GIST IMPACT

## Summary

# Methodology

Climate Risk



## Physical Risk - VaR

Get in Touch

Copyright © 2026 GIST Impact. All rights reserved.

# Key Features

A twelve-step cascade from raw climate signal to bank-grade capital metrics

Six perils across four hazard modules, combined in one composite index

Climate-adjusted PD, LGD, ECL, VaR and RWA for Basel III/IV and IFRS 9

Every financial output traceable to the climate signal that produced it

## Introduction

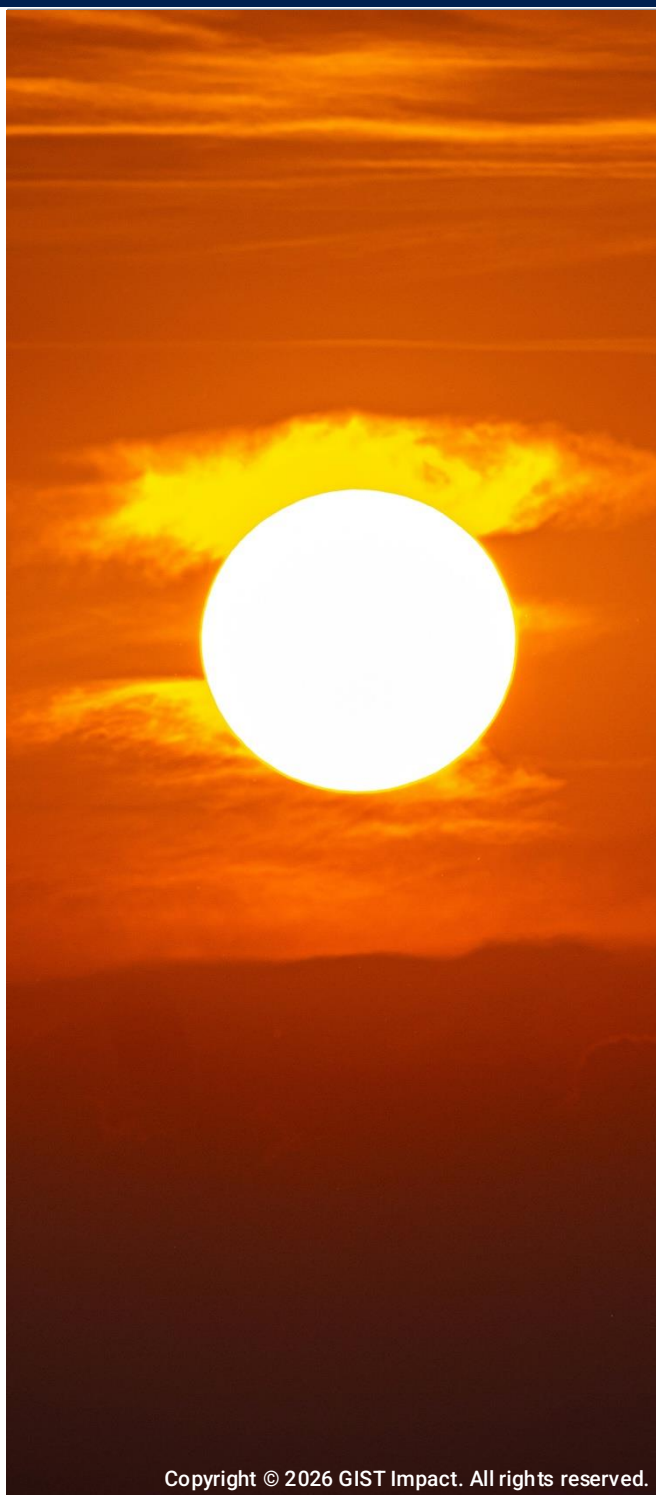
Physical climate risk is now treated as a material financial risk. Quantifying it means connecting a climate signal at a specific location to operational disruption, financial performance, and ultimately credit and capital outcomes.

GIST Impact's **Physical Risk - VaR** methodology does exactly that: a transparent science-to-finance approach that runs hazard modelling, exposure assessment, vulnerability analysis, damage estimation and financial transmission in one auditable chain, at asset, company and portfolio level.

The methodology delivers:

- **Hazard to finance**: climate hazards translated into economic loss, financial impact and credit risk through a structured twelve-step pipeline.
- **Acute and chronic risk**: extreme heat, extreme cold, extreme precipitation, riverine flood, coastal flood and drought, across multiple SSP scenarios and time horizons.
- **Credit and capital metrics**: climate-adjusted PD, LGD, expected credit loss, Physical Climate VaR, RWA and CET1 impact.
- **Asset to portfolio**: modelled at asset level, aggregated to borrower, sector and portfolio.

This first release accounts exclusively for physical hazard-related climate risk; it does not currently include transition risk.



Copyright © 2026 GIST Impact. All rights reserved.

# Methodology Foundations

The methodology follows the IPCC AR6 risk concept, in which risk emerges from the interaction of hazard, exposure and vulnerability. That framing is adapted here and operationalised for financial institutions and corporates.

## Climate Risk = Hazard × Exposure × Vulnerability

**Hazard** is the physical climate element, defined by intensity and frequency. Six perils are modelled: extreme heat, extreme cold, extreme precipitation, riverine flood, coastal flood and drought, delivered through four hazard modules (temperature, extreme precipitation, flood and drought).

**Exposure** is the assets, human capital and productive capacity sitting in the hazard zone. Where asset values are not supplied, proxy values are taken from open gridded exposure datasets.

**Vulnerability** is the susceptibility of exposed assets, operations, labour systems and communities to a given hazard intensity, treated as a multi-layered interaction between socio-economic fragility, infrastructure resilience, adaptive capacity and local environment.

**Scope note**: wind, wildfire and cyclone fall within the broader IPCC hazard definition but are not independently modelled perils in this release. Cyclone impacts are represented only through storm-surge intensity within the flood module.

**ESRS alignment.** The product sits within ESRS E1 Climate change: the six perils fall under climate change adaptation, and the financial, credit and capital outputs quantify the anticipated financial effects of material physical risks (E1-9). ESRS social and governance topics are not rated.

# Issuer-Paid Data Inputs

Under the Issuer-paid model, GIST Impact provides analytics built from publicly available sources, supplemented where applicable by limited data provided by the client ('issuer') against pre-configured categories, solely to support the client's own independent assessment of risks and opportunities within its operations. The client may select from predefined analysis options, such as scenarios, time horizons or asset coverage; model weights, parameters and the methodology itself cannot be changed and are applied exactly as under the User-paid model. All resulting deliverables are clearly labelled as 'Issuer-paid' and disclose that they may differ from ratings issued under the 'User-paid' model. In the course of Issuer-paid engagements, GIST Impact does not advise any entity on how to improve the ESG rating issued to it under the User-paid model, nor on its public disclosures with a view to improving that rating.



Copyright © 2026 GIST Impact. All rights reserved.

# Translation Pipeline

The methodology implements a twelve-phase cascade that progressively transforms raw meteorological signals into bank-grade capital impact metrics, keeping full traceability from climate signal to financial output.

| Phase | Description |
|---|---|
| 1 — Climate hazard construction | Raw meteorological inputs transformed into climate projections and converted into hazard metrics (e.g. WBGT, UTCI, SPI, SPEI) across scenarios |
| 2 — Exposure modelling | Asset locations, values and operations mapped to hazard footprints |
| 3 — Vulnerability application | Vulnerability factors applied to capture sensitivity and adaptive capacity across exposed assets |
| 4 — Damage functions | Hazard intensity translated into physical, productivity and operational losses using sector-specific damage functions |
| 5 — Operational disruption | Physical impacts converted into downtime, capacity loss, supply-chain disruption and recovery delays |
| 6 — Financial impact | Operational losses translated into revenue decline, EBITDA compression and balance-sheet impacts |
| 7 — Expected loss and credit risk translation | Financial performance converted into baseline probability of default (PD) and loss given default (LGD) |
| 8 — Stochastic modelling | Monte Carlo simulation generates the distribution of climate-driven losses and tail-risk metrics |
| 9 — Physical Climate VaR | Resulting loss distribution produces overall Physical Climate VaR |
| 10 — Forward-looking accounting (IFRS 9) | Forward-looking expected and unexpected economic losses |
| 11 — Regulatory capital (Basel) | Climate losses incorporated into ECL, RWA, stress testing, capital planning and regulatory reporting |
| 12 — Portfolio aggregation and disclosure | Aggregate disclosures covering the portfolio's risk distribution, systemic vulnerability, financial resilience and future trajectory |



Copyright © 2026 GIST Impact. All rights reserved.

# Climate Hazard Construction (Phases 1-3)

Each hazard module has its own scientific architecture: it turns climate signals into physically meaningful metrics, applies hazard-specific vulnerability and exposure pathways, and feeds a tailored damage function. Four hazard modules cover six perils and produce six published indices.

| Module | Description | Published Index |
|---|---|---|
| Temperature (extreme heat; extreme cold) | Air temperature, humidity, wind speed, solar radiation and night-time temperature transformed into heat and cold stress metrics, including Wet Bulb Globe Temperature and the Universal Thermal Climate Index. Heat stress depends on humidity and radiation rather than temperature alone; repeated exposure accumulates physiological stress; poor night-time cooling raises next-day vulnerability; cold stress incorporates wind chill and duration. | Thermal Stress Index |
| Extreme precipitation | Extreme rainfall treated as a standalone operational hazard independent of riverine flooding. Daily rainfall is assessed against a 1991–2020 baseline, with SSP and NGFS scenario inputs, for both rainfall intensity and the exceedance of local drainage capacity. | Effective Precipitation |
| Flood (riverine; coastal) | Flood combines riverine, coastal and terrain drivers (rainfall and catchment wetness; sea-level rise, storm surge and tide; elevation, land cover and drainage), conditioned by site vulnerability. | Effective Flood Severity; Coastal Inundation Stress |
| Drought | Rainfall and temperature with SSP, NGFS and IEA scenario inputs, quality controlled for negative rainfall, sentinel values and outliers. Potential evapotranspiration, calculated from latitude, temperature, day of year and extraterrestrial radiation, is the central metric. | Effective Drought |
| Composite index (all perils) | The Composite Effective Hazard Index (CEHI) combines the six perils into a single bounded 0–1 score of multi-hazard asset exposure. Each raw hazard signal is adjusted for asset- and sector-specific vulnerability, normalised to a common 0–1 scale and combined by weighted aggregation; higher values indicate greater combined effective physical risk. | Composite Effective Hazard Index |

# Damage Functions (Phase 4)

Hazards differ, but their impacts arrive through a common set of pathways affecting assets, operations, workforce and revenue.

| Channel | Pathway | Key Hazards |
|---|---|---|
| Operational disruption | Forced shutdown, throttled capacity utilisation and extended delays returning to normal operations, driving revenue volatility | All hazards |
| Labour productivity loss | Worker capacity reduced by heat stress, illness and displacement, compressing throughput and EBITDA | Heat, flood, precipitation, drought |
| Agricultural yield loss | Suppressed photosynthesis, disrupted growing seasons and compressed crop yield weaken cash flow | Drought, flood, precipitation |
| Asset damage | Structural degradation, submergence, equipment failure and spoilage reduce collateral value | Flood, temperature |
| Supply chain disruption | Water ingress, temperature extremes and logistics paralysis cause spoilage and write-downs | Flood, precipitation, drought |

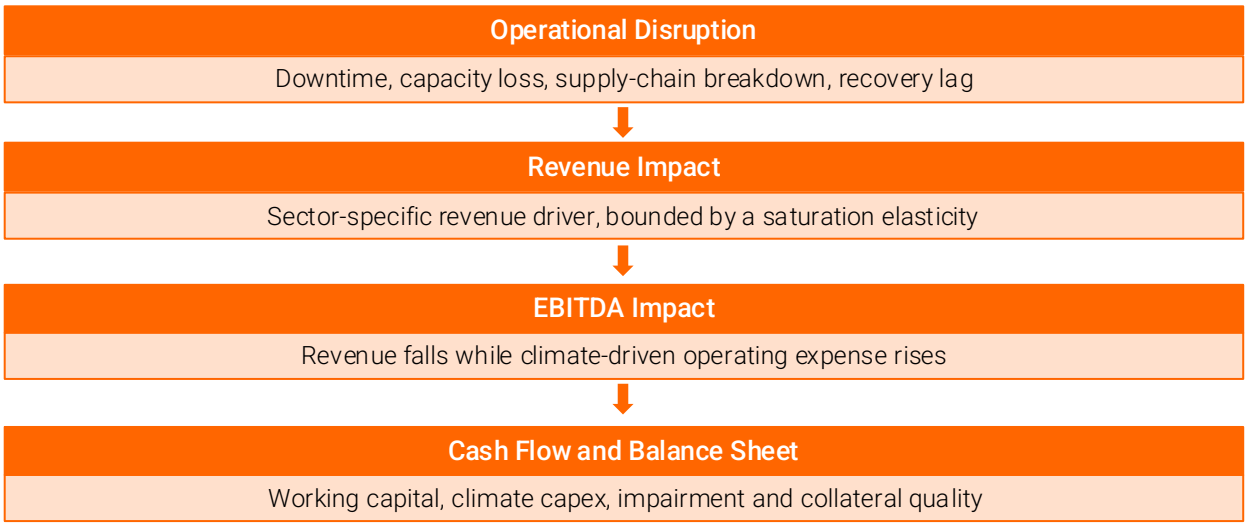
Copyright © 2026 GIST Impact. All rights reserved.

# Operational Disruption (Phase 5)

Physical hazards do not hit financial performance directly. Damage first disrupts day-to-day operations, through four routes:

1. **Capacity utilisation:** throughput lost to worker unavailability, process shutdown and suboptimal operating conditions.
2. **Downtime:** revenue lost while an asset is out of service.
3. **Supply-chain disruption:** supply delay creates inventory shortage, which creates production disruption and revenue volatility.
4. **Recovery lag:** loss from production disruption, labour inefficiency and supply-chain impairment persisting well beyond the hazard itself.

# Financial Impact (Phase 6)




The revenue impact is sector-specific and is applied through a bounded saturation elasticity: rather than a linear or hard-clipped response, it follows a saturating exponential form, so that an extreme hazard year cannot produce an economically unrealistic revenue collapse.

**Sector note:** each company is assigned to a damage-function sector, which determines its revenue driver, damage function and PD elasticity. These are modelling sectors, not reporting sectors, and may differ from a company's GICS classification.

EBITDA moves by a scissors effect: revenue falls while climate-driven operating expense rises, and operating leverage amplifies the revenue shock at EBITDA level.

**Cash flow** shocks are the sharpest effect: flood traps inventory, delays receivables and lengthens the cash conversion cycle, while climate capex rises in parallel. On the **balance sheet**, asset impairment, inventory write-offs and recovery-financing debt reduce net worth and collateral quality — the route by which a P&L event becomes an LGD event.

Copyright © 2026 GIST Impact. All rights reserved.

# Expected Loss and Credit Risk Translation (Phase 7)

Financial stress ultimately shows up as changes in borrower creditworthiness and recovery prospects. Weaker revenue, margin and debt-servicing capacity raise the likelihood of default; damaged collateral lowers the recovery if default occurs.

$$\text{Expected Loss} = \text{Probability of Default} \times \text{Loss Given Default} \times \text{Exposure at Default}$$

- **PD** moves through the earnings channel — EBITDA compression, cash-flow deterioration and DSCR weakening — converted by sector-specific revenue-to-PD elasticity coefficients.
- **LGD** moves through the asset channel — collateral impairment, inventory write-offs and recovery financing. It responds to flood and surge far more than to heat.
- **Expected loss** is computed at borrower level and aggregated across sectors and portfolios; IFRS 9 then recalibrates the PD separately for provisioning, because accounting needs a point-in-time measure where capital needs a through-the-cycle one.

## Stochastic Modelling and Physical Climate VaR (Phases 8 to 9)

Rainfall variability, surge randomness, event timing, persistence and recovery uncertainty are propagated through 10,000+ Monte Carlo simulations. The resulting loss distribution produces Physical Climate VaR at three confidence levels, each built for a different decision.

| Confidence Level | Use | Application |
|---|---|---|
| P90 | Standard monitoring | Routine risk management and portfolio screening |
| P95 | Stress testing | Internal capital planning and board-level reporting |
| P99 | Tail risk and capital | ICAAP capital add-ons and regulatory worst case |

The company-level extract publishes a single tail-VaR series across revenue, EBITDA, asset and PD bases, together with a 95% expected shortfall; the separate P90 / P95 / P99 cuts sit in the full delivery. Expected shortfall is the average loss beyond the VaR threshold and is always at least as large as VaR — a wide gap indicates a long loss tail rather than a more distant threshold.

# Issuer-Paid Data Inputs

Under the Issuer-paid model, it is possible for the client ('issuer') to request other confidence levels. Where a client requests its own confidence levels, all resulting deliverables are clearly labelled as 'Issuer-paid' and disclose that they may differ from ratings issued under the 'User-paid' model.

Copyright © 2026 GIST Impact. All rights reserved.

# Outputs

More than 40 metrics are published across nine categories, ordered by pipeline phase and matching the data dictionary, so each traces back to the phase that produced it. The company-level extract includes financial, credit, Physical Climate VaR, provisioning and capital outputs in full, and damage and portfolio outputs in part; hazard and exposure outputs are asset-level only.

| Category / Phase | Examples | Analysis Level | Reporting Alignment |
|---|---|---|---|
| Hazard 1–3 | Composite Effective Hazard Index; Effective Flood Severity; Thermal Stress Index; Effective Drought; Effective Precipitation; Coastal Inundation Stress | Asset | TCFD; NGFS |
| Exposure 2 | Exposure Intensity; Capital Stock Proxy; Labour Exposure | Asset | TCFD |
| Damage 4 | Asset Impairment / Damage Ratio; Labour Productivity Loss; Supply-Chain Disruption; Composite Climate Damage Index | Asset / sector | IFRS 9; TCFD |
| Financial 6 | Revenue Shock; EBITDA Shock; Liquidity Stress; Debt Burden | Company | IFRS 9 FLI; TCFD |
| Credit risk 7 | Climate-Adjusted PD; Baseline and Climate-Adjusted LGD; Implied and Climate Risk Rating; Credit Stress Index | Company | Basel IRB; IFRS 9 |
| Market / tail 8–9 | Physical Climate VaR on revenue, EBITDA and asset bases; P95 / P99 VaR; Expected Shortfall | Company | TCFD; ICAAP; FRTB |
| Provisioning 10 | 12-month ECL; Lifetime ECL; Scenario-Weighted ECL; IFRS 9 staging | Entity | IFRS 9 / CECL |
| Capital 11 | Climate RWA; Capital Charge; CET1 Ratio and Shortfall; Economic Capital; Pillar 2 Add-on | Entity | Basel III/IV; ICAAP |
| Portfolio 12 | Concentration HHI; Systemic Cascade Index; Portfolio Resilience; Temporal Climate Escalation | Portfolio | ECB; macro-prudential |

Copyright © 2026 GIST Impact. All rights reserved.

# Data Inputs

| Asset Input | Description |
|---|---|
| Location | Latitude and longitude coordinates |
| Site type | Factory, warehouse, office, retail outlet or farmland |
| Asset / collateral value | Optional — open gridded exposure proxies used where missing |
| Revenue exposure | Optional — site revenue or share of company revenue |
| Employee count | Optional — number of employees at the site |
| Resilience indicators | Optional — drainage, flood defences, cooling systems, floor level |

| Company Input | Description |
|---|---|
| Company identification | Company name and identifier |
| Classification | Sector and sub-sector |
| Income statement | Optional for listed companies — revenue, COGS, D&A, EBIT, net income, interest expense |
| Balance sheet | Optional for listed companies — cash, current assets and liabilities, total assets, total debt, equity |
| Cash flow | Optional for listed companies — cash from operations and capex |
| Credit inputs | Banks only — base PD, LGD and EAD |



Copyright © 2026 GIST Impact. All rights reserved.

# Data Sources

Global sources underpin this release; region-specific sources are available for deeper-dive analyses.

| Layer | Description | Sources |
|---|---|---|
| Climate hazard and scenarios | Hourly air temperature, relative humidity and wind speed supporting the wet-bulb and wind-chill calculations; forward projections on multi-model ensembles under SSP1-2.6, SSP2-4.5 and SSP5-8.5, with alternative forcing for stress testing | ERA5 / Copernicus CDS; CMIP6 and IPCC scenario data; NGFS Scenarios Portal; IEA World Energy Outlook |
| Terrain, hydrology and land surface | Elevation and topography driving floodplain connectivity and drainage convergence; coastline and river-network geometry; soil field capacity and wilting point behind the drought proxy; gridded groundwater | SRTM and Copernicus DEM; Natural Earth coastline and river network; ISRIC SoilGrids; NASA GRACE groundwater |
| Exposure and asset-value fallbacks | Proxy asset values from open gridded exposure datasets where an asset value is not supplied; gridded population supports labour-density estimation | LitPop (Bresch & Aznar-Siguan, 2021; CLIMADA); GHSL built-up volume (JRC); WorldPop and JRC GHS-POP |
| Damage functions and credit transmission | Literature-derived, hazard-specific coefficients: labour and heat thresholds, heat mortality, flood asset damage, coastal compounding, crop yield and flood health. PD and LGD sensitivity coefficients, vulnerability weights and DSCR action thresholds are GIST Impact internal | ILO; WHO; IPCC AR6 and SREX; Kjellstrom; Gasparrini; Merz; Thieken; Hallegatte; Schlenker & Roberts; Lobell; World Bank |

# Issuer-Paid Data Inputs

Under the Issuer-paid model, it is possible for the client ('issuer') to provide additional data inputs against pre-configured categories. Where a client supplies its own data all resulting deliverables are clearly labelled as 'Issuer-paid' and disclose that they may differ from ratings issued under the 'User-paid' model.

| Client Type | Client Data Configuration |
|---|---|
| Asset owners, asset managers and data stewards | Holdings and weights, and any internal sector or mandate taxonomy |
| Banks and credit institutions | Borrower and facility IDs, EAD and outstanding, collateral value, base PD, LGD and internal sector taxonomy |
| Corporates, direct or through consultants | Physical asset register with coordinates and type, asset and inventory value, headcount and shift pattern, resilience features, segment revenue |

Copyright © 2026 GIST Impact. All rights reserved.

# Applications

Physical Risk - VaR is built to be used inside existing risk, credit and reporting processes rather than alongside them.

For **financial-services users**, the outputs are the ones the prudential framework already speaks: climate-adjusted PD and LGD, expected credit loss for IFRS 9 staging and provisioning, climate RWA, CET1 shortfall and Pillar 2 add-ons for ICAAP. Results run from asset through borrower to sector and portfolio, so a concentration visible at book level can be traced to the sites producing it.

For **corporate and business users**, the same chain answers operational questions: which sites carry downtime and labour-productivity exposure, how revenue and EBITDA respond under each scenario, and what the resulting balance-sheet and financing consequences are. A corporate's own site register materially improves the analysis, and overrides the crawled equivalent.

Physical Risk - VaR is modelled under SSP1-2.6, SSP2-4.5 and SSP5-8.5, annually from 2025 to 2050, across 20,000+ listed companies and 3,000,000+ mapped business assets. Delivery is through data feed, API, the GIST Impact Data Portal, decision-intelligence dashboards, and asset-level worksheets with access for auditors.

# Considerations

The methodology is deliberately explicit about what it does and does not cover. Users should be aware of the following:

**Physical risk only**: this release accounts exclusively for physical hazard-related climate risk and does not include transition risk.

**Damage-function sectors are not reporting sectors**: the sector assignment determines the revenue driver, damage function and PD elasticity, and may differ from a company's GICS classification. Read it as a modelling parameter, not as a sector label.

**Proxies where data is missing**: asset and collateral values fall back to proxy values from open gridded exposure datasets, and labour exposure to gridded population, where company data is not supplied. Precision improves materially with a real site register.

**Not every modelled channel is a published column**: operational disruption, agricultural yield loss and health and absenteeism act inside the damage functions but reach the dataset only through their effects on revenue and productivity. Hazard and exposure layers sit in the asset-level delivery rather than the company extract.

**Simulated, not forecast**: Monte Carlo output is a loss distribution conditioned on scenario, not a prediction of a given year. Expected shortfall is always at least as large as VaR, and the gap between them describes the shape of the tail rather than its likelihood.

As such, GIST Impact makes every published number traceable from the climate input through the intermediate layers to the final credit outcome, with full calculation inputs, vulnerability adjustments and score derivations available through asset-level worksheets for audit.

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist

| Product / methodology name | Version | Date |
|---|---|---|
| Physical Risk - VaR (product category: Climate Risk) | Version 1.0 | 22 October 2026 |

This checklist sets out the disclosures required under Article 23 and Annex III, point 1, and Article 24 and Annex III, point 2, of Regulation (EU) 2024/3005, as specified by Delegated Regulation (EU) 2026/871. Sections A to D follow the order prescribed in the Annex to the Delegated Regulation; Section E follows the order of Annex III, point 2.

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| **Section A – Disclosures on the rating product (Annex III, point 1)** | | | | |
| **A.1** | **Annex III 1(f) / Art. 3(1) Del. Reg.** | Objective of the rating; whether it assesses risks, impacts, double materiality or other dimensions; in case of double materiality, the proportion of risk and impact materiality. Del. Reg.: (a) description of risks covered; (b) description of impacts covered; (c) how materiality of risks and impacts is considered under double materiality, where applicable; (d) description of other materiality dimensions, if any. | Risk only (single, financial materiality). Physical Risk - VaR assesses physical climate risk: the translation of physical hazards at asset locations – extreme heat, extreme cold, extreme precipitation, riverine flood, coastal flood and drought – through operational disruption into financial impact (revenue, EBITDA, cash flow and balance sheet), credit risk (climate-adjusted PD, LGD and expected credit loss) and capital metrics (Physical Climate VaR, RWA and CET1 impact), modelled at asset level and aggregated to borrower/corporate, sector and portfolio level. Impacts: Not assessed – the methodology does not measure a company's impacts on the climate or the environment. Double materiality: Not applicable – Physical Risk - VaR is not a double materiality assessment. | Methodology Document: p. 2 (Key Features; Introduction); p. 3 (Methodology Foundations, incl. Scope note); p. 11 (Considerations – 'Physical risk only') |
| **A.2** | **Annex III 1(g) / Art. 3(2) Del. Reg.** | Scope: single E, S or G factor, aggregated rating, or specific aspects (e.g. transition risks). Del. Reg.: (a) what is covered within E, S and G and which factors are aggregated, if any; (b) specific aspects covered. | Single E factor only – physical climate risk (six perils: extreme heat, extreme cold, extreme precipitation, riverine flood, coastal flood and drought) affecting the assets, operations, workforce and revenue of companies and borrowers, and the resulting credit and capital outcomes. No S or G factors are covered and no factors are aggregated. Results are modelled at asset level and aggregated to borrower/corporate, sector and portfolio level; hazard and exposure outputs are published at asset level, and financial, credit, Physical Climate VaR, provisioning and capital outputs at company or entity level. | Methodology Document: p. 2 (Introduction); p. 3 (Methodology Foundations); p. 8 (Outputs – categories and analysis level) |
| **A.3** | **Annex III 1(h)** | For aggregated ESG ratings: weighting of the E, S and G categories and explanation of the weighting method. If not aggregated: negative statement. | Not applicable – Physical Risk - VaR is not an aggregated ESG rating. It covers the E factor only (physical climate risk), so no E, S and G weighting is applied. | Methodology Document: p. 2 (Introduction); p. 12 (Appendix – ESMA Disclosure Checklist, A.2) |
| **A.4** | **Annex III 1(i)** | Topics covered within E, S and G and whether they correspond to the topics of the sustainability reporting standards under Article 29b of Directive 2013/34/EU (ESRS). | E only – six physical perils (extreme heat, extreme cold, extreme precipitation, riverine flood, coastal flood and drought), delivered through four hazard modules (temperature, extreme precipitation, flood and drought) and combined in the Composite Effective Hazard Index; six indices are published (Thermal Stress Index, Effective Precipitation, Effective Flood Severity, Coastal Inundation Stress, Effective Drought and the Composite Effective Hazard Index). Correspondence to ESRS (Article 29b of Directive 2013/34/EU): the six perils fall within ESRS E1 Climate change – climate change adaptation, and the financial, credit and capital outputs quantify the anticipated financial effects of material physical risks (ESRS E1-9). S and G topics are not covered. | Methodology Document: p. 3 (Methodology Foundations – ESRS alignment); p. 5 (Climate Hazard Construction (Phases 1-3)); p. 12 (Appendix – ESMA Disclosure Checklist, A.2) |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| A.5 | Annex III 1(j) | Whether the rating is expressed in absolute or relative terms. | Both absolute and index-based outputs. Absolute: Physical Climate VaR on revenue, EBITDA, asset and PD bases (with a 95% expected shortfall; P90 / P95 / P99 cuts are provided in the full delivery), expected credit loss (12-month, lifetime and scenario-weighted), climate RWA, capital charge, CET1 ratio and shortfall, and climate-adjusted PD and LGD. Index-based: the six published hazard indices and portfolio indicators (Concentration HHI, Systemic Cascade Index, Portfolio Resilience, Temporal Climate Escalation) | Methodology Document p. 7 (Phases 8 to 9), p. 8 (Outputs). |
| A.6 | Annex III 1(o) / Art. 3(3) Del. Reg. | If the E factor is covered: whether the rating considers the Paris Agreement or other relevant international agreements. Del. Reg.: (a) which agreements are considered, information to identify them, and why they are relevant; (b) whether alignment of commitments with these agreements is assessed. | No – Physical Risk - VaR quantifies the financial and credit impact of physical climate hazards and does not assess alignment of company commitments with the Paris Agreement or other international agreements. The methodology follows the IPCC AR6 risk concept (hazard × exposure × vulnerability) and uses IPCC / CMIP6 scenario data under SSP1-2.6, SSP2-4.5 and SSP5-8.5, with NGFS Scenarios Portal and IEA World Energy Outlook pathways as alternative forcing for stress testing. | Methodology Document p. 3 (IPCC AR6 framing), p. 10 (Data Sources – scenarios). |
| A.7 | Annex III 1(p) / Art. 3(3) Del. Reg. | If the S and G factors are covered: whether the rating considers relevant international agreements. Same elements as A.6. | Not applicable – Physical Risk - VaR does not cover S or G factors. | Methodology Document: p. 12 (Appendix – ESMA Disclosure Checklist, A.2) |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| **Section B – General disclosures on methodologies (Annex III, point 1)** | | | | |
| **B.1** | **Annex III 1(a) / Art. 4(1) Del. Reg.** | Overview of methodologies and changes, whether backward- or forward-looking, time horizon. Del. Reg.: (a) name of the methodology; (b) types of rated items; (c) validity period of the rating, where applicable; (d) list and overview of relevant models and key assumptions, where applicable; (e) measures and procedures to ensure data quality and reliability; (f) ranking system: meaning of each rating category for absolute and relative values, interpretation, and for relative values the reference (sector, geography, peer group, other); (g) date of the most recent update and description of changes compared with the previous version. | (a) Name and version: Physical Risk - VaR (product category: Climate Risk), Version 1.0 – first release of the methodology. (b) Rated items: listed companies (20,000+ covered) and their mapped business assets (3,000,000+), with results aggregated from asset to borrower, sector and portfolio level; client holdings, loan books and corporate site registers can be supplied as additional inputs under the issuer-paid configuration. Analysis perspective: both forward-looking and backward-looking – Physical Risk - VaR is modelled under SSP1-2.6, SSP2-4.5 and SSP5-8.5 (alternative NGFS and IEA forcing for stress testing) against a historical baseline (e.g. ERA5 hourly reanalysis; 1991–2020 baseline for extreme precipitation). Output is a scenario-conditioned loss distribution, not a forecast of a given year. Time horizon: annual, 2025 to 2050.<br>(c) Validity period: results are scenario-conditioned and meaningful only for their scenario and year (annual, 2025 to 2050); they remain current until the next release of the dataset.<br>(d) Models and key assumptions: Hazard × Exposure × Vulnerability framework (IPCC AR6) implemented as a twelve-phase cascade: (1) hazard construction by four hazard modules (temperature, extreme precipitation, flood, drought) covering six perils (extreme heat, extreme cold, extreme precipitation, riverine flood, coastal flood and drought) and producing six published indices; (2) exposure mapping of assets to hazard footprints, with proxy asset values from open gridded exposure datasets where not supplied; (3) multi-layered vulnerability factors; (4) sector-specific damage functions; (5) operational disruption; (6) financial impact through a bounded saturating-exponential revenue response and an EBITDA 'scissors' effect; (7) Merton-based baseline PD and LGD, with climate shocks transmitted to PD through DSCR-linked sector elasticities and to LGD through collateral impairment; (8–9) Monte Carlo simulation (10,000+ runs) producing Physical Climate VaR at P90 / P95 / P99 and a 95% expected shortfall; (10) IFRS 9 point-in-time PD recalibration; (11) Basel risk weights, capital requirements and ICAAP add-on; (12) portfolio aggregation. Damage-function sectors are modelling parameters, not GICS reporting sectors. See E.1.<br>(e) Data quality and reliability: input quality control is documented for drought inputs (negative rainfall, sentinel values, outliers), and every published figure is traceable from climate input to final credit outcome, with calculation inputs, vulnerability adjustments and score derivations available in asset-level worksheets for audit.<br>(f) Ranking system: the methodology defines no rating categories; outputs are continuous indices, ratios and monetary loss measures (see A.5).<br>(g) Date of most recent update and changes: Not applicable – Version 1.0 is the first release of the methodology, so there is no previous version against which changes are described.<br>Supporting Policy Documents: (i) ESG Ratings & Methodologies Review Procedure; (ii) AI Usage Policy for ESG Rating Activities | Methodology Document pp. 2-7 (Introduction; Methodology Foundations; Translation Pipeline; Phases 1-9), p. 8 (Outputs), p. 9 (Data Inputs), p. 10 (Data Sources), p. 11 (Applications; Considerations). |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| B.2 | Annex III 1(b) / Art. 4(2) Del. Reg. | Industry classification used. Del. Reg.: (a) name of the issuing body; (b) name and version of the classification; (c) publicly accessible link to official documentation, where available. | GIST Impact uses a selection of industry classification systems depending on the dataset and use case; in every instance, the classification is clearly specified. These classification systems include the NACE Rev 2.1 activity-level classification (651 Level 4 activities rolling up to 22 Level 1 high-level sections), as well as a proprietary classification system comprising 57 sectors. GIST Impact provides crosswalks to other recognised classification systems such as ISIC or NAICS where required.<br><br>Further information on NACE Rev 2.1 can be found here.<br><br>Further information on the GIST Impact classification system can be found here. | Methodology Document and ESMA Disclosure Checklist |
| B.3 | Annex III 1(c) / Art. 4(3) Del. Reg. | Overview of data sources, including whether data derive from sustainability statements under Directive 2013/34/EU or disclosures under Regulation (EU) 2019/2088, and whether sources are public or non-public; overview of data processes, estimation of missing input data and frequency of data updates. Del. Reg.: description of engagement with rated items or issuers and how input from that engagement is taken into account. | Directive 2013/34/EU:<br><br>Yes, GIST Impact uses information disclosed under Directive 2013/34/EU of the European Parliament as amended by Directive 2022/2464 ("CSRD") as a data source for its ESG ratings. This includes a diverse range of publicly disclosed data sources including non-financial and sustainability reporting aligned with Directive 2013/34/EU, together with complementary voluntary frameworks.<br><br>CSRD disclosures provide meaningful insight into entity-level sustainability governance, strategy, policies, targets and performance, as well as each entity's own assessment of its material impacts, risks and opportunities. GIST Impact integrates these inputs with other publicly available data sources to build a comprehensive view of corporate sustainability across environmental, social and governance dimensions.<br><br>GIST Impact's methodology leverages non-financial reporting across all sectors aligned to Directive 2013/34/EU, enabling consistent assessment across investee and corporate portfolios regardless of financial services status. This approach ensures broad applicability and robustness across our ESG ratings products.<br><br>Regulation (EU) 2019/2088:<br>No. GIST Impact does not source information from SFDR reports under Regulation (EU) 2019/2088 (SFDR). SFDR disclosures operate at the fund level, which assess entities rather than funds. Our primary data sources are entity-level disclosures published directly by companies — including annual reports, sustainability reports (including those prepared under the Corporate Sustainability Reporting Directive (CSRD), Directive (EU) 2022/2464, and its underlying European Sustainability Reporting Standards (ESRS), where applicable), and financial reports.<br><br>Where a portfolio or fund management company itself forms part of GIST Impact's rated universe, GIST Impact continues to rely on that entity's own sustainability or annual report rather than any SFDR disclosure it may separately produce or be subject to as a financial market participant. | Methodology document and ESMA Disclosure Checklist |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| B.4 | Annex III 1(e) / Art. 4(4) Del. Reg. | Whether and to what extent the methodologies are based on scientific evidence. Del. Reg.: process for identifying relevant scientific evidence, where applicable. | Yes – the methodology is based on scientific evidence. The framework follows the IPCC AR6 risk concept, in which risk emerges from the interaction of hazard, exposure and vulnerability, adapted for financial institutions and corporates. Inputs are drawn from established scientific and institutional sources, including ERA5 / Copernicus CDS, CMIP6 and IPCC scenario data (SSP1-2.6, SSP2-4.5, SSP5-8.5), the NGFS Scenarios Portal and IEA World Energy Outlook; SRTM and Copernicus DEM, Natural Earth, ISRIC SoilGrids and NASA GRACE for terrain, hydrology and land surface; and LitPop (Bresch & Aznar-Siguan, 2021; CLIMADA), GHSL (JRC), WorldPop and JRC GHS-POP for exposure. Damage-function coefficients are literature-derived (e.g. ILO, WHO, IPCC AR6 and SREX, Kjellstrom, Gasparrini, Merz, Thieken, Hallegatte, Schlenker & Roberts, Lobell, World Bank). PD and LGD sensitivity coefficients, vulnerability weights and DSCR action thresholds are GIST Impact internal parameters rather than literature-derived. The methodology is reviewed under the ESG Ratings & Methodologies Review Procedure (see E.5). | Methodology Document: p. 3 (Methodology Foundations); p. 5 (Climate Hazard Construction (Phases 1-3)); p. 10 (Data Sources) |
| B.5 | Annex III 1(k) | Use of artificial intelligence in data collection or rating, including current limitations and risks, where applicable. If no AI is used: negative statement. | Refer GIST Impact AI Usage Policy for ESG Rating Activities | Separate Policy Document |
| **Section C – Limitations of data sources, methodologies and information (Annex III, point 1)** | | | | |
| C.1 | Annex III 1(m) / Art. 5 Del. Reg. | Limitations of data sources and methodologies. Del. Reg.: limitations regarding (a) availability or coherence of data; (b) completeness, timeliness and accuracy of information; (c) inclusion of assumptions, proxies and data estimates. | (a) Availability/coherence: Global data sources underpin this release, with region-specific sources used for deeper-dive analyses. Company financial inputs (income statement, balance sheet, cash flow) are optional, and credit inputs (base PD, LGD, EAD) are supplied by banks only; where company or site data is not supplied, proxies are used. Hazard and exposure layers are published at asset level only (not in the company extract), and not every modelled channel (operational disruption, agricultural yield loss, health and absenteeism) is a published column. (b) Completeness, timeliness and accuracy: Precision improves materially where a real site register is supplied. (c) Assumptions, proxies and estimates: Asset and collateral values fall back to proxy values from open gridded exposure datasets, and labour exposure to gridded population, where company data is not supplied; damage-function sectors are modelling parameters that may differ from a company's GICS classification; wind, wildfire and cyclone are not independently modelled (cyclone is represented only through storm-surge intensity in the flood module); revenue and damage responses are bounded by a saturating-exponential form; PD and LGD sensitivity coefficients, vulnerability weights and DSCR action thresholds are GIST Impact internal; Monte Carlo output is a scenario-conditioned loss distribution, not a forecast of a given year. | Methodology Document: p. 11 (Considerations); p. 9 (Data Inputs); p. 10 (Data Sources); p. 6 (Phase 6 – bounded saturation elasticity; damage-function sectors); p. 3 (Methodology Foundations – Scope note) |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| C.2 | **Annex III 1(q) / Art. 5 Del. Reg.** | Limitations of the information available to the ESG rating provider. Same elements (a) to (c) as C.1. | (a) Availability/coherence: Asset-level inputs beyond location and site type – asset or collateral value, revenue exposure, employee count and resilience indicators – are optional and are available only where the client or company supplies them; a corporate's own site register overrides the crawled equivalent. Borrower credit inputs (base PD, LGD and EAD) are available only from banks.<br>(b) Completeness, timeliness and accuracy: Where resilience indicators (drainage, flood defences, cooling systems, floor level), headcount or shift patterns are not supplied, site-specific resilience and workforce exposure cannot be reflected from company data; precision improves materially with a real site register.<br>(c) Assumptions, proxies and estimates: Proxy asset and collateral values from open gridded exposure datasets, and gridded population for labour-density estimation, are used where company data is not supplied. Under issuer-paid engagements, client-supplied data is limited to pre-configured categories and the resulting deliverables are labelled 'Issuer-paid'. | Methodology Document: p. 9 (Data Inputs); p. 10 (Data Sources; Issuer-Paid Data Inputs); p. 11 (Applications; Considerations) |
| **Section D – Disclosures on the organisation of the ESG rating provider (Annex III, point 1)** | | | | |
| D.1 | **Annex III 1(d) / Art. 6(1) Del. Reg.** | Ownership structure of the applicant. Del. Reg.: chart of ownership links with all parent undertakings and subsidiaries, showing, where applicable, whether any of them carries out activities under Article 16(1) or provides other services under Article 16(6) of Regulation (EU) 2024/3005. | GIST Impact Netherlands B.V. will submit a detailed organisational ownership structure chart to ESMA. The chart will also be made available (upon request) via the GIST Impact website. | Separately provided to ESMA |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| D.2 | **Annex III 1(l) / Art. 6(2) Del. Reg.** | General information on fee criteria and business/payment model. Del. Reg.: (a) how fee criteria ensure fair, reasonable, transparent and non-discriminatory fees (Article 27); (b) subscription, issuer-pays, combined or other model; (c) description of the business model and share of total annual turnover from each model; (d) where applicable, how fees for non-ESG-rating services affect ESG rating fees, with a description of those services. | Fees for ESG rating services are determined based on transparent criteria, including data scope, coverage, and service level, and are entirely independent of rating outcomes. All ESG rating products are offered exclusively either on (i) a User-paid subscription basis or (ii) an Issuer-paid model. Clients — such as investors, asset managers, or corporates — engage GIST Impact through subscription or contractual arrangements under which no fee is linked to, or contingent upon, the outcome or content of any ESG rating; GIST Impact has also established a dedicated Pricing Policy (publicly available on the GIST Impact website).<br><br>ESG Ratings and data products are determined solely through the consistent application of defined methodologies, and are never affected by existing or potential business relationships with rated entities, including where GIST Impact also delivers direct data and analytics services to corporates and investors: where such clients also sit within their rated universe, this engagement is operationally and methodologically independent, and does not influence, inform, or modify our rules-based scoring for any product (under the Issuer-paid model). GIST Impact does not enter into contingent fee arrangements tied to ESG rating outcomes, and its compensation structures are fully independent of the assigned ratings. All fees charged to clients are fair, transparent, and non-discriminatory. | Separate Policy document |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| D.3 | **Annex III 1(n) / Art. 6(3) Del. Reg.** | Main risks of conflicts of interest and mitigating measures. Del. Reg.: areas of activities, services or organisational structures posing the greatest risk of conflicts of interest. | GIST Impact has adopted a Group-level Conflict of Interest Policy for ESG Rating Activities (the "COI Policy") that establishes the governance framework, principles, and procedures for the identification, prevention, management, and mitigation of conflicts of interest arising in connection with ESG Rating activities conducted by GIST Impact Netherlands B.V. The COI Policy is adopted at Group level and applies to GIST Advisory Switzerland S.A., including its UK branch, and its subsidiaries, including GIST Impact Netherlands B.V. and GIST Advisory Private Limited (collectively, "GIST Impact"), to the extent that any such entity, function, or individual supports, participates in, or may otherwise influence ESG Rating activities conducted by GIST Impact Netherlands B.V.<br><br>GIST Impact has established internal policies and procedures to ensure our independence and mitigate potential conflicts of interest that may arise from our ownership structure or group-level interests, as well as from any parties or rated entities that may influence our rating activities. We ensure the independence of our rating activities, including from political and economic constraints. GIST Impact's ESG Rating activities operate according to a rules-based methodology grounded in data and science.<br><br>GIST Impact operates two business models, namely (i) a User-paid model and (ii) an Issuer-paid model. Under the User-paid model, which generates the majority of its revenue, ESG ratings and analytics built from publicly available sources are delivered on a subscription basis. Under the Issuer-paid model, GIST Impact charges rated entities fees for ESG analytics built from publicly available sources; where applicable, these are supplemented by limited data provided by that entity, solely to support the entity's own independent assessment of risks and opportunities within its operations. These analytics are data products only. In the course of Issuer-paid engagements, GIST Impact does not advise any entity on how to improve the ESG rating issued to it under the User-paid model, or on its public disclosures with a view to improving that ESG rating. Issuer-paid activities are kept separate from User-paid ESG rating activities, and information generated through Issuer-paid engagements is not used as an input to, and does not inform, the datasets, methodologies, or ratings provided under the User-paid model. Where clients of GIST Impact's data or analytics services also sit within its rated universe, such engagement is operationally and methodologically independent and does not influence ESG Ratings. Across both models, GIST Impact does not enter into contingent fee arrangements tied to rating outcomes, its compensation structures are independent of the ratings assigned, and all fees are fair, transparent, and non-discriminatory. | Separate Policy document |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| | | | …The COI Policy is designed to ensure that ESG Rating activities are conducted in accordance with the general principles set out in Article 15 of Regulation (EU) 2024/3005, including the principles of independence, integrity, transparency, and impartiality in the provision of ESG Ratings. The Policy forms part of the broader governance framework applicable to GIST Impact Netherlands B.V. and is intended to safeguard the independence, objectivity, integrity, and impartiality of its ESG Rating activities and to ensure that potential and actual conflicts of interest are appropriately identified, assessed, managed, and mitigated. The Conflict-of-Interest Policy for ESG Rating Activities is publicly available on the GIST Impact website. | |
| **Section E – Disclosures to users, rated items and issuers (Annex III, point 2; Article 24)** | | | | |
| **E.1** | **Annex III 2(a)(i)** | Scientific evidence and assumptions on which the ratings are based, where applicable. | See B.4 and B.1. Key assumptions: risk is modelled as the interaction of hazard, exposure and vulnerability (IPCC AR6 framing); six perils only (extreme heat, extreme cold, extreme precipitation, riverine flood, coastal flood, drought), delivered through four hazard modules (temperature, extreme precipitation, flood and drought); scenarios SSP1-2.6, SSP2-4.5 and SSP5-8.5, annually 2025–2050, with a 1991–2020 baseline for extreme precipitation; proxy asset values from open gridded exposure datasets where not supplied; revenue and financial responses bounded by a saturating-exponential elasticity so that an extreme hazard year cannot produce an implausible collapse; EBITDA shock amplified by operating leverage; PD driven through sector-specific revenue-to-PD elasticities and DSCR deterioration, and LGD through collateral impairment (more responsive to flood and surge than to heat); loss uncertainty (rainfall variability, surge randomness, event timing, persistence, recovery) propagated through 10,000+ Monte Carlo simulations; Physical Climate VaR at P90, P95 and P99 with a 95% expected shortfall; IFRS 9 uses a point-in-time PD where capital uses a through-the-cycle PD. | Methodology Document: p. 3 (Methodology Foundations); p. 5 (Phases 1-3; Phase 4); p. 6 (Phases 5 and 6); p. 7 (Phase 7; Phases 8 to 9); p. 10 (Data Sources) |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| E.2 | Annex III 2(a)(ii) | Key performance indicators per E, S and G factor and weighting method. | E only. KPIs (more than 40 metrics in nine categories, each traceable to the pipeline phase that produced it): Hazard – Composite Effective Hazard Index, Effective Flood Severity, Thermal Stress Index, Effective Drought, Effective Precipitation, Coastal Inundation Stress; Exposure – Exposure Intensity, Capital Stock Proxy, Labour Exposure; Damage – Asset Impairment / Damage Ratio, Labour Productivity Loss, Supply-Chain Disruption, Composite Climate Damage Index; Financial – Revenue Shock, EBITDA Shock, Liquidity Stress, Debt Burden; Credit risk – Climate-Adjusted PD, Baseline and Climate-Adjusted LGD, Implied and Climate Risk Rating, Credit Stress Index; Market / tail – Physical Climate VaR on revenue, EBITDA and asset bases, P95 / P99 VaR, Expected Shortfall; Provisioning – 12-month ECL, Lifetime ECL, Scenario-Weighted ECL, IFRS 9 staging; Capital – Climate RWA, Capital Charge, CET1 Ratio and Shortfall, Economic Capital, Pillar 2 Add-on; Portfolio – Concentration HHI, Systemic Cascade Index, Portfolio Resilience, Temporal Climate Escalation. Weighting method: no E, S and G weighting is applied. Within the Composite Effective Hazard Index, each effective hazard is normalised to a common 0–1 scale and the six are combined by weighted aggregation. The numeric hazard weights, vulnerability weights and DSCR action thresholds are GIST Impact internal parameters. | Methodology Document: p. 5 (Phases 1-3 – published indices; Phase 4); p. 7 (Phases 8 to 9 – confidence levels); p. 8 (Outputs); p. 10 (Data Sources – internal parameters); p. 12 (Appendix – ESMA Disclosure Checklist, A.2) |
| E.3 | Annex III 2(a)(iii) | For aggregated ratings: result for each E, S and G category in a form ensuring comparability. If not aggregated: negative statement. | Not applicable – Physical Risk - VaR is not an aggregated ESG rating; it covers the E factor only. | Methodology Document: p. 12 (Appendix – ESMA Disclosure Checklist, A.2) |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| E.4 | **Annex III 2(a)(iv) / Art. 7(2) Del. Reg.** | Deficiencies in the methodologies and remedial measures. Del. Reg.: deficiencies related to the use of pre-determined statistical or algorithmic systems. | Deficiencies: (i) physical risk only – transition risk is not included, and wind, wildfire and cyclone are not independently modelled (cyclone is represented only as storm-surge intensity in the flood module); (ii) damage-function sectors are modelling parameters that may differ from a company's GICS classification; (iii) where company data is not supplied, asset and collateral values and labour exposure rely on open gridded exposure and population proxies, so precision is lower without a real site register; (iv) not every modelled channel is a published column – operational disruption, agricultural yield loss and health and absenteeism reach the dataset only through their effects on revenue and productivity, and hazard and exposure layers are available only in the asset-level delivery; (v) Monte Carlo output is a scenario-conditioned loss distribution, not a forecast of a given year.<br>Algorithmic/statistical: Physical Risk - VaR applies pre-determined, rules-based algorithms and statistical models – sector-specific damage functions with calibrated coefficients, a saturating-exponential bounded elasticity for revenue and damage responses, a Merton structural model for baseline PD and distance-to-default, sector-specific revenue-to-PD elasticities, and Monte Carlo simulation (10,000+ runs) for the loss distribution and tail measures. PD and LGD sensitivity coefficients, vulnerability weights and DSCR action thresholds are GIST Impact internal parameters.<br>Remedial measures: documented measures are (i) traceability of every published number from climate input to credit outcome, with asset-level worksheets available for audit; (ii) a client's own site register overrides the crawled equivalent, and issuer-paid clients can supply additional data inputs against pre-configured categories; (iii) P90 / P95 / P99 Physical Climate VaR and the 95% expected shortfall are provided so that users can see the shape of the loss tail; and (iv) other confidence levels can be requested under the issuer-paid model. | Methodology Document: p. 11 (Considerations); p. 6 (Phase 6 – bounded saturation elasticity); p. 7 (Phase 7; Phases 8 to 9; Issuer-Paid Data Inputs); p. 10 (Data Sources; Issuer-Paid Data Inputs) |
| E.5 | **Annex III 2(a)(v) / Art. 8(1) Del. Reg.** | Methodology review policies. Del. Reg.: (a) review process and frequency; (b) conditions triggering a review; (c) stakeholder consultation during reviews, where applicable; (d) process for assessing the impact of revisions on ratings; (e) criteria for a material change. | GIST Impact reviews its ESG Rating methodologies on an ongoing basis, and at least annually, to ensure that they remain accurate, relevant, robust, and aligned with applicable regulatory requirements and evolving market standards. GIST Impact has established a dedicated Board-approved ESG Ratings & Methodologies Review Procedure, which sets out the governance framework and processes for the review, assessment, and, where appropriate, revision of its ESG Rating methodologies. The ESG Ratings & Methodologies Review Procedure is publicly available on the GIST Impact website. | Separate Policy Document |
| E.6 | **Annex III 2(a)(vi)** | Where a rating is up- or downgraded due to material changes in methodology, models, key assumptions or data sources (including estimates): reasons and impact. Rating-specific. | Not applicable for this release – Version 1.0 is the first release of the methodology, so no outputs have been revised due to material changes in methodology, models, key assumptions or data sources. Physical Risk - VaR does not define rating categories (see A.5 and B.1(f)); where future material changes in methodology, models, key assumptions or data sources materially change results, GIST Impact will disclose the reasons and impact under the ESG Ratings & Methodologies Review Procedure (see E.5) | Methodology Document: p. 2 (Introduction – first release); p. 8 (Outputs); Separate Policy Document (ESG Ratings & Methodologies Review Procedure) |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| E.7 | Annex III 2(a)(vii) / Art. 8(2) Del. Reg. | Date of last revision of the methodology. Del. Reg.: version number of the methodology. (Cross-reference: B.1(g)) | Methodology version: Version 1.0 (first release). Date of last revision: Not applicable – Version 1.0 is the first release. See B.1(g). | Methodology Document: p. 2 (Introduction – first release). |
| E.8 | Annex III 2(a)(viii) | If the E factor is covered: whether and to what extent the rating correlates with the percentage of taxonomy alignment under Regulation (EU) 2020/852 or is aligned with other international agreements, and explanation of material deviations. (Cross-reference: A.6) | No – the methodology does not measure, or refer to, the percentage of EU Taxonomy alignment under Regulation (EU) 2020/852, and no correlation analysis is documented. Physical Risk - VaR quantifies the financial, credit and capital impact of physical climate hazards rather than the alignment of economic activities with Taxonomy criteria. See A.6 on international agreements. | Methodology Document: p. 13 (Appendix – ESMA Disclosure Checklist, A.6); p. 3 (Methodology Foundations); p. 11 (Considerations) |
| E.9 | Annex III 2(b)(i) / Art. 7(1) Del. Reg. | A more detailed explanation of data sources used, including whether public or non-public, whether subject to assurance engagement, and whether derived from the sustainability reporting standards developed pursuant to Articles 19a and 29b of Directive 2013/34/EU concerning sustainable economic activities and disclosure of information pursuant to Regulation (EU) 2020/852 and Regulation (EU) 2019/2088, including whether and how information on companies' transition plans derived from such sustainability reporting standards is used. Del. Reg.: methods used to collect any non-public data. | See response to B3 above. To add, GIST Impact's ESG Ratings Products draw on publicly available data sources, including corporate disclosures (annual reports, sustainability/ESRS reports, regulatory filings), government and multilateral databases, other public datasets, and third-party specialised data vendors via contractual arrangements. The specific data sources relied upon for a given ESG Rating Product are identified in the applicable Methodology documents.<br><br>Where actual, reported, or verified data is unavailable or incomplete, GIST Impact applies documented estimation techniques to fill data gaps. Any such estimation is clearly flagged as such within the underlying dataset and Methodology documentation, distinguishing estimated values from disclosed or verified figures.<br><br>Data quality is governed through a combination of automated and manual controls, including source validation, completeness checks, outlier detection, and periodic review of data providers and input taxonomies, as set out in GIST Impact's internal data quality assurance procedures. Access to underlying data is restricted on a role-based basis and subject to audit trails.<br><br>Update frequency is governed by GIST Impact's ESG Ratings & Methodologies Review Procedure (publicly available on the GIST Impact website), under which data and methodologies are reviewed on both annual and/or periodic event-driven basis (as required) — including in response to new or revised regulatory standards, material developments in data sources or analytical techniques, material feedback from rated entities, clients, or regulators, changes to data providers or input taxonomies, identified errors, or changes to product scope — with methodology reviews conducted at least annually in line with Regulation (EU) 2024/3005. | Methodology Document and ESMA Disclosure Checklist |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| E.10 | Annex III 2(b)(ii) | Use of estimates and sector averages, where applicable, and explanation of the underlying methodology. | Yes. Estimates are used where company or site data is not supplied: asset and collateral values are estimated from open gridded exposure datasets, and labour exposure from gridded population. Sector parameters: each company is assigned to a damage-function sector, which sets its revenue driver, damage function and PD elasticity, with a blended default channel where no sector-specific driver applies. These are modelling parameters, not GICS reporting sectors. | Methodology Document: p. 3 (Methodology Foundations – Exposure); p. 6 (Phase 6 – damage-function sectors); p. 9 (Data Inputs); p. 10 (Data Sources – Exposure and asset-value fallbacks); p. 11 (Considerations – Proxies where data is missing) |
| E.11 | Annex III 2(b)(iii) / Art. 8(3) Del. Reg. | Principles for data updates and revision of historical data; date of last data update (rating-specific). Del. Reg.: measures ensuring accuracy and consistency of the data revision process. | Principles: methodology and data are reviewed at least annually, plus event-driven reviews, under the ESG Ratings & Methodologies Review Procedure (see E.5); model output is produced annually from 2025 to 2050 under each of the SSP1-2.6, SSP2-4.5 and SSP5-8.5 scenarios, as a loss distribution conditioned on scenario rather than a prediction of a given year; climate hazard and scenario inputs are drawn from global sources (ERA5 / Copernicus CDS, CMIP6 and IPCC scenario data, NGFS Scenarios Portal and IEA World Energy Outlook); and where a corporate supplies its own site register it overrides the crawled equivalent.<br>Accuracy and consistency: every published number is traceable from the climate input through the intermediate layers to the final credit outcome, with full calculation inputs, vulnerability adjustments and score derivations available in asset-level worksheets for audit; deliverables that use client-supplied data are clearly labelled as 'Issuer-paid'; and rated entities can access the underlying dataset at least two full working days before publication, solely to identify factual errors (see E.14). Revision of historical data follows the ESG Ratings & Methodologies Review Procedure (see E.5). Date of last data update: NA | Methodology Document: p. 3 (Issuer-Paid Data Inputs); p. 10 (Data Sources; Issuer-Paid Data Inputs); p. 11 (Applications; Considerations – traceability); Separate Policy Document |
| E.12 | Annex III 2(b)(iv) | Data quality controls, their frequency and the remediation process in case of issues. | Controls: documented controls are (i) quality control of hazard inputs, for example drought inputs screened for negative rainfall, sentinel values and outliers; (ii) a bounded saturation elasticity on revenue and damage responses, which prevents modelled losses from reaching economically unrealistic levels; (iii) precedence of a corporate's own site register over the crawled equivalent; (iv) traceability of every published number from the climate input through intermediate layers to the final credit outcome, with full calculation inputs, vulnerability adjustments and score derivations available in asset-level worksheets for audit; and (v) clear labelling of deliverables that use client-supplied data as 'Issuer-paid'. Frequency: the methodology and data are reviewed at least annually plus on defined events (see E.5).<br>Remediation: identified errors are a defined event-driven trigger for review of the methodology and data under the ESG Ratings & Methodologies Review Procedure (see E.5); factual errors identified by the rated entity in the pre-publication dataset access are reviewed and any resulting actions are documented by the Oversight Function. | Methodology Document: p. 5 (Phases 1-3 – Drought input quality control); p. 6 (Phase 6 – bounded saturation elasticity); p. 10 (Data Sources; Issuer-Paid Data Inputs); p. 11 (Applications; Considerations – closing paragraph on traceability); p. 24 (Appendix – ESMA Disclosure Checklist, E.11); Separate Policy Document |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| E.13 | Annex III 2(b)(v) | Steps taken to address limitations of data sources, where applicable. (Cross-reference: C.1, C.2) | See C.1 and C.2. Documented steps include: using open gridded exposure and population datasets where asset values and headcount are not supplied; letting a client's own site register override the crawled equivalent; accepting additional client data inputs against pre-configured categories under the issuer-paid model; bounding revenue and damage responses with a saturating-exponential elasticity; reporting P90 / P95 / P99 Physical Climate VaR and a 95% expected shortfall to show the shape of the loss tail; full traceability and asset-level audit worksheets; and explicit scope statements on what is and is not covered. | Methodology Document: p. 11 (Applications; Considerations); p. 10 (Data Sources; Issuer-Paid Data Inputs); p. 7 (Phases 8 to 9; Issuer-Paid Data Inputs); p. 6 (Phase 6) |
| E.14 | Annex III 2(c) | Engagement with rated items or issuers, including whether on-site inspections or visits were carried out and their frequency, where applicable. | In accordance with Article 15(12) of Regulation (EU) 2024/3005, GIST Impact operates a pre-issuance notification process, providing the rated entity access to the dataset underlying their ESG rating at least two full working days prior to publication, for the limited purpose of identifying factual errors. Upon request and free of charge, GIST Impact will provide, along with the underlying dataset, the industry classification applied, data sources used, data processing methodology (including any estimation techniques), and update frequency — solely to allow correction of factual errors.<br><br>Feedback is reviewed and any resulting actions documented by the Oversight Function; such engagement is strictly limited to factual accuracy and does not permit rated entities to influence GIST Impact's methodologies, assumptions, weighting, or rating outcomes, consistent with GIST Impact's Conflict of Interest Policy for ESG Rating Activities (publicly available on the GIST Impact website). GIST Impact does not provide rated entities access to the ESG rating it plans on distributing. | Separate Policy Document |

Copyright © 2026 GIST Impact. All rights reserved.

# Appendix — ESMA Disclosure Checklist (continued)

| Ref. | Criterion (Annex III / Del. Reg. reference) | Required content | GIST Impact response | Reference (Methodology Document Section or Page Number) |
|---|---|---|---|---|
| E.15 | Annex III 2(d) | For unsolicited ratings: clearly visible notice in the rating, including whether the rated item or a related third party was informed in advance, whether it participated in the rating process, and whether the provider had access to management and relevant internal documents. Rating-specific. | See above response. To add,<br>For unsolicited assessments, GIST Impact's ESG assessments are based on rule-based methodologies that primarily use publicly available company data, estimation models, and scientifically supported models. GIST Impact does not have Rating Analysts engaging directly with rated entities for the purpose of influencing or determining individual ESG assessments. Accordingly, the methodologies do not rely on data obtained through direct engagement with rated entities, nor are the rules-based methodologies adapted or modified to change the assessment of an individual company.<br><br>GIST Impact may also be directly engaged by corporates and investors to undertake bespoke analysis or data provision services for their own specific purposes. Such direct engagement work is operationally and methodologically independent from GIST Impact's rules-based ESG assessments. Analysis, data, or intelligence generated through direct engagement with a corporate or investor client is not integrated into GIST Impact's underlying databases, nor does it inform, modify, or influence the rules-based assessments applied to that entity or any other entity within GIST Impact's products. The separation of these engagement streams ensures that direct work with clients does not compromise the integrity or consistency of GIST Impact's rules-based methodology across its products. | Refer Conflict of Interest Policy for ESG Rating Activities |
| E.16 | Annex III 2(e) | Explanation of the AI methodology used in data collection or the rating process, where applicable. (Cross-reference: B.5) | Refer GIST Impact AI Usage Policy for ESG Rating Activity | Separate Policy Document |
| E.17 | Annex III 2(f) | Where important new information on a rated item may affect the rating: how it has been taken into account and whether the rating has been amended. Rating-specific. | Refer response to E5 and the ESG Ratings & Methodologies Review Procedure | Separate Policy Document |

Copyright © 2026 GIST Impact. All rights reserved.

# Disclaimer

This Methodology Document is a public version prepared in accordance with the disclosure requirements set out under Regulation (EU) 2024/3005 of the European Parliament ("Regulation"). This Document is provided for informational purposes only. Certain proprietary parameters, data calibrations, and computational techniques have been withheld to protect trade secrets pursuant to Article 15(13) of the Regulation. All contents of this document are protected under intellectual property laws and may not be exploited, reproduced, distributed, modified, assigned, or transformed in any form without the explicit and express consent of GIST Impact.

This Document may be updated, revised or withdrawn from time to time to reflect changes in applicable law, regulatory guidance, market practice, scientific developments, data availability or methodological enhancements.

Copyright © 2026 GIST Impact. All rights reserved.