



Practical Guide to Nature-related Management and Disclosure for China's Central State-owned Enterprises

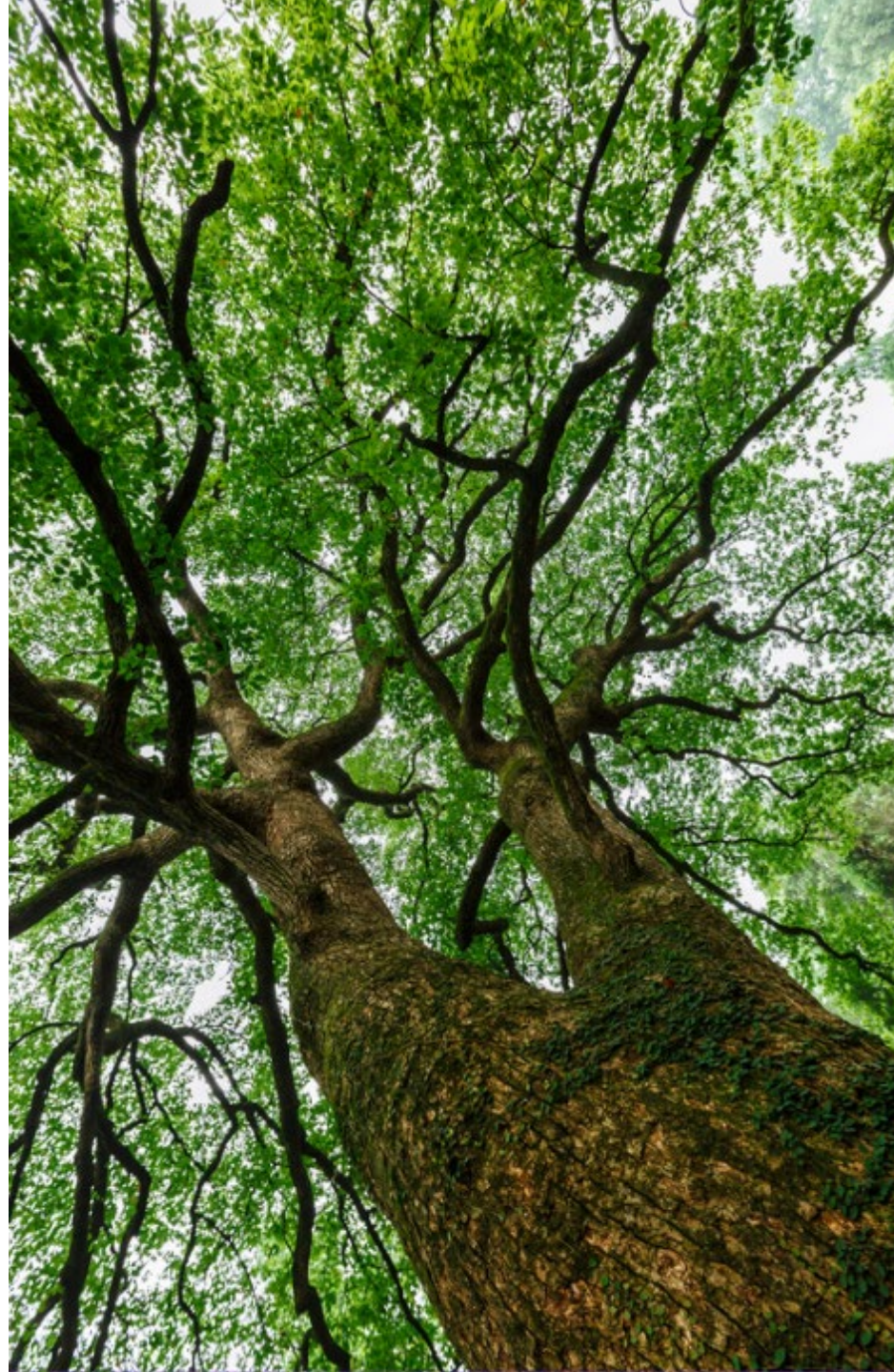
Indicator Framework and Application Guidance (V 1.0)

October 2026



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About This Guide — Purpose and Positioning

As nature and biodiversity become increasingly integrated into corporate sustainability management and disclosure, enterprises need to build on existing environmental and ecological management systems to develop a more systematic understanding of how their activities depend on and affect nature. They also need to strengthen the identification and communication of related risks, opportunities and management performance.

This Practical Guide accompanies the report Advancing Nature-related Management and Disclosure in China's Central State-owned Enterprises: A Framework and Implementation Pathway. Building on relevant Chinese policies and existing management practices within central state-owned enterprises (central SOEs), and drawing selectively on relevant international nature-related frameworks and methodologies, the Guide provides an indicator framework to support practical implementation of nature-related management and disclosure.

The Guide is designed to help enterprises answer three practical questions:

What should be disclosed?

Clarify the information and disclosure expectations associated with each module and indicator.

Where can the relevant information be obtained?

Identify relevant internal management data, external datasets and analytical tools that can support disclosure.

How can disclosure be developed progressively?

Enable enterprises to begin from their current management and data foundations and strengthen disclosure progressively over time.

Accordingly, in addition to the indicator title and disclosure category, each indicator is accompanied, where relevant, by practical guidance on applicability, information to be disclosed, data sources, assessment approaches, presentation, level of detail and transitional arrangements.

This Guide is intended as a practical reference for nature-related management and disclosure by central SOEs. It does not replace applicable laws, regulations, regulatory requirements or sector-specific technical requirements. Enterprises should first comply with applicable domestic laws and regulatory requirements. For overseas operations, relevant host-country laws and regulations, project financing conditions and other applicable requirements should also be considered.

About This Guide — Structure of the Indicator Framework

The indicator framework is organised around four interconnected modules covering the main elements of corporate nature-related management and disclosure.

G – Governance and Accountability

This module focuses on board and management responsibilities, cross-functional coordination, organisational capability, data systems and oversight mechanisms.

Core question: Who is responsible, how is oversight exercised, and how are functions coordinated?

S – Strategy, Dependencies and Impacts

This module focuses on the enterprise's dependencies on and impacts on nature, ecologically sensitive or important areas, value-chain relationships and the implications of nature-related issues for business strategy.

Core question: What does the enterprise depend on from nature, how does it affect nature, and where do these interactions occur?

R – Nature-related Risk and Impact Management

This module focuses on the identification, assessment and management of nature-related risks and impacts and their integration into existing enterprise risk and operational management processes.

Core question: How does the enterprise respond to significant nature-related issues?

M&T – Metrics, Targets and Performance

This module focuses on quantitative information relating to land, water, pollution, ecosystems and biodiversity, together with target setting, monitoring and performance tracking.

Core question: How is nature-related performance measured, tracked and improved?

The four modules are interconnected rather than independent. Governance establishes accountability; Strategy, Dependencies and Impacts identifies what matters and where; Nature-related Risk and Impact Management determines how significant issues are addressed; and Metrics, Targets and Performance provides the basis for tracking progress and continuous improvement.

About This Guide — Disclosure Categories

To reflect differences in existing management capability, data availability and business context, the Guide organises indicators into three disclosure categories.

Core Disclosure

Core Disclosures provide the foundational information recommended under this Guide. They generally build on relevant domestic policy requirements and information or management processes that may already exist within enterprises. Enterprises may determine the appropriate scope and level of detail with reference to their own circumstances, materiality considerations and applicable information-management requirements.

Enhanced Disclosure

Enhanced Disclosures provide greater analytical depth, comparability and decision-usefulness. They are particularly relevant for enterprises with stronger data and management capabilities, greater capital-market information needs, or an intention to further develop their nature-related management and disclosure practices.

Context-specific Disclosure

Context-specific Disclosures are particularly relevant where sector characteristics, overseas operations, high nature-related exposure or other specific business circumstances create additional information needs. Enterprises should determine their applicability according to sector characteristics and actual business circumstances.

**In this Guide, "Core Disclosure" denotes a foundational disclosure recommended under the indicator framework. It does not indicate a statutory or regulatory disclosure obligation unless otherwise specified. The applicable scope and level of detail should be determined with reference to applicable laws and regulations, regulatory requirements, materiality considerations, data availability and information-security requirements.*

About This Guide — How to Use the Guide

The Guide should not be understood as a checklist that every enterprise is expected to complete in full at the outset. Application can be phased according to sector characteristics, business scope, significant nature-related dependencies and impacts, existing management capability and data availability. The initial priority is to establish a basic information and management foundation.

1 Enterprises beginning nature-related disclosure

Enterprises undertaking nature-related disclosure for the first time may begin with governance arrangements, identification of major dependencies and impacts associated with their core businesses, screening of ecologically sensitive or important areas, identification of key nature-related risks, and use of environmental information already available through existing management systems.

2 Enterprises with stronger existing data systems

Enterprises with relatively well-developed environmental-management and data systems can progressively move towards deeper assessment of dependencies, supply-chain analysis, scenario analysis, assessment of financial effects and the establishment of nature-related targets.

3 Nature-sensitive sectors and overseas projects

Enterprises operating in nature-sensitive sectors—including energy, mining, transport infrastructure, agriculture and forestry—or with significant overseas projects should place greater emphasis on relevant Context-specific Disclosures. Application should take account of project location, ecological sensitivity, sector characteristics and value-chain relationships.

4 Integration with existing management systems

Enterprises are encouraged to integrate application of the Guide with existing sustainability reporting, environmental information disclosure, environmental management, enterprise risk management and project-management systems.

Where reliable systems, data and processes already exist, these should be used as the starting point rather than duplicated through a separate nature-related information system.

About This Guide — Application Considerations

Nature-related information is often highly location-specific and may require specialist ecological or spatial analysis. Enterprises should therefore balance transparency with applicable data-security, confidentiality and information-management requirements.

Information involving state secrets, commercial secrets, locations of important infrastructure or other sensitive spatial information should be managed in accordance with applicable laws, regulations and internal corporate requirements. Where information can appropriately be disclosed, enterprises may use aggregation, classification, anonymisation or other suitable approaches to provide meaningful information without disclosing unnecessarily sensitive underlying data.

Some indicators in this Guide refer to external datasets and analytical tools, including ENCORE, WRI Aqueduct, protected-area datasets and Key Biodiversity Area (KBA) data. These tools are intended to support identification and analysis and should not be treated as the only acceptable methodologies or data sources.

Enterprises may select appropriate domestic or international data sources and analytical tools according to data availability, sector characteristics, geographic context and existing management capability.

The Guide considers both impact materiality and financial materiality when determining the significance of nature-related issues, while allowing the depth of assessment to develop progressively according to enterprise context and data availability.

The indicator framework and application guidance should also continue to evolve as Chinese policies, international frameworks, sector practice, scientific methodologies and corporate data capabilities develop.

Indicator Framework at a Glance

The indicator framework comprises four interconnected modules:

Module G Governance and Accountability

Focus: oversight, management responsibilities, cross-functional coordination, capability, data systems and continuous improvement.

Module S Strategy, Dependencies and Impacts

Focus: location, dependencies on ecosystem services, impacts on nature, value-chain considerations and strategic implications.

Module N Nature-related Risk and Impact Management

Focus: Risk identification and assessment, integration with ERM, management responses, supply chains and overseas operations.

Module M&T Metrics, Targets and Performance

Focus: quantitative environmental and ecological information, monitoring, target setting and performance tracking.

The modules follow a common management logic:

Governance establishes who is responsible → Strategy, Dependencies and Impacts identifies what matters and where →

Nature-related Risk and Impact Management determines how the enterprise responds → Metrics, Targets and Performance measures and tracks progress.

Indicator Index: Module G

Code	Indicator	Disclosure category	Page
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G-02	Triggers and frequency for board consideration of nature-related issues	Core	13
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G-05	Nature-related performance metrics and weightings linked to executive remuneration	Enhanced	14
G-06	Nature- or ecology-related indicators included in executive performance assessment	Core	14
G-07	Lead function for nature-related issues and its responsibilities	Core	15
G-08	Cross-functional coordination mechanism for nature-related information	Enhanced	15
G-09	Integration of nature-related review requirements across the project lifecycle	Context-specific	15
G-10	Coverage of nature-related training, including target groups, content and frequency	Enhanced	15
G-11	Use of external specialist support for nature-related management	Enhanced	16
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G-13	Independent verification or assurance of nature-related disclosures	Context-specific	16
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Indicator index: Module S

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S-02	Spatial relationship between overseas operations, protected areas and Key Biodiversity Areas (KBAs)	Context-specific	19
S-03	Identification of ecosystem services on which major business activities depend	Core	19
S-04	Assessment of the degree of dependency on ecosystem services	Enhanced	20
S-05	Identification of significant negative impacts of major business activities on nature	Core	20
S-06	Identification of positive contributions to nature associated with major business activities	Enhanced	20
S-07	Geographic distribution and scale of significant impacts on nature	Enhanced	21
S-08	Management of operations involving ecologically sensitive or important areas	Core	21
S-09	Overview of nature-related dependencies and impacts at priority points in the supply chain	Enhanced	21
S-10	Scenario-analysis methodology and key findings	Enhanced	22
S-11	Implications of significant nature-related dependencies, impacts, risks and opportunities for business strategy and financial planning	Enhanced	22
S-12	Frequency of dependency and impact assessments and significant changes during the reporting period	Core	22
S-13	Community relations and stakeholder engagement associated with overseas projects	Context-specific	23
S-14	Access and benefit-sharing (ABS) relating to genetic resources and associated traditional knowledge	Context-specific	23

Indicator index: Module R

Code	Indicator	Disclosure category	Code
R-01	Methodology for identifying nature-related risks and key risk types identified during the reporting period	Core	25
R-02	Description of significant physical risks, including risk drivers, transmission pathways and affected business areas	Core	25
R-03	Description of significant transition risks, including policy, market and reputational dimensions	Core	25
R-04	Integration of nature-related risks into the enterprise risk management (ERM) framework	Core	26
R-05	Assessment of the financial effects of significant nature-related risks and opportunities	Enhanced	26
R-06	Description of management actions across the SBTN Action Framework (AR3T)	Core	26
R-07	Scale, location and effectiveness of ecological restoration and compensation projects	Core	27
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R-09	Integration of nature-related requirements into supplier assessment processes	Enhanced	27
R-10	Nature-related management standards and implementation for overseas projects	Context-specific	28
R-11	Response, remediation and management improvements following significant nature-related incidents during the reporting period	Enhanced	28
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Indicator index: Module M&T

Code	Indicator	Disclosure category	Page
M-01	Total land area occupied by direct operations (ha), by land-use type	Core	30
M-02	Additional land area occupied during the reporting period (ha)	Core	30
M-03	Land area subject to completed ecological restoration or reclamation during the reporting period (ha)	Core	30
M-04	Operational land area involving ecologically sensitive or important areas	Core	31
M-05	Operational land area within or involving protected areas or Key Biodiversity Areas (KBAs) outside China	Context-specific	31
M-06	Area of habitat conversion resulting from operational activities	Enhanced	31
M-07	Total freshwater withdrawal during the reporting period, by source	Core	32
M-08	Total wastewater discharge and concentrations of key pollutants during the reporting period	Core	32
M-09	Water withdrawal by operations located in areas with high water stress	Enhanced	32
M-10	Wastewater reuse rate	Enhanced	32
M-11	Releases of key hazardous pollutants and their spatial relationship with ecologically sensitive or important areas	Core	33
M-12	Solid waste generated, treatment or disposal methods, and proportion subject to safe treatment or disposal	Core	33
M-13	Number and key consequences of significant nature-related incidents during the reporting period	Core	33
M-14	Assessment of ecosystem condition and priority species status in key operating areas	Enhanced	34
M-15	Overall assessment of biodiversity conservation and nature-related management effectiveness	Enhanced	34
M-16	Procurement volume, sources and sustainable management of raw materials or commodities associated with high nature-related risk	Enhanced	34

Indicator index: Module M&T

Code	Indicator	Disclosure category	Page
T-01	Sources and collection methods for monitoring data used in disclosed indicators	Core	35
T-02	List of quantitative nature-related targets, including target description, baseline year and target year	Core	35
T-03	Methodology and scientific basis used to set nature-related targets	Enhanced	35
T-04	Progress against nature-related targets during the reporting period	Core	36
T-05	Analysis of reasons for unmet targets and explanation of any adjustments	Core	36
T-06	Relationship and synergies between nature-related and climate targets	Enhanced	36

Module G – Governance and Accountability

This module focuses on board and management responsibilities, cross-functional coordination, organisational capability, data systems and oversight mechanisms.

Theme	Indicator (● Core ■ Enhanced ▲ Context-specific)
Board Supervision and Decision-making	G-01 ● G-02 ● G-03 ■ G-04 ■ G-05 ■
Management Execution and Coordination	G-06 ● G-07 ● G-08 ■ G-09 ▲
Capacity Building and Data Foundation	G-10 ■ G-11 ■ G-12 ■
Verification and Continuous Improvement	G-13 ▲ G-14 ● G-15 ●

Module G - Governance and Accountability

Code	Indicator	Category	Disclosure and application guidance
G-01	Formal basis for board or committee oversight of nature-related issues	Core ●	<p>What to disclose: Identify the formal governance document that assigns oversight responsibility for nature-related dependencies, impacts, risks and opportunities to the board or a relevant committee, including the document name, applicable provision and approval date.</p> <p>Data sources: Articles of association, board rules of procedure, committee terms of reference, or ESG/sustainability committee charters.</p> <p>Level of detail: Identify the specific document and provision; a general statement such as “the company has established an ESG committee” is not sufficient.</p> <p>Transitional guidance: If no formal document currently assigns this responsibility, disclose which governance body or management position performs the function, how oversight is exercised, and the planned timeline and lead function for formalising the arrangement.</p>
G-02	Triggers and frequency for board consideration of nature-related issues	Core ●	<p>What to disclose: Describe the main circumstances under which nature-related matters are submitted to the board or a relevant board committee and the arrangements for review.</p> <p>Illustrative triggers: Major investment projects above defined thresholds involving Ecological Conservation Redline (ECRL) or protected areas; significant ecological damage or environmental non-compliance; approval of annual nature-related disclosure; establishment or major revision of nature-related targets; and conclusions from nature-related compliance reviews of significant overseas projects.</p> <p>Frequency: The enterprise is encouraged to review overall progress on nature-related issues at least annually, with significant matters triggering additional review as needed.</p> <p>Level of detail: Trigger conditions should be reflected in internal governance arrangements and, where possible, “significant” thresholds should be defined using quantitative criteria such as investment value or affected area.</p>
G-03	Nature- or ecology-related expertise among board members	Enhanced ■	<p>What to disclose: Report the number and proportion of board members with relevant expertise in areas such as ecology, environmental management, natural-resource management, or climate- and nature-related risk, together with the criteria used to define such expertise. Where relevant expertise is limited, explain how capability gaps are addressed.</p> <p>Possible arrangements: Appointment of external directors with relevant expertise, periodic specialist briefings to the board or committee, or establishment of an expert advisory group.</p> <p>If not applicable: Where no board member currently has relevant professional expertise, disclose this transparently and describe compensating arrangements.</p>

Module G – Governance and Accountability

Code	Indicator	Category	Disclosure and application guidance
G-04	Significant nature-related matters considered by the board during the reporting period	Enhanced ■	<p>What to disclose: List significant nature-related matters formally considered by the board or a relevant committee during the reporting period, including the matter considered, date of review and decision reached, such as approved, conditionally approved or rejected.</p> <p>Illustrative matters: Approval of nature-related disclosures; review of nature-related risk assessments; major investments involving ecologically sensitive areas; establishment or revision of ecological or nature-related targets; and response plans for significant ecological incidents.</p> <p>If no significant matters occurred: State that no nature-related matters requiring board review occurred during the reporting period and explain whether existing trigger mechanisms cover routine circumstances.</p>
G-05	Nature-related performance metrics and weightings linked to executive remuneration	Enhanced ■	<p>What to disclose: Identify nature- or ecology-related performance metrics explicitly linked to annual executive bonuses or long-term incentives, their respective weightings, the governance body responsible for approving the arrangement, and the date of the most recent review.</p> <p>Level of detail: Disclose the specific metric where possible rather than stating only that remuneration includes “green development” considerations.</p> <p>Transitional guidance: If no direct remuneration linkage currently exists, explain whether existing executive performance systems include relevant environmental or ecological components and describe any plan and indicative timeline for introducing nature-related remuneration metrics.</p>
G-06	Nature- or ecology-related indicators included in executive performance assessment	Core ●	<p>What to disclose: Identify existing nature-, ecology- or environment-related indicators included in executive performance assessment, including the assessment dimension—such as compliance, management or outcomes—their weighting, and performance during the reporting period.</p> <p>Integration with existing systems: Enterprises may progressively incorporate indicators associated with significant nature-related dependencies, impacts and risks into existing business-performance, environmental, sustainability or ESG performance-management systems.</p> <p>Level of detail: Disclose key indicators, assessment focus and performance where appropriate. Sensitive internal performance information may be presented in aggregated or qualitative form, but should not be replaced by a purely general statement that nature-related issues are “included in green development assessment”.</p> <p>If not yet included: Describe the closest existing environmental indicators and the planned pathway for introducing more specific nature- or ecology-related measures.</p>

Module G - Governance and Accountability

Code	Indicator	Category	Disclosure and application guidance
G-07	Lead function for nature-related issues and its responsibilities	Core ●	<p>What to disclose: Identify the lead function responsible for coordinating nature-related work at management level and describe its responsibilities for nature-related risk identification and assessment, ecological data collection and management, internal coordination, and preparation of nature-related disclosure. Where no dedicated function exists, identify the function currently performing these responsibilities and the basis for that arrangement.</p> <p>Division of responsibilities: Clarify how responsibilities are divided between the lead function and other relevant functions such as operations, health and safety, legal and compliance, finance and sustainability.</p> <p>Group-level application: For enterprise groups, explain reporting and coordination arrangements between the group-level lead function and relevant functions within subsidiaries.</p>
G-08	Cross-functional coordination mechanism for nature-related information	Enhanced ■	<p>What to disclose: Describe responsibilities across functions involved in nature-related information collection and management, including environmental, engineering, procurement and supply chain, finance, legal and overseas-business functions. Explain how information is consolidated, for example through regular coordination meetings, common data platforms or formal information-reporting processes, and how departments coordinate in the event of significant nature-related incidents.</p> <p>Minimum expectation: Identify at least which functions are responsible for providing information for annual disclosure and the main timetable and process through which information is consolidated.</p>
G-09	Integration of nature-related review requirements across the project lifecycle	Context-specific ▲	<p>Applicability: Particularly relevant to nature-sensitive sectors such as energy, including oil and gas and power, mining, transport infrastructure, agriculture and forestry.</p> <p>What to disclose: Describe the stages of the project lifecycle at which nature-related review is integrated—such as project initiation, feasibility assessment, site selection, design, construction, operations and closure—and the issues and trigger criteria considered at each stage. Explain how review conclusions influence investment and project decisions.</p> <p>Key entry point: Site selection and feasibility assessment are particularly important stages for early identification of nature-related risks.</p> <p>Level of detail: Reference the relevant internal procedure or decision point rather than stating only that environmental assessment is undertaken.</p>
G-10	Coverage of nature-related training, including target groups, content and frequency	Enhanced ■	<p>What to disclose: Describe nature-related training provided during the reporting period, including participant groups such as senior executives, middle management, operational staff, suppliers and board members; key topics such as nature-related disclosure frameworks, ecological-protection regulation, the LEAP approach or site-level biodiversity-impact identification; training format; frequency; and, where available, training coverage.</p> <p>Transitional guidance: During initial implementation, qualitative disclosure of the participant groups and main training content may be sufficient. Enterprises can progressively introduce quantitative coverage metrics as training systems mature.</p>

Module G – Governance and Accountability

Code	Indicator	Category	Disclosure and application guidance
G-11	Use of external specialist support for nature-related management	Enhanced ■	<p>What to disclose: Describe the types of external specialist support used during the reporting period, including specialist consulting organisations with relevant ecological, biodiversity or nature-risk expertise, analytical tools such as ENCORE or WRI Aqueduct, academic partners, or government technical-support organisations. Explain the main purpose of the support, such as supporting LEAP assessment, developing monitoring systems or providing technical review of disclosure. Where applicable, disclose whether an independent third party has been used to technically verify assessment results.</p> <p>Relationship with G-13: G-11 concerns external technical support used to conduct or strengthen assessment; G-13 concerns independent verification or assurance of disclosed information or conclusions.</p>
G-12	Progress in developing systems for nature-related data collection	Enhanced ■	<p>What to disclose: Explain whether a dedicated nature-related data collection and management system or module has been established, the types of data and organisational levels covered, whether it is integrated with existing environmental-management information systems, and the current stage of development, such as planning, pilot operation or full deployment.</p> <p>Data-integration consideration: Describe how data from environmental, production, engineering and other systems are integrated to reduce duplication and inconsistent definitions.</p> <p>Transitional guidance: If no dedicated system exists, explain the current approach to data collection, such as manual records or extraction from existing enterprise systems, and the planned pathway towards more systematic data management.</p>
G-13	Independent verification or assurance of nature-related disclosures	Context-specific ▲	<p>Applicability: Particularly relevant to enterprises with overseas listing or financing needs, significant international capital-market exposure, or other circumstances in which external verification or assurance is relevant.</p> <p>What to disclose: For independent assurance of sustainability information, disclose the assurance provider, assurance scope and level of assurance. Where specialist third-party verification is used for ecological or biodiversity-related technical conclusions, disclose the technical organisation involved, scope of verification and key conclusions.</p> <p>Purpose: Independent verification or assurance can strengthen the reliability and verifiability of disclosed information.</p>

Module G – Governance and Accountability

Code	Indicator	Category	Disclosure and application guidance
G-14	Annual progress and forward plan for nature-related governance capability	Core ●	<p>What to disclose: Describe key progress made during the reporting period in strengthening nature-related governance capability, including organisational changes, development of internal policies or procedures, staff capability building and data-system development. Report progress against the previous year's improvement plan and set out specific priorities for the following year, including indicative timelines and responsible functions.</p> <p>Presentation guidance: A plan-implementation-review structure can be used to demonstrate continuous improvement. In the first year, disclosure may focus on the starting position and the forward plan; from subsequent years, enterprises can provide more systematic annual progress tracking.</p> <p>Relationship with G-10 to G-12: G-10 to G-12 capture specific capability-building actions, while G-14 provides an overall assessment of progress.</p>
G-15	Current status and development plan for nature-related monitoring systems	Core ●	<p>What to disclose: Describe existing site-level monitoring approaches and the operational locations they cover, such as biodiversity and species surveys, habitat-condition assessment, water-quality and water-quantity monitoring, and soil-condition monitoring. Explain data-collection frequency and data-quality controls, major gaps in current monitoring capability and measures used to address those gaps, including remote-sensing or government monitoring data where relevant. Also describe the enterprise's planned development of the monitoring system, including future expansion priorities.</p> <p>Why it matters: Monitoring provides the underlying data foundation for quantitative indicators. The purpose of this indicator is to disclose current capability transparently, not to require immediate comprehensive monitoring coverage.</p> <p>Relationship with T-01: T-01 addresses the data source and collection method for individual quantitative indicators; G-15 addresses monitoring capability at the system level.</p>

Module S – Strategy, Dependencies and Impacts

This module focuses on the enterprise's dependencies on and impacts on nature, ecologically sensitive or important areas, value-chain relationships and the implications of nature-related issues for business strategy.

Theme	Indicator (● Core ■ Enhanced ▲ Context-specific)
Important Ecologically Sensitive Areas	S-01● S-02▲ S-08● S-13▲
Identification and Update of Dependencies and Impacts	S-03● S-04■ S-05● S-06■ S-07■ S-12●
Value Chain and Strategic Analysis	S-09■ S-10■ S-11■ S-14▲

Module S – Strategy, Dependencies and Impacts

Code	Indicator	Category	Disclosure and application guidance
S-01	Identification of operations involving ecologically sensitive or important areas	Core ●	<p>What to disclose: Identify whether the enterprise's operations involve ecologically sensitive or important areas designated under applicable laws, policies or spatial-planning systems, including ECRL areas, protected areas, important wetlands and other relevant areas. Disclose the types of areas involved and the overall nature of the enterprise's interaction with them. Exact coordinates or sensitive spatial information are not required for public disclosure.</p> <p>Identification basis: Existing territorial spatial-planning information, natural-resource approvals, environmental impact assessments and other legally conducted ecological surveys may be used; a separate data system is not required.</p> <p>Presentation guidance: Information may be aggregated by area type, business segment or project category.</p> <p>Advanced application: Where capability allows, enterprises may extend screening beyond legally designated areas to identify priority locations based on biodiversity importance, ecosystem integrity and degradation trends, water stress, and the importance of ecosystem services.</p>
S-02	Spatial relationship between overseas operations, protected areas and Key Biodiversity Areas (KBAs)	Context-specific ▲	<p>Applicability: Central SOEs with operating projects outside China.</p> <p>What to disclose: Describe the spatial relationship between major overseas operating facilities and protected areas and Key Biodiversity Areas (KBAs), together with relevant host-country designations of ecologically sensitive or protected areas. Where relevant, explain differences between host-country classifications and international datasets. Enterprises with projects in biodiversity-sensitive regions should provide additional context on the ecological significance of those locations.</p> <p>Data sources: Protected-area datasets such as the World Database on Protected Areas (WDPA), KBA data, and protected-area information published by relevant host-country authorities. Where IUCN management categories are available, they may be used to describe protected-area management categories.</p> <p>Review frequency: A comprehensive review may be undertaken periodically, with new projects screened during feasibility assessment or an equivalent early project stage.</p>
S-03	Identification of ecosystem services on which major business activities depend	Core ●	<p>What to disclose: Identify which major business activities have significant dependencies on ecosystem services and describe the potential business implications if those services are disrupted or degraded. Ecosystem-service categories: Relevant categories may include provisioning services, such as freshwater and biological materials; regulating and maintenance services, such as water regulation, climate regulation, erosion control and pollination; and cultural services, such as landscape and recreation-related benefits.</p> <p>Assessment approach: Enterprises may use tools such as ENCORE or conduct internal cross-functional assessment of major business processes.</p> <p>Transitional guidance: At an initial stage, qualitative identification is sufficient and quantitative scoring is not required.</p> <p>Presentation guidance: A matrix linking business activities with ecosystem-service categories and indicative dependency levels may be used.</p>

Module S – Strategy, Dependencies and Impacts

Code	Indicator	Category	Disclosure and application guidance
S-04	Assessment of the degree of dependency on ecosystem services	Enhanced ■	<p>What to disclose: Building on S-03, assess the degree of dependency on ecosystem services identified as significant. The assessment may consider the scale of dependency, geographic concentration and the availability and cost of substitutes if the ecosystem service becomes constrained or unavailable.</p> <p>Assessment approach: Enterprises may use ENCORE or comparable tools for an initial sector-level assessment and supplement this with company-specific operational data and relevant domestic spatial and environmental information.</p> <p>Progressive approach: Assessment may develop from qualitative identification, to semi-quantitative high/medium/low ratings, and ultimately to quantitative analysis based on actual operational data. Enterprises should apply a level of analysis proportionate to data availability and management capability.</p>
S-05	Identification of significant negative impacts of major business activities on nature	Core ●	<p>What to disclose: Identify the principal ways in which major business activities negatively affect nature. The assessment may be structured around the five direct drivers of biodiversity loss recognised by IPBES: land- and sea-use change; direct exploitation of organisms; climate change; pollution; and invasive alien species. Where relevant to freshwater systems, changes in freshwater use and ecosystems should also be reflected within the assessment of land- and sea-use change and related pressures.</p> <p>Assessment approach: Sector-specific TNFD guidance, ENCORE or comparable tools may support initial screening.</p> <p>Level of detail: Link each significant impact to the relevant business activity or stage of operations rather than listing impact categories alone.</p> <p>Prioritisation: Enterprises should distinguish significant impacts requiring more detailed management and disclosure from less significant impacts that may be described qualitatively.</p>
S-06	Identification of positive contributions to nature associated with major business activities	Enhanced ■	<p>What to disclose: Identify activities associated with positive contributions to nature, such as voluntary ecological restoration beyond legal requirements, nature-sensitive operational practices, habitat or species-protection measures, nature-related supply-chain initiatives, or participation in government-led ecological protection programmes.</p> <p>Presentation guidance: Positive contributions should be reported separately from significant negative impacts and should not be used automatically to offset or obscure those impacts. Enterprises should separately explain significant negative impacts and the associated avoidance, reduction and restoration measures.</p> <p>Relationship with R-07: R-07 focuses on the scale, location and effectiveness of restoration and compensation projects as management responses, while S-06 identifies positive contributions from a strategic perspective. Related information should remain consistent across the two indicators.</p>

Module S – Strategy, Dependencies and Impacts

Code	Indicator	Category	Disclosure and application guidance
S-07	Geographic distribution and scale of significant impacts on nature	Enhanced ■	<p>What to disclose: For significant negative impacts identified under S-05, provide information on geographic distribution and scale. This may include the relevant province, municipality, watershed or ecological functional area; affected land area, water-body extent or other appropriate scale indicators; and the ecosystem types and protection status of affected areas.</p> <p>Data sources: Environmental impact assessments, land-management records, geospatial analysis, hydrological assessments, remote-sensing information, national land surveys and data from relevant ecological and environmental authorities. Relationship with the M series: M-01 to M-06 provide aggregated quantitative metrics, while S-07 provides greater geographic and contextual detail on significant impacts.</p>
S-08	Management of operations involving ecologically sensitive or important areas	Core ●	<p>Applicability: Enterprises with operating facilities or projects involving ecologically sensitive or important areas in China or overseas.</p> <p>What to disclose: Describe the overall extent to which operations involve areas such as ECRL areas, protected areas, important wetlands or comparable host-country designations; the avoidance, mitigation, ecological protection and restoration measures applied; significant ecological or environmental non-compliance during the reporting period and associated remediation; and nature-related risk identification and management arrangements for projects under construction or development.</p> <p>Management basis: Explain the internal procedures and information used to identify relevant areas. Overseas projects should consider applicable host-country laws, permitting requirements and relevant financing-related environmental and social standards where applicable.</p> <p>If no relevant areas are involved: Explain the screening approach, basis and conclusion.</p> <p>Disclosure boundary: The indicator focuses on whether appropriate identification and management mechanisms are in place and does not require disclosure of sensitive coordinates or detailed spatial data.</p>
S-09	Overview of nature-related dependencies and impacts at priority points in the supply chain	Enhanced ■	<p>What to disclose: Identify supplier categories or supply-chain stages where nature-related dependencies and impacts are potentially concentrated. This may include raw materials associated with high nature-related risk, sourcing from ecologically sensitive or biodiversity-important regions, and significant land, water or pollution pressures associated with major supplier categories. Explain whether nature-related information requirements have begun to be incorporated into supplier codes, contractual requirements or other supplier-management processes.</p> <p>Transitional guidance: Initial assessment may focus on a limited number of priority first-tier supplier categories, such as the largest five to ten procurement categories, rather than the entire supply chain.</p> <p>Relationship with R-08 and R-09: S-09 identifies where significant supply-chain dependencies and impacts may occur; R-08 and R-09 address how those risks are subsequently managed.</p>

Module S - Strategy, Dependencies and Impacts

Code	Indicator	Category	Disclosure and application guidance
S-10	Scenario-analysis methodology and key findings	Enhanced ■	<p>What to disclose: Describe the scenario framework used, the principal assumptions underlying the scenarios, the time horizons considered and the main implications identified for the enterprise's business activities. Scenarios may consider factors such as tighter ecological regulation or accelerated degradation of important ecosystem services.</p> <p>Assessment approach: Enterprises are encouraged to use more than one differentiated scenario where capability allows. Transitional guidance: At an early stage, a focused sensitivity analysis of a critical ecosystem-service dependency may be used instead of a comprehensive scenario exercise. The analysis should explain how disruption to the selected dependency could affect relevant operations and financial effects and what response measures are available.</p> <p>Application consideration: Nature-related scenario analysis should reflect nature-specific drivers, spatial characteristics and transmission pathways rather than simply reproducing a climate-scenario template.</p>
S-11	Implications of significant nature-related dependencies, impacts, risks and opportunities for business strategy and financial planning	Enhanced ■	<p>What to disclose: Explain whether significant dependencies, impacts, risks and opportunities identified through the preceding indicators are considered in business strategy and financial planning. This may include their incorporation into medium- and long-term strategic planning, changes to project location, business structure or investment plans, and implications for capital expenditure, operating expenditure or other financial assumptions.</p> <p>If not yet integrated: Disclose the current position and the intended pathway and timeline for incorporating nature-related considerations into strategic and financial planning.</p>
S-12	Frequency of dependency and impact assessments and significant changes during the reporting period	Core ●	<p>What to disclose: State how frequently nature-related dependencies and impacts are reassessed and describe significant changes in assessment results during the reporting period, including newly identified significant dependencies or impacts and changes arising from new projects, business restructuring, changes in ecological conditions or relevant policy developments. Describe any events that trigger an ad hoc reassessment.</p> <p>Governance and methodology: Identify the function responsible for updating the assessment, the methodology used and how changes are reflected in current-year management and disclosure. The assessment should be updated sufficiently frequently to remain decision-useful rather than treated as a one-off exercise.</p>

Module S - Strategy, Dependencies and Impacts

Code	Indicator	Category	Disclosure and application guidance
S-13	Community relations and stakeholder engagement associated with overseas projects	Context-specific ▲	<p>Applicability: Central SOEs with overseas projects, particularly those operating in areas where projects may affect local or Indigenous communities and their relationships with land, natural resources or ecosystems.</p> <p>What to disclose: Describe formal engagement mechanisms with local communities; grievance and complaints mechanisms; responsibility for community relations; significant community concerns relating to ecological impacts and how they were addressed; and significant community-related risk events during the reporting period. Where projects may affect Indigenous Peoples, their traditional lands, natural resources or cultural heritage, explain whether Free, Prior and Informed Consent (FPIC) requirements are applicable and, where applicable, the status of the process.</p> <p>Application basis: FPIC should be considered with reference to applicable host-country law, project financing conditions and relevant international environmental and social standards. For example, IFC Performance Standard 7 establishes FPIC requirements in specified circumstances.</p>
S-14	Access and benefit-sharing (ABS) relating to genetic resources and associated traditional knowledge	Context-specific ▲	<p>Applicability: Enterprises that access or utilise genetic resources or traditional knowledge associated with genetic resources in research, production, product development or other business activities, including relevant biotechnology, pharmaceutical, seed, agriculture, forestry and food-related businesses.</p> <p>What to disclose: Explain whether and how the enterprise accesses or uses genetic resources or associated traditional knowledge; the main business activities involved; applicable approval, registration or other compliance procedures; and, where relevant, arrangements for Prior Informed Consent (PIC), Mutually Agreed Terms (MAT) and benefit-sharing. Disclose significant disputes, complaints or compliance incidents during the reporting period where applicable.</p> <p>Benefit-sharing: Benefits may be monetary or non-monetary and may include licence fees, revenue sharing, technology transfer, capacity building, joint research or sharing of research outcomes. Specific arrangements should follow applicable laws, contractual terms and requirements of the resource provider.</p>

Module R – Nature-related Risk and Impact Management

This module focuses on the identification, assessment and management of nature-related risks and impacts and their integration into existing enterprise risk and operational management processes.

Theme	Indicator (● Core ■ Enhanced ▲ Context-specific)
Risk Identification and Assessment	R-01● R-02● R-03● R-05■
Risk Response and Management Integration	R-04● R-06● R-07● R-11■ R-12■
Supply Chain and Overseas Projects	R-08■ R-09■ R-10▲

Module R - Nature-related Risk and Impact Management

Code	Indicator	Category	Disclosure and application guidance
R-01	Methodology for identifying nature-related risks and key risk types identified during the reporting period	Core ●	<p>What to disclose: Describe the methods used to identify nature-related risks, such as the TNFD LEAP approach, dependency assessment using ENCORE, expert workshops or scenario analysis. Report the principal nature-related risks identified during the reporting period, distinguishing physical, transition and systemic risks, and describe the scope of the assessment, such as direct operations, supply chain and overseas projects, together with the functions involved.</p> <p>Risk categories: Physical risks arise from changes in ecosystem condition or ecosystem-service provision; transition risks arise from policy, market, reputational or other changes associated with efforts to address nature loss and biodiversity decline; systemic risks may arise where large-scale ecosystem disruption is transmitted through supply chains, markets or wider economic systems.</p> <p>Level of detail: For each major risk type, explain the underlying source and the business activities or areas potentially affected rather than listing risk categories alone.</p>
R-02	Description of significant physical risks, including risk drivers, transmission pathways and affected business areas	Core ●	<p>What to disclose: For each significant physical risk, describe: (1) the risk driver, including the ecosystem or ecosystem service that is degraded or potentially at risk; (2) the transmission pathway through which ecological change may affect the enterprise; (3) the business activities, facilities or business lines potentially affected; (4) the relevant time horizon; and (5) existing management responses and remaining risk exposure.</p> <p>Illustrative transmission pathway: Declining groundwater availability → higher water-supply costs and reduced water availability → disruption to water-dependent operations.</p> <p>Materiality consideration: Focus on risks assessed as significant under the enterprise's applicable assessment process. If no significant physical risks are identified, disclose the basis for that conclusion rather than leaving the indicator blank.</p>
R-03	Description of significant transition risks, including policy, market and reputational dimensions	Core ●	<p>What to disclose: Describe significant transition risks across relevant dimensions.</p> <p>Policy: Changes in ecological or environmental policies and requirements that may affect operating conditions, project approvals or compliance costs.</p> <p>Market: Changes in investor, lender, customer or market expectations that may affect access to capital, financing conditions or market opportunities.</p> <p>Reputation: Potential impacts arising from significant ecological incidents, public scrutiny, community concerns or stakeholder responses.</p> <p>Level of detail: For each relevant dimension, identify the specific source of risk and the potential implications for the enterprise rather than stating only that a general policy, market or reputational risk exists.</p>

Module R - Nature-related Risk and Impact Management

Code	Indicator	Category	Disclosure and application guidance
R-04	Integration of nature-related risks into the enterprise risk management (ERM) framework	Core ●	<p>What to disclose: Explain whether nature-related risks are included within the enterprise's regular risk-identification process; how they are classified and recorded within the risk register; how frequently they are reviewed; whether assessment results are reported to the risk committee, audit committee or other relevant governance body; and how nature-related risks are integrated into the existing ERM framework.</p> <p>Integration approach: Nature-related risks should, where practicable, be incorporated into existing risk-identification, assessment, monitoring and escalation processes rather than managed through an entirely separate parallel system.</p> <p>Transitional guidance: If integration has not yet been completed, describe the extent to which the existing ERM system currently captures nature-related risks and the planned timeline and responsible function for further integration.</p>
R-05	Assessment of the financial effects of significant nature-related risks and opportunities	Enhanced ■	<p>What to disclose: For significant risks and opportunities identified through R-02 and R-03, provide qualitative, semi-quantitative or quantitative assessment of potential financial effects where feasible. Relevant effects may include changes in compliance costs, operational losses, asset impairment or stranded-asset exposure, financing costs, capital expenditure or other financial implications.</p> <p>Transitional guidance: At an early stage, precise monetary quantification is not required. Enterprises may use qualitative or semi-quantitative assessments such as high, medium or low financial-effect ranges, provided the basis for the assessment is explained. More quantitative estimates can be introduced progressively as data and modelling capabilities improve.</p> <p>Data sources: Relevant inputs may include historical compliance costs, operational data, previous disruption events, asset-level information and comparable project or asset assessments.</p>
R-06	Description of management actions across the SBTN Action Framework (AR3T)	Core ●	<p>What to disclose: Describe relevant management actions with reference to the SBTN Action Framework (AR3T): Avoid – actions that prevent impacts before they occur, such as changing project location or design to avoid ecologically sensitive areas; Reduce – measures that minimise impacts that cannot be fully avoided, such as reducing land disturbance or water use; Regenerate – actions that improve ecological functions or conditions within managed systems; Restore – actions to support recovery of degraded ecosystems or habitats; and Transform – longer-term actions that contribute to broader changes in business models, management practices or sector approaches.</p> <p>Application consideration: Enterprises should give particular attention to avoidance and reduction, rather than focusing predominantly on restoration or compensation after impacts have occurred.</p>

Module R - Nature-related Risk and Impact Management

Code	Indicator	Category	Disclosure and application guidance
R-07	Scale, location and effectiveness of ecological restoration and compensation projects	Core ●	<p>What to disclose: Provide information on major ecological restoration or compensation projects undertaken during the reporting period, including project name, location, type of intervention, area or scale, implementation period, restoration objectives and applicable completion or acceptance criteria. For completed projects, disclose available information on effectiveness or ecological outcomes. Where relevant, also disclose the overall level of investment during the reporting period.</p> <p>Project categories: Distinguish, where applicable, between legally required ecological restoration or compensation, enterprise participation in government-led ecological protection programmes, and voluntary restoration activities undertaken beyond minimum legal requirements.</p> <p>Data quality: Where an independent third-party effectiveness assessment is available, identify the assessment provider. Otherwise, explain the source and collection method for the reported performance information.</p>
R-08	Identification of areas of high nature-related risk among major supplier categories	Enhanced ■	<p>What to disclose: Identify supplier categories or procurement areas associated with relatively high nature-related risk. Consider factors such as the geographic distribution of suppliers, sourcing from biodiversity-important or ecologically sensitive areas, the nature-related characteristics of key raw materials, and significant land-use, water-use or pollution pressures associated with supplier production processes.</p> <p>Transitional guidance: Initial assessment may focus on a limited number of major first-tier supplier categories, such as the ten largest procurement categories, and may begin with qualitative screening rather than full supply-chain coverage.</p> <p>Assessment tools: Relevant commodity, forestry, fisheries or other sector-specific datasets may be used where appropriate to support screening.</p>
R-09	Integration of nature-related requirements into supplier assessment processes	Enhanced ■	<p>What to disclose: Explain whether nature-related requirements have been incorporated into supplier onboarding, annual assessment, audits or other supplier-management processes. Describe the nature-related criteria used, their coverage, whether relevant requirements are incorporated into procurement contracts or supplier codes, and the frequency and form of follow-up for suppliers identified as higher risk.</p> <p>Transitional guidance: At an initial stage, enterprises may introduce general nature- and biodiversity-related expectations into supplier codes of conduct and conduct targeted review of newly identified higher-risk suppliers, rather than immediately applying quantitative assessment to all suppliers.</p>

Module R – Nature-related Risk and Impact Management

Code	Indicator	Category	Disclosure and application guidance
R-10	Nature-related management standards and implementation for overseas projects	Context-specific ▲	<p>Applicability: Central SOEs with projects or operations outside China.</p> <p>What to disclose: Describe the nature-related requirements, environmental and social standards, or disclosure frameworks applicable to major overseas projects in addition to host-country environmental requirements. These may arise from project financing arrangements, lender requirements or enterprise-level management frameworks. Explain how applicable requirements are implemented and disclose significant nature-related compliance events during the reporting period where relevant.</p> <p>Application hierarchy: Consider, as applicable: (1) host-country laws, regulations and permitting requirements; (2) environmental and social standards incorporated into financing or investment agreements, such as relevant IFC Performance Standards, the Equator Principles or other lender requirements; and (3) enterprise-level nature-related management and disclosure frameworks.</p>
R-11	Response, remediation and management improvements following significant nature-related incidents during the reporting period	Enhanced ■	<p>What to disclose: For significant nature-related incidents during the reporting period, describe the nature of the incident and relevant risk type; the enterprise's reporting, emergency response and risk-control measures; responsible functions and remediation requirements; progress in corrective actions; whether the incident triggered changes to risk assessment, internal controls, project management or other procedures; and any longer-term management improvements introduced in response to identified weaknesses.</p> <p>Significance: Enterprises may determine significance with reference to regulatory determinations, applicable significant-event disclosure requirements, actual ecological and operational effects, and internal risk-management thresholds.</p> <p>Relationship with M-13: R-11 focuses on response, remediation and management improvement, while M-13 reports quantitative information such as incident numbers and available information on ecological consequences.</p>
R-12	Annual review of the nature-related risk-management mechanism	Enhanced ■	<p>What to disclose: Describe any review of the nature-related risk-management mechanism undertaken during the reporting period, including the reviewing body, such as internal audit, a risk-management committee or an external assessor; the scope of the review; key findings or recommendations; and actions taken in response.</p> <p>Minimum expectation: If a formal annual review mechanism has not yet been established, disclose the current approach and the intended timeline and responsible function for introducing a more systematic review process. Ongoing monitoring alone should not be presented as equivalent to a documented periodic review.</p>

Module M&T – Metrics, Targets and Performance

This module focuses on quantitative information relating to land, water, pollution, ecosystem condition and biodiversity, together with data quality, target setting and performance tracking.

Theme	Indicator (● Core ■ Enhanced ▲ Context-specific)
Land and Ecosystems	M-01 ● M-02 ● M-03 ● M-04 ● M-05 ▲ M-06 ■ M-14 ■ M-15 ■ M-16 ■
Water Resources	M-07 ● M-08 ● M-09 ■ M-10 ■
Pollutants and Waste	M-11 ● M-12 ● M-13 ●
Target Setting and Tracking	T-01 ● T-02 ● T-03 ■ T-04 ● T-05 ● T-06 ■

Module M&T - Metrics, Targets and Performance

Code	Indicator	Category	Disclosure and application guidance
M-01	Total land area occupied by direct operations (ha), by land-use type	Core ●	<p>Unit: Hectares (ha), reported to one decimal place.</p> <p>Measurement boundary: Report on a consolidated group basis and include land occupied by production facilities under direct operation, whether owned or held under long-term lease. Exclude projects under construction and land held but not in actual operational use. Existing land-management records may be used; a separate data-collection system is not required.</p> <p>Land-use classification: Categories may include forest, wetland, grassland, water bodies, agricultural land and built-up land, supplemented where appropriate by ecosystem type.</p> <p>Data sources: Land-management records, natural-resource approvals, environmental impact assessment documentation and other relevant management records. Where estimates are used, disclose the basis and coverage.</p> <p>Relationship with M-04: Land involving ecologically sensitive or important areas should be further explained under M-04 using a consistent measurement boundary.</p>
M-02	Additional land area occupied during the reporting period (ha)	Core ●	<p>Unit: Hectares (ha), reported to one decimal place.</p> <p>Measurement boundary: Include additional land occupied during the reporting period as a result of new project construction, operational expansion, new leases or similar activities. Distinguish permanent occupation from temporary occupation associated with construction or other time-limited activities.</p> <p>Data sources: Construction and project-management records, land-use approvals and other relevant records. Where no dedicated record exists, enterprises are encouraged to establish an annual incremental land-use record.</p> <p>Relationship with M-03: M-02 measures additional land occupation, while M-03 measures land for which ecological restoration or reclamation has been completed during the same period. The two should be considered together when assessing land-use and restoration trends.</p>
M-03	Land area subject to completed ecological restoration or reclamation during the reporting period (ha)	Core ●	<p>Unit: Hectares (ha), reported to one decimal place.</p> <p>Restoration types: Distinguish, where relevant, mine-land reclamation, vegetation restoration, wetland restoration and biodiversity-oriented restoration that seeks to restore species diversity or ecological functions beyond conventional revegetation.</p> <p>Restoration standard: Explain the acceptance or completion criteria applied, including applicable national or local technical requirements or enterprise-specific standards, and whether completion has been confirmed by a competent authority or third party.</p> <p>Definition of completion: Where possible, treat restoration as completed when relevant acceptance or verification has been achieved rather than solely when engineering works have ended. Projects not yet completed should be reported as ongoing restoration activities and may be further described under R-07.</p>

Module M&T - Metrics, Targets and Performance

Code	Indicator	Category	Disclosure and application guidance
M-04	Operational land area involving ecologically sensitive or important areas	Core ●	<p>Unit: Hectares (ha), reported to one decimal place. Where no relevant land is identified, report zero together with an explanation of the screening basis.</p> <p>Measurement boundary: Include directly operated land involving ecologically sensitive or important areas designated under applicable laws, policies or management systems, including ECRL areas, protected areas and important wetlands. For overseas operations, comparable legally designated areas under host-country systems may be used.</p> <p>Identification basis: Territorial spatial planning, natural-resource approvals, environmental impact assessments, legally conducted ecological surveys or other authoritative information.</p> <p>Data sources: Existing land-management records, approval documentation, environmental impact assessments and relevant specialist studies.</p> <p>If the result is zero: Explain the screening procedure and basis used to reach that conclusion.</p>
M-05	Operational land area within or involving protected areas or Key Biodiversity Areas (KBAs) outside China	Context-specific ▲	<p>Applicability: Central SOEs with operations outside China.</p> <p>Unit: Hectares (ha), reported to one decimal place.</p> <p>Measurement boundary: Report the land area of overseas operations located within or overlapping protected areas or KBAs. Protected-area management categories may be reported separately where relevant, and overlapping classifications should be identified to avoid double counting.</p> <p>Data sources: Protected-area datasets such as the World Database on Protected Areas (WDPA), KBA data and relevant host-country datasets. Record the date of data extraction because spatial datasets may be updated over time.</p> <p>Assessment approach: Overlay operating-site geospatial information with relevant protected-area and KBA datasets. Where precise coordinates are not initially available, regional screening may be used as a first step before more detailed assessment of priority sites.</p>
M-06	Area of habitat conversion resulting from operational activities	Enhanced ■	<p>Unit: Hectares (ha). Disclose the direction of conversion where relevant.</p> <p>Typical conversion types: Conversion of natural forest to industrial or mining land; natural wetland to built-up land; grassland or shrubland to agricultural or plantation use; or modification of natural river systems into artificial channels or reservoirs.</p> <p>Data sources: Pre- and post-project land-cover or vegetation imagery, environmental impact assessments and project-completion environmental documentation.</p> <p>Relationship with M-02: M-02 measures additional land occupation, whereas M-06 focuses specifically on conversion of natural or semi-natural habitats. Where the two overlap, explain the relationship to avoid double interpretation.</p>

Module M&T - Metrics, Targets and Performance

Code	Indicator	Category	Disclosure and application guidance
M-07	Total freshwater withdrawal during the reporting period, by source	Core ●	<p>Unit: 10,000 m³, reported to one decimal place.</p> <p>Water-source categories: Surface water; groundwater; municipal or piped water supply; harvested rainwater.</p> <p>Measurement boundary: Report on a consolidated group basis across direct operations. Existing environmental or water-management reporting may be used where measurement boundaries are consistent.</p> <p>Data sources: Water-management records, environmental reporting systems and other existing operational data.</p> <p>Additional context: Enterprises are encouraged to provide information on water stress for major water-consuming facilities or watersheds as context for M-09.</p>
M-08	Total wastewater discharge and concentrations of key pollutants during the reporting period	Core ●	<p>Unit: Wastewater discharge in 10,000 m³; pollutant concentrations in mg/L, together with applicable discharge limits.</p> <p>Measurement boundary: Report total wastewater discharged from direct operations through all applicable discharge routes, using a clearly defined and consistently applied boundary. Exclude wastewater treated and reused internally, which should be reported separately under M-10.</p> <p>Key pollutants: Report pollutants relevant to applicable environmental requirements and sector characteristics. These may include chemical oxygen demand (COD), ammonia nitrogen, total phosphorus and total nitrogen, as well as relevant heavy metals or sector-specific pollutants.</p> <p>Ecological context: Where appropriate, explain the environmental function or sensitivity of receiving water bodies, including whether they relate to drinking-water sources, important fisheries waters, protected areas or other ecologically sensitive locations.</p>
M-09	Water withdrawal by operations located in areas with high water stress	Enhanced ■	<p>Unit: 10,000 m³ and proportion of total water withdrawal reported under M-07.</p> <p>Definition of high water stress: Enterprises may use WRI Aqueduct or applicable Chinese water-resource assessment or management information. Where WRI Aqueduct is used, high and extremely high Baseline Water Stress categories may be applied. Assessment approach: Overlay operating-site locations with relevant water-stress datasets and aggregate withdrawal from facilities located in higher-stress areas.</p> <p>Interpretation: Geographic context is important because the same volume of water withdrawal may have substantially different implications depending on local water availability and ecosystem conditions.</p>
M-10	Wastewater reuse rate	Enhanced ■	<p>Unit: Percentage (%).</p> <p>Calculation: $\text{Wastewater reused} \div (\text{wastewater discharged} + \text{wastewater reused}) \times 100\%$.</p> <p>Measurement boundary: Report on a consolidated group basis. Reuse should refer to wastewater treated and reused within the facility or enterprise, such as reuse in cooling or other operational processes. Water subsequently reused by municipal systems after discharge is excluded.</p> <p>Data sources: Operational records for recycling and reuse systems and, where available, water-balance assessments.</p> <p>Trend analysis: Where data are available, provide a multi-year trend and explain major drivers of change, such as technology upgrades, water-efficiency measures or changes in production structure.</p>

Module M&T - Metrics, Targets and Performance

Code	Indicator	Category	Disclosure and application guidance
M-11	Releases of key hazardous pollutants and their spatial relationship with ecologically sensitive or important areas	Core ●	<p>Pollutant scope: Determine relevant substances with reference to applicable discharge permits, environmental-disclosure requirements and sector characteristics. These may include heavy metals, persistent organic pollutants and, where applicable, radioactive substances.</p> <p>Release pathways: Distinguish relevant pathways such as releases to water and air, and report quantities released to the environment rather than amounts treated or rendered harmless within the enterprise.</p> <p>Spatial relationship: Identify whether major discharge points or their potential areas of influence involve drinking-water source protection areas, protected areas, important fisheries waters or other ecologically sensitive or important areas.</p> <p>Data sources: Discharge permits, annual compliance reports and enterprise environmental-disclosure information.</p>
M-12	Solid waste generated, treatment or disposal methods, and proportion subject to safe treatment or disposal	Core ●	<p>Unit: Tonnes (t) or 10,000 tonnes, reported consistently.</p> <p>Classification: Distinguish hazardous waste from general industrial solid waste and report total generation, main treatment or disposal methods and relevant safe-treatment or disposal rates.</p> <p>Hazardous waste: Where applicable, disclose management of authorised treatment contractors, waste-transfer records and significant incidents involving illegal transfer or disposal.</p> <p>Nature-related context: For large-volume stored wastes such as mine tailings, fly ash or slag, describe relevant siting, leakage-prevention and surrounding water or soil monitoring arrangements.</p>
M-13	Number and key consequences of significant nature-related incidents during the reporting period	Core ●	<p>Scope: Include significant nature-related incidents identified by competent authorities or under the enterprise's own significant-event criteria. These may include major environmental pollution, ecological damage, non-compliance involving ecologically sensitive areas or other events resulting in significant nature-related impacts.</p> <p>What to disclose: Report the total number of significant incidents, relevant incident categories, events involving administrative penalties, remediation orders or significant litigation, and—where data are available—the scale of impacts on land, water, habitats or species. Also report the number or proportion of incidents for which remediation or ecological restoration has been completed and changes compared with the previous reporting period.</p> <p>Data limitations: Where ecological damage cannot be reliably quantified, provide available qualitative information and explain data limitations rather than producing unsupported estimates.</p> <p>If no incidents occurred: State this explicitly and explain the criteria used to define significant incidents.</p>

Module M&T - Metrics, Targets and Performance

Code	Indicator	Category	Disclosure and application guidance
M-14	Assessment of ecosystem condition and priority species status in key operating areas	Enhanced ■	<p>What to disclose: Provide an overall assessment of ecosystem condition in priority operating areas, particularly facilities located within or adjacent to ecologically sensitive areas. Describe ecosystem type and condition and, where possible, changes relative to a baseline or previous reporting period, such as improvement, stability or degradation, together with principal drivers of change.</p> <p>Data sources: Government or competent-authority data on ecological quality, ecosystem monitoring, biodiversity surveys and protected-area monitoring; enterprise monitoring of vegetation, habitats, aquatic ecosystems or species; and, where necessary, remote sensing, third-party ecological surveys or research. GEP or other ecosystem-service valuation results may provide supplementary context but should not replace assessment of ecosystem condition.</p> <p>Advanced application: Where operations significantly affect species or habitats, disclose relevant priority species, conservation status, habitat condition and trends where data allow.</p>
M-15	Overall assessment of biodiversity conservation and nature-related management effectiveness	Enhanced ■	<p>What to disclose: Draw on quantitative information from M-01 to M-14 and management actions under R-06 to provide an overall assessment of biodiversity conservation and nature-related management performance during the reporting period. The assessment may consider whether key nature-related risks are being effectively managed, whether ecological protection and restoration measures are achieving intended outcomes, whether management systems are improving, and what priorities remain for further improvement.</p> <p>Assessment approach: Support the conclusion with quantitative indicators, management evidence, illustrative cases and third-party assessment where available. Avoid unsupported general statements.</p> <p>Presentation guidance: Qualitative conclusions such as improving, broadly stable or requiring further improvement may be used where they are accompanied by supporting evidence and explanation.</p>
M-16	Procurement volume, sources and sustainable management of raw materials or commodities associated with high nature-related risk	Enhanced ■	<p>Applicability: Enterprises procuring or using raw materials, natural commodities or primary products associated with potentially significant dependencies on or impacts on terrestrial, freshwater or marine ecosystems and biodiversity.</p> <p>What to disclose: For priority high-nature-risk materials or commodities, disclose relevant categories and uses; procurement volume, value or proportion; principal sourcing countries or regions; traceability to suppliers, production locations or project sites; applicable nature-related supplier requirements; use of relevant certification or third-party verification where applicable; and due diligence, remediation, supplier-capability building, sourcing substitution or suspension measures for higher-risk sources.</p> <p>Risk identification: Screening may consider the nature-related characteristics of the commodity, production or extraction impacts, ecological sensitivity of sourcing regions and broader supply-chain risks. Relevant categories may include timber and pulp, natural rubber, selected agricultural and seafood products, and other materials identified as high risk based on sector context. For minerals and energy commodities, location-specific land, water, pollution and ecosystem pressures may inform the assessment.</p>

Module M&T - Metrics, Targets and Performance

Code	Indicator	Category	Disclosure and application guidance
T-01	Sources and collection methods for monitoring data used in disclosed indicators	Core ●	<p>What to disclose: For each quantitative indicator in M-01 to M-16, identify the data source, such as direct site monitoring, third-party testing, government monitoring platforms, remote-sensing data, estimation models or management records; the data-collection frequency; the methodology and key assumptions where estimates are used; and the proportion of operations covered, including any significant coverage gaps.</p> <p>Data traceability: Maintain appropriate records so that reported information can be traced and reviewed internally or externally. Enterprises should retain appropriate underlying records for at least five years to support traceability and review.</p> <p>Presentation guidance: A supporting table may be used to summarise source, frequency, methodology and coverage for each metric.</p> <p>Missing data: Explain the reason for significant data gaps, the planned timeline for improving data availability and any alternative qualitative information used during the transition period.</p>
T-02	List of quantitative nature-related targets, including target description, baseline year and target year	Core ●	<p>What to disclose: For each quantitative nature-related target, report the target description, target type—such as absolute reduction, intensity reduction, coverage or restoration-scale target—the baseline year and baseline value, target year and methodological basis. Targets should be linked where relevant to underlying M-series metrics.</p> <p>If no quantitative targets have yet been established: Explain which areas currently have sufficient data to support target setting, the expected timeline for establishing initial targets and the main barriers, such as data limitations or methodological uncertainty.</p> <p>Transitional guidance: Target setting should be supported by a sufficiently stable monitoring baseline. Enterprises beginning disclosure may initially focus on establishing the necessary data foundation and target-setting plan rather than introducing unsupported quantitative targets.</p>
T-03	Methodology and scientific basis used to set nature-related targets	Enhanced ■	<p>What to disclose: Explain the basis used to establish quantitative targets under T-02, including whether targets draw on relevant scientific methodologies, ecological thresholds, sector practice, national or local ecological objectives, or internal and external expert review.</p> <p>Methodological references: Where applicable, enterprises may draw on SBTN or comparable approaches, while explaining limitations in data availability or methodological applicability in the Chinese context. For significant nature-related impacts, target setting may also consider pressure- and location-based approaches appropriate to the specific issue and geography.</p>

Module M&T - Metrics, Targets and Performance

Code	Indicator	Category	Disclosure and application guidance
T-04	Progress against nature-related targets during the reporting period	Core ●	<p>Applicability: Applies where quantitative targets have been established under T-02. Where no targets have yet been set, report “N/A – target not yet established” and cross-reference the explanation under T-02.</p> <p>What to disclose: For each target, report performance at the end of the reporting period, progress relative to the target pathway, and whether implementation remains on track. Explain the basis for the progress assessment. Where a target has been achieved ahead of schedule, disclose whether the enterprise intends to maintain, revise or strengthen it.</p> <p>Relationship with T-05: T-04 reports progress status; T-05 explains material deviations and resulting corrective or adjustment measures.</p>
T-05	Analysis of reasons for unmet targets and explanation of any adjustments	Core ●	<p>Applicability: Provide detailed explanation for targets that are significantly behind the intended pathway or have not been achieved.</p> <p>Cause analysis: Distinguish, where relevant, between external factors such as policy change, market conditions or natural disasters; internal implementation factors such as resource constraints, technical limitations or weak coordination; and issues relating to the original target assumptions or level of ambition.</p> <p>Target adjustment: Where a target is revised, disclose the revised target and target year, reasons for the change, and whether the adjustment followed the same level of internal approval as the original target. The objective is to provide transparent explanation of performance and corrective action rather than to obscure target deviations.</p>
T-06	Relationship and synergies between nature-related and climate targets	Enhanced ■	<p>What to disclose: Explain significant synergies and potential trade-offs between nature-related targets under T-02 and existing climate targets.</p> <p>Synergies: Examples may include measures that both reduce greenhouse-gas emissions and support biodiversity or reduce pressure on ecosystems, such as certain restoration or water-efficiency measures.</p> <p>Potential trade-offs: Examples may include land-use and biodiversity impacts associated with large-scale renewable-energy infrastructure or biodiversity implications of monoculture afforestation.</p> <p>Avoiding double counting: Where carbon sequestration or ecosystem restoration contributes to both climate and nature-related objectives, explain how performance is accounted for and how double counting is avoided.</p>

Annex: Indicative Phased Implementation Pathway

Core module	Stage 1 – Build the Foundation	Stage 2 – Systematise and Expand	Stage 3 – Deepen and Integrate
G – Governance and Accountability	Establish oversight responsibilities, identify a lead function and set up basic cross-functional coordination.	Strengthen coordination across functions and integrate nature-related responsibilities more consistently into project and management processes.	Embed nature-related oversight into recurring governance processes and strengthen internal controls, capability and assurance where appropriate.
S – Strategy, Dependencies and Impacts	Conduct initial screening of significant dependencies, impacts and priority locations using existing information.	Expand location-based and quantitative assessment, improve understanding of dependencies and impacts, and begin scenario analysis where relevant.	Strengthen quantitative and location-specific analysis and integrate nature-related considerations more directly into strategy and investment decisions.
R – Nature-related Risk and Impact Management	Identify priority nature-related risks and impacts and connect them with existing project and risk-management processes.	Integrate significant nature-related risks more systematically into ERM, strengthen management responses and begin assessment of priority value-chain exposures.	Deepen integration with enterprise risk, strategic planning and investment processes, and expand value-chain and overseas assessment where relevant.
M&T – Metrics, Targets and Performance	Organise existing environmental and project data, identify key gaps and begin with available metrics and largely qualitative disclosure.	Develop more systematic quantitative datasets, establish baselines and introduce an initial set of measurable targets where appropriate.	Strengthen metrics, target methodologies and annual performance tracking, improve data quality and consistency, and introduce assurance where appropriate.

ABOUT EARTH & LIFE SYMBIO

Earth & Life Symbio (E&L) is a Singapore-headquartered organisation working across Asia and partnering globally to advance low-carbon industrial growth, energy transition and nature-positive development. Our mission is to catalyse the transition towards a thriving, climate-resilient world where low-carbon industrial growth, energy transition and nature-positive development advance together. E&L brings together and activates the ecosystem across Asia's manufacturing economies and energy sectors - aligning policy, capital, industry, science and civil society to turn climate and nature ambitions into coordinated action and scalable real-economy impact. Our work spans corporate engagement, investor dialogue, policy-aligned research, and on-the-ground study tours, with a strong emphasis on hard-to-abate industries, biodiversity risk, and nature-positive finance.

PUBLICATION DETAILS

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Editor: Xiaohua Jia

Layout: Shixin Li

Publication date: October 2026

Publisher: Earth & Life Symbio

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***A thriving, climate-resilient Asa where industrial growth
and environmental stewardship advance together.***

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