



Regional
Model Forest
Network-Asia



RECOFTC

Guidelines for implementing the Model Forest Indicator Framework



International
Model Forest
Network

Guidelines for implementing the Model Forest Indicator Framework

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1. About the guidelines

1.1. Introduction and purpose

Across Asia, diverse groups of people and institutions are applying the Model Forest approach to manage landscapes that include forests, farmland, settlements and other land uses through shared strategies. These landscapes are members of the Regional Model Forest Network–Asia (RMFN–Asia).

The Model Forest Indicator Framework (MFIF) provides a structured set of indicators to support the monitoring, evaluation and communication of sustainability at the landscape scale. It is organized around four interconnected pillars of sustainability: ecosystem, governance, production and human wellbeing – see Box 1.

The MFIF helps Model Forests identify what to assess, analyze and review,

while supporting comparability across landscapes. However, pilot experiences showed that indicators alone are not enough to ensure effective implementation of the MFIF or meaningful use of its results.

These guidelines address that gap by outlining a participatory process that users can follow to develop and implement the monitoring framework for integrated landscape management. They support Model Forests to apply the MFIF in a practical, consistent and context-sensitive way by explaining:

- How to implement the MFIF, from preparation to review.
- Key decisions at each stage.
- How to interpret and use results for learning, adaptive management, planning and decision-making – not only reporting.

Box 1. The four pillars of the MFIF

Ecosystem – forest condition and broader ecosystem health, including aspects such as biodiversity, water resources and carbon dynamics.

Governance – how landscapes are managed, considering participation, coordination, equity and the effectiveness of decision-making structures.

Production – the sustainability of livelihoods linked to forests, agriculture and other land uses.

Human wellbeing – social aspects such as income, health, resilience and the distribution of benefits among different groups.

The guidelines translate the MFIF from a measurement framework into an operational process that reflects how Model Forests vary in capacities, data availability and stakeholder engagement. Their purpose is to support informed, transparent decision-making and to strengthen the MFIF as a tool for continuous learning and long-term sustainability.

1.2. Who the guidelines are for

These guidelines are intended for a wide range of users involved in implementing, supporting or overseeing the MFIF or using its results.

Primary users include:

- Model Forest focal points and governing bodies
- MFIF coordinators appointed by Model Forest focal points or governing bodies.
- Landscape managers and multi-stakeholder committees involved in planning, governance and decision-making at the Model Forest or landscape level.
- Practitioners responsible for monitoring, evaluation and learning.

Other users include:

- Nongovernmental and civil society organizations supporting landscape initiatives.
- Government agencies interested in integrated, landscape-level monitoring.
- Research institutions and technical partners.

The guidelines are designed to be accessible to new and experienced users, helping them understand roles, make context-appropriate decisions and engage meaningfully with the MFIF.

1.3. What the guidelines cover

These guidelines explain how to prepare for, implement and use the MFIF in a flexible and practical way. They cover:

- The MFIF and relevant stakeholders.
- Preparation and readiness for MFIF implementation.
- Indicator selection and validation.
- Data collection, management, analysis and interpretation.
- Learning and adaptive use of results.
- Monitoring over time and adapting the MFIF.
- Scaling across landscapes and regional learning.

These guidelines do not:

- Prescribe a single or fixed implementation model.
- Replace existing monitoring or reporting systems.
- Function as a certification or compliance standard.

The guidelines aim to encourage reflection, dialogue and adaptive management, enabling Model Forests to learn from both progress and challenges as they apply the MFIF.

1.4. Using the guidelines

These guidelines are designed to be flexible and practical. They recognize

that Model Forests and other landscape initiatives differ widely in their objectives, capacities, governance arrangements and data availability. They can therefore be used in different ways:

- To guide the full process of implementing the MFIF for the first time, from preparation through monitoring and review.
- To strengthen or refine existing monitoring, evaluation or learning systems.
- To support incremental use of the MFIF, starting with a limited set of core indicators and basic data and expanding as capacity, confidence and data systems improve.

Pilot experience showed that a phased approach – starting with a manageable scope, building familiarity with the framework and gradually deepening application – was more effective than attempting to implement all indicators and processes at once.

Users are encouraged to engage with the RMFN–Asia Secretariat (RECOFTC) for support in assessing their readiness for MFIF implementation and identifying ways to address capacity gaps and other challenges. Early and ongoing engagement also fosters shared learning and feedback to improve future versions of the guidelines.

Box 2. Development of the MFIF and these guidelines

The MFIF and these guidelines were developed through a participatory process led by the RMFN–Asia Secretariat (RECOFTC) and RMFN–Asia member Model Forests during 2024–2025. This included an online learning and exchange series, and targeted work with Model Forest focal points and partners.

This process identified two sets of indicators: core indicators that are usually relevant to all Model Forests, and optional indicators that reflect the contexts of a subset of the Model Forests, but which still provide scope for comparisons between landscapes.

The framework and guidelines were piloted in Ngao Model Forest (Thailand) and Carood Watershed Model Forest (the Philippines) in 2025. This version of the guidelines reflects the March 2026 iteration. It is intended as a living document, evolving through ongoing implementation and feedback.

The pilot experience showed that Model Forests differ in technical capacities, institutional maturity and data availability. The guidelines are therefore designed to be adaptable.

The MFIF builds on RECOFTC’s Landscape Sustainability Indicator Framework, which was refined with RMFN–Asia members to better reflect Model Forest principles, values and governance realities.

2. Understanding the MFIF

2.1. What is the MFIF?

The MFIF is a landscape-scale monitoring, evaluation and learning framework for Model Forests and other multi-stakeholder landscape initiatives. It helps users understand how landscapes are changing and how those changes relate to sustainability goals.

The MFIF focuses on tracking change over time. It supports repeated monitoring, reflection and adaptive management, rather than one-off assessments. Its design balances standardization for comparison and shared learning, and flexibility for local relevance.

2.2. Structure of the MFIF

The MFIF integrates four dimensions of sustainability – ecosystem, governance, production and human wellbeing (see Box 1) – to reflect the interconnected nature of landscape systems. It uses indicators as practical proxies to reveal patterns, trends and trade-offs. These indicators (Table 1) are grouped as:

- **Core indicators** representing common priorities recommended for all Model Forests.
- **Optional indicators** allowing flexibility to reflect local priorities.

Model Forests may also define a small number of **locally specific indicators**, provided they are relevant, justified and feasible.

This structure supports both consistency and adaptability, enabling the MFIF to

function as a shared regional framework with common indicators, while allowing flexibility for Model Forests to reflect their unique contexts. Clear distinction among the three categories of indicators is important to avoid over-customization, which can reduce comparability of data and increase demands on local capacity.

2.3. When the MFIF is appropriate to use

The MFIF is most appropriate in landscapes where sustainability outcomes depend on interactions among multiple actors, sectors and land uses. It is particularly suitable when:

- Multiple stakeholder groups influence the same landscape.
- Sustainability outcomes need to be understood across multiple dimensions.
- There is interest in learning over time rather than a one-off assessment.

It works best when:

- Landscape boundaries are defined and recognized by key stakeholders.
- Multi-stakeholder governance arrangements exist.
- Stakeholders are committed to long-term learning, reflection and adaptive management, including repeated monitoring.

However, the MFIF can also be applied in contexts where data are limited, governance arrangements are evolving or capacities are uneven, provided that

these limitations are clearly acknowledged and documented. In such cases, the MFIF serves as a starting point for dialogue, capacity building and gradual improvement rather than a definitive measure of performance.

- Assessing readiness (See Section 4.1)
- Defining the application context (See Section 4.2)
- Establishing roles and responsibilities (See Section 4.3)

Table 1. Overview of core and optional indicators for each pillar of the MFIF

Pillar	Indicators	
Ecosystem	Core	Rate of tree cover change (%)
		Carbon storage (tonnes)
		Biodiversity (number of tree/wildlife species)
	Optional	Community engagement in forest fire fighting and prevention (number of people)
		Tree survival rate (%)
		Water availability (number of check dams, seasonal retention levels)
		Change in land use or land cover (area in hectares)
		Springs revived (number)
Governance	Core	Proportion of women in the governance body (%)
		Frequency and quality of interagency coordination (number and rating)
		Community-based natural resource management (number of initiatives/groups)
	Optional	Protected area coverage (% of Model Forest area)
		OECM* coverage (% of Model Forest area)
		Stakeholder participation rate (% active)
		Benefit-sharing with marginalized/vulnerable groups (% of total economic benefits)
Production	Core	Certification coverage (% of Model Forest)
		Productivity – forest products (tonnes, kg or cubic metres per hectare; USD)
		Productivity – agricultural products (tonnes or kg per hectare; USD)
	Optional	Forest conversion to agriculture (%)
		Forest conversion to plantation (%)
Human wellbeing	Core	Human Development Index (0–1)
		Household income (USD)
		Health impacts of land use (number of cases)
	Optional	Change in dependence on fodder and fuelwood (% change)
		Casualties of human-wildlife conflict (number of injuries or deaths)

* OECM stands for 'other effective area-based conservation measures'

3. Overview of core guideline elements

The guidelines contain 14 core elements that are illustrated below and presented in the following five sections of the document. These represent key

milestones and decision points in the implementation of the MFIF, not a strict stepwise process.

Preparing to implement the MFIF

Assessing readiness (See Section 4.1)

Defining the application context (See Section 4.2)

Establishing roles and responsibilities (See Section 4.3)

Deciding what to measure

Selecting and adapting indicators (See Section 5.1)

Defining indicator metadata (See Section 5.2)

Validating indicators with stakeholders (See Section 5.3)

Collecting and managing MFIF data

Deciding what data to collect and how (See Section 6.1)

Ensuring data quality (See Section 6.2)

Managing and storing data (See Section 6.3)

Analyzing, interpreting and using MFIF results

Understanding patterns in data (See Section 7.1)

Learning and reflection (See Section 7.2)

Informing decisions and action (See Section 7.3)

Monitoring over time and adapting the MFIF

Establishing monitoring cycles (See Section 8.1)

Revising indicators responsibly (See Section 8.2)

4. Preparing to implement the MFIF

4.1. Assessing readiness

Before implementing the MFIF, users should first assess their level of readiness. This helps ensure that they apply the framework in a way that is realistic, well sequenced and aligned with local capacities and priorities. Assessing readiness also helps MFIF users avoid overambitious designs, supports more effective stakeholder buy-in and lays a stronger foundation for successful implementation and long-term learning.

Objective: To clarify the landscape's boundaries, governance mechanism, data availability, capacities and commitment to monitoring before starting MFIF implementation.

Expected result: A completed readiness assessment highlighting strengths, gaps and areas where more support or preparation may be needed.

Stakeholders involved: Model Forest focal point, Model Forest governance body/committee, community and government representatives, technical partners and RMFN–Asia Secretariat personnel where relevant.

Key activities: Use the readiness checklist, validate the findings, document gaps and priorities and agree on realistic scope and sequencing of MFIF implementation.

Suggested steps:

- Compile background information on, for example, existing strategies, governance structures, data sources

and ongoing initiatives.

- Convene a small core team – for example, the Model Forest focal point and key partners – to lead the assessment.
- Work through the readiness assessment tool (Annex 1), scoring and commenting on each item in the checklists for five dimensions of readiness: boundaries, governance mechanism, institutional commitment, data availability and capacities – see Box 3.
- Hold a short validation discussion with key stakeholders to confirm or adjust the initial assessment.
- Summarize strengths, gaps and priority support needs in a brief note.
- Use the findings to set a realistic scope and sequencing for MFIF implementation, identifying what to do now, later or not at all.

Suggested tools/resources: MFIF readiness assessment tool (Annex 1), existing landscape strategies and previous project reports.

Additional guidance:

- Treat readiness assessment as a learning exercise, not a pass/fail test.
- Share results of the readiness assessment with the RMFN–Asia Secretariat for feedback, guidance and potential support before proceeding with next steps in the MFIF process.

4.2. Defining the application context

Defining the context in which the MFIF will be applied helps ensure that the MFIF is used with clear intent and that data collection is focused, relevant and manageable. Clearly defining the spatial coverage, objectives and intended use of the MFIF helps guide the choice of indicators, determine appropriate levels of effort and prioritize information that directly supports decision-making and learning.

By establishing a shared understanding of the application context early on, Model Forests can align expectations among stakeholders, improve the relevance of MFIF outputs and increase the likelihood that results will be actively used to inform actions and adaptive management over time.

Objective: To establish why, where and for whom the MFIF will be used.

Expected result: An agreed-upon geographic boundary, clearly defined purpose(s) and identified internal and external users of results.

Stakeholders involved: Model Forest focal point, Model Forest governing body, community representatives, government partners and RMFN–Asia Secretariat personnel where relevant.

Key activities: Map and validate boundaries, agree on primary objectives – such as learning, planning, advocacy and funding – and identify main users and how they will use the findings.

Box 3. Some things to consider in readiness assessments

Governance: Are there functioning structures or committees that can provide oversight, coordination and legitimacy to the MFIF process?

Capacities: Does the MFIF team have the capacities needed to engage communities, government agencies, civil society organizations and other actors in a meaningful and inclusive manner?

Data availability: Recognize that secondary data from national, subnational or regional sources are acceptable and often sufficient, especially during initial implementation.

Resources: Consider staff time, technical skills and basic resources needed for data collection, coordination and learning.

Strategic alignment: Does the MFIF align with an existing landscape or Model Forest strategy? This would help ensure that MFIF indicators and processes support, rather than duplicate or distract from, ongoing priorities and plans.

Suggested steps:

- Draft an initial description of the proposed MFIF landscape boundary using existing maps and administrative units.
- Discuss and agree on the final boundary with key stakeholders, such as the Model Forest governance committee, community representatives and government representatives.
- Facilitate a short exercise to clarify the main purposes of using the MFIF – such as to support learning, inform planning and decision-making, strengthen advocacy and communication or contribute to fundraising goals.
- Identify and list internal and external users of MFIF results and how they are expected to use them.
- Document the agreed-upon boundary, purposes and users in a short ‘application context’ note.
- Share and confirm this note with stakeholders and use it to guide indicator selection and other later decisions.

Suggested tools/resources: Boundary maps, participatory mapping exercises, existing land-use plans and strategy documents.

Additional guidance:

- Limit the scope of monitoring to what is manageable.
- Explicitly link MFIF implementation to ongoing planning or decision processes to avoid ‘monitoring for its own sake’.

4.3. Establishing roles and responsibilities

Effective implementation of the MFIF requires early clarity on roles and responsibilities. Defining who does what will help avoid duplication of effort, reduce confusion during implementation, and support accountability and continuity over time.

Objective: To ensure clear leadership, coordination and accountability for MFIF tasks.

Expected result: Documentation identifying the named individuals, teams or bodies that have been assigned key roles – including the lead institution, MFIF coordinator, technical team, partners, and oversight body – and their responsibilities for MFIF implementation.

Stakeholders involved: Model Forest focal point, Model Forest governing body, MFIF coordinator, pillar leads or technical staff and partner organizations.

Key activities: Agree on role descriptions, appoint MFIF coordinator and technical leads, confirm contributions from supporting partners and validate arrangements with the Model Forest governance body.

Suggested steps:

- Identify the institution or body best placed to serve as overall lead for MFIF – for example, the Model Forest focal point or governing body.
- Agree on and formally appoint a local MFIF coordinator, with brief terms of reference that outline their responsibilities for coordination, communication and tracking progress.

- List key MFIF tasks, such as indicator selection, data collection, data management, analysis, facilitation, reporting and administration.
- Assign each task to specific individuals or teams, including supporting partners and oversight bodies – see Box 4. Ensure there is adequate budget and other resources needed for assigned individuals and teams to undertake these tasks.
- Summarize roles and responsibilities in a simple table and share it with all actors.
- Review the arrangement after the first MFIF cycle and adjust it if roles are unclear or workloads are uneven.

Suggested tools/resources: Simple responsibility assignment tool such as the RACI (responsible, accountable, consulted and informed) matrix and terms of reference for the MFIF coordinator or committee.

Additional guidance:

- Avoid relying on a single individual for all tasks.
- Plan for continuity in case of staff turnover.
- Document all decisions clearly.

Box 4. Key roles and responsibilities to identify and document

At a minimum, the MFIF implementation team should assign the following roles and responsibilities:

- MFIF coordinator.
- Data collection and technical leads, responsible for compiling existing data, coordinating indicator measurement and ensuring data quality and documentation.
- Governance or oversight bodies, such as steering committees or boards, that provide strategic direction, validation of results and legitimacy to the MFIF process.
- Stakeholder engagement responsibilities, including who will facilitate consultations, ensure inclusive participation and communicate findings to partners and communities.
- Partner roles and contributions, clarifying how government agencies, civil society organizations, private-sector actors and other partners will contribute data, expertise or resources.
- Documentation and reporting responsibilities, including who will consolidate results and prepare summaries for internal learning and external reporting.

5. Deciding what to measure

5.1. Selecting and adapting indicators

By carefully selecting and adapting indicators, the MFIF implementing team can ensure that the monitoring has value in their landscape. Indicator selection should be guided not only by what is desirable to measure but also by what can realistically be monitored and used for decision-making.

By focusing on a manageable set of indicators that are relevant, feasible and meaningful to stakeholders, MFIF users can strengthen ownership, improve data quality and ensure that monitoring efforts continue to inform learning and adaptive management over time.

Objective: To choose an appropriate set of indicators aligned with local priorities and capacities.

Expected results: An agreed-upon set of core, optional and locally specific indicators that are relevant to the landscape and realistic to monitor over time.

Stakeholders involved: MFIF coordinator and technical team, MFIF pillar experts, community and Model Forest governance body representatives, and governmental and statistical agencies, where appropriate.

Key activities: Confirm landscape priorities, screen core indicators, select optional indicators, identify additional locally specific indicators if needed and check feasibility and data availability.

Suggested steps:

- Review the agreed-upon application context and the readiness assessment findings to frame indicator needs and limits.
- Confirm which of the MFIF's core indicators are applicable and feasible to monitor in the landscape.
- Identify a small number of optional or locally specific indicators that address specific local priorities or risks.
- If there are important aspects of landscape sustainability or Model Forest objectives that the core and optional indicators do not cover, identify additional locally specific indicators that respond to these gaps and are feasible to monitor.
- For each candidate indicator, check data availability, feasibility and relevance with technical staff and stakeholders.
- Where needed, adapt indicators while keeping the original intent of core indicators. This may involve adjusting definitions, data sources or methods, but should not compromise the comparability of core indicators.
- Finalize and document the indicator set (core, optional and locally specific) and prepare it for stakeholder validation – see Section 5.3.

Suggested tools/resources: Indicator selection worksheet (Annex 2), MFIF indicator list, existing monitoring systems and datasets.

Additional guidance:

- Start small – it is better to monitor fewer indicators well than many indicators poorly.
- Ensure that indicators are clearly linked to the Model Forest’s priorities, challenges and strategic goals.
- When assessing the feasibility of data collection, consider the availability of existing secondary data, technical capacities, time commitments and financial resources.
- Prioritize indicators that can be monitored repeatedly and can therefore provide meaningful insight into trends rather than one-off conditions.

5.2. Defining indicator metadata

Metadata refers to key information relating to a particular MFIF indicator – covering why, how and by whom the indicator will be measured. This metadata provides the practical detail needed to ensure that data collection is consistent, transparent and repeatable over time.

Without clear metadata, indicators risk being interpreted differently by different actors or measured inconsistently across monitoring cycles. Clearly defined metadata also supports continuity when staff or partners change, and enables more efficient coordination between local teams and the RMFN–Asia Secretariat.

Objective: To standardize how each indicator is defined, measured and managed.

Expected results: Fully documented metadata for all selected indicators, covering definitions, units of measurement, data sources, frequency and responsibilities.

Stakeholders involved: Technical staff, data managers, MFIF coordinator, RMFN–Asia Secretariat (for harmonization of core indicators).

Key activities: Document the metadata for each indicator, review for clarity and feasibility and confirm roles and collection frequency.

Suggested steps:

- Prepare metadata templates, or equivalent sheets in Excel, for all selected indicators – see the template in Annex 3.
- For each indicator, provide a precise definition of what is being measured, why the indicator is important and how the data will contribute to management decisions.
- Specify units of measurement, data sources (primary and secondary) and planned methods of data collection.
- Decide and record the frequency of data collection and reporting, taking account of monitoring objectives and available resources.
- Confirm responsibilities for data collection, compilation, validation and reporting.

- Review metadata across indicators to ensure internal consistency and practicality, then share with relevant teams.

Suggested tools/resources: Indicator metadata template or Excel version (Annex 3), MFIF indicator descriptions and national methodological guidance where relevant.

Additional guidance:

- Invest time up front; good metadata greatly reduces ambiguity, strengthens the credibility of results and supports continuity across monitoring cycles.

5.3. Validating indicators with stakeholders

Validating indicators with stakeholders enhances the MFIF's relevance, credibility and legitimacy. It helps ensure that indicators are clearly understood, contextually appropriate and broadly supported by those who will contribute to and use the results.

Enabling stakeholders to review and provide feedback on MFIF indicators through a structured process also helps align expectations and identify potential issues early. These sessions often lead to practical refinements, such as clearer indicator definitions, more feasible data collection methods or adjustments to reflect local realities.

Objective: To ensure that indicators are understood, legitimate and meaningful to those who will supply and use the data.

Expected result: A stakeholder-endorsed set of indicators with documented feedback and agreed-upon refinements.

Stakeholders involved: Communities, Model Forest governance body, government agencies, nongovernmental organizations, private sector actors and technical partners.

Key activities: Organize validation workshops or meetings, present indicator set and metadata, gather feedback, adjust where feasible and document agreements.



Suggested steps:

- Prepare a simple summary of the proposed indicators and their metadata in accessible language.
- Identify and invite a representative group of Model Forest stakeholders – from communities, government, nongovernmental organizations, the private sector and so on – to validate the indicators.
- Facilitate a validation workshop or series of meetings to present the proposed indicators and their intended use.
- Gather feedback on clarity, relevance, feasibility and any perceived gaps or sensitivities.
- Adjust indicators or their metadata where feasible, clearly documenting any changes and why they are being made.
- Seek explicit stakeholder endorsement of the final indicator set and record this in meeting minutes.

Suggested tools/resources: Validation workshop agenda and materials, translated indicator summaries and simple feedback forms.

Additional guidance:

- Treat validation as a collaborative and iterative process rather than a one-time approval.
- Difficult or sensitive indicators may need additional dialogue and explanation.
- Ensure a shared understanding of what each indicator measures, why it matters and how it will be used.
- Build ownership and trust, particularly among local communities, the Model Forest governance body and implementing partners.



6. Collecting and managing MFIF data

6.1. Deciding what data to collect and how

The MFIF is designed to accommodate diverse data types, methods and capacities for data collection. Rather than requiring users to adopt a single approach, the MFIF supports flexible and context-appropriate data collection that is guided by clear decisions about the level of evidence needed and what data it is feasible to collect.

MFIF data collection should therefore follow a logical sequence of decisions, ensuring that effort is proportional to purpose and capacity. Methods should align with the indicator intent, data availability and stakeholder context. This may include remote sensing analysis, structured surveys, key informant interviews, participatory scoring or ecological field methods.

Objective: To decide on suitable data sources and methods for each indicator, balancing rigour and feasibility.

Expected result: A clear data collection plan for each indicator, specifying primary and secondary sources, quantitative and qualitative data, and participatory approaches – see Box 5 for definitions and examples.

Stakeholders involved: Technical and field teams, community data collectors, government/statistical offices and research partners.

Key activities: For each indicator, choose basic or advanced measurement, select data collection methods,

define the sampling strategy and plan documentation.

Suggested steps:

- For each indicator, confirm the information needed, including the level of detail, precision and frequency of data collection.
- Decide whether basic or advanced measurement is appropriate, considering capacities for monitoring – Annex 4 provides guidance on basic and advanced measurement for the MFIF's core indicators.
- Identify and assess available secondary data sources – for example, national statistics, satellite data and administrative records.
- If secondary data are insufficient, select appropriate methods for collecting primary data – such as surveys, focus group discussions, transects, mapping and so on.
- Define a feasible sampling strategy (who/where/how many) for each method of collecting primary data – see Box 6.
- Document the chosen methods and sampling decisions in the data collection plan section of the metadata file for each indicator – see Section 5.2.
- Collect data systematically, with clear documentation of sources, assumptions and limitations to support transparency and future replication.

Suggested tools/resources: Guidance on data collection (Annex 4), MFIF sampling guidance (Box 6), national datasets, open satellite platforms and survey and participatory tools.

Additional guidance:

- Avoid over-complex sampling methods that cannot be repeated.
- For some indicators, it may be appropriate to start with basic measurement in the initial monitoring cycle and progress to advanced measurement in later cycles.
- Prioritize use of existing secondary data where suitable – particularly for core indicators, as attempting complex primary data collection for all indicators is neither necessary nor sustainable.
- Align data collection with existing national reporting systems where possible.
- Combine quantitative and qualitative methods, recognizing that not all aspects of sustainability can be captured through numbers alone.
- Participatory methods are strongly encouraged, where appropriate.

Box 5. MFIF data collection terminology

Secondary data is information that already exists – for example, satellite imagery, national or subnational statistics, administrative records and published studies.

Primary data is information that needs to be collected for the first time – for example, through surveys, field measurements, transects, interviews and participatory methods.

Basic measurement can often be achieved with secondary data and simple, low-cost methods.

Advanced measurement usually involves collecting primary data and often requires more time, resources and specialist skills.

Quantitative data is information expressed in numbers – for example, changes in forest cover, income levels or participation rates. Such data support analysis of trends over time and comparisons between sites.

Qualitative data is information expressed in words – for example, describing perceptions of governance quality, stakeholder trust or livelihood resilience. Such data provide essential context and explanatory insights.

Participatory approaches include focus group discussions, participatory scoring or ranking exercises, community mapping and stakeholder reflection workshops. Such methods not only generate data but also contribute to stakeholder engagement, shared understanding and ownership of results.

Box 6. Sampling guidance

Sampling means selecting a small area or group of people from which to collect data that is representative of the larger area or population. A control is an area or group of people outside of the study area, from which data are also collected to make comparisons.

The table below provides an example of one way to approach sampling. These figures should be adapted, taking account of landscape size, indicator purpose, resource availability and stakeholder agreement.

The proportions used in the table reflect sampling intensity, meaning the share of the total population included in the sample. Sampling intensity can be adjusted as needed.

Population size	Sample size	Control group size
50 or fewer farmers	10% of population	10% of population
50 to 3,500 farmers	10% of population	5% of population
More than 3,500 farmers	10% of population (may be capped based on feasibility)	5% of population (may be capped based on feasibility)

The example above is for a sample of people. The same principles apply when sampling areas to monitor indicators such as those for biodiversity, tree cover or carbon storage.

Sampling decisions should balance statistical rigour with feasibility. Overly complex sampling designs can undermine the sustainability of monitoring, especially when repeated over time. The key principle is consistency over time, rather than achieving perfect statistical precision in a single cycle.

6.2. Ensuring data quality

Ensuring data quality is essential for the credibility and usefulness of the MFIF. However, the MFIF approach to data quality is intentionally pragmatic. Rather than aiming for technically perfect data, the framework emphasizes consistency, transparency and the value of data for learning and decision-making. The MFIF therefore promotes the principle of 'good enough data for learning', particularly in early implementation cycles.

Objective: To maintain credible data that can support learning by applying consistent and transparent approaches.

Expected results: Agreed-upon practices for assuring data quality, including documentation, review procedures and transparent handling of data gaps.

Stakeholders involved: Model Forest focal point or governance body, MFIF coordinator, data collectors, analysts and stakeholders participating in review sessions.

Key activities: Define simple quality standards, document methods and limitations, flag and explain data gaps and conduct internal and stakeholder reviews of results.

Suggested steps:

- Agree on basic quality principles – for example, consistency, transparency and data that is 'good enough for learning'.
- For each indicator, specify documentation requirements covering methods, data sources, assumptions, proxies or estimation techniques, limitations and so on.
- Brief the data collectors and

analysts on these requirements and provide simple templates or forms for data entry.

- During data collection, regularly check for obvious errors, missing values or inconsistencies.
- Document any missing or incomplete data, or situations in which the agreed-upon data collection approaches were not used. If appropriate, use proxy data and clearly explain any limitations.
- After initial analysis, review results internally and with stakeholders to identify anomalies, errors or misinterpretations.
- Record any data quality issues, decisions and improvements to inform future monitoring cycles.

Suggested tools/resources: Data collection forms with documentation fields, simple quality checklists and reflection meeting notes.

Additional guidance:

- Consistency over time is more important than absolute precision at any single point. Indicators should therefore be measured using the same methods, data sources and assumptions across monitoring cycles, wherever possible.
- Clearly differentiate 'no data' from 'no observed change'. Data gaps are common in landscape-scale monitoring and should be expected rather than avoided at all costs.
- Attempting to fill gaps through new data collection may not be feasible or necessary, especially during early monitoring cycles. Acknowledging limitations supports credibility and prevents misinterpretation of results.

- Well-documented data, even when incomplete, are far more useful for learning and comparison than undocumented or inconsistently collected data.
- If improved methods or data sources are introduced, the changes should be clearly recorded and explained so that results can be interpreted and compared over time.

6.3. Managing and storing data

Effective data management and storage are essential to ensure that information remains accessible, understandable and usable. Data management should support learning, continuity and collaboration

rather than creating unnecessary technical or administrative burdens.

Objective: To ensure that MFIF data are safely stored, organized and accessible for ongoing use.

Expected result: A functioning, user-friendly system for storing, organizing and sharing MFIF data.

Stakeholders involved: MFIF coordinator, data manager, technical team, Model Forest governance body, RMFN–Asia Secretariat (for regional consolidation).

Key activities: Agree on data storage platform, set rules for naming files and managing versions, define access rights and periodically back up data.



Suggested steps:

- Select a simple data storage solution that all relevant users can access – for example, a spreadsheet or database and other files in a shared folder that is accessible online.
- Develop basic rules for naming files, organizing folders and storing each indicator's data and metadata.
- Create templates for indicator datasets and associated documentation.
- Store all MFIF data and related documents – such as tools, notes and reports – according to the agreed-upon structure.
- Establish simple rules for managing different versions of files, such as draft, revised and final datasets. Good practices for version control include having rules for naming and dating files, logging changes and retaining previous versions of updated files.
- Agree on and define who has rights to access the data— see Box 7.

- Periodically review the system with users, fix problems and regularly back up data.

Suggested tools/resources: Shared drives or cloud folders, a simple database or spreadsheet with templates for data entry and documentation of agreed-upon rules for file naming, version control and access to data.

Additional guidance:

- Simple, well-organized systems are more sustainable and more widely used than complex databases that require specialized skills or software.
- Clearly label and structure data files so it is easy for users to understand what each dataset contains, which indicator it relates to and how it was generated.
- Clear naming conventions and consistent file structures also reduce confusion and support continuity when staff or partners change.

Box 7. Shared access for learning and use

The MFIF is intended to support collective learning and informed decision-making. Where appropriate, MFIF data should be shared with relevant stakeholders, while respecting confidentiality and data sensitivity considerations.

Shared access enables joint reflection on results, cross-sector dialogue and learning, and stronger integration of MFIF findings into planning and governance processes.

To maintain coherence across Model Forests, the RMFN–Asia Secretariat supports regional data synthesis, comparability and learning by providing guidance on data structure, consolidating core indicator results and facilitating cross-landscape exchange.

7. Analyzing, interpreting and using MFIF results

7.1. Understanding patterns in data

Data analysis should focus on understanding patterns, relationships and changes over time rather than on isolated indicator values. Because the MFIF operates at the landscape scale and integrates multiple sustainability dimensions, analysis should also explore how different factors interact and influence one another.

Objective: To gain insights into trends, interactions and trade-offs by analyzing indicator data.

Expected result: Clear, pillar-wise and cross-pillar interpretation of MFIF data, including key messages for stakeholders.

Stakeholders involved: Technical analysts, MFIF coordinator, Model Forest governance body and selected stakeholders for interpretation.

Key activities: Compare indicators over time, explore cross-pillar relationships, identify trade-offs and synergies and compare findings with national or regional data where relevant.

Suggested steps:

- Compile cleaned and documented datasets for all indicators, by pillar.
- Generate basic summaries – including tables, charts or maps – for each indicator and track changes over time, where possible.

- Examine patterns within each pillar and note key trends, improvements and areas of concern.
- Explore relationships and trade-offs across pillars – for example, between production and ecosystem indicators or between indicators for governance and human wellbeing.
- Use the MFIF analysis and action matrix (Annex 5) to summarize conclusions, explain the findings and note key messages for stakeholders.
- Prepare visual and narrative summaries that nontechnical stakeholders can easily understand.

Suggested tools/resources: MFIF analysis and action matrix (Annex 5), basic data visualization (charts, maps) and national or regional benchmarks.

Additional guidance:

- Focus on stories that the data reveal about change, not on single-year scores in isolation – see Annex 6 for more guidance on how to analyze data.

7.2. Learning and reflection

The MFIF is designed as a learning-oriented framework. Structured processes that bring stakeholders together to reflect on results collectively are essential to ensure that MFIF results are understood, questioned and used meaningfully. Documenting lessons learned ensures continuity across monitoring cycles and

supports cumulative learning within and across Model Forests.

Objective: To enable collective understanding and informed use of MFIF findings.

Expected results: Documented lessons, shared understanding and agreement on implications for future action, including data improvements.

Stakeholders involved: Model Forest governance body, community representatives, technical staff and government and other partners.

Key activities: Convene reflection sessions, present results in accessible formats, facilitate discussion and record insights, disagreements and priorities.

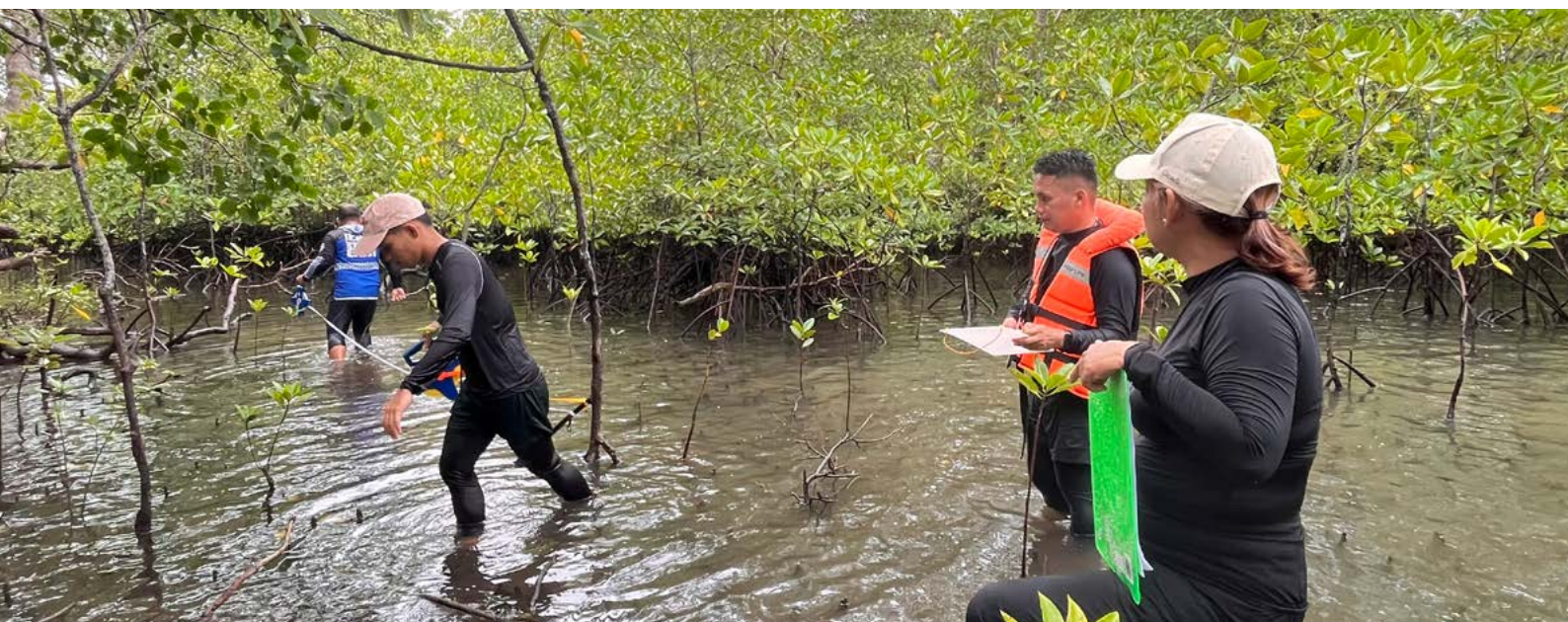
Suggested steps:

- Identify the main audiences and objectives for learning sessions – for example, an internal review or broader stakeholder reflection.
- Design one or more reflection events with clear questions, such as: What

is changing? Why? What does it mean for us?

- Present MFIF findings in accessible, visual formats rather than technical tables alone.
- Facilitate structured discussions to capture perspectives from different stakeholder groups.
- Encourage participants to interpret findings in relation to the local context, question assumptions and data limitations, explore reasons for observed trends and identify implications for future action.
- Document insights, areas of agreement and disagreement among stakeholders; information gaps; methodological improvements and emerging priorities for action or further analysis.
- Summarize and share key lessons with all participants, and integrate them into subsequent planning and MFIF cycles.

Suggested tools/resources: Reflection workshop agendas, facilitation guides and note templates for lessons learned.



Additional guidance

- Avoid one-way presentations that simply report findings. Instead, design sessions around dialogue and interpretation by different stakeholder groups.
- Inclusive reflection sessions help build shared understanding, trust and ownership of results, particularly where indicators touch on sensitive governance or livelihood issues.

7.3. Informing decisions and action

The MFIF is intended to function as a decision-support framework, not simply as a monitoring or reporting tool. Its results should therefore be actively linked to planning, dialogue and action at multiple levels (see Box 8).

Objective: To use insights from monitoring in planning decisions, policy dialogue and collaboration.

Expected result: MFIF findings are used to inform plans, proposals and governance decisions, with clear follow-up actions.

Stakeholders involved: Model Forest governance body, planning teams, government agencies, donors and partners, and private sector where applicable.

Key activities: Link priority issues to actions, integrate results into strategy reviews and use evidence in policy and funding discussions.

Suggested steps:

- Review key MFIF insights and identify issues with direct implications for planning, governance or investment.
- Use the MFIF analysis and action matrix (Annex 5) to link priority issues to possible actions, responsible actors and timelines.



- Discuss and negotiate which actions are realistic in the short, medium and long term.
- Integrate agreed-upon actions into existing plans, work programmes or policy dialogues.
- Track implementation of MFIF-informed actions and note how evidence was used.
- At the next MFIF cycle, reflect on and document which actions were taken and whether those actions influenced indicator trends.

Suggested tools/resources: Analysis and action matrix (Annex 5), strategic/annual planning templates and proposal formats.

Additional guidance:

- Be clear about which MFIF findings triggered which decisions, as this reinforces the value of continued monitoring.
- Monitoring without adaptation reduces the value of the framework. The MFIF must remain dynamic, evolving in response to evidence. Results from one cycle should inform adjustments to indicators, methods and priorities in subsequent cycles, strengthening both learning and impact over time.

Box 8. Three ways to use MFIF findings

Informing landscape-level planning: MFIF results can highlight priority issues that require attention, support evidence-based revision of strategies or action plans and help align interventions across sectors and stakeholders. Using the MFIF in planning processes reinforces its relevance and helps ensure that monitoring efforts translate into positive outcomes and directly inform adaptive management. For example:

- If the rate of tree cover loss increases, strengthen conservation measures.
- If participation declines, review governance inclusiveness.
- If livelihoods improve but biodiversity declines, adjust production strategies.
- If women's representation remains low, implement corrective measures.

Supporting constructive policy dialogue: By providing integrated, landscape-scale evidence, the MFIF can help articulate local realities in policy discussions with government agencies and other decision-makers. It can also identify mismatches between policy intent and on-the-ground outcomes and strengthen coordination across sectors.

Strengthening collaboration and funding proposals: MFIF results can be used to demonstrate landscape needs, risks and opportunities to potential partners. They can also support joint proposals or funding applications and track progress against shared objectives in collaborative initiatives. In this way, the MFIF helps position Model Forests as credible platforms for coordinated action and long-term investment.

8. Monitoring over time and adapting the MFIF

8.1. Establishing monitoring cycles

Landscapes, communities and governance systems are constantly evolving, so monitoring must be structured, continuous and adaptive. To make this possible, clear monitoring cycles should be established. These cycles define how often monitoring takes place, when review points occur and how baseline data is updated over time. A well-designed monitoring cycle provides structure and predictability. It ensures that data collection, analysis, reflection and adaptation happen in an organized way.

Objective: To define a realistic, repeatable cycle for data collection, review and adaptation.

Expected results: An agreed-upon and clearly defined monitoring calendar

that specifies monitoring frequencies, review points, arrangements for providing baselines updates and plans for sharing monitoring results to inform Model Forest programming.

Stakeholders involved: RMFN–Asia Secretariat, Model Forest governance body, MFIF coordinator, technical team and key partners.

Key activities: Decide how often to monitor each indicator, schedule light and full reviews and plan review workshops and baseline reassessments.

Suggested steps:

- Review indicator metadata to understand how often each indicator should be monitored and how much work this will require (see Box 9).



- Propose a realistic monitoring calendar that aligns with Model Forest planning cycles – for example, an annual light update aligned with the annual work planning process, and a periodic full review aligned with the five-year strategic planning process.
- Specify key milestones and decision points, such as data collection periods, time for data analysis, review points (see Box 10), baseline updates (see Box 11) and reporting deadlines.
- Consult key actors, such as technical teams, the Model Forest governance body and partners, to refine and agree on the calendar.
- Document the monitoring cycle and share it with all involved stakeholders.
- After one full cycle, review what worked or did not work, and adjust the timing and workload as needed.

Suggested tools/resources: Work-planning tools (annual Model Forest plans) and existing reporting calendars.

Additional guidance:

- Align MFIF cycles with existing planning and budget cycles to ensure institutionalization.

Box 9. Frequency of monitoring

Frequency refers to how often indicators are measured and reported. Not all indicators need to be monitored at the same interval. When setting the frequency of monitoring, MFIF users should consider the nature of the indicator, the availability of data, capacities for monitoring and the expected rate of change. For example:

Indicators measured with remote sensing – such as tree cover change or carbon storage – may be updated annually using satellite data.

Socio-economic indicators – such as poverty levels and the Human Development Index – may be updated every 1–3 years, depending on the feasibility of conducting surveys.

Governance indicators – such as participation rates and interagency coordination effectiveness – may be reviewed annually during stakeholder meetings.

Biodiversity indicators may require seasonal or multi-year monitoring, depending on the biological cycles of the species in question.

A practical approach for Model Forests may be to conduct annual light monitoring of the core indicators and a full review of all core and optional indicators every 2–3 years, along with a deeper analysis of all findings, including through participatory reviews. The monitoring frequency should balance ambition with feasibility. Overly frequent data collection can strain local capacity, while infrequent monitoring can limit responsiveness to change.



Box 10. Review points

Review points are when stakeholders meet to reflect on the collected data and discuss its implications. Monitoring without reflection does not lead to improvement. Therefore, each monitoring cycle should include clear review points, such as annual stakeholder review workshops, midterm reflection sessions during pilot phases and end-of-cycle evaluation meetings.

During review points, stakeholders should:

- Compare current data with baseline values.
- Benchmark against national or regional averages where possible.
- Identify positive trends and areas of concern.
- Discuss unexpected results or data gaps.
- Propose corrective or adaptive actions.

Participation in review sessions should include but not be limited to Model Forest management teams, community representatives, government partners, technical experts (where needed) and the RMFN–Asia Secretariat.

Review points should encourage open discussion rather than compliance-based reporting. Documenting lessons learned during review sessions is essential. These lessons contribute to regional knowledge exchange and help refine future versions of the MFIF.



Box 11. Baseline updates

Baseline data represents the starting reference point against which MFIF users can measure progress. During the pilot phase of MFIF implementation, users establish initial baselines using primary and secondary data. However, it may become necessary to adjust these baselines. This can happen if, for example, new and more accurate data become available, landscape boundaries change, improved methodologies enhance measurement accuracy or significant external shocks, such as natural disasters or policy changes, alter landscape conditions.

MFIF users should therefore use a structured process for baseline reassessment, typically every 3–5 years or after major contextual shifts.

Baseline updates should:

- Transparently document changes and why they are being made.
- Clearly explain methodological adjustments and their implications.
- Preserve historical data to retain the ability to compare trends over time.

When updating baselines, MFIF users should also communicate with the RMFN–Asia Secretariat, considering the need to maintain regional consistency.

8.2. Revising indicators responsibly

The MFIF is designed to be adaptable in response to changing contexts, and, in some situations, it may be necessary to revise MFIF indicators (see Box 12). However, frequent or poorly managed changes to indicators can create confusion, reduce comparability of data and weaken long-term credibility.

For example, such changes can make it difficult to measure progress against baselines, identify long-term trends, benchmark against national or regional averages or compare performance across Model Forests. Any changes to indicators should therefore be made carefully through a structured, transparent and participatory process.

Objective: To manage necessary changes to indicators without undermining comparability and credibility.

Expected result: Clearly justified and documented revisions agreed upon with stakeholders, with explanations of implications for data and trends.

Stakeholders involved: Model Forest teams, community and governance committee representatives, technical experts and RMFN–Asia Secretariat.

Key activities: Identify issues with indicators, develop proposals, consult stakeholders, document the rationale for revising indicators and version history and monitor old and new versions in parallel where needed.

Suggested steps:

- Periodically review the set of indicators to identify any that are no longer relevant, feasible or understood.

- Diagnose the reasons – for example, a change in context, persistent data problems or overlapping indicators.
- Develop specific proposals for changes, such as retiring or replacing indicators or changing a definition or method. Every proposed revision should explain why the change is necessary, what problem it solves and what the implications are for past and future data.
- Consult stakeholders on proposed revisions and their implications – also consult the RMFN–Asia Secretariat when revising core indicators. Consultations should follow a structured review process, which may include circulating proposed revisions in advance, organizing online or in-person consultation sessions, allowing time for written feedback, documenting comments received and achieving consensus or majority agreement.
- Where appropriate, and particularly if an indicator needs to change significantly, monitor old and new versions in parallel for one cycle to preserve interpretability and avoid any gap in the dataset.
- Document all revisions, including the rationale, date of revision, stakeholders consulted and expected impacts on data collection, interpretation and reporting. Documentation should include previous and updated versions of revised indicators. It should clearly explain data conversion methods that allow comparisons of past and revised indicators.
- Retain all past data relating to past versions of the indicator, clearly labelled by version.

Suggested tools/resources: Revision templates, online or inperson consultation formats and version history logs.

Additional guidance:

- Core indicators should change only under exceptional circumstances. MFIF users should aim to keep these indicators stable and use optional and locally specific indicators for flexibility if necessary.
- Stakeholder engagement ensures that revisions reflect local realities, are practical to implement, have local ownership and do not unintentionally disadvantage certain groups. Participation also strengthens legitimacy and long-term commitment to the framework.
- Maintaining a clear version history is critical. It ensures transparency and builds trust across the network. Proper documentation also helps avoid confusion during future audits, policy engagement and reporting to partners and funders.

Box 12. Reasons for revisions

Indicators should not be revised simply because they are difficult to measure or inconvenient. They should be revised only when there is a clear and legitimate reason, such as:

- Evidence from pilot implementation showing that an indicator is not feasible to measure.
- Overlap or duplication between indicators.
- Data collection challenges that compromise reliability.
- Misalignment with evolving strategic priorities of RMFN–Asia.
- New scientific knowledge or improved measurement methods.
- Feedback from Model Forests highlighting a contextual mismatch.

9. Knowledge-sharing and contextual replication

The MFIF is not only a monitoring tool for individual Model Forests. It is also a regional learning platform. One of its long-term strengths lies in its ability to generate shared knowledge, strengthen collaboration across landscapes and support expansion into new areas. Knowledge sharing and contextual replication are essential to ensuring that the MFIF contributes not only to local improvement but also to wider impact across RMFN–Asia and other regional Model Forest networks.

9.1. Cross-landscape learning

Model Forests across Asia operate in diverse ecological, social and governance contexts. Some are forest-dominated landscapes, while others are watershed-based. Some are advanced in certification, while others are focused on community-based natural resource management. This diversity is a strength, and the MFIF provides a common language for learning from it.

By using a shared indicator framework structured around four pillars of sustainability (ecosystem, governance, production and human wellbeing), Model Forests can:

- Compare progress across landscapes.
- Identify innovative approaches.
- Learn from successes and challenges.
- Exchange solutions to shared problems.

For example:

- If one Model Forest shows strong improvement in reducing tree cover loss, others can examine what governance or enforcement strategies were used.
- If productivity increases in a landscape without compromising biodiversity, the practices used can be documented and shared.
- If a Model Forest demonstrates effective participation of women in governance committees, its approaches could be replicated elsewhere.

Cross-landscape learning reduces duplication of effort and accelerates improvement. Instead of each Model Forest solving problems independently, the network becomes a collective learning system.

To strengthen cross-landscape learning, RMFN–Asia is committed to:

- Organizing annual knowledge-sharing workshops.
- Facilitating thematic exchanges – for example, on biodiversity monitoring, gender inclusion or carbon measurement.
- Developing case studies based on MFIF findings and sharing them within the network.
- Identifying key lessons and knowledge products and sharing them in accessible formats through

regional and national workshops, webinars or online spaces.

- Encouraging peer-to-peer exchanges between Model Forests, particularly between more experienced and newer ones.

The RMFN–Asia Secretariat plays an important role in synthesizing data and highlighting comparative insights in a way that is accessible and practical.

9.2. Regional synthesis

The MFIF enables RMFN–Asia to produce a regional-level synthesis of progress and challenges. Because the core indicators are standardized, aggregated data can provide insights into regional trends in, for example, tree cover change, poverty

levels, livelihood diversification, gender representation in governance, certification and sustainable production.

Such a synthesis strengthens the visibility and credibility of RMFN–Asia at regional and international levels. It can support:

- Policy engagement with governments.
- Alignment with international frameworks such as the Sustainable Development Goals, Paris Agreement on climate change and Global Biodiversity Framework.
- Resource mobilization and funding proposals.
- Strategic planning for RMFN–Asia (2025–2030 and beyond).



9.3. Replication in new landscapes

As the MFIF matures and demonstrates value, it can be introduced into additional Model Forests or new landscapes interested in joining the network. Replication should be voluntary, capacity-sensitive, context-adapted and supported with training and technical guidance.

When introducing the MFIF into new landscapes, it is important to first assess whether the landscape is ready – as outlined in Section 4.1.

Capacity building is another critical step before starting MFIF implementation. Stakeholders need training to understand how to interpret indicators correctly and how to follow standardized data collection protocols. They should also be familiar with appropriate sampling methods and data management systems to ensure consistency and reliability. Ethical safeguards, including community consent and responsible data use, must also be clearly understood to maintain trust and integrity in the process.

A phased implementation approach is strongly recommended for new landscapes. Rather than attempting to apply all indicators at once, sites may begin with core indicators only or select priority indicators that are most relevant to their context. Some landscapes may also choose to start within a limited geographic scope before expanding. Gradual scaling helps reduce complexity, strengthens confidence and increases the likelihood of successful implementation.

Monitoring this process is important, as scaling must preserve the MFIF's integrity and credibility. The RMFN–Asia Secretariat will periodically assess whether:

- New landscapes are implementing the MFIF effectively.
- Core indicators are being measured consistently.
- Stakeholders are engaged meaningfully.
- Data are being used for decision-making.



10. Common challenges and practical solutions

During piloting and early implementation, it is common for MFIF users to face challenges, including data gaps and capacity constraints. However, the MFIF is designed to be practical and flexible. As outlined below, solutions to the challenges exist.

10.1. Data gaps

Many Model Forests do not have complete or recent baseline data. This makes it difficult to monitor change, compare Model Forests with national or regional averages, and demonstrate impacts to partners or funders. Common gaps include:

- A lack of recent biodiversity surveys.
- Incomplete socio-economic data at the landscape level.
- Limited historical records to show trends.
- Difficulty accessing government or satellite datasets.
- Inconsistent data across different villages or agencies.

In some cases, national or subnational data may exist, but it may not align with the defined Model Forest boundary. In other cases, community-level data may exist informally but not be documented in a usable format.

Practical solutions

Start with what is available Do not delay implementation while waiting for

perfect data. The MFIF is designed to improve over time. The first round can establish a 'working baseline', even if it is imperfect. Begin with existing government statistics, available satellite datasets for tree cover and land use, community records and project reports, and research conducted in the area by nongovernmental organizations or academic researchers.

Use proxy indicators

If direct data is unavailable, use reasonable substitutes and clearly document which proxy was used and why. For example, if species inventories are missing, use habitat conditions as a proxy. If household income data is unavailable, use poverty threshold data from district statistics.

Collect data in phases

Not all indicators need to be fully measured in the first year. Prioritize core indicators and add optional indicators over time. Align new data collection with existing project cycles to reduce costs.

Partner with local institutions

Universities, research institutes and government agencies may already collect relevant data. Partnerships can reduce duplication, improve credibility and strengthen local ownership.

Be transparent about limitations

It is better to clearly state data gaps than to produce unreliable numbers. Transparency builds trust and improves future data quality.

10.2. Capacity constraints

Model Forest teams often operate with limited human and financial resources. Common constraints include:

- Small teams managing multiple responsibilities.
- Limited technical skills in geospatial analysis, data analysis or survey design.
- Weak data management systems.
- Limited budgets for repeated monitoring.
- High turnover of trained staff.

In addition, implementing the MFIF requires coordination across the framework's four pillars: ecosystem, governance, production and human wellbeing. This can be demanding for teams unfamiliar with integrated monitoring systems.

Practical solutions

Simplify in the early stages:

Focus on core indicators first, and use simple data collection tools and practical, easy-to-understand formats. Avoid overcomplicating the pilot phase of MFIF implementation.

Assign clear roles and focal points:

This reduces confusion and improves

accountability. Each Model Forest should designate a focal person for MFIF coordination, pillar leads (where possible) and a person responsible for data management.

Invest in targeted training:

Rather than broad, generic training, focus on practical skills such as basic survey methods, simple Excel-based data management, participatory mapping and interpretation of satellite outputs. Short, focused workshops are often more effective than long, theoretical sessions.

Use community-based monitoring:

Engaging community members in data collection reduces costs and strengthens local ownership of the Model Forest. Examples include community-forest groups tracking tree survival, women's groups monitoring collection on nontimber forest products and youth groups assisting in biodiversity observations.

Plan for sustainability:

The goal is long-term institutionalization, not a one-time assessment. From the beginning, consider how data collection will continue after pilot funding, whether indicators align with government systems and how the MFIF can support fundraising or partnerships. Develop simple templates and reporting formats that can be reused each year. A consistent structure reduces workload in future monitoring cycles.

11. Incentives for sustained use of the MFIF

The MFIF's value depends on Model Forests continuing to use it after the pilot phase. For the framework to remain active and relevant, it must therefore create clear and practical value for the Model Forests themselves. Fortunately, the MFIF is designed to strengthen the position, credibility and long-term sustainability of each Model Forest. Below are three ways it creates incentives for its continued use.

1. Strengthening funding and partnership proposals

Model Forests often seek financial and technical support from governments, donors, private sector partners and research institutions. However, it is difficult to secure funding because they lack clear baseline data, measurable indicators and evidence of impact.

The MFIF helps Model Forests:

- Present structured and comparable data across the MFIF's ecosystem, governance, production and human wellbeing pillars.
- Demonstrate progress over time using standardized indicators.
- Show alignment with international frameworks such as the Sustainable Development Goals, the Paris Agreement on climate change and the Global Biodiversity Framework.
- Provide credible evidence during due diligence processes.

When a Model Forest can clearly demonstrate its performance using MFIF

indicators, it becomes more attractive to impact investors, climate and carbon finance actors, biodiversity credit initiatives, commodity buyers, certification bodies and development partners. In this way, the MFIF strengthens the 'investment-readiness' of Model Forest landscapes.

2. Improving policy engagement and credibility

Governments and policymakers increasingly require data-driven justification before making decisions related to budget allocations, policy support, inclusion in national monitoring systems or recognition of landscapes as demonstration sites. In this context, the MFIF enables Model Forests to communicate using a clear and structured technical language when engaging with forestry departments, environmental ministries, local governments and national planning agencies.

By organizing data across standardized indicators and benchmarking results against national or regional averages, Model Forests can show how their performance compares to broader trends, highlight gaps and emerging risks and demonstrate their contributions to national commitments on climate, biodiversity and sustainable development.

This strengthens the credibility of Model Forests as long-term landscape governance platforms rather than short-term, project-based initiatives. Over time, consistent use of the MFIF can support formal institutional recognition

and potential integration of Model Forest data into national forest monitoring and reporting systems.

3. Enhancing visibility within RMFN–Asia

The MFIF also strengthens collaboration and visibility within RMFN–Asia. Having a shared indicator framework enables different Model Forests to compare progress, exchange experiences and learn from each other in a structured and consistent way.

The MFIF allows the network to analyze regional trends collectively and communicate broader impacts across multiple landscapes rather than isolated site-level achievements. Peer learning becomes more evidence-based, as

discussions are grounded in comparable data and success stories can be systematically documented and shared.

This creates a positive incentive: Model Forests that actively apply the MFIF gain greater visibility within the regional network and are better positioned to participate in pilot initiatives, access technical and capacity-building support and be showcased in regional and international forums. Over time, this visibility and recognition help sustain motivation and encourage continued engagement with the framework.

Annex 1. MFIF readiness assessment tool

This annex provides checklists that teams can use to assess their readiness to implement the MFIF. The checklists cover five key areas of readiness and are accompanied by suggested actions that MFIF teams can take if they identify gaps.

1. Clearly defined boundaries

Objective: To ensure the Model Forest has a clearly defined, agreed upon and documented landscape boundary.

Checklist:

	Yes	Partial	No	Notes or evidence	Priority if gap
1.1. A documented map of the Model Forest boundary exists.	☐	☐	☐		High
1.2. Administrative jurisdictions (district/province) are clearly identified.	☐	☐	☐		Medium
1.3. Key stakeholders (communities, local authorities) recognize the boundary.	☐	☐	☐		High
1.4. There are no major unresolved boundary or tenure disputes.	☐	☐	☐		High
1.5. Boundary aligns with data collection units (for example, census, forest data).	☐	☐	☐		Medium

If gaps are identified:

- Conduct participatory boundary mapping workshops.
- Hold consultations with local leaders and relevant agencies.
- Document and formally record the agreed-upon boundary.
- Align spatial boundary with available datasets where possible.

2. Multi-stakeholder governance mechanism

Objective: To ensure that a functioning, inclusive governance structure exists to oversee MFIF implementation.

Checklist:

	Yes	Partial	No	Notes or evidence	Priority if gap
2.1. A formally recognized Model Forest committee (or equivalent) exists.	☐	☐	☐		High
2.2. The committee meets regularly and documents its decisions.	☐	☐	☐		Medium
2.3. Women are represented in decision-making structures.	☐	☐	☐		High
2.4. Marginalized or vulnerable groups are represented.	☐	☐	☐		High
2.5. Roles and responsibilities are clearly defined.	☐	☐	☐		Medium
2.6. The governance structure supports transparency and accountability.	☐	☐	☐		Medium

If gaps are identified:

- Strengthen or formalize the structure of the committee.
- Revise terms of reference to improve clarity.
- Introduce gender and inclusion safeguards.
- Establish simple documentation and reporting procedures.

3. Commitment to long-term monitoring

Objective: To ensure that the Model Forest is prepared for multi-year monitoring, not just a one-time assessment.

Checklist:

	Yes	Partial	No	Notes or evidence	Priority if gap
3.1. Leadership has formally agreed to pilot MFIF.	☐	☐	☐		High
3.2. MFIF is integrated into strategic or annual work plans.	☐	☐	☐		Medium
3.3. A focal person for MFIF coordination is assigned.	☐	☐	☐		High
3.4. A budget (financial or in-kind) is allocated for monitoring.	☐	☐	☐		High
3.5. There is willingness to repeat data collection periodically.	☐	☐	☐		Medium

If gaps are identified:

- Include the MFIF in official work plans.
- Assign a dedicated focal person.
- Identify funding sources or partnerships.
- Phase monitoring over time to reduce burdens.

4. Availability of baseline data

Objective: To ensure that baseline data exists or that there is willingness to gather it.

Checklist:

	Yes	Partial	No	Notes or evidence	Priority if gap
4.1. Existing data on tree cover or land use is available.	☐	☐	☐		High
4.2. Socio-economic baseline data exists (for example, on poverty and livelihoods).	☐	☐	☐		Medium
4.3. Biodiversity or habitat data is available.	☐	☐	☐		High
4.4. Data on governance and participation is documented.	☐	☐	☐		High
4.5. The team is willing to establish missing baseline data.	☐	☐	☐		Medium
4.6. Potential data partners – such as universities, nongovernmental organizations and government agencies – have been identified.	☐	☐	☐		Medium

If gaps are identified:

- Conduct a rapid data inventory.
- Prioritize establishing baselines for core indicators.
- Use proxy indicators where necessary, clearly documenting the approach and rationale.
- Develop partnerships with academic or technical institutions.
- Phase baseline establishment across 1–2 years if needed.

5. Technical and institutional capacity

Objective: To identify key technical, human and institutional capacity gaps that could affect the quality and sustainability of MFIF implementation.

5a. Technical skills

Checklist:

	Yes	Partial	No	Notes or evidence	Priority if gap
5.1. The MFIF team has basic GIS or remote sensing skills (or access to support).	☐	☐	☐		High
5.2. The MFIF team can design and conduct household or community surveys.	☐	☐	☐		High
5.3. The MFIF team can facilitate participatory data collection (focus group discussions, mapping, scoring).	☐	☐	☐		Medium
5.4. The MFIF team can analyse quantitative data (for example, using Excel, basic statistics).	☐	☐	☐		Medium
5.5. The MFIF team can interpret and synthesize qualitative data.	☐	☐	☐		High

If gaps are identified:

- Organize short, focused, hands-on training workshops on GIS basics, survey design or Excel data analysis.
- Partner with universities, research institutions or nongovernmental organizations for technical mentoring.
- Use online training platforms or RMFN–Asia webinars to build skills gradually.
- Start with basic measurement levels and scale up technical complexity over time as capacity grows.

5b. Data management capacity

Checklist:

	Yes	Partial	No	Notes or evidence	Priority if gap
5.6. A simple data storage system (shared folders, spreadsheets) is in place.	☐	☐	☐		High
5.7. Staff know how to organize, label and track versions of datasets.	☐	☐	☐		Medium
5.8. Data can be backed up regularly and securely.	☐	☐	☐		Medium
5.9. A designated person is responsible for data management.	☐	☐	☐		High

If gaps are identified:

- Set up a simple shared folder system with clear naming conventions and version control rules.
- Assign one staff member to be the data manager, with clear responsibilities.
- Develop a one-page data management protocol (storage, backup, access rights).
- Request technical assistance from the RMFN–Asia Secretariat.

5c. Indicator understanding and documentation

Checklist:

	Yes	Partial	No	Notes or evidence	Priority if gap
5.10. The MFIF team understands the four MFIF pillars (ecosystem, governance, production, human wellbeing).	☐	☐	☐		High
5.11. The MFIF team can distinguish between core, optional and locally specific indicators.	☐	☐	☐		High
5.12. The MFIF team can complete indicator metadata templates clearly and accurately.	☐	☐	☐		Medium

If gaps are identified:

- Conduct an internal orientation workshop on the MFIF structure and indicator definitions.
- Use Annex 2 (Indicator metadata template) as a learning tool during team meetings.

- Review pilot examples from Ngao Model Forest (Thailand) or Carood Watershed (Philippines) – available upon request from the RMFN–Asia Secretariat.
- Engage with the RMFN–Asia Secretariat for clarification sessions.

5d. Stakeholder engagement skills

Checklist:

	Yes	Partial	No	Notes or evidence	Priority if gap
5.13. The MFIF team can organize and facilitate multi-stakeholder workshops or meetings.	☐	☐	☐		Medium
5.14. The MFIF team can communicate technical results to nontechnical audiences.	☐	☐	☐		Medium
5.15. The MFIF team is comfortable engaging with government agencies and technical partners.	☐	☐	☐		Low

If gaps are identified:

- Organize brief facilitation training or coaching before key workshops.
- Use simple visual aids (charts, diagrams, photos) to communicate technical information.
- Practice presenting MFIF findings in plain language internally before external meetings.
- Learn from peer Model Forests with strong experience of stakeholder engagement.

5e. Reporting and communication

Checklist:

	Yes	Partial	No	Notes or evidence	Priority if gap
5.16. The MFIF team can prepare clear, concise reports summarizing MFIF findings.	☐	☐	☐		Medium
5.17. The MFIF team can create basic visualizations (charts, maps, graphs).	☐	☐	☐		Low

If gaps are identified:

- Develop simple report templates for recurring MFIF updates.
- Use free visualization tools (such as Excel charts, Canva, Google Data Studio).
- Request peer review of draft reports within RMFN–Asia.
- Allocate dedicated time for communication tasks in work plans.

5f. Continuity and institutional memory

Checklist:

	Yes	Partial	No	Notes or evidence	Priority if gap
5.18. Standard operating procedures or simple manuals exist for key tasks.	☐	☐	☐		Medium
5.19. MFIF team turnover is low, or knowledge transfer systems are in place.	☐	☐	☐		Medium

If gaps are identified:

- Document key procedures, templates and lessons learned in a shared folder or handbook.
- Hold brief handover or documentation sessions when staff transitions occur.
- Build MFIF responsibilities into multiple staff roles to reduce dependency on one person.
- Schedule periodic review meetings to refresh understanding and update procedures.

Overall readiness scoring

To make an overall assessment of readiness and identify priority areas for action to address gaps, MFIF users can add up the total number of “Yes”, “Partial” and “No” responses in each of the checklists and overall.

	Yes	Partial	No
1. Clearly defined boundaries			
2. Multi-stakeholder governance mechanism			
3. Commitment to long-term monitoring			
4. Availability of baseline data			
5. Technical and institutional capacity			
Total			

Annex 2. Indicator selection worksheet

This annex presents a suggested stepwise process and worksheet format that MFIF users can use when selecting indicators to monitor.

Step 1. Confirm landscape priorities

Top three landscape priorities:

- 1.
- 2.
- 3.

Step 2. Select core indicators

If an indicator does not relate to at least one priority, reconsider selecting it. Note that core indicators are recommended for all Model Forests unless they are clearly not applicable.

Core indicator	Relevant to landscape? (Yes/No)	Data available? (Yes/Partial/No)	Feasible to measure? (Yes/No)	Responsible person or partner	Notes
Rate of tree cover change					
Carbon storage					
Biodiversity					
Human Development Index					
Household income					
Health impacts of land use practices					
Proportion of women in the governance body					
Frequency and quality of interagency coordination					

Community-based natural resource management					
Certification coverage					
Productivity – forest products					
Productivity – agricultural products					

Step 3. Select optional indicators

Optional indicator	Justification for selection	Data source	Feasible?	Priority (High/Medium/Low)
Community engagement in forest fire fighting and prevention (number of people)				
Tree survival rate (%)				
Water availability (number of check dams, seasonal retention levels)				
Change in land use/ land cover (area in hectares)				
Springs revived (number)				
Protected area coverage (% of Model Forest area)				
OECM coverage* (% of Model Forest area)				
Stakeholder participation rate (% active)				
Benefit-sharing with marginalized/ vulnerable groups (% of total economic benefits)				
Forest conversion to agriculture (%)				
Forest conversion to plantation (%)				

Change in dependence on fodder/fuelwood (% change)				
Casualties of human-wildlife conflict (number of injuries or deaths)				

*OECM stands for 'other effective area-based conservation measures'

Step 4. Select locally specific indicators

Locally specific Indicator	Justification for selection	Data source	Feasible?	Priority (High/Medium/Low)

Step 5. Summarize final selection of indicators

Pillar	Number selected	Manageable? (Yes/No)	Adjustments needed
Ecosystem			
Governance			
Production			
Human wellbeing			

Annex 3. Indicator metadata template

This template for gathering metadata for each indicator can be created in Excel or downloaded in that format from the RMFN–Asia Secretariat website.

Metadata element and what MFIF users should specify	To be completed by MFIF implementation team
Indicator title: Official name of the indicator.	
Pillar: Ecosystem/governance/production/human wellbeing.	
Indicator definition: Clear description of what is being measured, including boundaries and key terms.	
Purpose and rationale: Why this indicator is important and what management question it addresses.	
Unit of measurement: Such as %, number, tonnes, USD, index score, qualitative scale and so on.	
Data source(s): Primary, secondary or mixed sources (specify datasets or institutions).	
Data collection methodology: Tools used (survey, remote sensing, participatory mapping and so on), sampling approach, validation steps.	
Baseline value: The initial measured value.	
Baseline year: Year the baseline was established.	
Frequency of data collection: For example, annual, biannual, every 3–5 years or continuous.	
Data collection responsibility: Who collects the data?	
Data compilation and analysis responsibility: Who compiles and analyzes the data?	
Data validation responsibility: Who verifies data quality?	
Reporting responsibility: Who submits and communicates results?	
Data storage location: Such as database, shared drive or national system.	
Data sharing protocol: Format and mechanism for sharing with RMFN–Asia Secretariat.	
Limitations and assumptions: Data gaps, risks or methodological constraints.	
Review and update schedule: When and how the metadata will be reviewed or revised.	

Annex 4. Understanding, collecting and presenting data for the MFIF's core indicators

This annex provides guidance to help MFIF users understand, collect and present data for the monitoring framework's 12 core indicators. For each indicator, the annex provides a description and rationale, guidance for basic and advanced measurement, and advice on how to present the data.

Pillar 1: Ecosystem

Indicator 1: Rate of tree cover change (%)

Description: The annual rate of change in tree cover (loss or gain) within the Model Forest landscape, expressed as the percentage change since the previous year. This indicator tracks forest loss, regrowth and overall forest condition in the landscape. It reflects progress in forest protection and restoration, informs land-use planning and identifies priority areas for action to address forest loss or encourage forest growth.

Basic measurement: Use freely available satellite datasets, such as global forest loss/gain data. Crop the Model Forest boundary and calculate annual loss and gain using GIS tools. To measure overall rates of change, divide the current forest cover by the previous year's forest cover, subtract 1, then multiply by 100. This yields the percentage change as a positive (overall gain) or negative (overall loss) value. Data sources include Global Forest Watch or the Hansen Global Forest Change dataset on the Google Earth Engine interface.¹ MFIF users should use a consistent tree-cover threshold and record both loss and gain separately.

Advanced measurement: Use higher-resolution remote sensing – such as Sentinel-2 or Landsat imagery – and combine with sample-based ground verification plots to validate tree cover categories. Distinguish between natural forest, plantations, agroforestry and regrowth.

Data presentation: Use a line graph to show change over time. A bar chart can compare yearly forest gain versus loss. A map can show where changes are happening.

Indicator 2: Carbon storage (tonnes)

Description: The rate at which carbon is being accumulated in forest biomass, expressed as tonnes of carbon per year. This indicator measures the landscape's contribution to climate change mitigation. The data it provides can support participation in forest

¹ See: <https://www.globalforestwatch.org/> and https://developers.google.com/earth-engine/datasets/catalog/UMD_hansen_global_forest_change_2022_v1_10

carbon projects that generate revenue for Model Forests, and shows how Model Forests contribute to national goals on climate change.

Basic measurement: Estimate carbon storage by multiplying the forest area by standard biomass factors from published datasets. Data sources include national forest inventory reports and the Intergovernmental Panel on Climate Change's emission factor databases. If possible, use separate biomass factors for different forest types and assess both above-ground and below-ground carbon. The datasets used by the RMFN–Asia Secretariat will be based on estimates derived from satellite observation aggregated annually as the total of eight-day composites specifically representing the net primary productivity.

Advanced measurement: Combine remote sensing biomass maps with permanent forest inventory plots measuring tree diameter and height to estimate biomass and carbon. Data sources include LIDAR or radar biomass maps. Remeasure plots every 3-5 years, but update landscape estimates annually using satellite data.

Data presentation: Use a line graph to show increases or decreases over time. Use a bar chart to compare different areas or ecosystems. Use a stacked chart to compare carbon stored in trees and soil.

Indicator 3: Biodiversity (number of tree and wildlife species)

Description: Species diversity refers to the variety and relative abundance of species in a specific place. This indicator is expressed as the number of tree and wildlife species recorded in the Model Forest. It provides data reflecting wider biodiversity and ecosystem health. It also reflects cultural and aesthetic values of nature and supports policy goals for conservation of biological diversity.

Basic measurement: Simple inventories of tree diversity and participatory monitoring of wildlife can provide basic data. For trees, MFIF users can identify the number of species within and across several permanent plots. For wildlife, MFIF users can develop a list of all observed species or select specific indicator species – such as hornbills or primates – and record which are present in the monitoring period. Potential data sources include ranger/community logs, protected area records or local surveys.

More advanced measurement: Use systematic monitoring methods, such as camera traps, acoustic sensors, environmental DNA sampling or structured vegetation plots. Calculate standardized biodiversity indices, such as the Shannon Index, which accounts for both species richness (total number of species) and evenness (relative abundance). Partnerships with research institutions and conservation nongovernmental organizations can support data collection.

Data presentation: Develop a comprehensive species inventory, ideally in a structured format such as a species list with occurrence data. Use line graphs to show changes in biodiversity over time. Use maps with geolocated data to indicate where in the landscape different species are found.

Pillar 2: Governance

Indicator 4: Proportion of women in the governance body (%)

Description: The proportion of members of the Model Forest's committee or governing body who are women, expressed as a percentage. This indicator measures inclusiveness and gender representation in governance structures and decision-making processes.

A higher percentage of women in the committee indicates greater gender diversity and inclusion of women's perspectives, knowledge and priorities in forest management decisions. Tracking this indicator helps ensure that women have equal opportunities to participate in shaping policies, programs and activities related to sustainable forest management, promoting gender equality and empowering women as key stakeholders in conservation and development efforts within Model Forests.

Basic measurement: Review committee membership records annually and calculate the percentage of women members. Record the proportion of leadership positions occupied by women separately.

Advanced measurement: Also assess women's influence in decision-making by monitoring participation rates, using meeting minutes and surveying members about their perceptions of women's influence.

Data presentation: Use pie charts or bar charts to show the percentage of Model Forest committee members who are women. Use line graphs to show changes in this proportion over time.

Indicator 5: Frequency and quality of interagency coordination (number and rating)

Description: This indicator measures the number and effectiveness of coordination meetings or joint actions between relevant government agencies, organizations or private sector entities. It is expressed as the number of events per year, which can be combined with a qualitative score. This indicator helps assess the extent to which interagency coordination contributes to successful implementation of forest management initiatives and the achievement of sustainable outcomes.

Basic measurement: Record the number of coordination meetings or joint actions that take place each year. Data sources include meeting records and memoranda of understanding. Recording attendance and agenda topics can provide insights into the quality of interagency coordination.

More advanced measurement: Include qualitative assessments of the effectiveness of coordination by using a standardized scoring system to evaluate joint initiatives, policy alignment and implementation outcomes. Data sources include interviews with stakeholders and program reports.

Data presentation: Use a bar chart to show the number of meetings or joint actions per year. A simple scoring chart can show coordination quality.

Indicator 6: Community-based natural resource management (number of initiatives/groups)

Description: The total number of active community-led natural resource management initiatives operating within the Model Forest landscape, expressed as a count of initiatives. These initiatives typically involve active participation and leadership from community members in activities such as forest conservation, watershed protection, sustainable agriculture, biodiversity monitoring and alternative livelihood development.

This indicator reflects community engagement in sustainable resource management and highlights the diversity and scope of locally driven actions. Tracking this indicator provides insights into the extent of community empowerment, capacity building and ownership of natural resources, as well as the overall impact of community-based approaches on environmental sustainability and local livelihoods within the Model Forest context.

Basic measurement: Maintain a registry of community-based initiatives, listing the community groups managing forests and other resources, and count the total every year. Update the list each year to track new or inactive initiatives. Data sources include local government records and nongovernmental organizations.

More advanced measurement: Also evaluate scale and effectiveness. Assess the individual and total areas that communities manage, participation rates and, where possible, any social, environmental and economic outcomes. Data sources include community monitoring reports. Participatory tools can be used to collect qualitative data.

Data presentation: Use a line graph to show growth over time. A bar chart can group initiatives by type.

Pillar 3: Production

Indicator 7: Certification coverage (% of Model Forest)

Description: The proportion of the total area of a model forest that has been certified according to recognized sustainability standards, expressed as a percentage. Certification typically involves third-party assessment and verification of agricultural or forest management practices against established criteria for environmental, social and economic sustainability. Examples of standards include Forest Stewardship Council (FSC), Programme for the Endorsement of Forest Certification (PEFC) and Roundtable on Sustainable Palm Oil (RSPO).

This metric provides an indication of the commitment to responsible management within the Model Forest area and demonstrates compliance with internationally recognized sustainability principles. Tracking this indicator helps assess progress towards sustainable agriculture and forest management goals. It enhances credibility and market access for products originating from certified areas within the model forest.

Basic measurement: Calculate the certified area using records from certification schemes and forest managers. Distinguish between forest certification and agricultural certification.

Advanced measurement: Analyze audit results and compliance trends to assess certification performance and improvements. Also track suspensions, corrective actions and improvements.

Data presentation: Use a pie chart to compare certified and noncertified areas. Use a line graph to show changes over time in the proportion of the Model Forest that is certified. Maps can show where certification applies.

Indicator 8: Productivity – forest products (tonnes, kg or cubic metres per hectare; USD)

Description: The annual yield of the primary forest commodity – such as timber and nontimber forest products within a specified area. The indicator is expressed as a volume or mass per unit area and/or a US dollar value per unit area. It provides a measure of the economic value of forest management.

Basic measurement: Use harvest records and estimate production areas. Divide total production by the harvested area. For US dollar values, multiply the total quantity of each forest product by its average market price at the point of sale, then divide the total value by the harvested area (USD per hectare). Data sources include forestry department harvest records and community forest records. Separate legal and informal production where possible.

Advanced measurement: Implement forest inventory-based productivity monitoring, tracking output from permanent sample plots, and calculate sustainable yield thresholds.

Data presentation: Use a line graph to show trends over time. Use a bar chart to compare areas. Use maps to show variation in production between different areas.

Indicator 9: Productivity – agricultural products (tonnes or kg per hectare; USD)

Description: The annual yield of the primary agricultural commodity within a specified area. The indicator is expressed as mass per unit area and/or a US dollar value per unit area. It provides a measure of the performance and profitability of agricultural production. It can serve as a proxy for food security and economic sustainability, and can inform changes to agricultural practices.

Basic measurement: Use farmer surveys or harvest records and estimate production areas. Divide total production by the harvested area. For US dollar values, multiply the total quantity of each agricultural product by its average market price at the point of sale, then divide the total value by the harvested area (USD per hectare). Data sources include farmer surveys or agricultural extension records to estimate crop yields.

Advanced measurement: Combine field yield measurements with satellite crop monitoring and productivity modelling. Track yield trends alongside land-use change to gain understanding of potential links between production and deforestation. Data sources include agricultural statistics agencies and satellite crop datasets.

Data presentation: Use a line graph to show trends over time. Use a bar chart to compare areas. Use maps to show variation in production between different areas.

Pillar 4: Human wellbeing

Indicator 10: Human Development Index (0–1)

Description: The Human Development Index (HDI) is a composite index that combines education, health and living standards indicators for communities within the Model Forest landscape. The HDI is expressed as a score from 0 to 1, reflecting overall human wellbeing.

Basic measurement: Use existing subnational HDI scores from sources such as the Global Data Lab² or national statistical agencies, if available. If the Model Forest spans multiple subnational administrative areas, calculate a weighted average HDI score by proportionally combining values based on the share of the Model Forest areas within each administrative unit.

Advanced measurement: Develop local HDI calculations for Model Forest communities by collecting household data on income, years of education and life expectancy proxies. Local HDI can then be computed using methodology from the UN Development Programme.³

Data presentation: Line graphs can show changes in HDI over time. Bar charts can show differences between HDI components (such as health, education or income) and comparisons with national HDI.

Indicator 11: Household income (USD)

Description: This indicator measures average annual income per household within the Model Forest landscape and is expressed as US dollars per year. It tracks economic wellbeing and reflects the livelihood benefits for people in the landscape.

Basic measurement: Conduct simple annual surveys by sampling households across

2 See: <https://globaldatalab.org/shdi/>

3 See: https://hdr.undp.org/sites/default/files/2025_HDR/HDR25_Technical_Notes.pdf

the landscape and recording income sources and estimated earnings. Recording income sources allows MFIF users to track farm-related and forest-related income separately. Secondary sources of relevant data include local administrative records, statistical agencies, development program surveys and farmer group records.

Advanced measurement: Establish household panels that participate in repeated surveys to track changes in income and income sources over time. This will provide insights into income diversification and resilience. Collect gender-disaggregated data.

Data presentation: Use line graphs to show how average incomes change over time. Use text and bar charts to present more detailed information on household income levels, sources of income, household composition and socio-economic characteristics, ideally disaggregated by geographic location, gender and other demographic characteristics.

Indicator 12: Health impacts of land-use practices (number of cases)

Description: This indicator measures the extent to which local land-use practices such as pesticide use, labour intensity or irrigation conditions harm human health, possibly revealing a need for safer and more sustainable practices. The indicator is expressed as the number of affected individuals (farmers per year) or, preferably, as the percentage of the surveyed population.

Basic measurement: Conduct annual household or farmer surveys to capture self-reported symptoms linked to livelihoods – such as respiratory or skin issues from pesticide exposure, injuries or chronic musculoskeletal disorders from heavy labour, or waterborne illnesses linked to poor irrigation management – and compile basic data from local clinics where available.

Advanced measurement: Integrate health surveys using standardized questionnaires with data from local health facilities to track the incidence and prevalence of key conditions over time, disaggregated by gender, age and livelihood type.

Data presentation: Use a line graph to show trends in disease incidence over time. Use a bar chart to compare different types of livelihood-related ill health.

Annex 5. MFIF analysis and action matrix

The matrix below can help MFIF users summarize their analysis and associated actions for each indicator.

	MFIF users to complete
Indicator	
MFIF pillar	
Baseline value (year)	
Current value	
Trend over time (up, down or stable)	
Benchmark (if available)	
Cross-pillar interaction	
Trade-offs or synergies identified	
Stakeholder interpretation	
Priority level (high/medium/low)	
Agreed action	
Responsible actor(s)	
Timeline	
Follow-up monitoring of indicator (if adjusted)	
Notes/data limitations	

Annex 6. Guidance on data analysis

To ensure that the analysis of MFIF data produces decision-relevant insights, Model Forest teams are encouraged to move beyond simply presenting numbers and instead offer interpretations of why the numbers look the way they do and what this means for action. This annex provides guidance – please also refer to Annex 5.

1. Start with the objective, not the indicator

Analysis should be guided by the Model Forest's strategic objectives. Before interpreting any indicator, teams should ask:

- What question are we trying to answer?
- What decision might this information inform?
- Who needs to use this information?

Framing analysis around objectives helps avoid data overload and ensures relevance.

2. Move from description to explanation

For each key trend or change observed, teams should explore:

- What changed?
- Why might this change have occurred?
- Was it influenced by internal interventions, external drivers, or both?
- Is the change likely temporary or structural?

Qualitative information – for example, from stakeholder interviews, field observations or governance processes – can help explain quantitative trends.

3. Evaluate whether observed changes are significant

Not all changes are meaningful. Teams should ask:

- Is the change consistent across multiple cycles?
- Is it large enough to matter in practice?
- Could it be due to measurement inconsistencies?

Consistency in methodology across cycles is often more important than perfection in any single year.

4. Use simple visual tools to reveal patterns

Presenting indicators using simple charts and visual tools can make results easier to understand and compare. Visuals help identify trends, progress, gaps and possible trade-

offs across environmental, social, economic and governance areas. Annex 4 includes suggested ways to present data for each of the MFIF's core indicators

- Wherever possible, MFIF analysis should prioritize trends rather than single-year results. Tracking change over time allows Model Forests to:
- Assess whether conditions are improving, declining or remaining stable.
- Identify early signs of emerging risks or opportunities.
- Understand the effects of interventions, policies or external drivers.

Even when data are imperfect, consistent measurement across cycles enables meaningful trend analysis.

5. Understand interactions across pillars

MFIF is structured around four interconnected pillars: ecosystem, governance, production and human wellbeing. Data analysis should reflect this integrated design. Rather than interpreting indicators in isolation, teams are encouraged to explore how changes in one pillar relate to changes in others.

For example:

- Improvements in governance indicators may help explain positive trends in ecosystem condition.
- Production outcomes may involve trade-offs with ecosystem indicators if sustainability safeguards are weak.
- Human wellbeing outcomes may depend on both governance quality and livelihood resilience.

Cross-pillar analysis often generates the most valuable insights and helps stakeholders move beyond sector-specific thinking.

6. Analyze trade-offs and synergies

Landscape sustainability inevitably involves trade-offs. MFIF analysis should explicitly explore where trade-offs exist, as well as where synergies can be strengthened. Making trade-offs visible supports more informed and transparent decision-making and helps avoid unrealistic expectations of 'win-win' outcomes in all cases.

The MFIF implementation team is encouraged to:

- Identify the drivers of the trade-off.
- Assess whether safeguards were in place.
- Evaluate whether alternative management options exist.

7. Use benchmarks to strengthen interpretation

Where relevant and feasible, MFIF results can be interpreted in relation to national, subnational or regional benchmarks. Benchmarking against existing averages or targets, such as national statistics or regional trends, can:

- Provide context for understanding whether observed values are high or low.
- Strengthen credibility when communicating results externally.
- Support dialogue with government agencies and development partners.

Benchmarking should be used cautiously and transparently, ensuring that differences in scale, definitions and data sources are clearly acknowledged.



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