.

Extent and Type of Land-Use Change within Traditional Territories:

- **Baseline Extent of Traditional Territories:** Establishing the geographical scope of the traditional territories as defined by the Indigenous Peoples themselves (Indigenous Navigator Community Survey Q40).

⁴ <https://www.prindex.net/>



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- **Area Affected by Specific Land-Use Changes:** Quantifying and characterising areas within traditional territories that have undergone significant land-use changes. This includes conversion from traditional uses (e.g., customary forests, shifting cultivation areas, hunting/gathering grounds, spiritual sites) to other uses such as commercial agriculture, infrastructure development, mining concessions, or state-designated protected areas. This can be informed by Indigenous Navigator questions that identify the drivers and locations of such changes and ideally linked with community-led mapping.

Drivers of Land-Use Change (Disaggregated):

- Identifying and categorizing the primary drivers leading to land-use changes and tenure insecurity. The Indigenous Navigator's modular structure provides a useful framework for disaggregation:
 - **Government-led initiatives:** Infrastructure projects, establishment of protected areas or other conservation designations (Indigenous Navigator Community Survey Q46, Q55).
 - **Other external pressures:** Settlement by non-Indigenous Peoples, illegal activities (Indigenous Navigator Community Survey Q46).

Effectiveness of FPIC and Participatory Governance in Land-Use Planning and Decisions:

- Assessing the extent to which Indigenous Peoples' Free, Prior and Informed Consent is sought and obtained for any projects or policies affecting their lands, territories, and resources. This involves evaluating the quality of consultation processes, the provision of comprehensive information, the opportunity for communities to genuinely influence decisions, and whether consent (or its absence) is respected.

Key Considerations for Implementation

The successful development and application of a methodology for Headline Indicator 22.1 requires attention to both technical and governance aspects. Drawing on the practical experience of the Indigenous Navigator and its emphasis on rights-based monitoring, **the following considerations** are proposed to ensure inclusive, ethical, and effective implementation:

- The operationalisation of Indicator 22.1 will require sustained investment in capacity building. Significant investment in capacity building will be required for both Indigenous Peoples (to effectively engage in participatory monitoring, mapping, and data analysis) and for Parties (to support these community-led processes and integrate the data into national systems). Building mutual understanding and technical capacity on both sides is essential for meaningful and sustained collaboration.
- The methodology must uphold the principle of Indigenous Peoples' data sovereignty,



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ensuring that communities own, control, and decide how their data is collected, used, and shared. Ethical data collection requires that, traditional knowledge must be respected, and FPIC must be obtained for all data collection and sharing activities, particularly when involving external actors or technologies like remote sensing. Any monitoring initiative must align with existing Indigenous data governance structures. This is fundamental not only to rights compliance but also to the credibility and legitimacy of the data.

- All data used to inform Indicator 22.1—whether community-generated, derived from satellite imagery, or provided by national institutions—must be subject to validation by the concerned Indigenous Peoples. This validation step ensures: Accuracy of interpretation, cultural and legal appropriateness, and prevention of misuse or misrepresentation. This principle reinforces the KMGBF's call for participatory and inclusive monitoring.
- The methodology should provide a core set of parameters and methods while allowing for flexibility and adaptation to diverse national legal and political contexts, varying Indigenous Peoples realities, and different ecosystem types. A tiered approach, where core data points (informed by the Indigenous Navigator) are collected universally, with options for more detailed or specific data collection (e.g., on particular drivers or tenure nuances) based on local relevance and capacity, could be beneficial. This tiered approach, aligned with the modular design of the Indigenous Navigator, supports both comparability and contextual relevance.
- One key methodological challenge is the reconciliation of community-defined traditional territories with state-recognised land classifications. These perspectives often diverge, leading to discrepancies in land tenure data and potential sources of conflict. Indicator 22.1 methodology should explicitly acknowledge the validity of Indigenous-defined territorial boundaries and offer guidance for integrating participatory mapping outputs, such as those derived from Indigenous Navigator Community Survey Q40, into national monitoring systems. These often differ, leading to potential conflicts and data discrepancies.
- The methodology for Indicator 22.1 must provide clear guidance on how this community-defined spatial information interfaces with, and potentially challenges or enriches, official land data. Participatory mapping, recognised by communities and, where possible, by state authorities, is a key tool in this process. This approach supports both territorial self-determination and constructive engagement with national systems, helping align land tenure monitoring with international human rights norms.

Recommendations

To effectively monitor Headline Indicator 22.1 and ensure that it meaningfully reflects the rights, perspectives, and contributions of Indigenous Peoples, the Indigenous Navigator consortium proposes the following recommendations:



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For Parties to the CBD:

1. Parties are requested to actively provide financial, technical, and capacity-building support to Indigenous Peoples to enable them to utilize and adapt community-based monitoring tools like the Indigenous Navigator for collecting data relevant to Indicator 22.1 within their traditional territories. This aligns with calls within CBD/COP/DEC/16/31 for such support.
2. Parties should establish formal national integration mechanisms. Develop and implement clear national mechanisms and protocols for respectfully integrating community-generated data on land tenure, land-use change, and Free, Prior and Informed Consent (FPIC) into official national monitoring and reporting systems for the KMGBF. These mechanisms must ensure robust community validation of all data pertaining to their territories.
3. Parties and relevant line ministries should undertake comprehensive legal and policy reviews to strengthen legal and policy Frameworks. Undertake comprehensive reviews of national legal and policy frameworks to ensure full recognition and effective protection of Indigenous Peoples land, territorial, and resource rights, including customary tenure systems. This includes strengthening legal provisions and administrative practices for meaningful consultation and the operationalization of FPIC, drawing insights from tools like the Indigenous Navigator National Surveys.
4. Parties should facilitate participatory land-use planning processes that foster and support participatory land-use planning processes that fully involve Indigenous Peoples in decisions affecting their traditional territories, ensuring that such planning respects their rights and integrates their traditional knowledge.

For the CBD Secretariat:

To ensure that Headline Indicator 22.1 is developed in a way that upholds the rights of Indigenous Peoples and reflects the commitments made in the Kunming-Montreal Global Biodiversity Framework (KMGBF) and CBD/COP/DEC/16/31, the Indigenous Navigator consortium respectfully submits the following recommendations:

1. Formally consider the Indigenous Navigator in methodology development, in line with CBD/COP/DEC/16/31, paragraph 30(d). The Secretariat should formally consider the Indigenous Navigator's question structure, definitions, guidance materials, and participatory methodology as a model for developing the methodology for Headline Indicator 22.1.
2. The methodology for Indicator 22.1 should explicitly reflect the human rights dimensions of Target 22, including principles of community-based monitoring, participatory mapping for delineating traditional territories, and the central role of FPIC in all land-related decisions. The methodology should reflect the human rights dimensions inherent in Target 22. Such an approach ensures that the indicator captures not only biophysical changes but also governance processes, tenure security, and Indigenous Peoples' perspectives on





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land use and rights.

3. The Secretariat should prioritise the development of clear and practical guidance on the use of the term “traditional territories” within the context of Indicator 22.1. This guidance should, emphasize Indigenous Peoples self-identification and participatory mapping approaches, and addressing potential discrepancies with official state maps by offer solutions for reconciling community-defined territories with official state classifications or cadastral systems.
4. The Secretariat should facilitate the establishment of a collaborative, co-development platform involving Indigenous Peoples representatives, Parties, and technical experts to co-develop, pilot, and refine the methodology for Indicator 22.1. This ensures the methodology is robust, relevant, culturally appropriate, and broadly accepted.

For Supporting Organisations (UN agencies like FAO, UNDP; NGOs; Research Institutions):

1. Supporting institutions are urged to offer long-term technical and financial support to Indigenous Peoples for the implementation, adaptation, and scaling-up of the Indigenous Navigator and similar community-based land monitoring initiatives.
2. Invest in training and capacity development for capacity-building programs for both Indigenous Peoples (on data collection, analysis, mapping, and advocacy) and government agencies (on participatory approaches, integrating community data, and understanding Indigenous Peoples rights).
3. Invest in the co-development of methods that integrate community-generated qualitative and spatial data with other data sources (e.g., remote sensing, national statistics) in a manner that respects Indigenous Peoples data sovereignty and is led or co-led by Indigenous Peoples.
4. Facilitate cross-regional platforms and peer-to-peer learning among Indigenous communities, governments, and researchers to share best practices in community-based monitoring of land tenure and land-use change among Indigenous Peoples, governments, and other stakeholders.

Implementing these recommendations will be crucial for ensuring that the monitoring of Headline Indicator 22.1 is not only technically sound but also ethically grounded, rights-affirming, and genuinely contributes to the KMGBF's vision of a world living in harmony with nature, with Indigenous Peoples as central partners in biodiversity conservation, governance, and monitoring.

Conclusion:

The Indigenous Navigator stands out as a uniquely valuable and operational tool for supporting the implementation and monitoring of the Kunming-Montreal Global Biodiversity Framework (KMGBF), particularly with regard to Headline Indicator 22.1 on land-use change and land tenure in the traditional territories of Indigenous Peoples and local communities.



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The Indigenous Navigator's strength lies in its capacity to capture the nuanced realities of Indigenous Peoples land tenure systems, including customary practices often overlooked by formal state systems, and to identify the specific drivers of land-use change from the perspective of those most directly affected. Its consistent focus on Free, Prior and Informed Consent provides an essential lens for assessing the legitimacy and equity of processes leading to changes in land use and tenure within traditional territories. This bottom-up, rights-based approach is indispensable for understanding the complex interplay of factors that Indicator 22.1 seeks to measure.

The successful operationalization of Indicator 22.1 will depend on the adoption of such participatory, locally grounded methodologies. Moving beyond technical assessments of land cover, it is essential to integrate socio-legal realities, customary governance systems, and Indigenous Peoples' own definitions of territory and tenure. The Indigenous Navigator offers a concrete and proven pathway to do so, in full alignment with the KMGBF's commitments to rights, equity, and the value of Indigenous knowledge.

Ultimately, how Indicator 22.1 is monitored will serve as a critical litmus test of the KMGBF's pledge to uphold a human rights-based approach to biodiversity governance. It is an opportunity not only to measure progress in the implementation of the related human rights standards and obligations, but also to ensure that implementation actively supports the self-determined development, territorial security, and enduring contributions of Indigenous Peoples to the stewardship of the planet's biodiversity.





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Annex I: Indigenous Navigator Survey Indicators Relevant to KMGBF Indicator 22.1

This Annex compiles Indicator, QuestionID, Question Text, and relevance from the Indigenous Navigator national and community surveys that directly support the development of a methodology for KMGBF Headline Indicator 22.1: "Land-use change and land tenure in the traditional territories of Indigenous Peoples and local communities."

Indicator	QuestionID	Question Text	Relevant to
Disaggregation	Q009 (National)	How many different Indigenous peoples inhabit the country?	Disaggregation
Disaggregation	Q010 (National)	What is the percentage of Indigenous people out of the total national population?	Disaggregation
Disaggregation	Q012 (National)	What is the percentage of the total Indigenous population living in rural areas?	Disaggregation
Recognition of Indigenous Peoples' distinct identity in the constitution or national legislation based on self-identification	Q016 (Community)	Does the state recognise the peoples covered in this survey as distinct peoples with collective rights?	Governance and Participation
Existence of laws that are in direct violation of Indigenous Peoples' rights	Q016 (National)	Are there laws and policies, within the following thematic areas, that are in direct violation of Indigenous Peoples' rights: <ul style="list-style-type: none"> • Self-government, autonomous institutions and customary law, consultation and free prior and informed consent • Cultural integrity, languages, cultural heritage, traditional knowledge and intellectual property • Lands, territories and resources • Participation in public life, citizenship • Legal protection, access to justice and remedy • Cross border contacts • Freedom of Expression • Food, development, social protections, housing and sanitation 	Land Tenure



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		<ul style="list-style-type: none"> • Education • Health • Employment, occupation and vocational training • Fundamental Freedom 	
Proportion of sustainable development indicators produced at the national level with full disaggregation [including with regards to Indigenous identity] when relevant to the target, in accordance with the Fundamental Principles of Official Statistics	Q020 (National)	Does the State, in censuses and household surveys, collect disaggregated data to monitor the achievement of the SDGs by Indigenous Peoples and individuals?	Land Tenure, Perception of Tenure Security
Issues concerning planning of local development projects are handled by Indigenous peoples' autonomous institutions	Q021 (Community)	Do your Indigenous institutions/authorities make their own development plans (for example for water and sanitation, road infrastructure, electrification)?	Governance and Participation
Issues concerning land and resource use are handled by Indigenous peoples' autonomous institutions	Q023 (Community)	Do your Indigenous institutions/authorities manage issues relating to lands, territories and resources?	Governance and Participation
The collective rights of Indigenous Peoples to self-determination, i.e. to freely determine their political status and freely pursue their economic, social and cultural development is recognized in the constitution or other forms of superior law	Q025 (National)	Does the Constitution or national legislation recognise Indigenous Peoples' right to self-determination, i.e. to freely determine their political status and freely pursue their economic, social and cultural development?	Governance and Participation
Recognition of Indigenous Peoples' distinct identity in the constitution or national legislation based on self-identification	Q026 (National)	Does national legislation recognise Indigenous Peoples as distinct groups with collective rights?	Governance and Participation
Recognition of Indigenous Peoples' right to self-government in national legislation	Q027 (National)	Does national legislation recognise Indigenous Peoples' right to self-government in internal and local affairs?	Governance and Participation
Recognition of Indigenous Peoples' self-governing institutions and territories in the	Q028 (National)	Are Indigenous Peoples' self-governing institutions and territories	Land Tenure





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political-administrative structure of the State		recognised in the political--administrative structure of the State?	
Consultations with Indigenous Peoples' autonomous institutions before approval of measures and projects that may affect you	Q029 (Community)	Do local or central government institutions ensure that adequate consultations are undertaken with your community/ties before approval of projects or other measures that may affect you?	FPIC
Free, prior and informed consent of Indigenous Peoples' autonomous institutions before approval of measures that may affect them	Q030 (Community)	Do local or central government institutions obtain the free, prior and informed consent of your community/ties before they approve projects or other measures that affect you?	FPIC
Recognition of the state duty to consult with Indigenous Peoples before adopting or implementing legislative or administrative measures that may affect them and prior to approval of any project that affects their lands, territories and resources in national legislation	Q033 (National)	Does national legislation recognise the state's duty to consult with Indigenous Peoples in order to obtain their free, prior and informed consent prior to approval of any project that may affect their lands, territories or resources?	Land Tenure, Perception of Tenure Security, Displacement and Redress
Characteristics of Indigenous Peoples' traditional land tenure systems.	Q039 (Community)	What are the characteristics of your traditional land and resource tenure system?	Land Tenure
Incidents of redress for land lost without the free, prior and informed consent of Indigenous Peoples	Q040 (Community)	What is the extent (in hectares) of the lands traditionally occupied and used by your people or community/ies?	Land Tenure
Recognition of Indigenous Peoples' rights to lands, territories and resources in national legislation	Q041 (Community)	Is your right to lands, territories and resources recognised by the government?	Land Tenure





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Recognition of Indigenous Peoples' rights to lands, territories and resources in national legislation	Q041 (National)	Does national legislation recognise Indigenous Peoples' collective rights to lands, territories and resources?	Land Tenure
Proportion of Indigenous Peoples with ownership or secure rights over land.	Q042 (Community)	Does your people or community/ies have title deeds or other binding agreements in recognition of their collective right to lands or territories?	Land Tenure, Security of Tenure
Clear procedures adopted by the State for identification, demarcation, mapping and registration of Indigenous Peoples' lands or territories lands in consultation with and in accordance with Indigenous norms, values and customs	Q042 (National)	Has the State adopted clear procedures for identification, demarcation, mapping and registration of Indigenous Peoples' lands or territories in consultation with and in accordance with Indigenous norms, values and customs?	Land Tenure
Proportion of Indigenous Peoples with ownership or secure rights over land.	Q043 (Community)	If yes, what is the extent (in hectares) of the land covered by such agreements?	Land Tenure, Security of Tenure
Proportion of Indigenous Peoples with ownership or secure rights over land.	Q043 (National)	What approximate proportion of the total Indigenous population in the country has title deeds or other binding agreements in recognition of their collective right to lands or territories?	Land Tenure
Proportion of total agricultural [Indigenous] population with ownership or secure rights over agricultural land (out of total community population), by sex.	Q044 (Community)	Approximately, how many women and men (or couples if titles are held by both spouses) of your people/community have title deeds or other binding agreements in recognition of their individual rights to land?	Land Tenure, Security of Tenure, Disaggregation
Indigenous peoples' control over land	Q044 (National)	What is the approximate area of Indigenous Peoples' land (in hectares) that is legally recognized, secured, documented and protected?	Land Tenure





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Incidents of conflicting land or resource claims	Q045 (Community)	Does your people/community experience conflicts related to land or natural resources?	Land-Use Change Drivers, Displacement and Redress
Incidents of settlements, land grabbing, land use or resource extraction without Indigenous Peoples' free, prior and informed consent	Q045 (National)	Have there, since 2008, been incidents of settlements, land grabbing, land use or resource extraction without Indigenous Peoples' free, prior and informed consent?	Land-Use Change Drivers, Displacement and Redress
Incidents of conflicting land or resource claims	Q046 (Community)	If your people/community experience conflicts related to land or natural resources, are these related to:	Land-Use Change Drivers, Displacement and Redress
Incidents of displacement or relocation without free, prior and informed consent	Q046 (National)	Have there, since 2008, been incidents of displacement or relocation of Indigenous Peoples without free, prior and informed consent?	Displacement and Redress
Incidents of settlements, land grabbing, land use or resource extraction without Indigenous Peoples' free, prior and informed consent	Q047 (Community)	Have your people or community/ies, since 2008, experienced incidents of settlement, land grabbing, land use or resource extraction without your free, prior and informed consent?	Land-Use Change Drivers, Displacement and Redress
Establishment and extension of State-designated protected areas on Indigenous Peoples territories without free, prior and informed consent	Q047 (National)	Has the State, since 2008, established or extended protected areas on Indigenous Peoples' territories without their free, prior and informed consent?	Displacement and Redress
Incidents of displacement or relocation without free, prior and informed consent	Q048 (Community)	Have your people or community/ies, since 2008, experienced incidents of displacement or relocation without your free, prior and informed consent?	Displacement and Redress
Establishment and extension of community conserved areas	Q051 (Community)	Has your people/community established conservation area(s) within your territory?	Governance and Participation





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Establishment and extension of community conserved areas	Q052 (Community)	If your people/community has established conservation area(s) within your territory, what is the extent (in hectares) of that area?	Governance and Participation
Establishment and extension of State-designated protected areas on Indigenous Peoples territories without free, prior and informed consent	Q055 (Community)	Has the State declared any part of the territory of your community/people as a park or protected area, without your free, prior and informed consent?	Land-Use Change Drivers, Displacement and Redress
Establishment and extension of State-designated protected areas on Indigenous Peoples territories without free, prior and informed consent	Q056 (Community)	If yes, what is the extent (in hectares) of that area?	Land-Use Change Drivers, Displacement and Redress
Status and trends in traditional occupations	Q118 (Community)	Which are the most important traditional occupations performed by women in your people/community (list up to five)?	Land-Use Change Drivers
Status and trends in traditional occupations	Q119 (Community)	How has the importance of these traditional occupations for women changed over the last 20 years: It has no importance any longer The importance has diminished The importance remains the same The importance has increased	Land-Use Change Drivers
Status and trends in traditional occupations	Q120 (Community)	What are the main barriers or restrictions for performing these traditional occupations today?	Perception of Tenure Security
Status and trends in traditional occupations	Q121 (Community)	Which are the most important traditional occupations performed by men in your people/community (list up to five)?	Land-Use Change Drivers
Status and trends in traditional occupations	Q122 (Community)	How has the importance of these traditional occupations for men changed over the last 20 years: It has no importance any longer The importance has diminished The importance remains the same The importance has increased	Land-Use Change Drivers





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Status and trends in traditional occupations	Q123 (Community)	What are the main barriers or restrictions for performing these traditional occupations today?	Perception of Tenure Security
Possibility to perform traditional occupations (such as pastoralism, hunting/gathering, shifting cultivation, fishing) without restrictions	Q124 (Community)	Can your people/community perform their traditional occupations (such as pastoralism, hunting/gathering, shifting cultivation, fishing) without restrictions?	Land-Use Change Drivers, FPIC

Annex II: Key Methodological Features of the Indigenous Navigator for Developing Indicator 22.1 Methodology

Indigenous Navigator Feature	Description of Feature	Potential Contribution to Indicator 22.1 Methodology
Specific Question Types on Tenure, Land-Use Change (LUC), and FPIC	Detailed questions in community and national surveys directly addressing traditional tenure systems, legal recognition, tenure security, extent of traditional lands, drivers of LUC (e.g., extractive industries, conservation, climate projects, business operations), incidents of LUC (e.g., land grabbing, displacement), and the application/effectiveness of FPIC.	Provides model questions for data collection instruments; promotes comprehensive coverage of both "land tenure" and "land-use change" aspects; offers specific ways to measure FPIC processes.
"How to Answer" & "Why Ask This Question" Guidance	Explanatory text accompanying questions, clarifying terms, intent, and often linking questions to international rights frameworks (UNDRIP, ILO 169).	Offers templates for clear methodological guidance, definitions for key terms (e.g., "traditional territory," "FPIC," types of tenure), and normative grounding for data points, enhancing consistency and legitimacy.
Community-Based Data Collection Protocol	The Indigenous Navigator is designed for implementation by Indigenous communities themselves, fostering local ownership and data validation.	Provides a model for participatory data collection protocols for Indicator 22.1, ensuring data is grounded in local realities and perspectives, aligning with KMGBF calls for community monitoring.



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Multi-Level Data (Community/National)	Separate survey instruments for community-level experiences and national-level legal/policy frameworks.	Allows for a holistic understanding by linking ground-level realities with the enabling/disabling national environment; offers a way to triangulate and contextualize data for Indicator 22.1.
Thematic Modules for Driver Analysis	Specific modules for Climate Change and Environmental Due Diligence allow for in-depth investigation of key drivers of land-use change and tenure insecurity.	Provides a framework for disaggregating and analysing specific drivers impacting Indigenous Peoples lands, leading to more targeted policy interventions.
Linkage to International Rights Frameworks	Questions and guidance are explicitly linked to UNDRIP, ILO Convention No. 169, and other human rights standards.	Ensures Indicator 22.1 methodology is rights-based and aligned with international commitments to Indigenous Peoples rights.
Mixed-Methods Data Capture	Combines structured questions (yes/no, scales) with open-ended comment boxes for qualitative narratives and explanations.	Enables collection of both quantitative data (e.g., extent of titled land, number of conflicts) and essential qualitative insights (e.g., nature of customary tenure, experiences with FPIC, impacts of LUC).
Focus on Indigenous Peoples Definitions and Perspectives	Prioritizes community definitions of their territories, tenure systems, and perceived impacts.	Ensures that Indicator 22.1 reflects Indigenous Peoples realities rather than solely relying on external or state-defined parameters.

