Shipper Company Green Logistics CATI Index Evaluation Guidelines

Institute of Public & Environmental Affairs (IPE)
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I. Corporate Climate Action Transparency Index (CATI)

During the "14th Five-Year Plan" period, China's ecological civilization entered a critical stage. With a focus on carbon reduction, the country aims to synergize pollution and carbon reduction, facilitate a comprehensive green transformation of economic and social development, and achieve a qualitative improvement in environmental quality. At the same time, an increasing number of multinational companies have made greenhouse gas (GHG) reduction commitments in the post-Paris Agreement era, striving for net-zero emissions across their value chains.

In this context, with technical support from the Chinese Research Academy of Environmental Sciences, IPE upgraded the Supply Chain Climate Action Index (SCTI) developed in 2018 to the Corporate Climate Action Transparency Index (CATI). CATI dynamically evaluates a corporate's climate action in 5 aspects: Governance, Measurement & Disclosure, Carbon Targets Setting, Performance against Carbon Targets and Emissions Reduction.

II. Shipper Company Green Logistics CATI Index

The logistics industry plays a vital role in socioeconomic activity and has become a focal point for emission reduction efforts. Research shows that goods transportation and related logistics activities currently account for 8% of global greenhouse gas emissions[1]. By 2050, freight demand is expected to double[2] and the emissions will keep increasing.

For shipper companies, upstream and downstream logistics-related emissions are often the second-largest source within Scope 3. To achieve net-zero emissions, these companies must focus on reducing logistics-related emissions, establish green logistics systems, and drive decarbonization with logistics suppliers.

[1] https://smart-freight-centre-media.s3.amazonaws.com/documents/GLEC_FRAMEWORK_v3.2_21_10_25_1.pdf
[2] https://www.itf-oecd.org/itf-transport-outlook-2023

To guide shipper companies in identifying and addressing logistics emissions across Scopes 1, 2, 3, IPE developed the Shipper Company Green Logistics CATI Index based on the experience of conducting CATI evaluation and extensive research. Similar to CATI, this Index also includes five dimensions: Governance, Measurement & Disclosure, Carbon Targets Setting, Performance against Carbon Targets and Logistics Emission Reduction Actions.

As an independent assessment based on publicly available data, the index objectively reflects the progress made by shipper companies in green logistics, identifies best practices, and supports multi-stakeholder consensus on value chain decarbonization. It enables more accurate carbon accounting, target-setting, and collaboration on emission reduction with logistics suppliers.

Green Logistics CATI Index for Shipper companies is aligned with:

- **UN Sustainable Development Goals**:
- **GRI** 302: Energy
- **GRI** 305: Emissions
- **International Sustainability Standards Board** (ISSB): IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information & IFRS S2 Climate-related Disclosures
- **Task Force on Climate-related Financial Disclosures** (TCFD): Recommendations on climate-related financial disclosure
- **Corporate Sustainability Reporting Directive** (CSRD)
- **Shanghai, Shenzhen, and Beijing Stock Exchange**: Guidelines for Self-Regulation of Listed Companies—Sustainability Report (Trial)
- **HKEX**: Environmental, Social and Governance Reporting Code
- **China Ministry of Finance**: Corporate Sustainability Disclosure Standards -- Basic Standards, Corporate Sustainability Disclosure Standard No. 1 — Climate (Trial) (Draft for Public Comment)
- **GHG Protocol**: The GHG Protocol Corporate Accounting and Reporting Standard

- **ISO 14083:2023** (Greenhouse gases — Quantification and reporting of greenhouse gas emissions arising from transport chain operations)
- **Global Logistics Emissions Council Framework (GLEC)**
- **ISO 14067:2018** (Carbon Footprint of Products)
- **ISO 14025:2006** (Environmental labels and declarations - Type III environmental declarations)
- **ISO 14068-1:2023** (Climate change management—Transition to net zero—Part 1: Carbon neutrality)

Data Sources and Limitations

The data used for the CATI evaluation comes from the publicly disclosed information of the companies, including but not limited to: the companies' official websites, annual reports, CSR reports, ESG reports, sustainability reports and other periodic reports; data released by credible sources and collected by the Blue Map database; publicly disclosed responses to the CDP questionnaire; and environmental information and emissions data disclosed by the companies' suppliers.

IPE will use its best efforts to ensure the reliability, accuracy and completeness of the evaluation data and is willing to communicate with the companies to supplement, correct and revise the relevant information and evaluation results in a timely manner.

IPE does not accept responsibility for any direct or indirect consequences arising from the evaluation results.

III. Shipper Company Green Logistics CATI Index

Primary Indicator	Secondary Indicator	Score
1. Governance (4%)	1.1 Formulate a low-carbon strategy and transition plan for logistics activities	4
2. Measurement & Disclosure (30%)	2.1 Calculate and disclose emissions related to logistics activities	12
	2.2 Collect carbon emissions/activity data from logistics suppliers on a regular basis	12
	2.3 Measure and disclose product carbon footprint (including transport stage)	6
3. Carbon Targets Setting (10%)	3.1 Disclose logistics activities' carbon reduction targets	10
4. Performance Towards Carbon Targets (6%)	4.1 Disclose progress toward logistics carbon reduction targets	6
5. Logistics Emission Reduction Actions (50%)	5.1 Purchase or lease new energy vehicles and disclose project emission reduction data	14
	5.2 Optimize and improve transport energy efficiency and disclose quantitative results	18
	5.3 Implement emission reduction and energy-saving projects in warehouses and disclose quantitative results	8
	5.4 Optimize packaging, reduce emissions related to packaging materials or disposal of packaging waste and disclose quantitative results	5
	5.5 Encourage logistics suppliers to implement carbon management and publicly disclose emissions data and climate targets	5

IV. Indicator and Scoring Requirements

1. Governance

Governance includes one secondary indicator that evaluates whether shipper companies have established a low-carbon development strategy for logistics activities across the value chain, and guide logistics suppliers in reducing emissions.

Secondary Indicator	Description & Scoring Requirements
1.1 Formulate a low-carbon strategy and transition plan for logistics activities (4 points)	**Scoring Requirements: Full score requires all 3 conditions** • Include logistics in corporate low-carbon strategy (*30%*[3]) • Propose low-carbon strategy and transition plan for logistics activities (*40%*) • Develop mechanisms (e.g., training and capacity building, innovation projects, financial incentives) to guide logistics suppliers to reduce emissions (*30%*)

2. Measurement & Disclosure

Measurement & Disclosure includes three secondary indicators that evaluate whether shipper companies calculate and disclose Scope 1, 2, and 3 emissions generated from logistics activities, as well as product carbon footprint data. This encourages the shipper company to identify emissions hotspots and improve accounting accuracy through collecting data (e.g. fuel use, distances, vehicle types, load factors) from suppliers. Scoring depends on the thoroughness of disclosed data.

Secondary Indicator	Description & Scoring Requirements
2.1 Calculate and disclose emissions related to logistics activities (12 points)	**Scoring Requirements: Full score requires all 3 conditions** • Disclose Scope 1, 2, 3 emissions (*20%*) • Inclusion of transport/distribution in Scope 1, 2, 3 total emissions (*30%*) • Disclose emissions for at least one of:

[3] 30% indicates this condition makes up 30% of the full score.

	– Scope 1&2 mobile sources – Scope 3, category 4 (upstream transport) – Scope 3, category 9 (downstream transport and distribution) (*50%*) *Note: If only Scopes 1&2 are disclosed (not Scope 3), this indicator scores zero.*
2.2 Collect carbon emissions/activity data from logistics suppliers on a regular basis (12 points)	**Description: The scope of data collection includes suppliers' carbon emissions, energy consumption, vehicle parameters, and other activities to support the accounting of logistics activity emissions in Scope 3.** **Scoring Requirements: Full score requires all 4 conditions** • Require all suppliers (but not specifically mention logistics suppliers) to collect data (*20%*) • Explicitly require logistics suppliers to collect emission or activity data (*30%*) • Require logistics suppliers using ISO 14083[4] or GLEC framework[5] for emissions calculations (*30%*) • State that data collected from logistics suppliers is used for Scope 3 accounting (*20%*)
2.3 Measure and disclose product carbon footprint (including transport stage) (6 points)	**Scoring Requirements: Full score requires all 4 conditions** • Disclose product carbon footprint (*25%*) • The scope is the full lifecycle of the product (cradle-to-grave) (*25%*) • Disclose emissions for each stage, including transport (*30%*) • Product carbon footprint verified by third party (*20%*) *Note: One major product suffices.*

[4] ISO 14083 is an international standard for accounting and reporting greenhouse gas emissions in the transportation chain, covering various modes of transportation and hub operations such as land, water, and aviation (https://www.iso.org/standard/78864.html)

[5] The GLEC framework is a methodology for calculating greenhouse gas emissions from freight transportation, which is compatible with the ISO 14083 standard (https://www.smartfreightcentre.org/en/our-programs/emissions-accounting/global-logistics-emissions-council/calculate-report-glec-framework/)

3. Carbon Targets Setting

Carbon Targets Setting includes one secondary indicator that evaluates whether shipper companies set and disclose measurable and traceable logistics-related carbon reduction targets. Scoring depends on the scope and thoroughness of the targets.

Secondary Indicator	Description & Scoring Requirements
3.1 Disclose logistics activities' carbon reduction targets (10 points)	**Choose one of the two options.** **In the case of satisfying both, the higher score prevails (no double scoring)** **1) Full score requires all 5 conditions** • Set Scope 1, 2, 3 targets (*20%*) • Discloses baseline year (*20%*) • Discloses baseline year emissions (*20%*) • Target scope includes logistics emissions (i.e. Scope 3, category 4 (upstream transport) and/or category 9 (downstream transport and distribution) (*20%*) • Targets approved by Science-Based Target Initiative (SBTi) (*20%*) **Or** **2) Full score requires all 3 conditions** • Set targets for logistics/transport volume/empty container rate (*50%*) • Disclose baseline year (*25%*) • Disclose baseline year emissions (*25%*)

4. Performance Towards Carbon Targets

Performance Towards Carbon Targets includes one secondary indicator that evaluates whether companies track progress towards emission targets and adjust strategies accordingly.

Secondary Indicator	Description & Scoring Requirements
4.1 Disclose progress toward logistics carbon reduction targets (6 points)	**Choose one of two scoring options (no double scoring):** • Disclose progress of Scope 1, 2, 3 targets (*100%*) • Disclose progress of logistics/transport volume/empty container rate targets (*100%*)

5. Logistics Emission Reduction Actions

Logistics Emission Reduction Actions includes five secondary indicator that evaluates whether shipper companies implement emission reduction projects across their own operations (mobile sources within Scope 1&2) and value chain logistics (upstream and downstream transportation in Scope 3), and whether they disclose results or empower suppliers to conduct carbon management.

The logistics emission reduction actions should target three aspects: transportation vehicles, warehousing/hubs, and cargo packaging. This indicator also aims to guide companies to empower logistics suppliers to independently implement climate actions. Scoring depends on the type of emission reduction actions taken, the adequacy of disclosure, the scale of the project, and the progress in promoting carbon management among logistics suppliers.

Secondary Indicator	Description & Scoring Requirements
5.1 Purchase or lease new energy vehicles and disclose project emission reduction data (14 points)	**Description:** The enterprise may adopt non-traditional energy sources, such as electricity and hydrogen energy for propulsion. This includes electric and plug-in hybrid electric vehicles, as well as automobiles, ships and airplanes using hydrogen fuel cells etc..

	Full score requires all 4 conditions: • Procurement/leasing of new energy vehicles (e.g., electric, hydrogen, biofuel) in **road transport** (*25%*), and disclose emissions (*25%*) • Procurement/leasing of new energy vehicles (e.g., electric, hydrogen, biofuel) in **water/air transport** (*25%*), and disclose emissions (*25%*)
5.2 Optimize and improve transport energy efficiency and disclose quantitative results (18 points)	**Description:** Companies may conduct energy efficiency improvement projects such as: – Load optimization (e.g., Integrate cargo transportation; Bottom pallet removal loading to enhance the loading efficiency of containerized goods and reduces the number of transportation trips. Optimize the size of containers; Reduce the no-load rate) – Route optimization (e.g., Optimize the design of the transportation network, use digital tools to plan the optimal distribution routes, and reduce transportation distances. Develop multimodal transport; Implement the "road-to-rail" or "road-to-water" shift in the transportation of bulk goods and medium and long-distance goods) **Scoring is based on the number of disclosed projects:** • 1 project with quantitative metrics (e.g., emission reductions, energy savings, transport turn-over, container empty rate) (*25%*) • 4+ such projects with the above metrics (*100%*)
5.3 Implement emission reduction and energy-saving projects in warehouses and disclose quantitative results (8 points)	**Description:** the company itself, or by promoting logistics suppliers to improve energy efficiency, uses building materials with thermal insulation, optimizes warehouse layout, adopts energy-saving lighting, applies temperature control, uses efficient cold source systems, uses environmentally-friendly refrigerants, and uses renewable energy; plans the internal layout of the warehouse to reduce the moving distance of staff and equipment, thereby reducing energy consumption; optimizes warehouse layout. **Full score requires all 2 conditions:** • Publicly disclose warehouse-related emission/energy-

	saving project(s) (*50%*) • Disclose quantitative metrics (e.g., energy savings/emission reductions) (*50%*)
5.4 Optimize packaging, reduce emissions related to packaging materials or disposal of packaging waste and disclose quantitative results (5 points)	**Description**: the company itself, or by promoting logistics suppliers to carry out emission reduction projects for cargo packaging, such as using lower carbon packaging materials or recycled materials, reducing the use of cargo packaging materials, and promoting the recycling and reuse of packaging etc. **Full score requires all 2 conditions:** • Publicly disclose emission reduction project(s) for packaging (*50%*) • Disclose quantitative metrics (e.g. reduction in emissions, reduction in packaging used, the amount of recycled materials etc.) (*50%*)
5.5 Encourage logistics suppliers to implement carbon management and publicly disclose emissions data and climate targets. (5 points)	**Full score requires all 3 conditions:** • Publicly requires/recommends suppliers to disclose climate data (*40%*) • At least one logistics supplier publicly discloses emissions (*30%*) • At least one logistics supplier publicly discloses climate targets (*30%*)

V. Evaluation Process and Cycle

Period	Activity
January–March	Conduct preliminary research, including industry development trends, policy updates, and international and Chinese initiatives and standards
April–May	Update and release new version of the Shipper Company Green Logistics CATI Index
June–July	Send evaluation invitations and start annual evaluation processes
August–September	Communicate annual evaluation results with shipper companies
October–December	Publish annual evaluation results and evaluation report

Appendix | Terms and Definitions

1. Shipper Company

A shipper company owns the goods and entrusts logistics service providers to carry out transportation, warehousing, distribution, and other logistics operations.

2. Logistics supplier

An economic organization engaged in logistics business design and system operation within the scope of basic logistics functions (such as cargo transportation, warehousing, and distribution), equipped with an information management system compatible with its own business, and practicing independent accounting and independent civil liability.

3. Green logistics

The process of reducing the environmental impact of logistics activities by fully utilizing logistics resources, adopting advanced logistics technology, and planning and implementing logistics activities such as transportation, storage, loading and unloading, handling, packaging, distribution processing, delivery, and information processing.

4. New energy vehicles

Vehicles that utilize unconventional energy sources, such as electricity and hydrogen, for propulsion, primarily encompass pure electric vehicles, plug-in hybrid electric vehicles, as well as automobiles, ships, and aircraft that employ hydrogen fuel cells etc..

5. Greenhouse Gas (GHG)

GHGs are the seven gases listed in the Kyoto Protocol: carbon dioxide (CO2); methane (CH4); nitrous oxide (N2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); sulphur hexafluoride (SF6); and nitrogen trifluoride (NF3).

6. Carbon Neutrality

In CATI, carbon neutrality and net zero are used interchangeably. They both refer to the state of carbon dioxide or greenhouse gas neutrality or net zero. This can be achieved when anthropogenic emissions of carbon dioxide/greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period.

7. Scope 1 Emissions

Emissions from operations that are owned or controlled by the reporting company.

8. Scope 2 Emissions

Emissions from the generation of purchased or acquired electricity, steam, heating or cooling consumed by the reporting company.

9. Scope 3 Emissions

All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions. Some examples of scope 3 activities are extraction and production of purchased materials; transportation of purchased fuels; and use of sold products and services.

10. Scope 3 - Category 4: Upstream transportation and distribution

The process of raw material transportation and distribution between the enterprise's own operations and its primary suppliers (without utilizing vehicles and facilities owned or controlled by the enterprise), encompassing inbound logistics, outbound logistics, as well as transportation and distribution within the company's own facilities.

11. Scope 3 - Category 9: Downstream transportation and distribution

The process of product transportation and distribution between the enterprise's own operations and its customers (without utilizing vehicles and facilities owned or controlled by the enterprise), encompassing retail sales and warehousing.

12. Activity Data

Characteristic value of the amount of production or consumption activities that lead to greenhouse gas emissions

13. Product Carbon Footprint

Sum of GHG emissions and GHG removals in a product system, expressed as carbon dioxide equivalents and based on a life cycle assessment.

14. Life Cycle

Consecutive and interlinked stages related to a product, beginning from raw material extraction or generation from natural resources to end-of-life treatment.

References:

IPCC, Global Warming of 1.5°C, Annex I: Glossary

IPCC WGIII, Climate Change 2022 Mitigation of Climate Change

ISO, ISO 14067: 2018

WBCSD & WRI, The GHG Protocol Corporate: A Corporate Accounting and Reporting Standard

WBCSD & WRI, The GHG Protocol Corporate: Corporate Value Chain (Scope 3) Accounting and Reporting Standard

WBCSD & WRI, The GHG Protocol Corporate: Product Life Cycle Accounting and Reporting Standard

Supply chain risk management guideline GB/T 24420-2009

Logistics terminology GB/T 18354

Green logistics indicators and accounting methods GB/T 37099-2018

About IPE

The Institute of Public & Environmental Affairs (IPE) is a non-profit environmental organization based in Beijing, China. Since its establishment in 2006, IPE has developed and operated the Blue Map Database (wwwen.ipe.org.cn), and launched the Blue Map app in 2014, promoting environmental information disclosure and public participation, empowering enterprise green transition and development as well as improving environmental governance mechanisms.

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