
VANACHAI GROUP
FROM
FOREST ROOTS
TO THE
NET ZERO
FUTURE
SUSTAINABLE SOLUTIONS
WITH WOOD-BASED MATERIALS
VANACHAI SUSTAINABLE
MOVE REPORT 2025

# From Forest Roots to the Net Zero Future

**This year's ESG theme, From Forest Roots to the Net Zero Future, builds on last year's From Forest to Future and delivers one clear message:**

We are moving from intention to action. Forest Roots reflects the living ecosystem that sustains our business and our responsibility to protect and restore it through responsible sourcing and biodiversity stewardship. Net Zero Future is our direction of travel, reducing greenhouse gas emissions across our operations and value chain through measurable targets, strong governance, credible implementation, and transparent reporting, on our pathway to Net Zero Emissions by 2050. The wildlife on our cover, the wild elephant, tiger, Malayan Tapir, stingless bee, gibbon, Pulu turtle, great hornbill and Vulture, signals a thriving forest and symbolizes abundance, regeneration, connected canopy, and long-term forest health. Together with our doors, particleboard, MDF boards and flooring featured on the cover, these symbols reflect how we turn forest stewardship into practical wood-based solutions that support a lower carbon future.

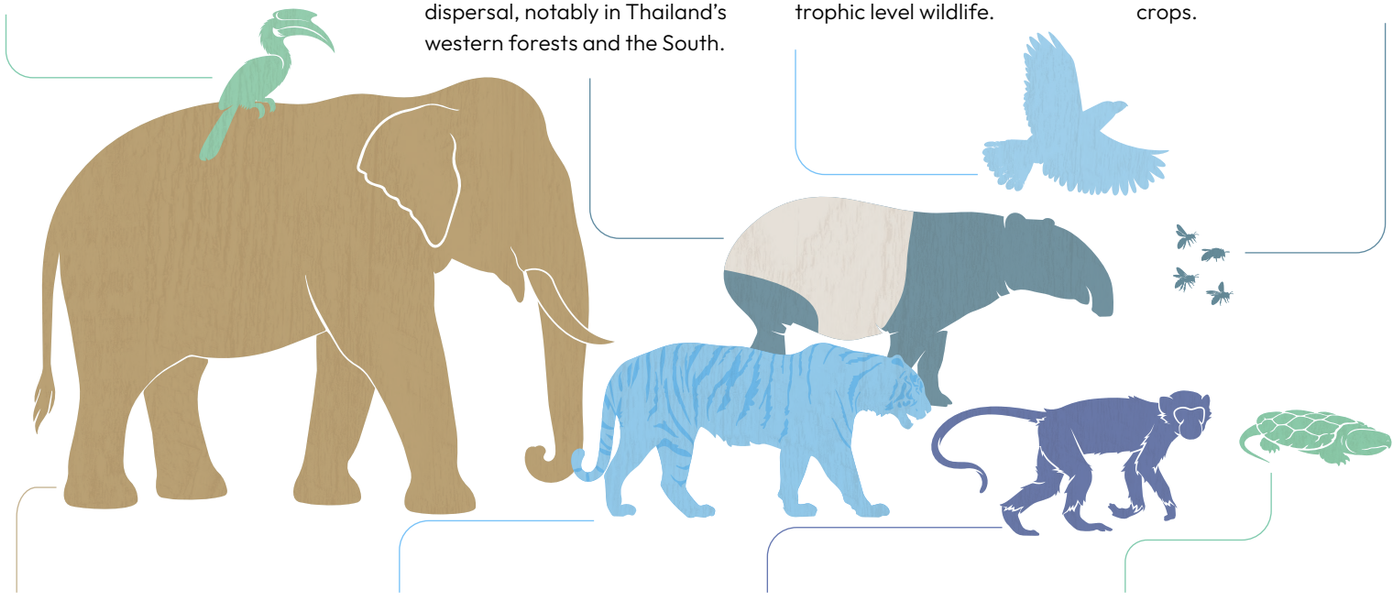
## Key wildlife species that indicate forest abundance and ecosystem health

**Great hornbill:** Nests in large tree cavities, indicating mature, well conserved forests, and helps disperse the seeds of more than 200 plant species.

**Malayan tapir:** A protected species found primarily in intact tropical rainforests, and a "forest gardener" that supports natural regeneration through seed dispersal, notably in Thailand's western forests and the South.

**Vulture (King Vulture ):** Indicates extensive forest ecosystems and the presence of a functioning food chain, including higher trophic level wildlife.

**Stingless bee:** A highly effective pollinator that supports the reproduction of wild forest plants as well as economically important crops.



**Wild elephant:** Signals a healthy forest ecosystem with sufficient water sources and food availability.

**Tiger:** As an apex predator, our presence indicates abundant prey populations and a habitat large and connected enough to sustain top predators.

**Gibbon:** Reflects well preserved dry evergreen forest or tropical rainforest conditions, with reliable food resources and high biodiversity.

**Pulu turtle:** An indicator of clean, healthy headwater ecosystems, including streams and waterfalls.

The observation of these species in the wild indicates that the forest still supports high biodiversity and a complete, well functioning ecosystem.

# Committed to Forest Conservation and Environmental Protection

Vanachai Group is a Thai manufacturer of wood-based products with a track record of over 80 years. Headquartered in Bangkok, the Group operates four manufacturing sites producing a broad portfolio of wood-based products, including MDF boards, wood flooring and finished doors, for the construction and interior decoration sectors.

Our business model is underpinned by responsible resource use and circularity, with wood residues as our primary raw material. Through a Zero Waste Production approach, we priorities resource efficiency, waste minimisation, and continuous improvement in operational performance across the value chain. In parallel, the Group advances decarbonization by reducing greenhouse gas (GHG) emissions and increasing the share of renewable energy, strengthening long-term environmental resilience while supporting sustainable business growth and meeting evolving stakeholder expectations.

## OUR PURPOSE

Forest Future Together

FOR A SUSTAINABLE LIVING

# 2025 Recognitions for Governance and Sustainability Performance

## SET ESG Ratings (AAA) for 2025 Property and Construction Group (PROPCON)

Recognized with an AAA SET ESG Rating by the Stock Exchange of Thailand in our first year of assessment, Vanachai Group continues to advance responsible and transparent business practices while integrating ESG considerations across the value chain.

Anchored in the Forest | Future | Together framework and backed by more than 80 years of experience, the Group remains focused on strengthening performance, enhancing accountability, and driving progress toward our ESG goals to support long term competitiveness and sustainable returns.

## Green Industry

Recognized with the Green Industry award by the Department of Industrial Works, reflecting the Group's commitment to energy efficiency, environmental responsibility, and continuous improvement across our operations.

**Green Industry Level 4, 1 factory:** Vanachai Chemical Industries Co., Ltd.

Green Industry Level 4 (Green Culture) recognizes organizations that have embedded environmental management throughout the enterprise, supported by company-wide participation and consistent adherence to green practices by employees at all levels. It reflects the effective integration of sustainability principles into corporate culture and operational discipline.

## Environmental Governance and Safety Award (Gold Star Award/ Green Star Award)

Organised by the Industrial Estate Authority of Thailand (IEAT), this programme recognises industrial facilities with excellent governance, environmental management, and safety performance, while promoting sustainable coexistence with surrounding communities.

**Vanachai Chemical Industry Co., Ltd. (Rayong):** Gold StarAwarded to facilities that have continuously met the White Flag Green Star standards for at least seven consecutive years.

## The 2025 Corporate Governance Report (CGR) assessment

Receiving an "Excellent" 5 Star rating in our first Corporate Governance Report (CGR) assessment by the Thai Institute of Directors Association (IOD), with support from the Stock Exchange of Thailand, marks an important milestone for Vanachai Group. The recognition reflects the Group's commitment to high standards of corporate governance, transparent oversight, and responsible business conduct.

The Group remains focused on maintaining high governance standards, reinforced by accountability, effective oversight, and responsible stakeholder engagement to support long term resilience and sustainable value creation.

## CAC: Thai Private Sector Collective Action Against Corruption

Received the CAC 2 Star recognition, underscoring the Company's advancement from policy commitment to demonstrated action through a formal self assessment and the implementation of practical, verified anti corruption policies and controls. The recognition reflects a structured approach to governance and integrity, supported by measures that have undergone external review.

Valid for three years, this certification was awarded to Vanachai for the first time in 2025 and represents an important milestone in strengthening the Company's governance framework, ethical standards, and long-term stakeholder trust.

## Zero Accident Campaign 2025

This recognition, organised by the Thailand Institute of Occupational Safety, Health and Working Environment (Public Organization) (T-OSH), honours establishments that demonstrate a sustained commitment to the prevention of workplace accidents.

**Vanachai Chemical Industry Co., Ltd. (Rayong):** Silver Award Presented to establishments that achieve 3,000,000 to 9,999,999 cumulative safe working hours without a lost time accident (LTA), in accordance with the criteria of T-OSH.

# “Forest | Future |Together” 2025 Sustainability Highlights

## CIRCULAR BY DESIGN, LOW-CARBON BY ACTION

**We drive circularity with longer-life products, cleaner production that reduces waste and carbon, and strong governance that builds stakeholder trust.**

## FOREST:

**We drive resource efficiency and climate action.**

Scope 1 and Scope 2 GHG emissions intensity per unit of production
**0.128**
$tCO_2e$

Renewable energy share (electricity and thermal) of total energy consumption
**71.6%**

Renewable wood-based raw material share of total material input
**94.7%**
(By weight)

Total waste recovery rate under the 4R framework
**≈96.2%**
(By weight)

Wastewater reuse/recycle rate as a share of total wastewater volume
**82.1%**

## FUTURE:

**We uphold transparent governance to enable resilient growth.**

Share of core processes digitally monitored or automated for production, energy and carbon
**55.56%**

Share of new CapEx projects incorporating digital technology or automation
**33.20%**
of new CapEx

Share of core products with LCA coverage and EPDs or equivalent eco-labels
**63.27%**
% of core product lines/SKUs

## TOGETHER:

**We create shared value by growing with people and society.**

Lost Time Injury Frequency Rate (LTIFR) (27% reduction from base year)
**2.02**
cases per million hours worked

Average OHS: Occupational Health and Safety training hours per employee per year
**9.10**
hours per employee per year

Increase overall community satisfaction
**87.5%**
(base year 2024: 85%)

# Resources In, Value Out

**A snapshot of how we manage resource use, emissions, operational outputs, and progress on GHG reduction to support long term operational efficiency and environmental performance.**

Vanachai transforms key inputs into long term value through disciplined resource management across our operations. In 2025, we continued to scale circular production by prioritizing renewable raw materials, with nearly 95% of inputs sourced from renewable resources. Our energy transition progressed further, with renewables accounting for 71.6% of our total energy mix, driven mainly by renewable heat from biomass and supported by ongoing efficiency improvements and operational controls.

This snapshot also shows how we manage outputs with accountability across wastewater and air emissions. Total water withdrawal from all sources was 181,538 m³. We recycled and reused 82.1% of total wastewater, and managed treated effluent discharge in line with compliance requirements. In parallel, we manage air pollutant emissions through process optimization, Operational controls and monitoring to maintain compliance and drive continuous improvement. Together, these actions support lower environmental impacts while delivering high value wood-based products that contribute to better and healthier living environments.

## RAW MATERIALS



### RESPONSIBLE SOURCING, RENEWABLE INPUTS

Wood-based raw materials and wood residues are managed under rigorous sourcing controls and robust chain of custody systems to support the sustainable procurement of wood inputs and long-term resource security

**Raw Materials** Unit: Tonne

| Renewable | 2025 | Share |
|---|---|---|
| Wood residues / Branches, By-product from Saw mill | 2,776,398 | 94.7% |
| Adhesive resins | 142,381 | 4.9% |
| Other additives for durability and protection | 12,245 | 0.4% |

## ENERGY



### CLEANER ENERGY, HIGHER EFFICIENCY

We improve energy efficiency and expand renewable electricity from sources such as solar and biomass to reduce exposure to energy and carbon cost volatility.

**Energy** unit: GJ

| Renewable | 2025 | Share |
|---|---|---|
| Solar Photovoltaic Electricity | 70,453 | 1.4% |
| Biogenic Based Renewable | 3,189,254 | 65.9% |
| Grid Based Renewable | 206,949 | 4.3% |
| Fossil Fuels | 297,945 | 6.2% |
| Purchased electricity | 1,075,393 | 22.2% |

## WATER INTAKE



### WATER STEWARDSHIP IN OPERATIONS

We manage water use through operational controls, focusing on efficiency, monitoring, and responsible discharge management aligned with local requirements. No water withdrawal from areas with water stress.

**Water Intake (From All Sources)** Unit: m³

| | 2025 |
|---|---|
| On site[1] produced water | 769,315 |
| Industrial estate piped water supply[2] | 335,288 |
| Provincial Waterworks Authority piped water supply | 3,388 |
| Groundwater[3] | 33,035 |

[1] Surathani and Chonburi Plant [2] Saraburi and Rayong Plant
[3] Depot by Vanachai

## PRODUCTS



### HIGH-VALUE WOOD-BASED PRODUCTS FOR SUSTAINABLE LIVING

Our products are designed for performance and resource efficiency, supporting lower-impact material choices and better living environments.

**Products** Unit: Tonne

| | 2025 | Share |
|---|---|---|
| MDF | 851,061 | 69.7% |
| Particleboard | 278,726 | 22.8% |
| Melamine faced panels | 52,526 | 4.3% |
| Laminate Flooring | 8,763 | 0.7% |
| OSB | 11,916 | 1.0% |
| Door skin | 7,978 | 0.6% |
| Other products | 10,670 | 0.9% |

## WASTEWATER DISCHARGE



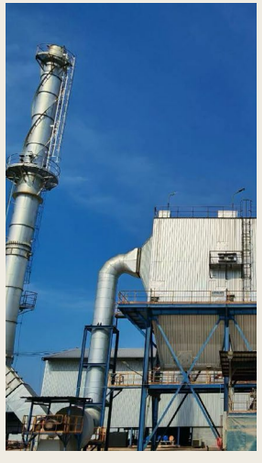
### CONTROLLED EFFLUENT PERFORMANCE

Wastewater is managed through treatment and monitoring to reduce pollutant loads and maintain compliance with environmental regulations.

**Wastewater Discharge** Unit: $m^3$

| Wastewater | 2025 | Share |
|---|---|---|
| Total water consumption | 1,107,991 | - |
| Total wastewater generated | 181,538 | 16.4% |
| Total wastewater recycled and reused | 148,972 | 82.1% of total waste water |
| Total treated effluent discharged | 32,566 | 17.9% of total waste water |

## AIR EMISSIONS - POLLUTANTS



### IMPROVING AIR QUALITY PERFORMANCE

We manage air pollutant emissions through process optimization, operational controls, and continuous monitoring. Performance is reviewed regularly to drive corrective action and improvement.

**Air Emissions** Unit: kg Unit: ppm

| Air Pollutants | 2025 | 2025 |
|---|---|---|
| Nitrogen oxides (NOx) | 101,180 | 182.19 |
| Carbon monoxide (CO) | 572,263 | 21.46 |
| Particulate matter (PM) | 30,612 | 5.45 ($mg/m^3$) |
| Volatile Organic Compounds (VOCs) | 34 | - |
| Sulphur dioxide ($SO_x$) | - | <1 |

## AIR EMISSIONS – GHG EMISSIONS AND DECARBONISATION




### ACCELERATING DECARBONIZATION PERFORMANCE

We manage greenhouse gas emissions through a structured decarbonization pathway covering Scope 1 and Scope 2, supported by verifiable data and MRV. Building on our 2567 (2024) base year, we are driving a 50% reduction by 2573 (2030) and progressing toward near-zero emissions by 2593 (2050). We deliver this through energy efficiency, renewable electricity and heat, and continuous operational improvement.

**GHG and Energy Transition**

| Greenhouse GAS unit: $tCO_2e$ | Baseline 2024 | 2025 | Change Vs. Baseline |
|---|---|---|---|
| Scope 1 | 35,122 | 31,037 | -12% |
| Scope 2 (Market-based: MB) | 211,207 | 142,262 | -33% |
| Scope 1 + Scope 2 | 246,329 | 173,299 | -30% |
| GHG intensity ($tCO_2e$/tonne) | 0.151 | 0.128 | -15% |

| Energy transition drivers | Baseline 2024 | 2025 | Change Vs. Baseline |
|---|---|---|---|
| Renewable Energy Share (Electricity + Heat) | 71.4% | 71.6% | +0.3% |
| Rooftop Solar Generation (MWh) | 18,597 | 19,570 | +5.2% |
| Renewable Heat from Biomass (GJ) | 3,460,157 | 3,189,254 | -7.8% |

2025 emissions increased mainly due to expanded coverage to all four plants and improved data completeness, making the year-on-year change not directly comparable to 2024.

# Delivering on The Global Goals

**Working to deliver on the UN Sustainable Development Goals (SDGs), we have identified the 11 most closely linked to our business.**

Vanachai's approach to sustainability is aligned with global development priorities, reflecting the Group's commitment to responsible business practices and long-term value creation. These priorities are integrated into the way the Group manages our operations, resources, and relationships across the value chain, ensuring that sustainability is embedded in both strategic direction and day-to-day execution. By aligning our business activities with globally recognized sustainability themes, Vanachai strengthens our ability to respond to evolving stakeholder expectations while enhancing resilience and competitiveness.



## Core SDGs

### SDG 7: Affordable and Clean Energy

The Group advances our transition to cleaner and more efficient energy through continued investment in renewable energy, including solar rooftop systems and biomass. As a result, renewable energy accounts for 71.6% of total energy consumption, while the Group continues to improve energy efficiency and reduce reliance on fossil fuels.

The Group has set a long-term target to achieve net zero greenhouse gas emissions by 2050, supporting a low-carbon energy profile and long-term sustainable growth.

### SDG 9: Industry, Innovation,Infrastructure

Vanachai is committed to strengthening industrial capabilities, improving efficiency, and advancing innovation across our production processes. The Group continues to enhance manufacturing technology, optimize resource use, and improve product quality to remain competitive in evolving markets. Through continuous improvement and efficient systems and infrastructure, Vanachai delivers reliable, high-quality wood-based products while supporting sustainable industrial development.

### SDG 12: Responsible Consumption & Production

Responsible consumption and production are central to Vanachai's wood-based products business. The Group promotes efficient resource use, waste reduction, and greater material value throughout production. By increasing renewable raw materials, improving efficiency, and supporting reuse and recycling, Vanachai strengthens our circular manufacturing approach while reducing environmental impacts and creating long-term value across the value chain.

### SDG 13: Climate Action

Climate action is a key priority in Vanachai's sustainability approach, supporting long-term resilience, efficiency, and responsible growth. The Group works to reduce greenhouse gas emissions through energy efficiency, improved resource management, and stronger climate governance and risk management. As a manufacturer of wood-based products, Vanachai recognizes the importance of aligning operations with a lower-carbon future while creating sustainable value across the value chain.

### SDG 15: Life On Land

Vanachai promotes responsible forest management and biodiversity protection. As a manufacturer of wood-based products, the Group recognizes that long-term sustainability depends on healthy and resilient forest ecosystems. Vanachai is committed to responsible sourcing, including adherence to internationally recognized standards, and to conserving natural resources across our value chain. The Group continues to strengthen sustainable forestry practices, protect biodiversity, and reduce environmental impacts, while creating long-term value for stakeholders.

# Supporting SDGs

The Group focuses on a set of core priorities that are directly linked to our business model and operational footprint. As a manufacturer of wood-based products, Vanachai places strong emphasis on resource efficiency, climate action, sustainable energy use, industrial efficiency, and responsible forest management. These areas are critical to maintaining long-term access to raw materials, improving operational performance, and supporting the transition toward a lower-carbon and more sustainable economy.

In addition, Vanachai supports a broader set of enabling priorities that strengthen the foundation for sustainable operations. These include workforce development, occupational health and safety, fair employment practices, water stewardship, and strong governance. Together, these elements ensure that the organization operates responsibly, builds internal capabilities, and maintains trust with stakeholders across our value chain.

Through this structured approach, Vanachai is able to balance operational performance with environmental and social responsibility, reinforcing our commitment to sustainable growth and long-term value creation.




## SDG 3: Good Health and Well-being

Vanachai is committed to ensuring the health, safety, and well-being of our employees and stakeholders. The Group prioritizes occupational health and safety through preventive measures, risk management, and continuous improvement across operations. Vanachai also promotes employee well-being through health programs, safe working environments, and awareness initiatives. This approach helps reduce workplace risks, enhance quality of life, and support long-term organizational sustainability.




## SDG 4: Quality Education

Vanachai is committed to continuous learning and workforce development across all levels of the organization. The Group provides training programs to enhance employee knowledge, skills, and capabilities in line with evolving business and industry needs. Specialized programs focus on occupational health and safety, technology, and sustainable production. Through these efforts, Vanachai strengthens workforce competency, supports operational excellence, and builds long-term resilience.




## SDG 5: Gender Equality

Vanachai promotes gender equality through fair employment practices, equitable remuneration, and equal opportunities for development across all levels of the organization. The Group is committed to creating an inclusive workplace that respects diversity and supports fair treatment for all employees. Vanachai also extends this commitment through the employment of persons with disabilities beyond legal requirements, reinforcing our broader approach to inclusion and social responsibility.




## SDG 6: Clean Water & Sanitation

The Group advances responsible water management by focusing on improving water-use efficiency, reducing wastewater impacts, and protecting water resources across our operations. The Group continues to strengthen our water stewardship practices through monitoring, wastewater management, and continuous improvement. This approach supports sustainable production while contributing to the protection of water resources and surrounding ecosystems. In addition, the Group promotes awareness and understanding of responsible water use among employees to support long-term sustainability within the organization.




## SDG 8: Decent Work & Economic Growth

The Group supports economic development by promoting decent employment, fair labor practices, and sustainable economic growth. It is committed to providing stable employment, appropriate remuneration, and safe working conditions, while continuously enhancing workforce capabilities through training and skills development. In addition, the Group contributes to local economic development through our operations, supply chain, and community engagement. This approach helps improve employee well-being, supports inclusive community growth, and creates long-term value for stakeholders.




## SDG 16: Peace, Justice, and Strong Institutions

Vanachai is committed to strong corporate governance, ethical business conduct, and transparent operations. The Group has established governance structures, policies, and internal controls to promote accountability, integrity, and compliance across the organization. Vanachai supports fair business practices, risk management, and responsible decision-making through clear roles and oversight. This approach strengthens stakeholder trust, reduces risks, and supports long-term sustainable growth.



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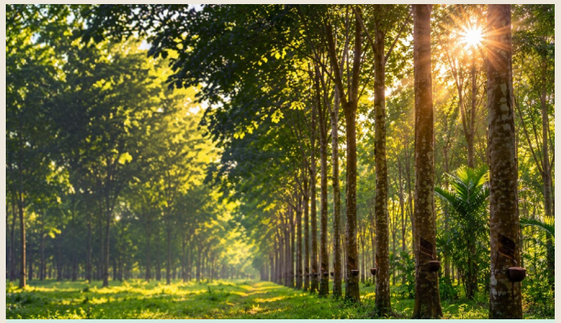

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## Leading with Governance, Advancing with Clarity toward Net Zero 2050

# A Message from an Executive Chairman

"Stronger governance, Clearer accountability, More credible data, Steady progress toward Net Zero 2050"

At Vanachai Group, we believe that strong governance and a clear long-term direction are essential to turning commitment into meaningful action. Our progress toward Net Zero 2050 reflects not only ambition, but also our determination to strengthen the foundations needed for disciplined execution and credible outcomes. In 2025, we continued to reinforce our ESG framework through the introduction of 13 new policies, three strategic plans and roadmaps, and the review of existing policies to ensure they remain relevant in a rapidly changing environment.

During the year, we also refreshed the Group's material topics through a broader assessment that considered both our impacts on the economy, society, and the environment, and the financial significance of issues affecting resilience, business continuity, and long-term value creation. This helped strengthen the alignment between our internal priorities and external expectations, while keeping management focused on the issues most important to sustainable growth. Our progress was also reflected in the Group's 2025 CGR assessment at the "Excellent" 5 Star level and an AAA SET ESG Rating.

We recognize that a credible transition plan must be supported by credible data. For this reason, we workedwith the Mae Fah Luang Foundation under Royal Patronage to establish a more robust greenhouse gas baseline across Scope 1, Scope 2, and Scope 3 in line with SBTi requirements. This has helped strengthen the integrity of our climate disclosures and provided a clearer basis for target setting, performance tracking, and accountability.

At the same time, we continued to make targeted investments to support decarbonization and resilience, including the expansion of biomass power in Surat Thani. We also strengthened preparedness and business continuity planning in response to rising geopolitical risks across supply chains and markets. Reflecting both our ambition and our sense of responsibility, the Group has accelerated its Net Zero target from 2055 to 2050. To further strengthen oversight, the Board has assigned Mr. Somprasong Sahavat, a member of the Risk Management and Corporate Governance Committee and the Group Chief Financial Officer, direct responsibility for climate change risk management.

On behalf of the Board of Directors, I would like to express my sincere appreciation to our employees, customers, business partners, and shareholders for their continued trust and support. We move forward with humility and determination, guided by responsibility, transparency, and a shared commitment to long-term value creation as we continue our journey toward Net Zero 2050.

**Mr. Wanthana Jaroennawarat**
**Executive Chairman**



## Elevating Performance with Purpose: From Good to Great

# A Message from the Managing Director

"Amid softer demand and growing disruption from geopolitical factors, I believe we must stay disciplined in focusing on what we can control. For us, that means strengthening governance, setting clear priorities, improving the credibility of our climate data, expanding the domestic market to reduce reliance on export markets, and making targeted investments that strengthen the Group's long-term competitiveness."

In 2025, we strengthened execution by building ESG capability across our organization and value chain. We expanded ESG knowledge for employees and key partners because I believe that the people who deliver our strategy every day must share a common understanding of our priorities, apply consistent definitions and data, and work toward the same targets and objectives. This alignment is essential if we want our commitments to translate into measurable results.

As market conditions and operating environments become more uncertain and more severe, our teams also reviewed and updated the Group's material topics for 2025 to 2026. For me, this was an important step in sharpening how we make decisions. It helps us focus our resources on the issues that matter most to our business context, stakeholder expectations, and risk profile, while strengthening our ability to anticipate disruption and respond with practical action.

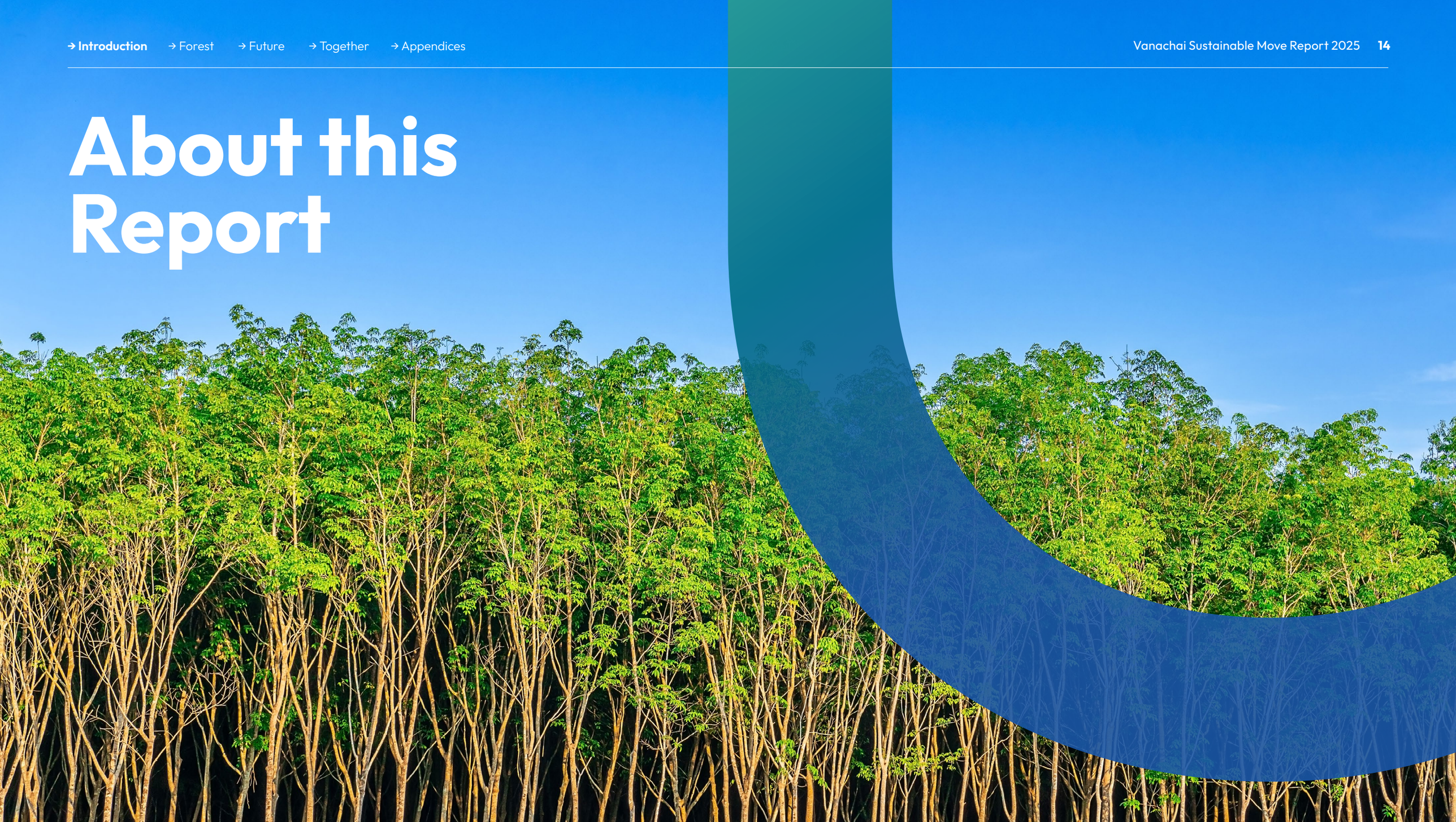
We also accelerated product innovation to address the changing needs of customers and designers. Through the development of new non-formaldehyde (NAF/ENF) product ranges, we are supporting healthier indoor environments and longer product service life, while continuing to optimize design and shorten development lead-times to meet market demand. Our direction is clear: innovation must create real value for customers while advancing sustainability performance in a meaningful way.

At the same time, we recognize that rising geopolitical tensions have become a more significant risk factor across supply chains and markets. In response to these uncertainties, management has strengthened preparedness, enhanced business continuity planning, and expanded the domestic market to reduce potential impacts and safeguard long-term value creation. We also continue to move our transition pathway forward. In 2025, Vanachai achieved 71.6% renewable energy as a share of total energy consumption, strengthening energy resilience and supporting progress toward our Net Zero 2050 ambition.

Finally, I believe we must raise not only the ambition of our decarbonization pathway, but also the discipline of execution behind it. We have set a clear target to achieve a 50% reduction in greenhouse gas emissions by 2030, and in 2025 we reduced Scope 1 and 2 greenhouse gas emissions intensity per tonne of production by approximately 15.4% from the 2024 base year. While this is an encouraging achievement, I see it as only the beginning of a much longer journey. Going forward, I expect every function and every site to translate this commitment into measurable action, track progress rigorously, and deliver results consistently so that our climate commitments become real, lasting business outcomes.

**Ms. Phattra Sahawat**
**Managing Director**

# About this Report



# About this Report

## Report Background

Vanachai Group has prepared this Sustainability Report to disclose our environmental, social, and governance performance for 2025, covering the reporting period from 1 January to 31 December 2025. This marks the Group's Sustainability Report and covers governance/economic, social and environmental dimensions, reflecting our commitment to enhancing transparent, credible, and decision-useful disclosure for investors and stakeholders.

This report has been prepared with reference to the GRI Standards 2021, including GRI 1, GRI 2, and GRI 3, while integrating TCFD-aligned climate disclosure and strengthening selected disclosures toward ISSB guidance on governance, risk management, metrics, and targets. The Group is also preparing for GRI 102: Climate Change 2025 and GRI 103: Energy 2025, effective for materials published on or after 1 January 2027, to enhance future climate and energy disclosure readiness.

In addition, the Group has taken into account the information needs of investors, financial institutions, customers, business partners, employees, communities, regulators, and external ESG assessors such as FTSE Russell, while also linking relevant disclosures to the United Nations Sustainable Development Goals (SDGs), as appropriate, to reflect how the Group's strategy and operations support long-term economic, social, and environmental value creation.

This report covers topics that are material to the Group's long-term performance and stakeholder decision-making, including resource use, climate change, environmental management, employees, communities, corporate governance, and human rights. Vanachai Group believes that sustainability disclosure is not merely a reporting exercise, but an important mechanism for strengthening confidence, enhancing transparency, and reflecting the Company's long-term competitiveness.

## Report Scope

This report covers 100% of Vanachai Group companies that generate revenue. The reporting boundary has been determined based on business relevance, data availability, operational control, and the significance of impacts on the Group's performance and stakeholders.

The report covers the Group's core wood-based products business and related operations, including the parent company and subsidiaries contributing to the Group's consolidated revenue. Defining the reporting boundary to cover all revenue-generating entities enables stakeholders to gain a complete, clear, and increasingly comparable view of the Group's sustainability performance.

The Group will continue to improve the quality, consistency, and depth of disclosure in future reporting cycles, including strengthening data management systems, further developing topic-specific reporting approaches, and progressively aligning disclosures with investor expectations, sustainability reporting standards, and relevant ESG assessment frameworks.

### Scope Table for Sustainability Reporting Based on Materiality Topics

| Company / Subsidiaries | Shareholding % | Revenue Contribution % | Environmental Pillar | | | Social Pillar | | Governance Pillar | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Low-carbon transition | Circular production / resource use | Water stewardship | People and safe workplace | Human rights / community | Responsible and resilient governance | Digital and sustainable innovation | Responsible product design |
| Vanachai Group Public Company Limited | 99.99% | 35 | ● | ● | ● | ● | ● | ● | ● | ● |
| Particle Planner Company Limited | 99.99% | 2 | ● | ● | ● | ● | ● | ● | ● | ● |
| Vanachai Panel Industries Company Limited | 99.99% | 58 | ● | ● | ● | ● | ● | ● | ● | ● |
| Vanachai Chemical Industries Company Limited | 99.99% | - | ● | ● | ● | ● | ● | ● | ● | ● |
| Woodtek International Company Limited | 99.97% | - | ● | ● | ● | ● | ● | ● | ● | ● |
| PV Wood Company Limited | 50.00% | 4 | ● | ● | ● | ● | ● | ● | ● | ● |
| Vanachai Energy Industries Company Limited | 99.99% | - | ● | ● | ● | ● | ● | ● | ● | |
| Vanachai Woodsmith Company Limited | 99.99% | 1 | ● | | ● | ● | ● | ● | ● | ● |
| Vanachai Logistics Company Limited | 99.99% | - | ● | ● | ● | ● | ● | ● | ● | |
| Vanachai Logistics Enterprise Company Limited | 99.52% | - | ● | ● | ● | ● | ● | ● | ● | |
| **Total** | | **100%** | | | | | | | | |

# Revision/ Restatement of Information from the 2024 Report

In the 2025 Sustainability Report, the Group has updated certain information previously disclosed in the 2024 report in order to enhance data accuracy, improve consistency of the underlying data set, and ensure the suitability of the data used as a reference for setting long-term climate targets. The Company has revised the base year for Scope 1 and Scope 2 greenhouse gas emissions from 2018 to 2024, with total emissions of 246,329 $tCO_2e$ per year. This new base-year data was verified by an external verifier registered with the Thailand Greenhouse Gas Management Organization (Public Organization), or TGO, to further strengthen data credibility and ensure that it more appropriately reflects the current operating structure and the data used in management decision-making.

In addition, the Group has refined our climate targets to provide greater clarity and stronger alignment with our greenhouse gas reduction pathway. The target year for Carbon Neutrality has been revised from 2050 to 2038, while the target year for Net Zero has been revised from 2055 to 2050.

These updates reflect the Group's commitment to strengthening climate management through the use of more current data and more ambitious targets, in order to support effective planning, performance tracking, and transparent communication with stakeholders.

# Summary of Changes in Data from 2024 to 2025

| Item | 2024 Report | 2025 Report | Change / Explanation |
|---|---|---|---|
| **Base year for Scope 1 and 2 greenhouse gas emissions** | 2018 | 2024 | The base year was revised to better reflect the current operating structure and the underlying data used for management decision-making. |
| **Base-year Scope 1 and 2 greenhouse gas emissions** | Previously based on 2018 base year | 246,329 $tCO_2e$ per year | Used as the new base year for climate performance tracking and target-setting. |
| **Base-year data verification** | - | Verified by an external verifier registered with TGO | To strengthen data credibility and accuracy. |
| **Carbon Neutrality target** | 2050 | 2038 | The target was revised to be more ambitious and better aligned with the Company's greenhouse gas management direction. |
| **Net Zero target** | 2055 | 2050 | The target was revised to provide greater clarity and stronger alignment with the long-term greenhouse gas reduction pathway. |
| **Materiality assessment process** | Previous assessment approach | Newly developed through V-IMRA | The assessment process was upgraded to connect sustainability impacts, risks, and opportunities with enterprise risk management. |
| **Integration with enterprise risk management** | Considered to some extent | Integrated with Enterprise Risk Management (ERM) | To ensure that ESG issues and key risks are managed more effectively and consistently across the organization. |
| **Use of assessment results** | Used to identify material topics | Developed into 20 Corporate KPIs | Used as shared performance indicators for the Board of Directors, management, and employees at all levels. |

## CONTACT FOR SUSTAINABILITY REPORT ENQUIRIES

For further information, questions, or suggestions regarding this Sustainability Report, please contact:

**Vanachai Group Public Company Limited**
2/1 Wong Sawang Road, Wong Sawang Subdistrict,Bang Sue District, Bangkok 10800, Thailand **Tel:** +66 2 913 2180-9, +66 2 585 4900-3
**Fax:** +66 2 587 9556, +66 2 587 0516 **Email:** sustainability@vanachai.com



## Data Quality Governance and Report Credibility

The Group prepared this Sustainability Report with reference to the GRI Sustainability Reporting Standards 2021, including GRI 1: Foundation 2021, GRI 2: General Disclosures 2021, and GRI 3: Material Topics 2021, to strengthen the quality of sustainability disclosure so that it is transparent, credible, and useful for stakeholder decision-making.

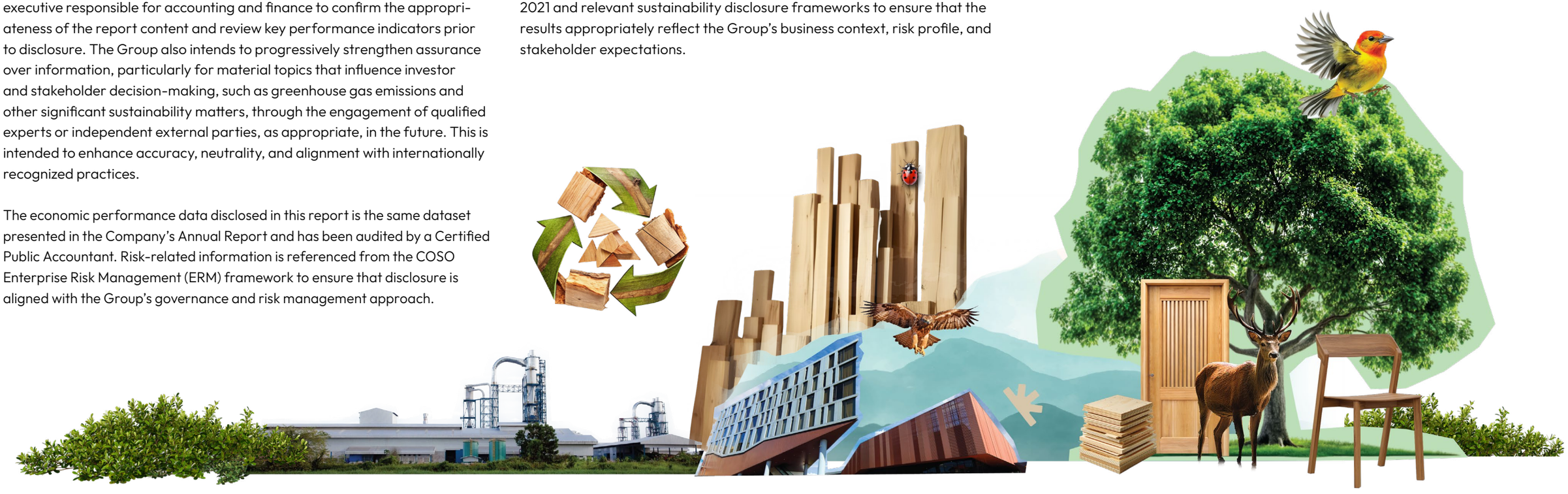
For the 2025 report, which represents the third formal Sustainability Report, report quality and the disclosure process remain subject to internal review and assessment by the Sustainability Committee and the highest-ranking executive responsible for accounting and finance to confirm the appropriateness of the report content and review key performance indicators prior to disclosure. The Group also intends to progressively strengthen assurance over information, particularly for material topics that influence investor and stakeholder decision-making, such as greenhouse gas emissions and other significant sustainability matters, through the engagement of qualified experts or independent external parties, as appropriate, in the future. This is intended to enhance accuracy, neutrality, and alignment with internationally recognized practices.

The economic performance data disclosed in this report is the same dataset presented in the Company's Annual Report and has been audited by a Certified Public Accountant. Risk-related information is referenced from the COSO Enterprise Risk Management (ERM) framework to ensure that disclosure is aligned with the Group's governance and risk management approach.

## Materiality Assessment and Integration with Risk Management

The Group conducted a new double materiality assessment using the Double Materiality concept and applied a structured internal assessment process through V-IMRA (Vanachai Integrated Materiality and Risk Assessment), the Group's internal framework for identifying, assessing, and prioritizing sustainability-related impacts, risks, and opportunities. This assessment considered both the impacts of the Group's activities on the economy, society, and the environment, and the effects of sustainability-related issues on the Group's ability to create long-term enterprise value. The assessment was conducted with reference to GRI 3: Material Topics 2021 and relevant sustainability disclosure frameworks to ensure that the results appropriately reflect the Group's business context, risk profile, and stakeholder expectations.

In addition, the Group has integrated the management of material sustainability topics with Enterprise Risk Management to ensure that ESG issues and key risks are managed effectively and in a connected manner at both the strategic and operational levels. The assessment results were further translated into 20 Corporate KPIs and established as shared performance indicators for the Board of Directors, management, and employees at all levels in order to drive alignment across the organization. The assessment outcomes were approved by the Board of Directors and are monitored on an ongoing basis through the Group's governance mechanisms.



# Our Business



# Business Overview of Vanachai Group Public Company Limited

## VISION

**Protecting forests through responsible wood-based innovation for a lower-carbon future and more sustainable living.**

## MISSION

- **Reducing carbon**, advancing circular manufacturing, and using resources responsibly to protect forest ecosystems.
- **Strengthening transparent governance**, integrating risk and sustainability, and advancing digital trust and resilience.
- **Creating shared value with customers and communities**, developing people, and ensuring safe workplaces through responsible products and services.

## Vanachai... Creating Business Value Through Forest Stewardship

**In today's business environment, responsibility to nature and the environment is not only a social expectation, but a foundation for sustainable growth.** Vanachai Group has long believed that the wood business can achieve durable growth only when natural resources are used responsibly and in ways that support forest conservation. This principle has therefore guided the Group consistently for decades.

Vanachai's business philosophy is rooted in forest stewardship. Since our establishment, the Group has adopted this principle as a core foundation for systematic operations that are aligned with nature and long-term development. This reflects the Group's view that the wood and wood-based products industry is built on renewable resources and has an important role to play in supporting the transition to a lower carbon economy.

**Based on this philosophy, the Group has set two key ambitions:**

1) **To be a leader in the wood-based panel industry as an alternative to natural timber**
2) **To be a leader in forest conservation**

These two ambitions reflect Vanachai's belief that business value creation can go hand in hand with the conservation of natural resources. They also form the foundation of the Group's **Forest | Future | Together** vision, which connects business growth with environmental stewardship, cleaner technology, and the creation of a more sustainable future together.

## Company Information

**COMPANY NAME:**
Vanachai Group Public Company Limited

**TYPE OF BUSINESS:**
MDF, Particleboard, OSB Door skin, Melamine faced panels, Laminate Flooring, for local and export sales

**COMPANY REGISTRATION NO.:**
0107537002621

**HEAD OFFICE:**
2/1 Wongsawang Road, Bangsue, Bangkok 10800
**Tel:** 02 585 4900-3, 02 913 2180-9
**Fax:** 02 587 9556, 02 587 0516
**Website:** http://www.vanachai.com↗
**Email:** vanachai@vanachai.com↗

**REGISTERED CAPITAL:**
1,735,237,480 Baht

**PAID-UP CAPITAL:**
1,735,237,480 Baht

**TYPES AND VALUE OF SHARE:**
Ordinary shares at a par value of 1.00 baht per share

**FACTORY - CHONBURI:**
22/1 Banbung - Neinmok Road, Banbung, Chonburi
**Tel:** +66 38 297322-30
**Fax:** +66 38 297334

**FACTORY - SARABURI:**
112 Kangkoi Industrial Estate, Moo 1, Tambon Ban-That, Kangkoi, Saraburi
**Tel:** +66 36 245644

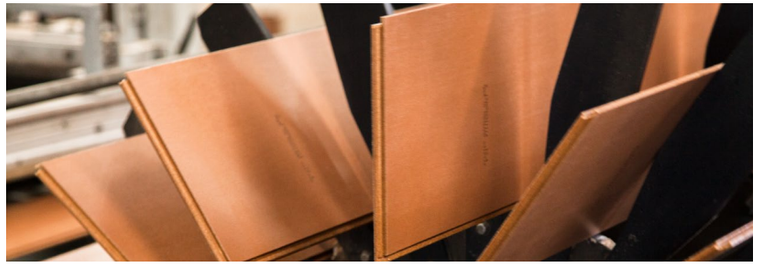
# Vanachai Grouap Business Overview

"Vanachai Group's leadership in Thailand's wood-based alternative products industry, alongside our role in forest resource conservation, clearly reflects that the Group is not focused solely on business growth, but grows on the belief that true success must go hand in hand with the protection of natural resources."

Vanachai Group's position as a leader in Thailand's wood-based panel industry, together with our leadership in forest resource conservation, clearly demonstrates that the Group is not focused only on strengthening production capability and competitiveness, but has long recognized the importance and value of natural resources.

The name "**Vanachai**," meaning "**victory** that preserves forests," reflects the Group's business vision and is a shared source of pride for share-holders, employees, and stakeholders alike. Vanachai Group remains committed to efficient operations, delivering value to customers, and advancing an environmentally responsible industry under strong governance principles that the Group consistently upholds. Being a customer of Vanachai Group therefore means more than selecting quality products; it also means participating in the protection and preservation of environmental abundance in a sustainable manner.

At the same time, the Group places strong importance on our people as the heart of the organization. It is committed to continuously developing employees' knowledge, skills, and capabilities, while creating ongoing opportunities for career growth and advancement, so that all employees can grow together with the organization in a stable and sustainable way.



**As of the end of 2025, the Company and our subsidiaries operated a total of four production sites:**

1. **The Chonburi plant**, located in Ban Bueng District, Chonburi Province, produces MDF panels and molded door skins.
2. **The Saraburi plant**, located in Kaeng Khoi Industrial Estate, Saraburi Province, produces MDF panels, particleboard, laminated MDF, laminated particleboard, and laminate flooring.
3. **The Rayong plant**, located in Map Ta Phut Industrial Estate, Rayong Province, produces urea formaldehyde resin for supply to companies within the Group.
4. **The Surat Thani plant**, located in Wiang Sa District, Surat Thani Province, produces MDF panels, particleboard, oriented strand board (OSB), laminated MDF, and laminated particle board. The site also includes a 9.9 MW biomass power plant, operated by Vanachai Energy Industries Co., Ltd., a subsidiary of the Company, to supply electricity to the Surat Thani plant.

The Company and our subsidiaries have a combined annual production capacity of 1,320,000 cubic metres of MDF, 690,000 cubic metres of particle board, 3.6 million molded door skins, 10.49 million square metres of laminate flooring, and 210,000 cubic metres of OSB.

## Operating Strategy

Vanachai Group operates under a strategy focused on delivering resilient growth while strengthening competitiveness and long-term sustainability. The Group emphasizes product development in the mid-to-premium market segments and enhances value creation from our core products through more specialized applications across construction materials, furniture, and interior solutions. The Group continues to place strong emphasis on quality, production standards, and the development of long-life products. In 2025, Vanachai further advanced our sustainable living approach by applying innovation and technology to develop non-formaldehyde products and new products with improved environmental attributes, in response to growing market demand for health, safety, and more sustainable living.

On the operational side, the Group manages production capacity in line with market demand, while maintaining cost efficiency through raw material cost management, efficient resource utilization, and the recovery of production residues for reuse in manufacturing and energy generation. This supports continuous cost reduction and strengthens business resilience. The Group also continues to invest in production technology, renewable energy, and machinery efficiency improvements. At present, more than 70% of total energy and thermal energy consumption is derived from renewable sources, representing an important step on the Group's pathway toward Net Zero 2050. This progress is supported by rooftop solar installations, self-generated electricity from biomass, and the ongoing modernization of management systems to improve workforce efficiency, support business development and market expansion, and sustain the Group's leadership in the wood-based alternative products industry.

# Core Values that Strengthen a Strong Corporate Culture

Vanachai Group believes that corporate values are not merely guiding principles for how people work, but a fundamental foundation for shaping **Vanachai people** and strengthening a strong organizational culture over the long term. The Group upholds the **C.H.A.I.** core values: **C**ustomer Centric, **H**olistic Sustainability, **A**iming for Excellence, and **I**nnovation for Greener. These values reflect the Group's way of doing business, with emphasis on customers, sustainability, excellence, and continuous improvement through innovation. These core values define not only how the organization operates, but also how employees are developed to become responsible individuals who are ready to learn, adapt quickly, and respond to change with flexibility.

In a rapidly changing business environment, the Group places strong emphasis on building people who are **proactive, agile, and committed to delivering the best results.** Employees at all levels are encouraged to work with dedication, take ownership of their responsibilities, and continuously raise the standard of performance together. At the same time, the Group promotes the use of innovation in everyday work, whether through process improvement, waste reduction, efficiency enhancement, or the development of new ways of thinking that create better outcomes for the business, customers, society, and the environment. A values-driven culture such as this helps foster pride, engagement, and collective energy among employees, while also reinforcing stakeholder confidence that the Group has the people and the organizational culture needed to grow with resilience, sustainability, and long-term competitiveness.




### CUSTOMER CENTRIC

Customers are at the core and center of our business. The company places great importance on customer satisfaction and continuous product support, while also encouraging recommendations. This approach ensures that the company minimizes potential risks by continuously analyzing risks throughout the customer service process in a transparent manner, building and maintaining long-term customer relationships in a sustainable way.

### HOLISTIC SUSTAINABILITY

We integrate sustainability and risk management across all aspects of our operations, from raw material sourcing to product distribution, ensuring a comprehensive approach to environmental responsibility and risk reduction. We adhere to regulations, maintain transparency, and uphold flexibility for long-term sustainability.

### AIMING FOR EXCELLENCE

We are committed to excellence in all areas of our operations, from product quality to customer service. The company integrates risk management and sustainability practices into the operations of all teams. Through a strong team approach, the company sets high standards and continuously improves together to ensure that any potential risks are mitigated and prevented from recurring. All employees comply with regulations and strive for excellence, ensuring the sustainability of the business.

### INNOVATION FOR GREENER

By continuously creating innovative solutions and investing in environmentally friendly technologies and practices, the company integrates risk management into every aspect of the process. This fosters a culture of innovation with a comprehensive approach to risk analysis.
This approach helps reduce environmental impact across product development, production, distribution, and services, ensuring that the company contributes to a greener and more sustainable future for generations to come.

# Key Milestones of Vanachai Group

Over several decades, Vanachai Group has continuously evolved and transformed our business from our origins as a sawmill into a leading manufacturer of wood-based alternatives in Thailand and the region. Each stage of the Group's development reflects strategic foresight, adaptability to industry change, investment to strengthen competitiveness, and a commitment to advancing the business alongside environmental and social responsibility.

The following milestones highlight Vanachai Group's development in terms of business expansion, capacity growth, renewable energy investment, and long-term climate targets. Together, these milestones form an important foundation for strengthening the Group's resilience, long-term stability, and sustainable growth.



## From Sawmill Roots to Leadership in Wood-based Alternatives and Sustainable Growth

**1943** Began operations as a sawmill

**1966** Relocated to Bangkok's Rama IV Bridge area and began plywood manufacturing

**1977** Ended the use of natural forest wood, becoming Thailand's first wood-based panel producer and the world's first rubberwood particleboard producer

**1989** Built the first MDF plant in Chonburi with Thailand's first continuous production system

**1994** Built resin glue plant in Rayong to strengthen competitiveness

**1995** Listed on Stock Exchange of Thailand as Vanachai Group Public Company Limited (VNG)

**1998** Established particle board factory in Surat Thani, later expanded to MDF and OSB, becoming Asia's largest wood-based panel facility

**2008** Expanded capacity with new MDF and particle board planets in Saraburi

**2018** Launched Vanachai Woodsmith to expand retail distribution

**2019** Built a 9.9 MW biomass power plant in Surat Thani

**2020** Installed solar rooftops in Chonburi, Saraburi, and Surat Thani

**2022** Joined the Carbon Credit program under T-VER and the I-REC renewable energy initiative

**2024** Developed an integrated ESG assessment approach

**2025** Implemented V-IMRA, strengthened climate targets, and achieved SET ESG Rating AAA and CGR 5 Stars

**2026** Scheduled completion of a second 9.9 MW biomass power planet in Surat Thani

**2030** Target a 50% reduction in greenhouse gas emissions

**2038** Aim to achieve Carbon Neutrality

**2050** Target year to reach NET ZERO greenhouse gas emissions

# Vanachai's Business Model

## How we create long term value through wood-based products and a sustainable value chain

Vanachai Group's business model is anchored in transforming wood-based resources into long term value through an integrated value chain spanning responsible sourcing, efficient manufacturing, practical product development, and the delivery of sustainable solutions to customers and stakeholders across the value chain. The Group is committed to maximising the use of wood and wood residues while continuously improving energy, water, and waste efficiency, so that each stage of operations helps reduce resource loss, increase value recovery from renewable and residual materials, and support balanced economic, social, and environmental outcomes. This approach not only reflects the Group's capability to produce quality wood-based products that meet market needs, but also demonstrates our commitment to building a resilient, responsible, and future-ready business that can sustain long term growth while creating shared value for customers, communities, and the wider world.

From responsible sourcing to customer solutions, Vanachai creates value through a wood-based circular value chain.

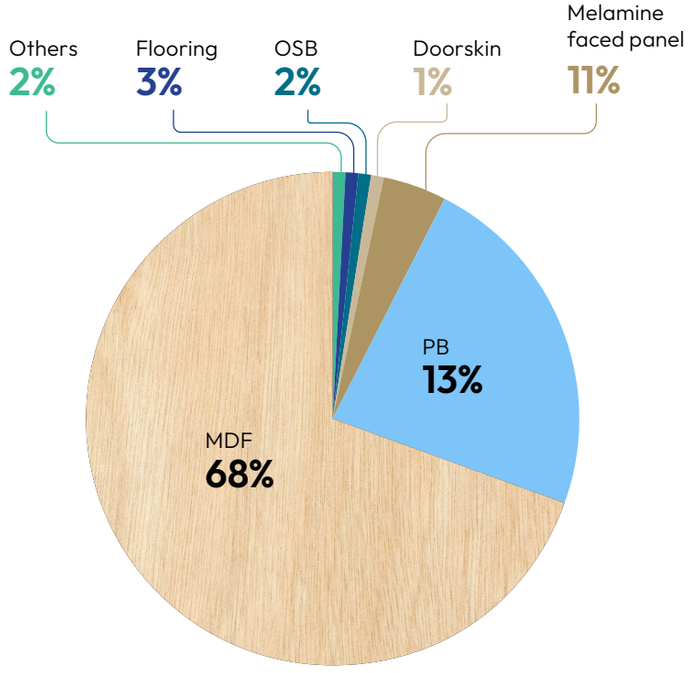
| UPSTREAM | OWN OPERATIONS | DOWNSTREAM | OUTCOMES AND BENEFITS |
|---|---|---|---|
| **Securing responsible raw material supply**<br><br>**Wood and wood residues as key raw materials**<br>• Responsibly sourced wood and wood residues<br>• Procurement from suppliers, farmers, and communities<br>• Focus on renewable raw materials, traceability, and supply security<br><br>**Other key inputs**<br>• Resin, chemicals, overlays, packaging materials, water, and energy<br>• Logistics and service partners supporting operations | TRANSPORT TO VANACHAI'S PRODUCTION SITES<br><br>**Efficient production of wood-based products**<br><br>**Vanachai's operations**<br>• Conversion of wood and wood residues into wood-based products<br>• MDF, particleboard, laminated panels, laminate flooring, OSB, plywood, door skins, and related products<br><br>**Operational focus**<br>• Resource efficiency across production processes<br>• Renewable energy, water recycling, and waste recovery<br>• Product quality, safety, and continuous improvement<br><br>**People and capabilities**<br>• Skilled and engaged employees<br>• Safe and inclusive workplace<br>• Ongoing technical capability development | TRANSPORT TO CUSTOMERS<br><br>**Wood-based products to customers and end users**<br><br>**Key customer groups**<br>• Furniture manufacturers<br>• Interior and built-in contractors<br>• Distributors and retailers<br>• Project customers and industrial users<br><br>**Key applications**<br>• Furniture and built-in interiors<br>• Decorative surfaces and wall applications<br>• Flooring and interior fit-out<br>• Structural and construction uses<br><br>**Customer value proposition**<br>• Durable, functional, and quality products<br>• Solutions supporting lower-carbon and resource-efficient applications<br>• Technical service and after-sales support | **Business**<br>• Revenue generation and long-term competitiveness<br>• Stronger resource security and operational efficiency<br>• Greater resilience through diversified products and markets<br><br>**Customers**<br>• Quality, safe, and practical wood-based products<br>• Support for sustainable and lower-carbon material choices<br><br>**Environment**<br>• Efficient use of renewable resources<br>• Reduced waste through circular use of materials<br>• Support for lower-carbon construction and living<br><br>**People and communities**<br>• Employment and skills development<br>• Community engagement and shared value creation<br>• Responsible business conduct across the value chain |

# Nature of Business Operations

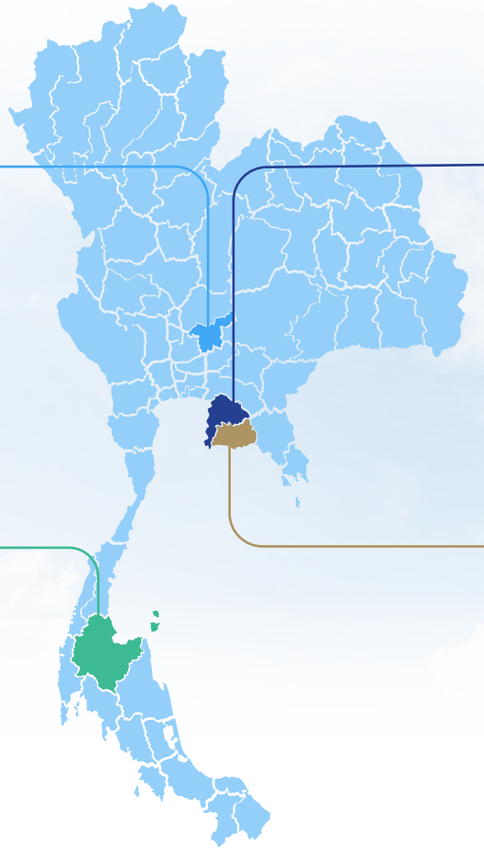
Vanachai Group Public Company Limited began as a sawmill business before evolving into one of Thailand's and the region's leading manufacturers of wood-based alternative products. The Group focuses on producing high-quality, standardized materials for construction, furniture, and interior applications that meet a wide range of usage requirements. Our principal products include medium-density fiberboard (MDF), particleboard, OSB, door skins, laminate flooring, and other related products, all developed through modern and efficiency-driven manufacturing processes.

At the same time, the Group places strong emphasis on strengthening competitiveness while conducting business responsibly toward the environment through investment in production technology, renewable energy, and efficient resource use. Today, the Company and our subsidiaries operate a total of four production sites located in Chonburi, Rayong, Saraburi, and Surat Thani, supporting efficient manufacturing and product delivery while enabling resilient and sustainable long-term growth.

## Main products by sales volume (tonnes)




## Four production sites



### SARABURI

**Annual Production Capacity**

| | |
|---|---|
| **MDF:** | 90,000 cubic meters |
| **Particleboard:** | 240,000 cubic meters |
| **Melamine-faced panel:** | 104,000 cubic meters |
| **Laminate flooring:** | 10,494,400 square meters |
| **Impregnated paper:** | 65,400,000 square meters |

### CHONBURI

**Annual Production Capacity**

| | |
|---|---|
| MDF: | 210,000 cubic meters |
| Door skin: | 3,600,000 sheets |

### SURAT THANI

**Annual Production Capacity**

| | |
|---|---|
| **MDF:** | 1,020,000 cubic meters |
| **Particleboard:** | 450,000 cubic meters |
| **Melamine-faced panel:** | 198,000 cubic meters |
| **OSB:** | 210,000 cubic meters |

### RAYONG

**Annual Production Capacity**

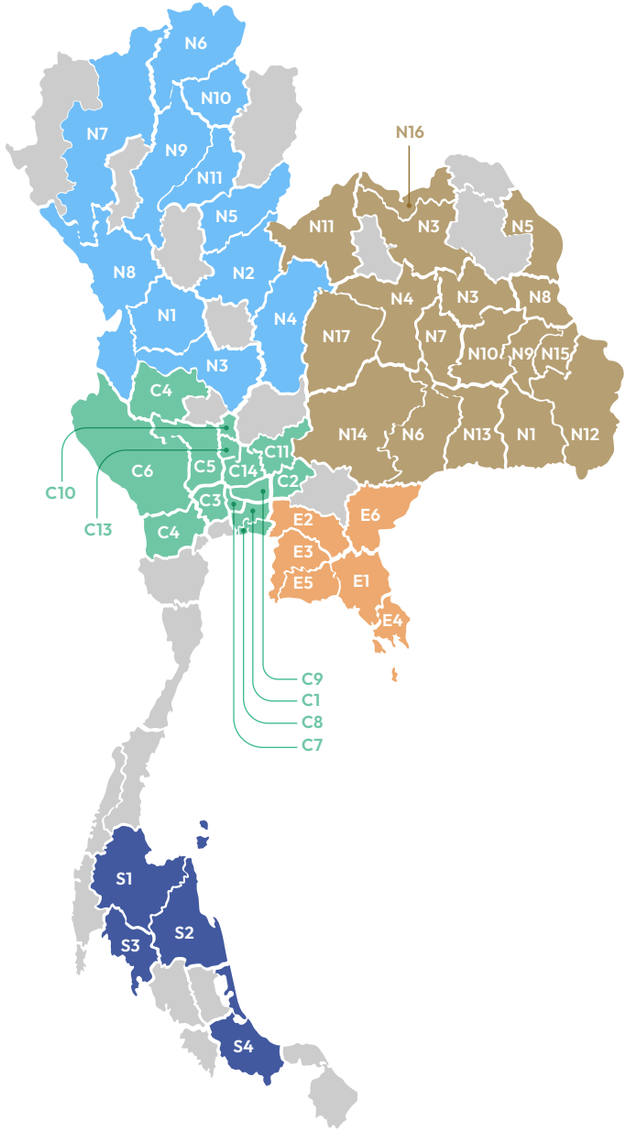
| | |
|---|---|
| **Formaldehyde-based resin:** | 146,000 tons |

# Woodsmith

WoodSmith serves as both a retail channel and an important engagement point connecting Vanachai Group with end users across all regions of Thailand. At present, the network comprises 82 outlets nationwide, including 45 WoodSmith Stores and 37 WoodSmith Express stores, enhancing the accessibility and convenience of the Group's products and services.

More importantly, WoodSmith plays a role beyond product distribution. It serves as a practical learning and engagement platform where consumers, technicians, contractors, designers, students, and other interested stake-holders can gain direct knowledge of products, applications, installation methods, and solutions suited to their needs. WoodSmith also functions as an important stakeholder engagement channel for the Group through ongoing knowledge-sharing activities, area-based workshops, and training sessions, helping to strengthen understanding of product performance, application standards, and effective construction and interior solutions.

| Region | Woodsmith | Woodsmith EX | Total |
|---|---|---|---|
| NORTH | 10 | 7 | 17 |
| EAST | 8 | 5 | 13 |
| CENTRAL | 6 | 15 | 21 |
| NORTHEAST | 16 | 8 | 24 |
| SOUTH | 5 | 2 | 7 |
| **Total** | **45** | **37** | **82** |




● Woodsmith
○ Woodsmith EX

## NORTHERN REGION

| | | | |
|---|---|---|---|
| **N1** | Kamphaeng Phet | ● | ○ |
| **N2** | Phitsanulok | ● | ○ |
| **N3** | Nakhon Sawan | ● | |
| **N4** | Phetchabun | ●● | ○ |
| **N5** | Uttaradit | ● | |
| **N6** | Chiang Rai | ●● | |
| **N7** | Chiang Mai | ● | ○ |
| **N8** | Tak | ● | |
| **N9** | Lampang | | ○ |
| **N10** | Phayao | | ○ |
| **N11** | Phrae | | ○ |

## CENTRAL REGION

| | | | |
|---|---|---|---|
| **C1** | Bangkok | ● | ○○ |
| **C2** | Nakhon Nayok | ● | |
| **C3** | Nakhon Pathom | ● | ○ |
| **C4** | Ratchaburi | ● | |
| **C5** | Suphan Buri | ● | ○○ |
| **C6** | Kanchanaburi | ● | |
| **C7** | Nonthaburi | | ○ |
| **C8** | Samut Prakan | | ○○ |
| **C9** | Pathum Thani | | ○○ |
| **C10** | Sing Buri | | ○ |
| **C11** | Saraburi | | ○ |
| **C12** | Uthai Thani | | ○ |
| **C13** | Ang Thong | | ○ |
| **C14** | Ayutthaya | | ○ |

## NORTHEAST REGION

| | | | |
|---|---|---|---|
| **NE1** | Sisaket | ● | ○ |
| **ME2** | Kalasin | ● | |
| **NE3** | Udon Thani | ● | ○ |
| **NE4** | Khon Kaen | ● | ○○ |
| **NE5** | Nakhon Phanom | ● | |
| **NE6** | Buriram | ● | ○ |
| **NE7** | Maha Sarakham | ● | |
| **NE8** | Mukdahan | ● | |
| **NE9** | Yasothon | ● | |
| **NE10** | Roi Et | ● | |
| **NE11** | Loei | ● | |
| **NE12** | Ubon Ratchathani | ● | ○ |
| **NE13** | Surin | ● | |
| **NE14** | Nakorn Ratsima | ● | ○ |
| **NE15** | Amnat Charoen | ● | |
| **NE16** | Nong Khai | ● | |
| **NE17** | Chaiyaphum | | ○ |

## SOUTHERN REGION

| | | | |
|---|---|---|---|
| **S1** | Surat Thani | ● | |
| **S2** | Nakhon SiThammarat | ● | ○ |
| **S3** | Krabi | ● | ○ |
| **S4** | Songkhla | ●● | |

## EASTERN REGION

| | | | |
|---|---|---|---|
| **E1** | Chanthaburi | | ○ |
| **E2** | Chachoengsao | ●● | ○ |
| **E3** | Chonburi | ●●● | ○○ |
| **E4** | Trat | | ○ |
| **E5** | Rayong | ●● | |
| **E6** | Sa Kaeo | ● | |

# Vanachai Group Products: Wellbeing by design

## Quality Materials for Better Living, Healthier Spaces, and a More Sustainable Future

Vanachai Group's product portfolio includes **MDF, particleboard, melamine faced panels, oriented strand board (OSB), door skins, laminate flooring**, and other wood-based products developed to deliver **quality, strength, durability, and consistent performance**. These products support a wide range of applications across **construction, interior fit-out, furniture manufacturing, and residential living spaces** that require both aesthetic value and long-term functionality. The Group is committed to delivering materials that meet practical needs across the value chain, from structural and decorative applications to furniture components and finished furniture products that require dimensional precision, surface consistency, and reliable quality. In doing so, Vanachai aims to enhance quality of life, comfort, and user well-being, alongside **responsible resource use**.

The Group manufactures under a **resource efficient and circular production approach**, bringing every part of the wood resource into the production process to reduce waste, increase material value, and support **lower carbon operations** in line with our **Net Zero 2050** ambition. Vanachai's materials also play an important role in supporting the furniture sector and indoor applications through characteristics that contribute to durability, longer service life, and healthier living environments. At the same time, the Group places strong emphasis on user safety through the selection of safer raw materials and adhesives, the reduction of emissions from materials, and the development of selected products with **non-formaldehyde** characteristics in accordance with relevant standards. This helps support healthier indoor environmental quality while delivering high quality materials that are responsible to the planet, to people, and to long term value creation.



**MDF** (Medium Density Fiberboard) is an engineered wood panel made by refining wood residues into fibre, blending with synthetic resin, and pressing under heat and pressure. It has a smooth, uniform surface and is suitable for furniture and built-in interior applications. Panels with density above 800 kg/m³ are classified as HDF.



**Particleboard** is an engineered wood panel made from wood residues and sawdust processed into particles, mixed with synthetic resin, and pressed into panels. It has a smooth surface with a particle core and is suitable for furniture, knock-down furniture, interior wall paneling, and speaker cabinets.



**Melamine Faced Panels** are made by laminating MDF or particle board with melamine-impregnated woodgrain or solid-colour papers. They offer good resistance to scratching, heat, chemicals, and moisture, and are suitable for desktops, kitchen counters, and heavy-use furniture.



**Laminate Flooring** is a finished flooring product with an HDF core and a decorative woodgrain surface protected by an overlay film. It offers good resistance to scratching, impact, heat, chemicals, and moisture, is easy to clean, and is suitable for indoor applications with installation systems such as Arch-Lock or V-Groove.



**OSB** (Oriented Strand Board) is an engineered structural wood panel made from cross-oriented wood strands bonded with synthetic resin under heat and pressure. Strong, durable, and moisture-resistant, it is suitable for structural uses, walls, floors, roof systems, and loft or industrial-style interiors and exteriors.



**Door Skins** are produced using a process similar to MDF, with HDF-level density and molded profiles. They provide an attractive, practical alternative to natural wood door faces, with easy installation and maintenance, and can also be used for decorative wall paneling, ceiling applications, and partitions.



**Plywood** is a structural wood panel made by bonding multiple layers of veneer with alternating grain direction. This gives it high strength, dimensional stability, and good moisture resistance. It is suitable for structural applications, built-in interiors, and partition walls.

# These are not just products — they are wood-based solutions that can help reduce the carbon footprint of modern living spaces.



# Building Long-Term Value through Sustainable Wood-Based Solutions

**Vanachai transforms renewable wood resources into durable, carbon-storing products, enabling sustainable construction, circular resource use, and long-term value creation.**

Vanachai's business model is inherently aligned with the transition to a low-carbon and circular economy. By combining renewable raw materials, energy efficiency, and carbon management, the Group delivers both environmental value and long-term economic resilience.

## 1 Carbon-Storing Materials (Environmental Value)

- Wood-based products act as carbon storage over their lifecycle
- Lower embodied carbon compared to traditional materials (e.g., steel, concrete)
- Supports global decarbonization and green building trends

**Make Vanachai Group**
"POSITIONS VANACHAI AS PART OF THE CLIMATE SOLUTION, NOT THE PROBLEM"

## 2 Circular Resource Efficiency (Operational Value)

- ~95% of raw materials from renewable sources
- Efficient use of wood residues and by-products
- High levels of recycling, reuse, and recovery

**Make Vanachai Group**
"REDUCES RAW MATERIAL RISK AND IMPROVES COST EFFICIENCY"

## 3 Low-Carbon Manufacturing Platform (Economic Value)

- Renewable energy lowers carbon exposure
- Efficiency reduces energy-cost risk
- Carbon management supports compliance readiness

**Make Vanachai Group**
"PROTECTS MARGINS FROM ENERGY AND CARBON PRICE VOLATILITY"

## Value Creation Model

**Resources In, Value Out**

| INPUTS | TRANSFORMATION | OUTPUTS |
|---|---|---|
| Renewable Raw Materials | Efficient Processing | Durable Products |
| Renewable Energy | Low-Carbon Operations | Reduced Emissions |
| Innovation | Product Development | Sustainable Solutions |

## Quantified Proof

| METRIC | VALUE |
|---|---|
| Renewable Raw Materials | ~94.7% |
| Renewable Energy | ~71.6% |
| Total GHG Emissions (scope 1&2) | 173,299 $tCO_2e$ |
| Carbon Intensity | 0.128 $tCO_2e$/tonne |

# Collaborative Networks Strengthening Sustainable ESG Performance

## Partnering with key organizations and networks to strengthen ESG practices and performance

The Group places importance on participation in relevant public sector, private sector, and professional organizations and networks to support the development of practices and the raising of economic, social, and environmental standards across the wood-based panel industry, as well as the construction materials and interior solutions sectors. Membership in these organizations enables the Group to stay closely informed of ESG-related trends, regulations, standards, and emerging issues, while also providing opportunities to engage in the exchange of knowledge, perspectives, and experience with organizations and stakeholders more broadly.

In addition, the Group participates in activities, projects, and collaborative initiatives that support operations in line with sustainable development principles. These engagements help strengthen organizational readiness, enhance performance, and support the transition of the industry toward more responsible, transparent, and sustainable practices.

Through these collaborations, Vanachai strengthens its role not only as a manufacturer, but as a contributor to broader industry transformation. This highlights the importance of the Group's position within the sustainability landscape.

### Environmental Pillar:

- **Member and project developer under Thailand's Voluntary Emission Reduction Program (T-VER):** Renewable energy projects (e.g. solar rooftop) to reduce emissions and generate carbon credits
- **Member of the Climate Change Institute under the Federation of Thai Industries (FTI CCI):** Collaboration on climate and environmental initiatives to support industry transition
- **Member of the Environmental Quality Monitoring Committee, Map Ta Phut Industrial Estate**

### Social Pillar:

- **Member of the Tapee Safety Club (Occupational Safety Officers Network, Surat Thani Province)**

### Governance/ Economic Pillar:

- **Member of the Federation of Thai Industries** in the plywood, veneer, and panel products group, supporting higher producer capability and international product standards
- **Member of the Thai Furniture Association:** representing operators serving export and domestic markets
- **Member of the Provincial Federation of Thai Industries** in the provinces where the Company operates
- **Member of the SDGs Network Committee** (Kaeng Khoi Industrial Estate, Saraburi Province)
- **Member of Thailand's Private Sector Collective Action Against Corruption (CAC)**
- **Member of the Thai Institute of Directors Association (Thai IOD)**

# Why Vanachai Matters in Sustainability

**Vanachai is not only responding to sustainability challenges, but is structurally positioned to help drive the transition.**

Vanachai's relevance in sustainability is embedded in our business model. The Group operates in a resource-based industry where environmental performance, carbon management, and supply chain integrity directly influence competitiveness and long-term resilience.

Wood-based products provide a distinctive advantage as carbon-storing materials and lower-emission alternatives within the construction value chain. At the same time, the Group is exposed to transition-related pressures, including carbon pricing, energy costs, and evolving customer expectations. This creates a dual imperative: to manage sustainability-related risks effectively while advancing solutions that support a lower-carbon economy.

Vanachai's business model is therefore inherently aligned with the transition toward a low-carbon and circular economy. By transforming renewable wood resources into durable, carbon-storing products, the Group contributes to emissions reduction across the value chain while supporting more sustainable construction and more efficient resource use.

Beyond manufacturing, Vanachai operates as a carbon-managed industrial system, where carbon is not treated as waste, but is actively managed, reduced, and stored throughout the production process and product life cycle. This approach reflects a shift from traditional resource consumption toward a model of measurable value creation that integrates environmental performance with long-term business resilience.

This foundation shapes not only how Vanachai creates value today, but also how the Group responds to emerging risks, evolving market expectations, and sustainability-driven transformation across the industry.




“Vanachai is not just producing materials — it is helping redefine
industrial value creation in a carbon-constrained world.”

# Our Sustainability Direction and Management



# Sustainability Direction

## Sustainability is how Vanachai manages risk and drives growth.

Vanachai Group integrates sustainability into our business model, recognizing that environmental, social, and governance (ESG) factors directly influence competitiveness, business resilience, and long-term growth. This is particularly relevant in a resource-based industry, where carbon management, resource efficiency, and supply chain transparency play a critical role in operational performance.

**The Group has established sustainability policies, strategies, and targets that are aligned with material topics and risk assessments across the value chain. This enables the identification, prevention, and mitigation of potential adverse impacts, while also capturing business opportunities arising from evolving market dynamics and sustainability trends. These considerations are embedded into business planning and decision-making processes to ensure consistent and systematic implementation.**

The Group operates under strong governance principles, with a commitment to social responsibility and environmental stewardship, guided by a circular economy approach. This includes optimizing resource utilization, minimizing waste, and enhancing production efficiency. At the same time, the Group invests in renewable energy solutions, such as biomass and solar energy, to reduce greenhouse gas emissions and support long-term climate objectives.

From an economic perspective, the Group focuses on developing environmentally friendly products, strengthening supply chain sustainability, and fostering collaboration with business partners to enhance sustainability standards across the value chain. From a social perspective, the Group prioritizes human rights, occupational health and safety, employee capability development, and ongoing community engagement.

To ensure effective execution, the Group has strengthened our governance structure by establishing a Sustainability Committee at the Board level to provide strategic direction and oversight, alongside a cross-functional sustainability working team responsible for driving implementation across the organization.

In addition, ESG performance indicators have been defined for executives and relevant functions, while sustainability training and capability development programs are implemented to foster a culture of sustainability across the organization.

This approach reflects that sustainability is not a standalone initiative, but an integral part of the Group's management framework, linking risk management, opportunity identification, and value creation, and enabling the Group to respond effectively to market trends and industry transformation over the long term.

"Sustainability is not merely an operational framework, but a core approach through which Vanachai manages risk, informs strategic decision-making, and drives long-term growth."



# Market & Sustainability Trends

## External Drivers Shaping the Industry

Global and domestic sustainability trends are reshaping the construction and materials industry, accelerating the transition toward low-carbon, resource-efficient, and health-conscious products. These developments are influencing market demand, cost structures, and competitive dynamics across the value chain.

### 1 Shift Toward Sustainable Materials

The construction and interior materials industry in Thailand continues to shift toward engineered wood products as alternatives to natural timber. This transition is driven by increasing environmental awareness, resource conservation concerns, and stricter health and safety standards, particularly among environmentally conscious consumers.

Engineered wood products such as MDF, HDF, and particleboard are gaining wider adoption due to their consistent quality, cost efficiency, and compatibility with environmentally responsible production technologies. Products with low formaldehyde emissions and low volatile organic compounds (VOC) are increasingly preferred, reflecting rising expectations for indoor air quality and occupant health.

### 2 Green Building and ESG-driven Demand

Green building certifications such as TREES, LEED, and WELL are becoming key differentiators in real estate development. Developers, architects, and building owners are increasingly selecting materials that meet environmental and health performance criteria to achieve certification standards.

Low-impact wood-based products are therefore positioned as trategic materials that enhance building value, attract higher-quality customers, and support corporate ESG commitments..

### 3 Energy, Cost, and Supply Chain Pressures

Global geopolitical tensions and macroeconomic uncertainties have contributed to volatility in energy prices, logistics costs, and supply chain stability. Ongoing conflicts in key regions have disrupted shipping routes and increased insurance costs, while energy price fluctuations continue to impact production costs.

These factors have led to increased market uncertainty, pricing pressure, and intensified competition within the industry.

### 4 Market Volatility and Competitive Dynamics

Demand for wood-based panel products has shown variability due to economic conditions and export market disruptions. Currency fluctuations, particularly in USD, have also impacted pricing strategies and revenue stability.

At the same time, competition has intensified as manufacturers balance cost efficiency with product quality, sustainability performance, and customer expectations.

### 5 Industry Transformation through Innovation

Advancements in material science and production technology are transforming engineered wood products from “substitute materials” into preferred solutions for modern construction and interior design.

This shift reflects a broader industry transition toward innovation driven, sustainability-oriented products that deliver performance, safety, and environmental value.

These trends highlight that sustainability is no longer a supporting factor, but a defining force shaping market dynamics, cost structures, and competitive positioning. For Vanachai, this creates both risks and opportunities that must be actively managed.

# Sustainability Risk Management Framework

## From External Drivers To Value Creation

Sustainability-related risks and opportunities are increasingly material to Vanachai's financial performance, operational resilience, and long-term competitiveness. The Group integrates sustainability into our Enterprise Risk Management (ERM) framework and applies the Vanachai Integrated Materiality and Risk Assessment (V-IMRA) approach to systematically identify, assess, and manage ESG-related risks across the value chain.

The Group's approach links external market and policy developments with internal strategic planning, enabling timely responses to emerging risks and stronger alignment between sustainability priorities and long-term business performance. This integration supports more informed decision-making and strengthens the Group's ability to adapt to evolving stakeholder expectations.

By integrating sustainability into our risk management framework, Vanachai proactively manages downside risks while positioning the business to capture emerging opportunities that support long-term resilience and sustainable growth.

**Scan for related disclosure**
For further details, please refer to
Risk Management p.36 on Form 56-1 One Report 2025

| External Drivers | Risk Identification | Risk Assessment | Strategic Response | Value Creation |
|---|---|---|---|---|
| **Climate regulation and carbon policy** | Exposure to tightening carbon regulation, emissions reporting requirements, and potential carbon pricing mechanisms. | Higher compliance and operating costs, with potential implications for market access and customer requirements. | Strengthen carbon management strategy through emissions reduction, data governance, and alignment with relevant regulatory and market frameworks. | Enhances readiness for a low-carbon economy and supports long-term competitive positioning. |
| **Energy price and transition volatility** | Exposure to fluctuations in energy prices affecting production costs and operational efficiency. | Increased cost pressure and margin uncertainty, particularly in energy-intensive operations. | Increase the share of renewable energy and improve energy efficiency across production and utility systems. | Improves cost stability, strengthens energy resilience, and reduces exposure to fossil energy price volatility. |
| **Shifting market demand** | Shifting customer preferences toward sustainable, low-emission, and health-conscious products. | Risk of reduced competitiveness if products do not align with evolving market and customer expectations. | Accelerate product innovation and develop solutions that respond to sustainability, safety, and performance requirements. | Supports revenue growth, strengthens product differentiation, and enhances market relevance. |
| **Rising ESG and stakeholder expectations** | Rising expectations for ESG disclosure, transparency, and responsible business practices from investors and stakeholders. | Greater scrutiny from investors and stakeholders, which may affect confidence, reputation, and access to capital. | Enhance ESG governance, disclosure quality, and alignment with recognized reporting frameworks and stakeholder expectations. | Strengthens investor confidence, improves access to capital, and supports long-term corporate credibility. |

# From Risk Exposure to Value Creation

## Turning sustainability pressures into strategic business value

Vanachai's sustainability approach goes beyond risk mitigation by transforming key sustainability pressures into drivers of efficiency, growth, and competitive advantage. Through targeted strategic responses, the Group converts risk exposure into measurable business value across our operations and markets.

Sustainability risks are not only mitigated but actively transformed into strategic opportunities that enhance operational performance and long-term competitiveness.



| Risk Exposure | Management Response | Value Creation Outcome |
|---|---|---|
| **Carbon Regulation and Market Pressure** Tightening carbon-related regulations, greater disclosure requirements, and rising customer expectations for low-carbon products may increase compliance costs and create pressure on market access and competitiveness. | **Advance low-carbon product development and strengthen carbon management** through emissions reduction initiatives, improved data and disclosure readiness, and alignment with market and regulatory expectations. | **Supports revenue growth and competitive differentiation** by positioning Vanachai's products as lower-carbon solutions that are better aligned with evolving customer demand and sustainability requirements. |
| **Energy Cost Volatility** Fluctuating energy prices, input cost pressure, and potential exposure to carbon pricing mechanisms may increase production costs and affect margin stability. | **Increase renewable energy use and improve energy efficiency** across operations, including biomass, solar energy, and continuous efficiency improvement in production and utility systems. | **Enhances cost stability and margin protection** by reducing dependence on volatile fossil energy sources and improving long-term energy resilience. |
| **Green Building & ESG Demand** Growing demand for green-certified buildings and sustainable materials may reduce competitiveness if products do not meet environmental and health-related expectations | **Strengthen sustainable product innovation and certification alignment** to support customer requirements related to green building standards, product safety, and environmental performance. | **Improves access to high-value projects and customers** by aligning product offerings with the needs of developers, architects, and ESG-driven markets. |
| **Supply Chain & Resource Risk** Risks related to raw material availability, supplier ESG compliance, and resource efficiency may affect production continuity, cost, and reputation. | **Strengthen responsible sourcing and resource efficiency** through supplier engagement, traceability, material optimization, and more efficient use of inputs across the value chain. | **Improves operational resilience and cost efficiency** by supporting more stable supply, reducing waste, and enhancing the sustainability of the production system. |

# Key Sustainability Risks, Opportunities and Strategic Actions

## Priority issues and responses supporting resilience and long-term growth

Vanachai's sustainability risk and opportunity management is structured around material issues that affect business continuity, cost competitiveness, and market positioning. Through our ERM and V-IMRA processes, the Group monitors these issues and implements strategic actions to reduce downside exposure while strengthening long-term value creation.

Through disciplined execution of these strategic actions, Vanachai strengthens operational resilience, supports sustainable growth, and reinforces long-term competitiveness in a rapidly changing market environment.

| Key Risk Area | Key Risks | Opportunities | Strategic Actions |
|---|---|---|---|
| **Climate Transition & Market Shift** | Carbon cost exposure and changing customer demand | Revenue growth from low-carbon products | Expand low-carbon portfolio and product transparency (EPD/LCA) |
| **Energy & Cost Volatility** | Energy price fluctuation and carbon pricing risk | Cost stability through renewable energy | Increase biomass/solar share and improve efficiency |
| **Supply Chain & Resource Risk** | Raw material availability and supplier ESG compliance | Resource efficiency and circular value creation | Optimize material use and strengthen responsible sourcing |
| **ESG & Capital Market Expectations** | Increasing disclosure require-ments | Improved ESG-linked financing access | Enhance ESG disclosure and investor engagement |
| **Geopolitical volatility** | Export/logistics disruption and cost volatility | Market diversification and resilience | Diversify markets/ logistics and strengthen contingency planning |
| **Digital transformation and cybersecurity** | Cyber disruption and data security risk | Efficiency gains and better data governance | Upgrade cyber controls and implement ERP governance |
| **Emerging health risks (pandemic-like events)** | Workforce and supply chain disruption | Improved continuity and resilience | Strengthen BCM and health/ safety protocols |

# Sustainability Approach, Governance and Stakeholders

## How sustainability is embedded across the organization

Vanachai embeds sustainability into our organizational structure through an integrated approach that aligns governance, management processes, and stakeholder engagement. Sustainability is not managed as a standalone function, but is systematically incorporated into decision-making, operational execution, and performance monitoring across the Group. This approach enables the organization to respond effectively to sustainability-related risks and opportunities while ensuring alignment with stakeholder expectations and long-term value creation.

The Group's sustainability approach is driven by the integration of materiality assessment and enterprise risk management through the V-IMRA framework, enabling the identification, prioritization, and management of key ESG issues across the value chain. External drivers, including evolving regulatory requirements, market expectations, and stakeholder concerns, are continuously assessed and translated into structured risk and opportunity management processes. These are embedded within the governance structure and cascaded into business decisions, ensuring that sustainability considerations are reflected in strategy, capital allocation, and day-to-day operations.

Through this integrated management system, sustainability is operationalized across core business activities, supporting resource efficiency and circular practices, climate risk management and emissions reduction, responsible supply chain management, and social responsibility with a focus on workforce development. Performance is monitored through defined KPIs and internal control mechanisms, reinforcing accountability and continuous improvement across all functions.

Stakeholder engagement is a critical component of Vanachai's sustainability governance. Stakeholders are systematically identified and grouped into three primary clusters: market stakeholders, including customers, consumers, and investors; operational stakeholders, including employees, suppliers and business partners; and societal stakeholders, including communities and regulators. Insights from these groups are incorporated into materiality assessments, risk evaluation, and strategic planning processes, ensuring that the Group's sustainability priorities remain relevant, responsive, and aligned with both business objectives and broader societal expectations.



## Organization Integration with Management System

### 1. External Drivers/Stakeholders:

Stakeholder expectations and external developments help shape the Group's sustainability priorities. Key inputs come from customers, investors, employees, suppliers, communities, and regulators.

### 2. ERM + V-IMRA Framework:

Material ESG issues are identified, assessed, and prioritized through the integration of Enterprise Risk Management and the V-IMRA framework, enabling a structured response to sustainability-related risks and opportunities across the value chain.

### 3. Governance Structure:

Governance structures provide oversight and accountability, ensuring that sustainability is embedded in policies, internal controls, management systems, and performance monitoring across the organization.

### 4. Business Decisions:

Sustainability considerations are integrated into strategic planning and operational execution, supporting resource efficiency, climate action, responsible supply chain management, and workforce development.

### 5. Value Creation:

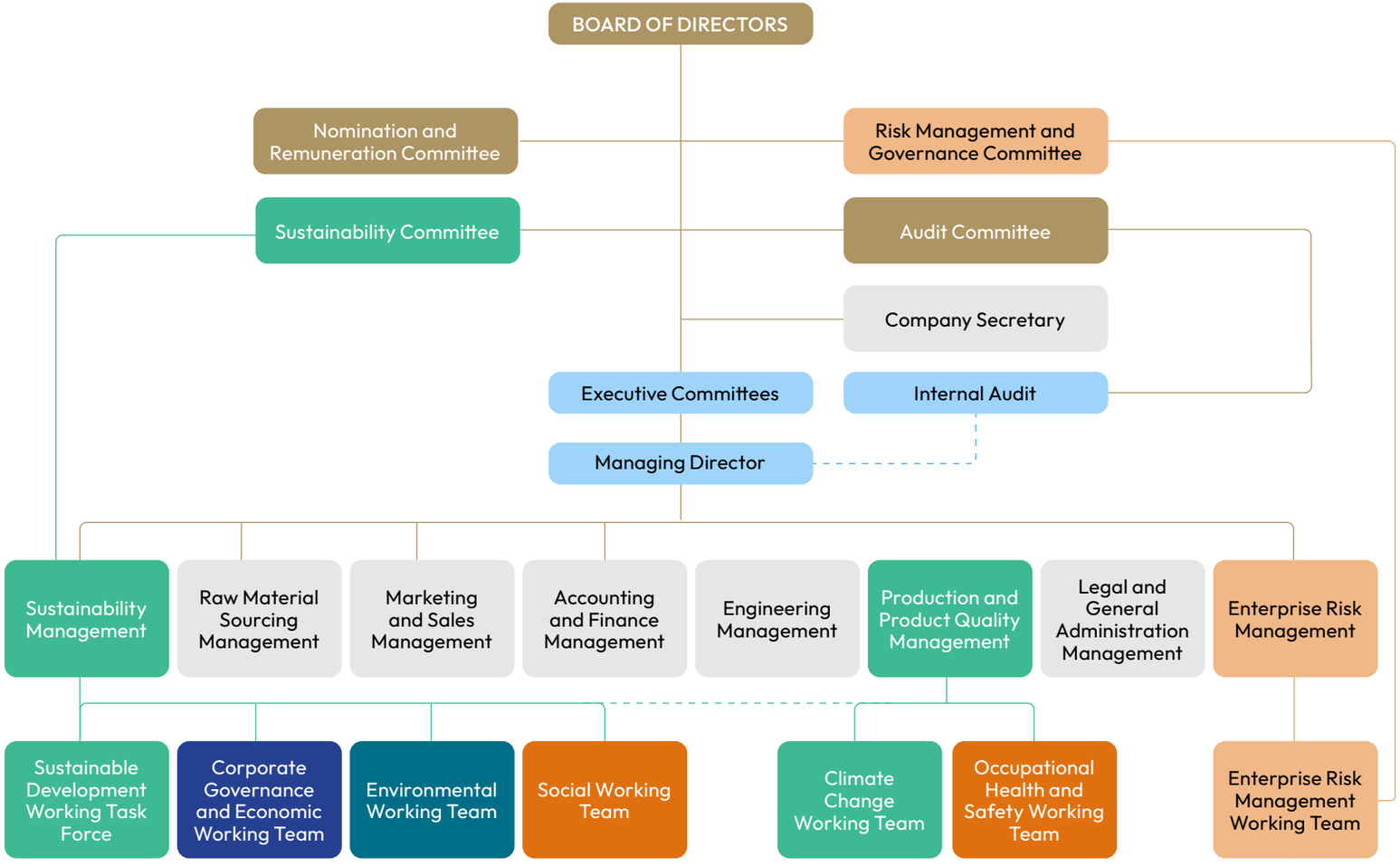
This integrated approach strengthens resilience, improves efficiency, supports responsible growth, and creates long-term value aligned with stakeholder expectations.

# Corporate Governance and Business Ethics Structure

## A governance framework with clear roles and responsibilities, strengthening transparency, accountability, and ethical conduct

Vanachai has established a corporate governance and business ethics framework with clearly defined roles and responsibilities across the organization, supporting effective oversight, management, and internal controls. This framework promotes transparency, accountability, and integrity, while supporting risk management and the integration of sustainability into decision-making and operations.






**Scan for related disclosure**
For further details, please refer to
Code of Business Ethics

**Scan for related disclosure**
For further details, please refer to
Good Corporate Governance Policy

# Clarity is Accountability

## Governance structure and roles across the organization.

Vanachai recognizes sustainability governance as a core foundation of our business, supporting long-term competitiveness, product innovation, and responsible stewardship of forest resources and the environment. ESG principles are embedded into business strategy and integrated into decision-making, operations, and performance monitoring across the organization.

The governance structure establishes clear roles, responsibilities, and accountability, enabling effective management of ESG-related risks and opportunities while aligning strategy with execution. This is supported by the Vanachai Integrated Materiality and Risk Assessment (V-IMRA) approach, which integrates material ESG issues with enterprise risk management to identify, prioritize, and monitor sustainability and corporate risks in a systematic manner.

**Board of Directors**
Oversees sustainability direction, ensures ESG integration into corporate strategy, and reviews performance against long-term objectives.

**Board Committees**
Oversee sustainability policies, ESG risks, controls, and disclosures, and provide recommendations to support Board decision-making.

**Executive Management**
Translate sustainability strategy into business plans and integrate ESG into operational decision-making and resource allocation.

**Cross-functional Working Team**
Implement initiatives, monitor KPIs, manage ESG data and reporting, and support continuous improvement across functions.

Vanachai operates with transparency, accountability, and ethical practices, supported by a comprehensive risk management framework incorporating ESG factors such as climate, environmental, and social risks. Through V-IMRA and ongoing stakeholder engagement, the Group strengthens risk oversight, enhances decision-making, and supports long-term value creation and resilience.



### Board of Directors
- Oversees sustainability direction and ESG integration
- Reviews performance and ensures alignment with long-term strategy

### Board Committees
- Provide oversight on ESG-related risks, controls, and compliance
- Review key policies, disclosures, and strategic initiatives
- Provide recommendations to the Board

Audit Committee | Nomination and Remuneration Committee | Risk Management and Governance Committee | Sustainability Committee

### Executive Management
- Translates strategy into business plans and targets
- Integrates sustainability into operations and decision-making

Sustainability Management | Executive Committee of Core Functions | Risk Management and Internal Audit

### Cross-functional Working Team
- Implements initiatives across departments
- Collects data, monitors KPIs, and ensure execution across functions

Sustainable Development Working Task Force | Raw Material Sourcing Team | Production & Product Quality Team | Accounting & Finance Team

Operation Team | Legal & General Administration Team | Marketing and Sales Team | Enterprise Risk Management Working Team

# Vanachai Sustainability Committee

## Governance in Action: From Commitment to Execution

"This governance structure reinforces leadership accountability and sets the foundation for a disciplined, data-driven approach to sustainability."

Vanachai has established a dedicated Sustainability Committee to translate governance principles into actionable direction across the organization. The Committee plays a central role in guiding strategy, overseeing implementation, and ensuring that sustainability priorities are consistently embedded into business decisions and operational practices.

Comprising senior leaders with deep industry expertise and diverse perspectives, the Committee strengthens the Group's ability to navigate evolving ESG expectations while maintaining long-term competitiveness.

**Scan for related disclosure**
For further details, please refer to
Sustainability Committee Charter



**Ms. Phattra Sahawat**
Sustainability Committee

**President / Managing Director**



**Mr.Somprasong Sahavat**
Sustainability Committee

**Director / Assistant Managing Director**



**M.L. Dispanadda Diskul**
Sustainability Committee

**Director / Independent Director**

- **Ms. Phattra Sahawat, Managing Director**, brings extensive experience in sales and marketing, enabling the integration of sustainability into market positioning and customer value creation.
- **Mr. Somprasong Sahawat, Chief Financial Officer**, provides strong oversight on financial discipline and ESG investment alignment, supporting sustainable growth and capital allocation.
- **M.L. Dispanadda Diskul, President of the Mae Fah Luang Foundation**, contributes strategic insight on environmental stewardship, particularly in climate change and greenhouse gas management.

Together, the Committee ensures that sustainability is not managed in isolation, but actively translated into measurable actions, performance monitoring, and continuous improvement across the organization.

While Vanachai has formally structured our sustainability governance over the past three years, our core philosophy of responsible resource use and forest conservation has been embedded in our business practices for over 80 years. This foundation enables the Group to accelerate our transition from established practices to structured, transparent, and investor-aligned ESG management.

# Leadership Insights: Strengthening Sustainability

## Building trust through leadership, data, and accountability

Vanachai's sustainability governance is built on the principle that long-term business success depends not only on strong strategy, but on consistent execution, organizational alignment, and stakeholder trust. As sustainability becomes increasingly central to competitiveness, the Group places strong emphasis on leadership commitment, data-driven management, and clear accountability to ensure that sustainability is embedded into everyday business practices.

This approach ensures that sustainability is not limited to policy or reporting, but is actively translated into decisions, operations, and behaviors across the organization. It also enables alignment between corporate targets and the actions of employees, business partners, and stakeholders, reinforcing a shared direction toward long-term value creation.

Vanachai's Sustainability Committee provides the foundation for effective ESG governance by ensuring that sustainability priorities are clearly directed, consistently implemented, and actively monitored. Building on this structure, the Group strengthens execution through leadership commitment, data-driven management, and clear accountability across all levels of the organization.

### Leadership Commitment

Leadership plays a critical role in setting the tone and direction for sustainability across the organization. Active oversight by the Board of Directors and senior management helps ensure that sustainability priorities are aligned with business strategy and embedded in key decision-making processes. This top-down commitment is essential to building organization-wide alignment, enabling employees at all levels to understand their role in delivering sustainability objectives and integrating ESG considerations into day-to-day operations..

### Data and Transparency

As sustainability expectations continue to evolve, data has become a critical enabler of effective governance and a key driver of competitiveness. Vanachai integrates ESG considerations into our Enterprise Risk Management (ERM) and V-IMRA frameworks, allowing the Group to systematically identify, assess, and monitor sustainability-related risks and opportunities.

Through data-driven monitoring, performance tracking, and transparent reporting, the Group enhances decision-making, strengthens internal controls, and improves responsiveness to stakeholder expectations. Continuous improvement in data quality and disclosure further supports credibility and builds confidence among investors and stakeholders.

### Accountability and Execution

Clear accountability across all levels of the organization ensures that sustainability strategies are effectively implemented and continuously improved. Defined roles and responsibilities enable coordination across functions, while performance management systems align sustainability targets with operational KPIs.

This structured approach supports disciplined execution, encourages cross-functional collaboration, and ensures that sustainability initiatives deliver measurable outcomes. It also reinforces a culture of responsibility and continuous improvement throughout the organization.

Through the integration of leadership, data, and accountability, Vanachai strengthens organizational alignment and ensures that sustainability is managed with the same level of discipline as core business operations. This approach not only reinforces stakeholder trust, but also enhances the Group's ability to adapt, compete, and create long-term value in an increasingly sustainability-driven business environment.

This integrated approach not only strengthens governance and execution, but also enables sustainability to be embedded across the entire value chain, where resources are managed efficiently and value is maximized at every stage.

"From principles to performance through leadership and accountability"

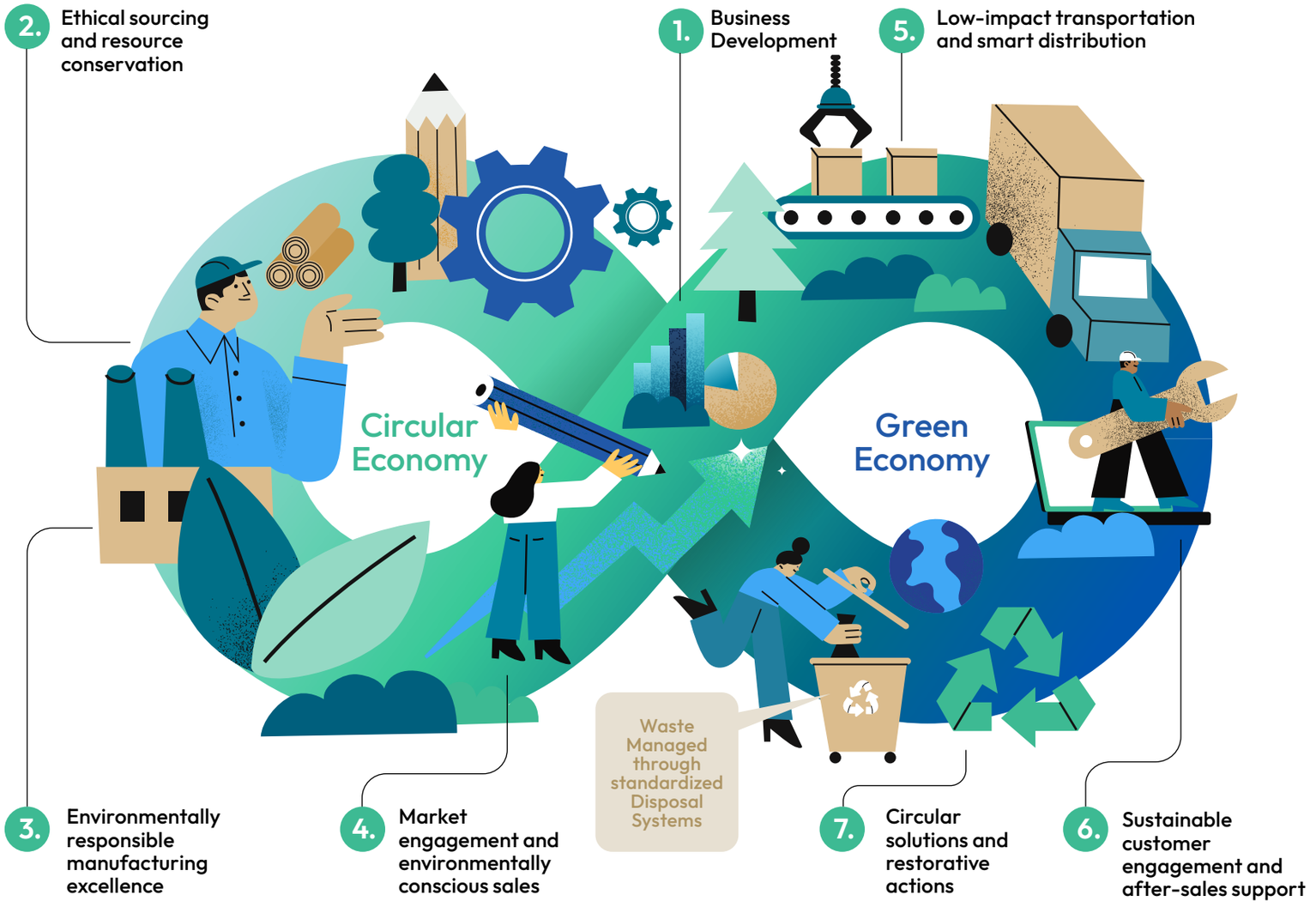
# Sustainability Across the Value Chain

## Minimizing waste, maximizing value from every resource.

Vanachai Group believes that no resource should be wasted and every source of value should be fully optimized. Through a circular economy approach, the Group strengthens our sustainable value chain from responsible sourcing and efficient production to the delivery of high-quality wood-based products. This helps reduce reliance on virgin raw materials, improve resource productivity, and create long term value for business, society, and the environment.

The Group operates under the principle of a sustainable value chain, with a clear focus on maximizing resource efficiency, minimizing losses across operations, and converting inputs into lasting value from upstream to downstream. Under our circular economy approach, Vanachai prioritizes responsible sourcing, the effective use of renewable materials and by-products, continuous improvement in production efficiency, and the delivery of high-quality wood-based products that meet customer needs while supporting better living environments.

This approach is not limited to reducing the use of new raw materials or lowering environmental impacts. It also provides an important foundation for strengthening long term business resilience and competitiveness. Sustainability is embedded across every stage of the value chain, from raw material selection and responsible production to the management of energy, water, and residual materials, as well as product development and value delivery to customers, suppliers, communities, and other stake-holders. Through this integrated approach, the Group aims to ensure that every stage of our operations contributes to economic, social, and environmental value creation in parallel.



## UPSTREAM:

### Strategic direction and sustainable sourcing

The Group lays the foundation of its value chain through sustainable strategic business development, informed by market intelligence, design trends, customer needs, and emerging technologies to guide business and product direction. This is complemented by responsible sourcing practices, with a focus on traceable wood and wood residues, while promoting the effective use of renewable materials and by-products. This approach helps strengthen resource security, reduce reliance on virgin inputs, and build a more resilient and sustainable supply chain.



#### 1. SUSTAINABLE STRATEGIC BUSINESS DEVELOPMENT

- **Approach:** Develop products and services from the concept stage, with a focus on safety, resource efficiency, and future market direction.
- **Key actions:** Monitors emerging technologies, global market trends, and evolving design directions to develop products and services that meet customer needs and relevant standards, while optimizing material use to reduce waste during installation and use and incorporating feedback from the market and end users into continuous product development.
- **Outcomes / Value Created:** Helps the Group develop fit-for-purpose products from the outset, learn from market and end-user feedback, and continuously improve products to enhance resource efficiency, reduce waste, and support stronger sustainability outcomes.



#### 2. ETHICAL SOURCING AND RESOURCE CONSERVATION

- **Approach:** Source raw materials ethically and maximise resource efficiency under the Group's sustainable wood procurement policy.
- **Key actions:** Procures wood and wood residues from farmers and local communities, promotes the recovery and use of residual materials from the wood and furniture industries, uses recycled paperboard packaging for flooring products, and works closely with suppliers and communities to improve raw material quality, reduce environmental impacts, and conduct annual supplier assessments.
- **Outcomes / Value Created:** Helps reduce resource loss, supports circular economy practices, strengthens long term raw material security, and continuously improves supply chain sustainability.

## MIDSTREAM:

### Efficient operations, market execution, and smart distribution.

Across our operations, the Group is focused on improving the efficiency of raw material, energy, and water use, while reducing waste, emissions, and losses at every stage. This is achieved through continuous process improvement, the use of renewable energy, water reuse, and the recovery and utilization of residual materials and by-products. In parallel, the Group advances market engagement and sales through a clear understanding of customer needs, while managing transportation and distribution efficiently to reduce impacts and enhance agility in delivering value across the value chain.



#### 3. ENVIRONMENTALLY RESPONSIBLE MANUFACTURING EXCELLENCE

- **Approach:** Operate production responsibly by reducing waste, improving efficiency, and increasing renewable energy use.
- **Key actions:** Uses biomass and solar energy, treats wastewater, manages waste under circular economy principles, keeps production waste below 5%, and reuses 100% of water.
- **Outcomes / Value Created:** Helps reduce greenhouse gas emissions, lower environmental impacts, reduce costs, and support more sustainable production.



#### 4. ENVIRONMENTALLY RESPONSIBLE MARKET ENGAGEMENT AND SALES

- **Approach:** Conduct marketing and sales activities ethically, transparently, and with due consideration for environmental impacts.
- **Key actions:** Provides accurate product information, maintains communication and grievance channels, and uses customer insights to refine products, services, and product sizes to reduce waste.
- **Outcomes / Value Created:** Helps improve customer satisfaction, reduce waste from installation and furniture production, and lower environmental impacts.



#### 5. LOW-IMPACT LOGISTICS AND SMART DISTRIBUTION

- **Approach:** Manage logistics and distribution efficiently, safely, and with due consideration for environmental impacts.
- **Key actions:** Operates a Chonburi distribution centre near Laem Chabang Port and uses digital systems to optimise routing, safety, and delivery efficiency.
- **Outcomes / Value Created:** Helps reduce transport distances, fuel use, and greenhouse gas emissions, while improving speed, accuracy, and more sustainable delivery performance.

## DOWNSTREAM:

### Customer stewardship and circular solutions

The Group delivers high quality, safe wood-based products that meet customer and market requirements, with a focus on product design that supports efficient resource use, appropriate service life, and healthier living environments. This is complemented by sustainable customer engagement and after-sales support, as well as the promotion of reuse, recovery, and end-of-life management practices. Together, these efforts help enhance customer value while reducing environmental impacts across the value chain.



#### 6. SUSTAINABLE CUSTOMER ENGAGEMENT AND AFTER-SALES SUPPORT

- **Approach**: Provide professional after-sales support to help customers and end users use products correctly and effectively.
- **Key actions:** Deploys technical teams to support on-site applications, provides product guidance, technical training, and troubleshooting advice, and supports customers through WoodSmith, customer service channels, and issue-tracking systems for structured follow-up and resolution.
- **Outcomes / Value Created:** Helps build customer confidence, enhance the customer experience, and strengthen long term relationships.



#### 7. CIRCULAR SOLUTIONS AND END-OF-LIFE RECOVERY

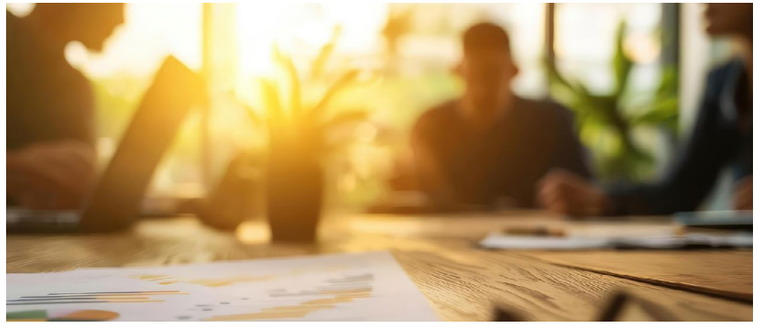
- **Approach:** Take responsibility for products at end of life under a circular economy approach, with the aim of maximizing the recovery of waste as raw material.
- **Key actions:** Works with recycling partners to recover and recycle end-of-life finished products, as well as waste from the furniture business and interior fit-out sites, for appropriate reuse and material recovery.
- **Outcomes / Value Created:** Helps reduce waste volumes, lower reliance on virgin raw materials, support circular economy practices, and extend resource value across the product life cycle.

# Delivering Shared Value Across the Business

## Embedding sustainability across the value chain to drive performance, resilience, and long-term value

Vanachai delivers shared value by embedding sustainability across our value chain, from upstream sourcing to downstream product use. Through this integrated approach, the Group improves resource efficiency, advances low-carbon solutions, and strengthens supply chain resilience. By aligning operations with stakeholder expectations and market trends, Vanachai enhances competitiveness while contributing to sustainable development.

These six capitals are interconnected and are continuously transformed through Vanachai's operations. By managing inputs, processes, and outputs across the value chain, the Group converts these resources into measurable business value while supporting environmental and social outcomes. This integrated approach forms the foundation for delivering shared value across the value chain.



## RELATIONSHIPS SUPPORTING LONG-TERM VALUE CREATION

### NATURAL CAPITAL:
**Resource security, carbon storage, environmental stewardship**
Vanachai relies on renewable wood resources as our primary raw material, supported by responsible sourcing practices and sustainable forest management. The Group also manages energy, water, and environmental impacts to reduce emissions and support long-term resource availability.

### MANUFACTURED CAPITAL:
**Efficiency, productivity, low-carbon operations**
The Group's manufacturing assets, including MDF, HDF, and particleboard production lines, are supported by advanced machinery and continuous process optimization. Investments in energy systems such as biomass and solar enhance operational efficiency and reduce carbon intensity.

### FINANCIAL CAPITAL:
**Profitability, cost stability, access to capital**
Financial capital supports ongoing operations, investments in sustainability initiatives, and long-term growth. Strong cost management, operational efficiency, and access to ESG-linked financing enhance financial stability and resilience.

### HUMAN CAPITAL:
**Capability, safety, engagement, culture**
Vanachai's workforce plays a critical role in executing our sustainability strategy. The Group invests in employee development, safety, and ESG awareness to build capabilities and foster a culture aligned with sustainability objectives.

### SOCIAL AND RELATIONSHIP CAPITAL:
**Trust, collaboration, market access**
The Group maintains strong relationships with customers, suppliers, communities, and regulators. Through responsible business practices and stakeholder engagement, Vanachai builds trust and supports shared value creation across our ecosystem.

### INTELLECTUAL CAPITAL:
**Innovation, product differentiation, market relevance**
Innovation in wood-based products, low-emission materials, and process improvements enables Vanachai to respond to evolving market demands. The Group leverages technical expertise and product development capabilities to enhance competitiveness.

## RESOURCES

### USE OF NATURAL RESOURCES
- Total renewable raw materials used: **2,776,398 tonnes**
- Renewable raw materials as a share of total material inputs: **94.7%**
- Renewable energy consumption: **3,466,655 GJ**
- Total water withdrawal: **1,141,026 m³**

### OPERATIONS
- Total assets: **THB 18,439 million**
- Local raw material procurement: **THB 2,361 million**
- Energy intensity: **3.57 GJ per tonne of production**
- Water withdrawal intensity: **0.82 m³ per tonne of production**

### FINANCIAL CAPITAL
- Cost of sales and services: **THB 10,370 million**
- Sustainability investment: **THB 2,587 million**
- Total liabilities: **THB 11,713 million**
- Total shareholders' equity: **THB 6,726 million**

### HUMAN CAPITAL
- Employees: **3,343 people**
- Employee-related expenses: **THB 1,222 million**
- Average training hours: **9.10 hours per employee**
- Training & development expenditure: **THB 3.15 million**

### SOCIAL AND COMMUNITY INVESTMENT
- Community development, social contribution, and donations: **THB 3.46 million**
- Number of community engagement projects: **127**
- Employee volunteer hours: **3,937 hours**

### INNOVATION AND TECHNOLOGY
- Research and development expenditure: **THB 26.43 million**
- Revenue from sales of moisture-resistant flooring, non-formaldehyde wood, and new innovation products: **0.14%** from total revenue.

## BUSINESS MODEL & KEY ACTIVITIES

**Purpose: FOREST | FUTURE | TOGETHER**

The Group is a manufacturer of wood-based products that transforms renewable resources into high-performance, lower-carbon solutions. Through responsible sourcing, efficient production, and continuous innovation, the Group aims to drive sustainable growth.

- Sustainable Strategic Business Development
- Ethical Sourcing and Resource Conservation
- Environmentally Responsible Manufacturing
- Responsible Market Engagement and Sales
- Logistics and Smart Distribution
- Customer Engagement & After-sales Support
- Circular Solutions and End-of-Life Recovery

## OUTPUTS

### USE OF NATURAL RESOURCES

- Scope 1 and Scope 2 greenhouse gas emissions: **173,299 $tCO_2e$ per year**
- Total effluent discharge: **32,566 m³**
- Total waste generated: **672.3 tonnes**

### OPERATIONS

- Reusable and recyclable material use rate: **94.7%**
- Share of renewable electricity and heat used in operations: **71.6%**
- Share of total wastewater recycled and reused: **82.1%**
- Share of wood raw materials sourced from sustainable sources: **100%**

### FINANCIAL CAPITAL

- Revenue from sales and services: **THB 11,300 million**
- Total assets: **THB 18,439 million**
- Total EBITDA: **THB 797.54 million**
- Book value per share: **THB 3.88**

### HUMAN CAPITAL

- Employee engagement score: **96.6%**
- Voluntary turnover rate: **12.4%**
- Employee pay ratio (Female : Male): **0.75 : 1.00**
- No human rights grievances reported

### SOCIAL AND COMMUNITY INVESTMENT

- Community engagement score: **87.5%**
- Employee participation rate in social activities: **27.2%**
- Trees planted: **7,386**
- No grievances with material impacts on society & communities

### INNOVATION AND TECHNOLOGY

- Development of non-formaldehyde products across two product groups, comprising:
  - **Puer (NAF) Flooring**
  - **Super (NAF) OSB**

## IMPACT & VALUE CREATED (OUTCOME) IN 2025

### USE OF NATURAL RESOURCES:

- The use of wood-based alternatives in business operations was equivalent to preserving **70,400 hectares** of natural forest or **26 million trees** per year.
- The increased use of underutilized rubberwood improved resource efficiency, equivalent to **18.3 million trees**.
- Water withdrawal from water-stressed areas remained at **0 m³**.
- The share of treated effluent discharged was **17.9%**.

### OPERATIONS:

- Improved operational efficiency through better resource utilization, reducing energy, water, and material intensity across production processes.
- Reduced environmental footprint through lower emissions, waste generation, and wastewater discharge, supporting compliance and long-term sustainability targets.
- Strengthened cost competitiveness through efficiency improvements and increased use of renewable energy.

### FINANCIAL CAPITAL:

- Market capitalization: **THB 3,678.70 million**
- Export diversification, including **6% from CLMV markets,** supported regional resilience and growth.
- Financial strength supported sustainability investment and operational improvement, strengthening cost efficiency and resilience.
- Renewable energy and efficiency investment reduced exposure to energy price volatility and future carbon costs.

### HUMAN CAPITAL:

- Female executives represented **32.7%** of management.
- **100% of employees** were assessed against individual performance indicators.
- The proportion of employees from designated special workforce groups reached **117% of the legal requirement**.
- **No work-related fatality** involving employees was recorded.
- **No fatal transport-related incident** occurred in product distribution.
- **No human rights grievances** were reported involving employees or contracted business partners.

### SOCIAL AND COMMUNITY INVESTMENT:

- Promoted local economic development, generating over **THB 2,197 million** in community income.
- Created **85 new job positions** for local communities.
- Strengthened community trust and long-term relationships, supporting stable operations and reducing social risks across key operating areas.
- Improved awareness and capabilities within communities on environmental stewardship and sustainable resource use.

### INNOVATION AND TECHNOLOGY:

- **Non-formaldehyde products** help improve indoor air quality and reduce exposure to harmful VOCs, supporting safer everyday use and lower health risks.
- **Wood veneer products** are made from wood cellulose through environmentally friendly processes and are naturally biodegradable and recyclable.

# Stakeholder Engagement and Responsiveness

## Connecting Perspectives, Building Understanding, and Responding to Stakeholders to Drive a Sustainable Future

Vanachai Group recognizes that stakeholders play a critical role in driving sustainable growth, as each group represents diverse perspectives, expectations, and priorities. A structured approach to stakeholder engagement enables the Group to align our business practices with stakeholder expectations, mitigate potential negative impacts, and create balanced economic, social, and environmental value.

The Group places strong emphasis on maintaining continuous and systematic engagement processes to identify, understand, and respond appropriately to stakeholder needs and concerns. This approach supports collaboration, transparency, and trust, while strengthening risk management, enabling innovation, and informing strategic decision-making aligned with long-term value creation.

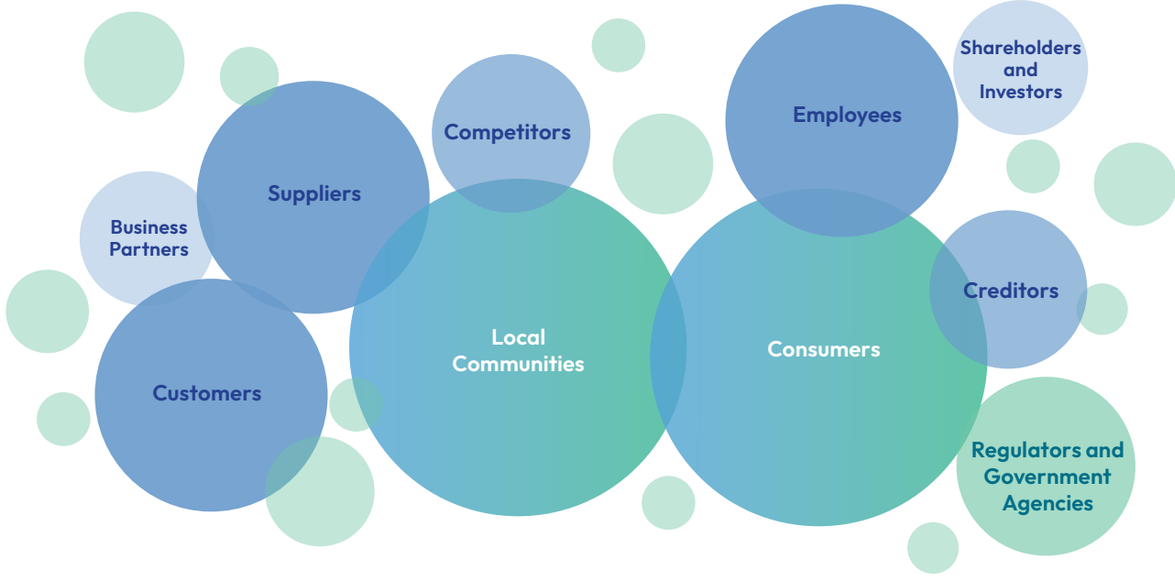
"Engaging stakeholders, building trusted relationships, and creating sustainable value together."

In 2025, Vanachai identified 10 key stakeholder groups, including employees, customers (distributors), end consumers, shareholders and investors, business partners, creditors, local communities surrounding operations, regulators, and competitors. The Group engages with these stakeholders on a regular basis to better understand their expectations, concerns, and material issues, ensuring that responses are relevant, timely, and aligned with shared objectives.

Stakeholder feedback, including both positive input and areas for improvement, is systematically incorporated into the Group's operational and management processes. The Group is committed to upholding human rights, promoting fairness and inclusivity, and maintaining equitable treatment across all stakeholder groups, thereby reinforcing long-term relationships, trust, and social license to operate.

Vanachai adopts the AA1000 Stakeholder Engagement Standard (AA1000SES) as a guiding framework for identifying, assessing, and prioritizing stakeholders across the value chain. Stakeholder prioritization is based on the level of impact and influence on the Group's operations, ensuring that engagement efforts are effective, transparent, and capable of supporting informed decision-making and sustainable business outcomes.

### Stakeholder Groups for Targeted Engagement

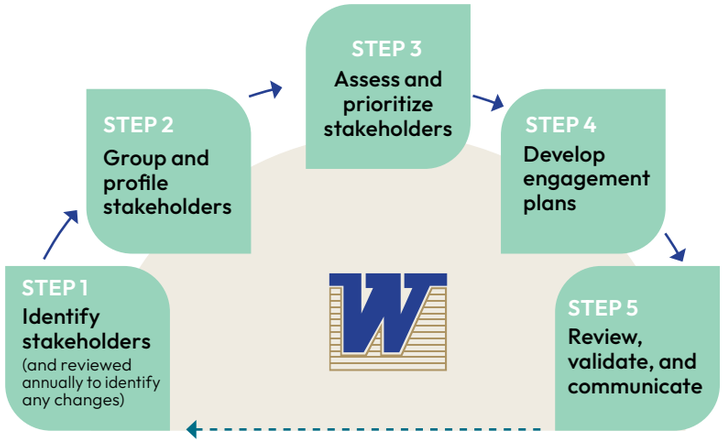



**Scan for related disclosure**
For further details, please refer to
Policy and Guideline for Stakeholder Engagement 2026

# Understanding and Prioritizing Stakeholders

## To ensure that engagement, listening, and response are aligned with stakeholder impact, expectations, and significance

Vanachai Group recognizes that effective stakeholder engagement is a key driver of sustainable business performance. The Group therefore applies a structured approach to stakeholder assessment and prioritization to ensure that engagement efforts are focused on the most relevant stakeholders and issues. This approach supports informed decision-making, strengthens risk management, and enhances the Group's ability to create long-term value in line with stakeholder expectations.




The stakeholder assessment process considers both the level of influence stakeholders have on the Group's operations and the extent to which they are affected by the Group's activities. Based on this assessment, stakeholders are prioritized and engagement approaches are tailored to ensure appropriate, consistent, and meaningful interaction across all groups.

### Stakeholder Assessment and Prioritization Process

The Group conducts stakeholder assessment through a structured process across the value chain, with the following key steps:

**STEP 1: Identify stakeholders:** Identify stakeholder groups that are connected to the Group's operations across the value chain, covering those who interact with, influence, or are affected by the business.

**STEP 2: Group and profile stakeholders:** Classify stakeholder groups and develop stakeholder profiles for each group to support a common internal understanding and more effective communication.

**STEP 3: Assess and prioritize stakeholders:** Assess stakeholder groups using two main criteria: their level of influence on the Group's operations and the extent to which they are affected by the Group's activities and business relationships. An X-Y framework is used, with the Y-axis representing influence and the X-axis representing impact, to prioritize stakeholder groups accordingly.to their relevance and significance.

**STEP 4: Develop engagement plans:** Design engagement approaches and communication plans that are appropriate to the characteristics, priority level, and expectations of each stakeholder group.

**STEP 5: Review, validate, and communicate:** Review and validate the assessment annually, and communicate the results internally to ensure a shared understanding and consistent direction across the organization.

### Stakeholder Group Prioritization Matrix

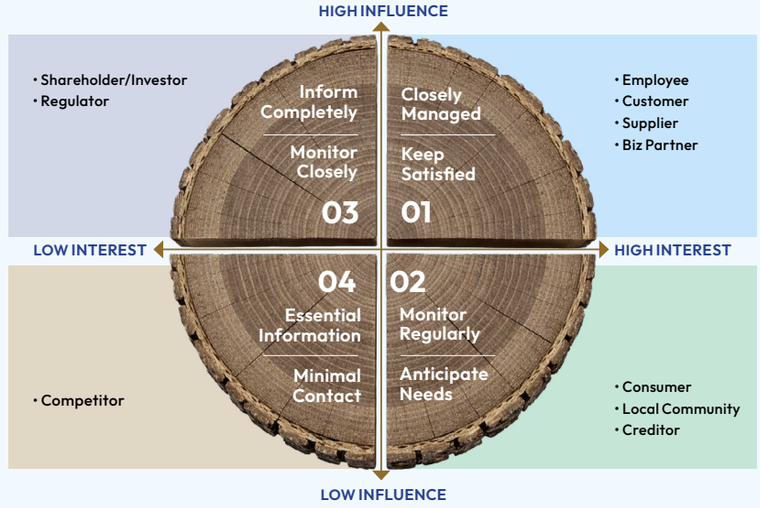
The Company categorizes stakeholders based on their level of influence and degree of benefit derived from operations:

**01 High Influence, High Benefit:** Manage closely to ensure maximum stakeholder satisfaction

**03 High Influence, Low Benefit:** Provide sufficient information and maintain active communication to prevent potential issues

**02 Low Influence, High Benefit:** Engage to maintain a high level of satisfaction

**04 Low Influence, Low Benefit:** Monitor and observe, as this group may become future partners or customers



# Stakeholder Engagement and Responsiveness

## Connecting perspectives, building understanding, and responding to stakeholders to drive a sustainable future together

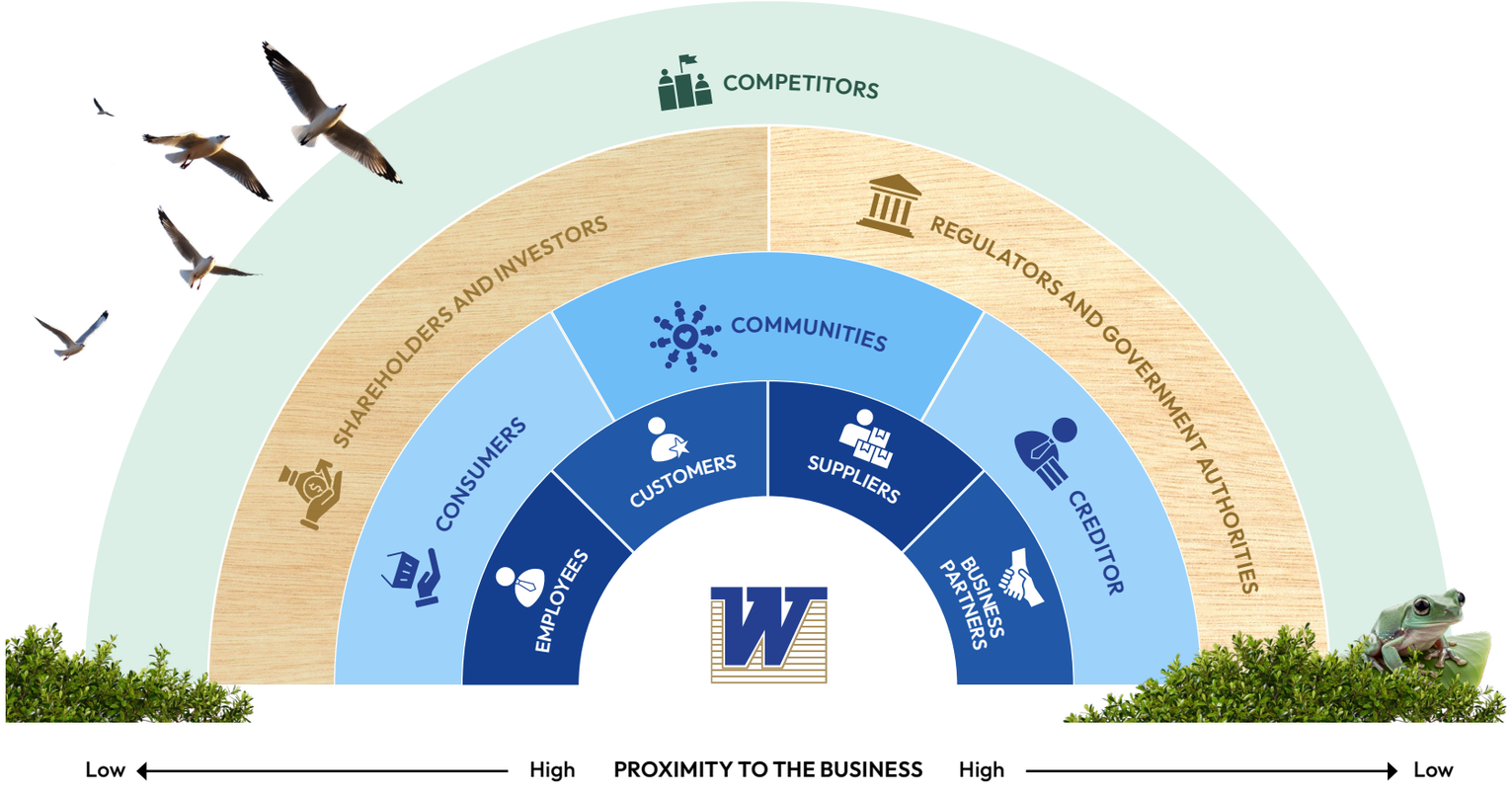
Vanachai Group places importance on stakeholder management through a structured approach grounded in the principle of shared value, alongside responsible business conduct, transparency, and good corporate governance. This approach helps ensure that all stakeholder groups are treated fairly and are meaningfully engaged in supporting the Group's sustainable growth.

Building on a systematic process for stakeholder assessment and prioritization, the Group has developed a stakeholder management framework based on the level of influence and impact associated with its operations. This enables the Group to design engagement approaches that are appropriate and proportionate to the expectations, relevance, and significance of each stakeholder group.

"Stakeholders are prioritized across four tiers based on their level of influence, proximity to the business, and potential impact on or from the Group's operations."

To enhance effectiveness, the Group classifies stakeholders into four tiers according to their degree of proximity and material significance to the business. Stakeholders closest to the center represent those with the most direct relationship to the Group, the highest level of influence, and the greatest potential to affect or be affected by the Group's operations. The outer tiers reflect progressively lower levels of influence and impact. This framework enables the Group to determine the most appropriate engagement approach, communication frequency, and response mechanism for each stakeholder group. It also supports risk management, strategic decision-making, and the strengthening of long-term trust and constructive relationships.

The following section presents the Group's stakeholder engagement methods, communication channels, and key issues raised in 2025, reflecting how stakeholder input is used to continuously improve business practices and support the creation of shared value in a practical and meaningful way.



# Stakeholder Engagement and Relationship Building

**To ensure that engagement, listening, and response are aligned with stakeholder impact, expectations, and significance**

Vanachai Group recognizes that effective stakeholder engagement is a key driver of sustainable business performance. The Group therefore applies a structured approach to stakeholder assessment and prioritization to ensure that engagement efforts are focused on the most relevant stakeholders and issues. This approach supports informed decision-making, strengthens risk management, and enhances the Group's ability to create long-term value in line with stakeholder expectations.

| Needs / Expectations | Response | Engagement Channels | 2025 Performance / Actions Taken |
|---|---|---|---|
| **Employees:** A key stakeholder group and an important source of long-term value, covering permanent and temporary employees, as well as employees with disabilities and disadvantaged employees. The Group emphasizes fair employment and remuneration, workplace health and safety, and equal development opportunities, underpinned by human rights principles and non-discrimination. | | | 1 2 3 4 5 6 7 |
| • Fair and transparent remuneration and welfare<br>• Workplace safety, occupational health, and a good working environment<br>• Equal opportunities for growth, career advancement, and skills development<br>• Fair management, non-discrimination, and respect for labour rights and human rights<br>• Clear communication of corporate and sustainability goals | • Established policies and guidelines on labour rights, equality, and non-discrimination<br>• Enhanced remuneration and welfare management systems aligned with roles and performance<br>• Strengthened occupational health and safety management through proactive risk prevention<br>• Implemented upskilling and reskilling programmes, together with career development pathways<br>• Communicated the Group's goals and KPIs consistently across all levels of the organization | • Internal communications and management–employee meetings (e.g. town halls, departmental meetings)<br>• Employee engagement and satisfaction surveys, including feedback mechanisms<br>• Grievance and whistleblowing channels with appropriate protection mechanisms<br>• Training programmes and activities for skills development and workplace safety<br>• Employee committees/representatives and employee engagement activities | • **Average training and development:** 9.10 hours per employee per year<br>• **Lost Time Injury Frequency Rate (LTIFR):** 2.02 cases per million working hours<br>• **Employee turnover rate:** 12.4% (increased by 0.24% from the previous year)<br>• **High-performing employee turnover rate:** 4.3% (Zero reported ethics or compliance violations)<br>• **Gender ratio (female : male):** 30 : 70 |
| **Customers:** The Group's distributors and sales agents, who play an important role in product distribution, communication of product information and proper application, and the collection of market needs and feedback to support the continuous development of products and services in line with customer requirements. | | | 1 2 3 4 5 6 7 |
| • Consistent product quality, recognized standards, and on-time delivery<br>• Clear product information (product details, application guidance, and precautions) to support accurate communication to end users<br>• Appropriate pricing, with fair commercial terms and payment conditions<br>• Sales and marketing support, together with responsive after-sales service<br>• Effective complaint-handling and problem-resolution channels, with clear follow-up and response | • Strengthened product quality control and consistency, with verification against relevant standards<br>• Prepared and enhanced product information to improve transparency and accessibility<br>• Supported distributors through technical knowledge, product training, and sales support materials<br>• Enhanced customer service and complaint management systems to enable structured and continuous resolution<br>• Communicated sustainability policies and responsible product development to strengthen market confidence | • Customer meetings/site visits and communication through regional sales teams<br>• Product training, knowledge seminars, and sales promotion activities<br>• Customer service channels (telephone, email, Line/ online) and complaint-handling systems<br>• Satisfaction surveys and market feedback gathered through distributors<br>• Trade fairs and joint marketing activities with business partners | • **Number of distributor knowledge seminars:** 6 sessions<br>• **Percentage of distributors trained:** 55%<br>• **Customer satisfaction score (CSAT):** 98.1%<br>• **Number of joint activities with distributors:** 2 activities<br>• **Zero outstanding complaints on products and services within the defined timeframe** |

Remarks: 1 2 3 4 5 6 7 refer to the Vanachai value chain

| Needs / Expectations | Response | Engagement Channels | 2025 Performance / Actions Taken |
|---|---|---|---|
| **Suppliers:** Providers of goods, contractors, service providers, and subcontractors to the Group, including both legal entities and individuals. This covers wood suppliers, which provide the Group's principal production raw material, as well as suppliers of chemicals, packaging, and support services that are important to the continuity, quality, and efficiency of operations. | | | 1 2 3 4 5 6 7 |
| • Fair and transparent procurement, with clear terms and conditions<br>• Timely payment and efficient documentation processes, particularly for SME and community suppliers<br>• Clear quality requirements for wood raw materials, with convenient delivery and lower rejection risk<br>• Continuity of orders and long-term business relationships<br>• Support and capacity building on sustainability, safety, and responsible sourcing | • Established responsible procurement criteria covering wood raw materials, chemicals, and packaging<br>• Communicated quality standards and delivery requirements clearly, with guidance to support supplier improvement<br>• Strengthened collaboration with SME and community suppliers to enhance the security of wood raw materials (~95% of inputs)<br>• Assessed and monitored supplier risks, including compliance with human rights and ethical standards<br>• Promoted environmental impact reduction and resource efficiency across the supply chain | • Supplier meetings/site visits and communication through procurement and raw material intake teams<br>• Clarification of quality requirements, inspection processes, and on-site guidance<br>• Supplier assessment processes and performance reviews<br>• Channels for supplier complaints and feedback<br>• Training and communication on responsible sourcing and safety practices | • **New suppliers screened against social (ESG) criteria:** 42 suppliers (100%)<br>• **Wood raw materials sourced responsibly and not derived from natural forests:** 100% of total wood volume<br>• **On-time delivery rate:** 90%<br>• **Payments made in line with agreed terms:** 100% on time, with an average payment period of 17 days<br>• **SME/community suppliers reached through communication or training on quality requirements and responsible sourcing:** 70%<br>• **Zero ethics-related incidents or supplier complaints** |
| **Business Partners:** Individuals, groups, or organizations that collaborate with the Group on a long-term basis to support operations and advance shared strategic objectives by combining the strengths, expertise, and resources of each party. The Group places importance on treating business partners equitably, transparently, and fairly in order to create sustainable shared value and mutual benefit. | | | 1 2 3 4 5 6 7 |
| • Clear collaboration objectives, shared benefits, and fair terms and conditions<br>• Transparent joint project management, with clear accountability and timely decision-making<br>• Long-term continuity and appropriate sharing of resources and expertise<br>• High standards of ethics, governance, and compliance with applicable laws and requirements<br>• Partnerships that deliver tangible outcomes, such as innovation, product and service reliability, and circular solutions | • Established strategic collaboration frameworks aligned with FOREST–FUTURE–TOGETHER and the Group's sustainability goals<br>• Developed clear partnership agreements with defined roles and responsibilities<br>• Co-developed initiatives on product innovation, product and service reliability, and circular economy solutions<br>• Promoted collaboration with academic institutions, designers, architects, and business partners to advance reuse, recycling, and upcycling of materials<br>• Regularly monitored progress and jointly evaluated outcomes to drive continuous improvement and scalability | • Joint executive and working-level meetings (e.g. steering committees and working committees)<br>• Pilot projects and co-development initiatives<br>• Workshops, knowledge-sharing sessions, and collaboration with academic and expert networks<br>• Site visits, operational reviews, and product or solution testing<br>• Ongoing communication and coordination channels for joint implementation | • **Proportion of partnerships with clearly defined ESG or sustainability objectives:** 53% of total partnerships<br>• **Number of jointly developed innovation or pilot projects:** 2 projects per year<br>• **Number of projects or volume of downstream waste materials entering circular systems through partnerships:** 2 projects per year<br>• **Partner Satisfaction Score:** 83% |

| Needs / Expectations | Response | Engagement Channels | 2025 Performance / Actions Taken |
|---|---|---|---|
| **Consumers:** Direct purchasers and users of the Group's products and services, including contractors, installers, and end users across various channels, including WoodSmith. This group is important to business growth and brand trust. The Group is committed to delivering reliable products and services, clear usage information, and appropriate after-sales support, in line with our governance principle that customers are at the center. | | | 1 2 3 4 5 6 7 |
| • Consistent product quality, safety, recognized standards, and durability<br>• Clear product information (specifications, usage, installation, and precautions)<br>• Accessible technical guidance to support appropriate product selection and application<br>• Timely delivery and responsive, effective after-sales service and issue resolution<br>• Accessible, transparent, and trackable complaint and feedback channels | • Strengthened product and service credibility through quality standards and performance verification<br>• Improved product information to make it more transparent and practical, including user guides and installation instructions<br>• Enhanced technical advisory services and product selection guidance through in-store and online channels<br>• Strengthened consumer feedback and complaint management mechanisms to support continuous improvement<br>• Promoted WoodSmith as a learning and experience platform to support the appropriate use of wood-based alternative products | • WoodSmith stores (product advice, recommendations, and customer feedback collection)<br>• Customer service channels: telephone, email, Line/ online platforms, and social media<br>• Satisfaction surveys, reviews, and post-purchase customer feedback collection<br>• Complaint and feedback management systems, including follow-up on issue resolution<br>• Demonstration activities, workshops, and educational materials on product use and installation | • **WoodSmith network:** 45 WoodSmith stores and 37 WoodSmith Express stores<br>• **Architect engagement in 2025:** participated in ASA EXPO, held from 29 April to 4 May 2025 at IMPACT Exhibition and Convention Center, Muang Thong Thani<br>• **Customer satisfaction score (CSAT):** 98.1%<br>• **Product return/claim rate:** 1.3% of sales<br>• **Zero product safety complaints** |
| **Communities surrounding operating sites:** Communities located within approximately 1.5 kilometres of the Group's operating sites and therefore considered nearby communities with direct relevance to, and potential exposure from, the Group's operations. The Group therefore places importance on environmental stewardship, safety, and community quality of life, alongside support for local economic and social development, while also encouraging employee participation in building constructive relationships and shared sustainable growth. | | | 1 2 3 4 5 6 7 |
| • Safe co-existence with reduced operational impacts (dust, odor, noise, and traffic)<br>• Environmental management in surrounding areas, with transparent communication of relevant information<br>• Accessible grievance and feedback channels, with timely resolution of concerns<br>• Local employment and support for the local economy, including income-generating opportunities<br>• Continuous community development initiatives to enhance quality of life and address community needs | • Established dedicated community and social responsibility functions to coordinate and closely monitor community-related issues<br>• Conducted community perception surveys and on-site engagement to support community and social participation<br>• Implemented preventive measures to manage and reduce environmental and safety impacts<br>• Maintained structured grievance handling channels, with communication of resolution outcomes<br>• Supported local economic and social development through employment, community-based procurement, and community development activities<br>• Encouraged employee participation in community initiatives and fostered a responsible corporate culture | • Community consultations and meetings with community leaders and representatives<br>• Grievance and incident reporting channels (telephone, Line, suggestion boxes, and community liaison units)<br>• Community visits and joint site inspections to address concerns<br>• CSR and volunteer activities, along with community development programmes<br>• Information disclosure through announcements, community relations channels, and briefings on significant issues | • **Total community support projects:** 127 projects<br>• **Employees participating in social and environmental activities:** 910 employees (27.2% of total workforce)<br>• **Average employee volunteer hours:** 1.18 hours per person per year<br>• **Community satisfaction score:** 87.5%<br>• **Number of community complaints:** 0 cases per year (no change)<br>• **Local employment ratio:** 82% of total workforce<br>• **Local procurement and support:** 97% of relevant procurement spend |

| Needs / Expectations | Response | Engagement Channels | 2025 Performance / Actions Taken |
|---|---|---|---|
| **Creditors:** Trade and other creditors arising from the Group's normal business operations, associated with obligations to settle payments for goods and services under agreed terms. The Group places importance on liquidity management, timely payments, and financial discipline to maintain credibility and sustain long-term business relationships. | | | 1 2 3 4 5 6 7 |
| • Timely payment in accordance with agreed terms<br>• Clear documentation and invoicing, with efficient and streamlined approval processes<br>• Transparent communication on payment status and prompt resolution of discrepancies<br>• Strong financial stability and disciplined payment practices<br>• Fair and transparent adherence to contractual terms and conditions | • Managed cash flow and payment planning in line with contractual terms<br>• Established systematic document verification and payment approval processes to minimize delays<br>• Provided dedicated accounts payable coordination channels to resolve invoice and documentation issues<br>• Communicated clear payment terms and timelines from the outset of transactions<br>• Monitored and reviewed payment performance continuously to maintain credibility and reliability | • Coordination with the accounting and finance functions (telephone, email, and online channels)<br>• Submission of invoices and follow-up on payment status according to the payment cycle<br>• Meetings and discussions to address outstanding payments or documentation disputes<br>• Channels for complaints or issue reporting related to payments or documentation<br>• Review of contractual trade terms when changes arise | • **No breaches of loan or debenture covenants**<br>• **On-time payment rate:** 100%<br>• **Overdue invoices:** 0% (no outstanding overdue invoices)<br>• **Average Days Payable Outstanding (DPO):** 45 days (monitored for consistency and trend analysis) |
| **Shareholders and Investors:** Individuals, legal entities, or institutions that hold shares in the Group and have a direct interest in our performance and long-term value creation. The Group places importance on delivering appropriate returns, ensuring transparent, accurate, and timely disclosure, and safeguarding shareholder rights, while enabling effective participation in corporate governance through appropriate mechanisms. | | | 1 2 3 4 5 6 7 |
| • Sustainable growth, strong financial performance, and appropriate long-term returns<br>• Accurate, transparent, timely, and comparable disclosures<br>• Strong corporate governance, business ethics, and compliance with laws and capital market regulations<br>• Effective risk management, including ESG and climate-related risks<br>• Clear and measurable sustainability strategy, reflected in corporate targets and KPIs | • Operated under a transparent and accountable governance structure with clear oversight mechanisms<br>• Disclosed financial, operational, and sustainability performance regularly through reports and investor relations channels<br>• Integrated Enterprise Risk Management (ERM) with material topics and sustainability through the V-IMRA framework to define clear targets and KPIs<br>• Protected shareholder rights and promoted active participation through shareholder meetings and accessible communication channels<br>• Monitored and evaluated performance against targets, with ongoing review and continuous improvement | • Annual General Meeting (AGM) and supporting meeting documentation<br>• Investor Relations (IR) channels, including the corporate website, Annual Report, and One Report<br>• Analyst and investor meetings, including briefings and disclosures<br>• Stock Exchange announcements and periodic performance disclosures in accordance with regulatory requirements<br>• Channels for shareholder and investor inquiries and feedback, including the company website, email (auditcommittee@vanachai.com), and telephone (+66 2 587 9556) | • **Recognized by the Thai Private Sector Collective Action Against Corruption (CAC) at the 2-Star level**, reflecting that the Company has established clear anti-corruption policies and practices in line with the prescribed criteria<br>• **Corporate Governance Report (CGR) assessment:** 5 Stars<br>• **SET ESG Rating:** AAA |

| Needs / Expectations | Response | Engagement Channels | 2025 Performance / Actions Taken |
|---|---|---|---|
| **Regulators and Government Authorities:** Government bodies and regulatory authorities responsible for establishing laws, regulations, standards, and operating frameworks relevant to the Group's business. The Group places strong emphasis on strict compliance, transparency, and auditability, while continuously monitoring regulatory developments to ensure that its operations and product development remain aligned with applicable requirements and evolving expectations. | | | 1 2 3 4 5 6 7 |
| • Strict compliance with applicable laws, regulations, and standards<br>• Complete, accurate, and timely reporting and regulatory submissions<br>• Transparent and auditable operations, with full cooperation in inspections and assessments<br>• Effective management of environmental impacts, safety, and worker welfare in line with regulatory requirements<br>• Adaptation to evolving regulations and government-driven ESG and sustainability initiatives | • Established compliance systems and regularly reviewed adherence to applicable laws and requirements<br>• Monitored changes in relevant laws and standards and communicated updates across internal functions<br>• Prepared complete regulatory reports and documentation, while maintaining readiness for inspections and assessments<br>• Implemented environmental and occupational safety controls in line with applicable standards and requirements<br>• Maintained ongoing coordination with government authorities to ensure that operations and product development remained aligned with regulatory frameworks | • Regulatory reporting and statutory submissions, together with formal communications<br>• Site inspections, compliance assessments, and clarification meetings<br>• Meetings, training sessions, and seminars organized by regulators to communicate new requirements and guidance<br>• Ongoing coordination through Compliance, EHS, Legal, and other relevant functions<br>• Responses to regulatory inquiries and submission of supporting documentation when requested | • **Participation in meetings and seminars organized by regulators/government authorities:** 7 sessions<br>• **Number of non-compliance incidents or regulatory fines:** zero<br>• **Percentage of employees/functions trained on Compliance and EHS in line with plan:** 100% (104 employees as planned) |
| **Competitors:** Companies operating in the same or related industries as the Group, competing in products, services, marketing, and operational efficiency. The Group supports fair, transparent, and lawful competition, and believes it helps drive higher quality, stronger standards, and innovation across the industry. | | | 1 2 3 4 5 6 7 |
| • Fair, transparent, and non-distortive competition<br>• Compliance with applicable laws and industry rules, including product standards and advertising requirements<br>• A competitive environment that supports quality improvement and innovation<br>• Appropriate handling of commercial information and respect for intellectual property<br>• Collective advancement of industry standards on safety and sustainability | • Conducted business in line with good governance and business ethics, supporting fair competition<br>• Complied with competition law, intellectual property law, and other relevant regulations<br>• Enhanced product and service standards through accurate, transparent, and verifiable information<br>• Protected critical business information through governance measures and internal controls<br>• Participated in industry forums and associations to exchange best practices and collectively raise industry standards | • Industry associations, networks, and standard-setting collaboration platforms<br>• Trade fairs, academic conferences, and industry seminars<br>• Monitoring regulatory updates and guidance from government authorities and standard-setting bodies<br>• Exchange of best practices through public forums (without sharing competitively sensitive information)<br>• Internal channels for reporting concerns related to unethical or non-compliant practices | • **Number of incidents or complaints related to unfair practices or competition ethics violations:** zero<br>• **Number of competition law or intellectual property disputes:** zero<br>• **Marketing compliance review rate:** 100% of communications reviewed prior to release<br>• **Number of data breaches or unauthorized access to confidential business information:** zero |

# Our Material Sustainability Topics

## Prioritizing what matters most to long term value creation

Vanachai Group applies a comprehensive and systematic approach to identifying the ESG and sustainability topics most material to the organization.

## The starting point for long term value creation

In 2025, Vanachai Group conducted a Double Materiality Assessment with support from an external expert to identify 20 material impacts, risks, and opportunities most relevant to the Group's business, stakeholders, and long-term value creation. The key findings are presented in the table on the following page, with further disclosures on related topics, risks, opportunities, and management responses provided in the relevant sustainability sections of this report.

For each material topic, internal experts assessed the related impacts, risks, and opportunities to support decision making, prioritization, and performance monitoring. This process strengthens the Group's understanding of the nature, scope, severity, and time horizon of potential impacts, while supporting the selection of appropriate indicators, management approaches, and monitoring mechanisms.

**Scan for related disclosure**
For further details, please refer to
Assessment of Key Business Operations Policies and Guidelines

The assessment outcomes are integrated into the Group's V-IMRA framework, elevating material topics to an enterprise level perspective and linking them directly to Board and management discussions. As a result, materiality is embedded not only in sustainability reporting, but also in governance, risk management, and strategic decision making across the Group.

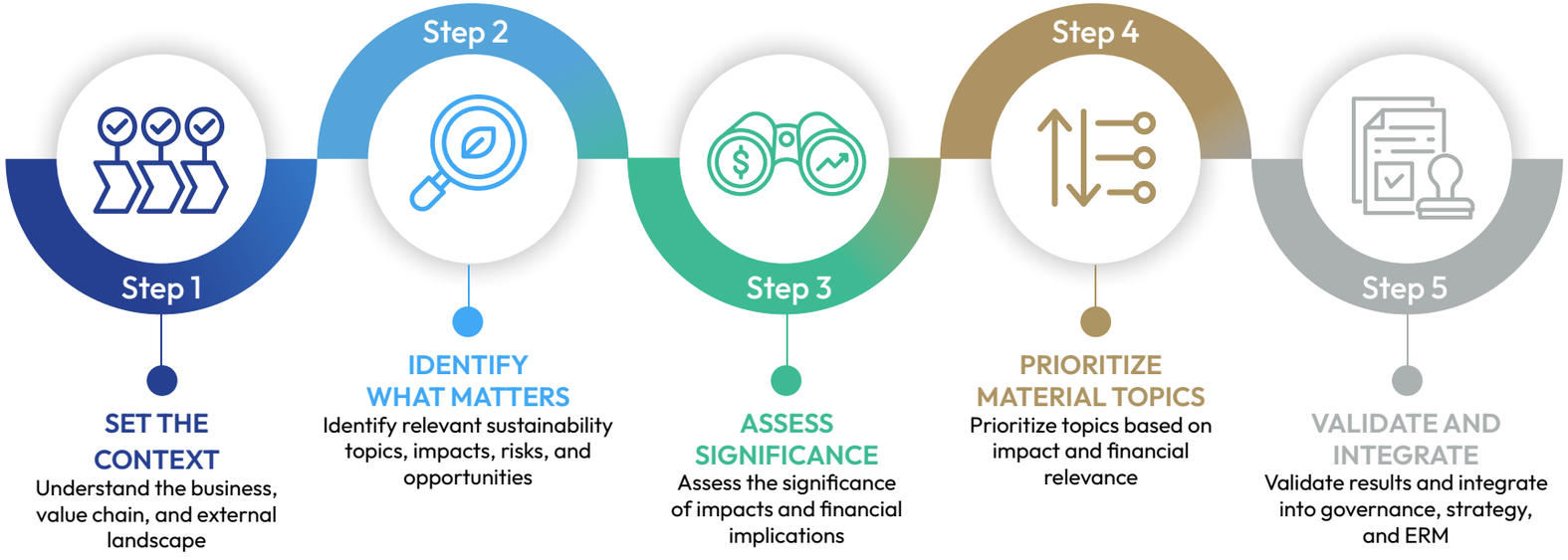
This approach reflects Vanachai Group's commitment to embedding sustainability into our core business. The assessment is linked to strategy, risk management, and business planning to help reduce negative impacts, strengthen resilience, improve resource allocation, and enhance responsiveness to changing business conditions and stakeholder expectations.

Oversight is supported by the Group's governance framework, including clearly defined roles and responsibilities, internal review, and regular monitoring. This helps ensure that strategic objectives remain aligned with the management of material impacts, risks, and opportunities over time. Through continuous learning, review, and adaptation, Vanachai Group continues to strengthen sustainability performance with discipline, transparency, and a long-term perspective, while supporting sustainable growth and value creation across our value chain.

## Our Process

Vanachai Group applies a structured and systematic process to conduct our Double Materiality Assessment, ensuring that sustainability-related impacts, risks, and opportunities are identified, assessed, and prioritized in a consistent and decision-useful manner. The process is designed to reflect the Group's business context, value chain, and risk profile, while aligning with international sustainability reporting standards.

**Vanachai Group applies a five-step Double Materiality Assessment process, first conducted in 2022, applied in 2023, and reviewed in early 2025 to reflect evolving global and climate-related developments.**



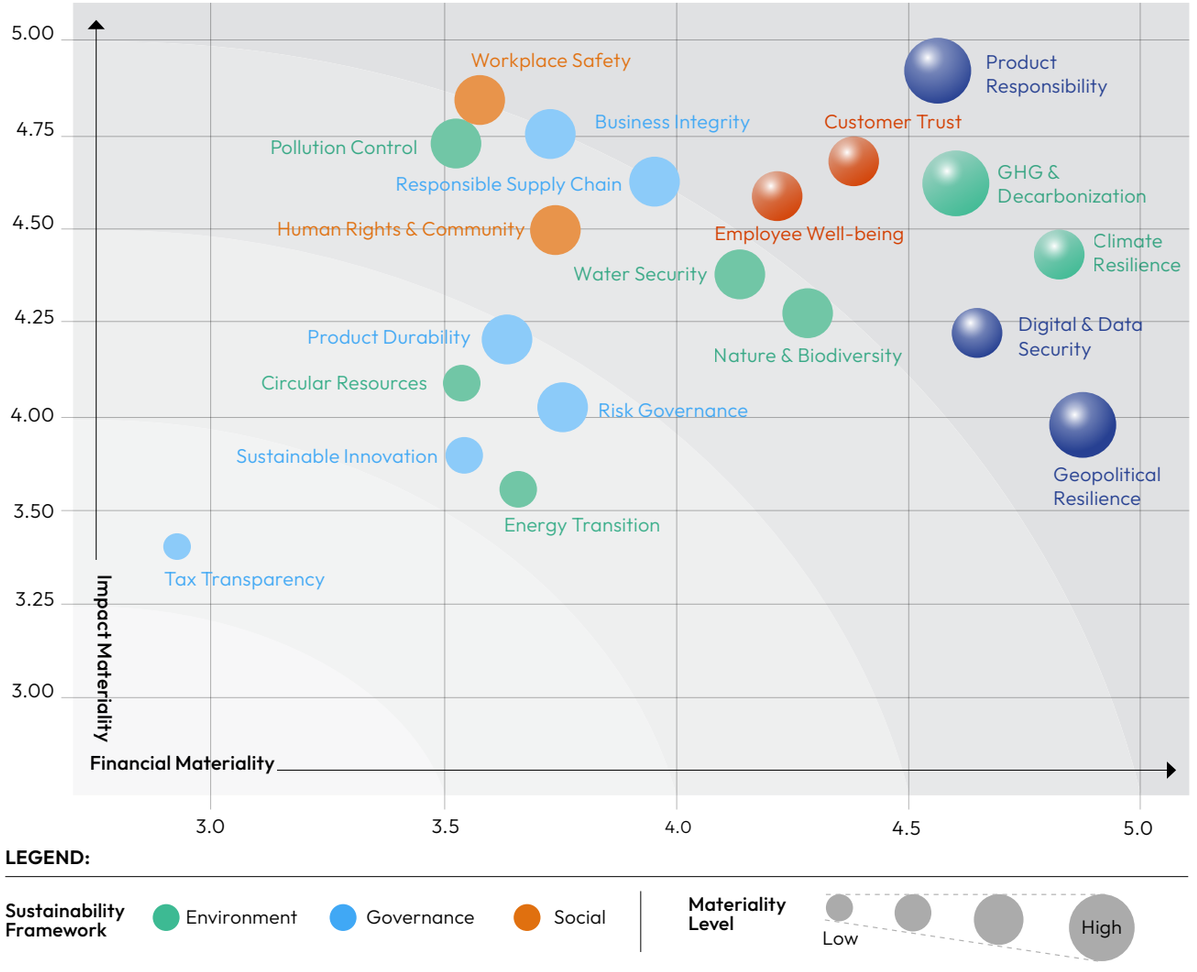
# Defining What Matters Most

## Applying a double materiality approach to identify ESG issues that influence both financial performance and environmental and social outcomes

**Scan for related disclosure**
For further details, please refer to
Vanachai Double Materiality Report 2025

| Vanachai Sustainability Strategic Moves | | Material Issues Shaping Our Future |
|---|---|---|
| FOREST | Transitioning Together to a Low-Carbon Future | 1) **Climate Change** Mitigation and Adaptation |
| | | 2) **Greenhouse Gas Emissions and Decarbonization** |
| | | 3) **Energy Efficiency** and Low-Carbon Energy Transition |
| | Advancing Circular and Resource-Responsible Manufacturing | 4) Circular Economy and **Resource Efficiency** |
| | | 5) **Waste, Wastewater**, and **Pollution Prevention** |
| | | 6) **Biodiversity** and Responsible Natural Resource Use |
| | Safeguarding Water Resources for the Future | 7) Water Stewardship and **Water Security** |
| FUTURE | Strengthening Responsible and Resilient Governance | 8) Business integrity and **Anti-corruption** |
| | | 9) Enterprise **Risk Management** and Oversight |
| | | 10) **Tax Transparency** and Responsible Tax Practices |
| | | 11) Responsible **Supply Chain** and Partner Responsibility |
| | | 12) **Geopolitical** and Global Business Resilience |
| | Driving Digital and Sustainable Innovation | 13) Digital Transformation and **Data Security** |
| | | 14) Green and Inclusive **Innovation** |
| | Designing Durable and Responsible Products | 15) **Product Longevity** and **Lifecycle Performance** |
| | | 16) Sustainable **Product** and **Service Responsibility** |
| TOGETHER | Empowering People and Ensuring Safe Workplaces | 17) **Employee Well-being, Engagement,** and **Development** |
| | | 18) Occupational **Health and Safety** |
| | Creating Shared Value for Society and Customers | 19) Respect for **Human Rights** and **Community Development** |
| | | 20) **Customer Responsibility** and Trust |

The Materiality Matrix helps Vanachai identify and prioritize the ESG issues that are most significant to the business and our stakeholders. Using a double materiality approach, the Group assesses both environmental and social impacts and the potential implications for business performance, risk, and long-term value creation. The results guide strategy, risk management, and sustainability disclosures in a structured and transparent way.



# Results Across Each Assessment Step:

"Material topics were determined through a structured assessment that integrates Tier 1 stakeholder priorities with impact and financial considerations, and were validated by executive management and approved by the Board."

The Group's material topics for 2025 were determined by integrating stakeholder priorities with sustainability impact and financial materiality. This approach ensures that the selected topics reflect the Group's most significant impacts on the environment and society, as well as sustainability-related risks and opportunities affecting business performance and long-term value creation, with particular focus on "Tier 1" stakeholders.

The consolidated results were reviewed through dedicated workshops involving the Sustainability Committee, the Executive Committee, and the Sustainability Development Working Group, where management agreed on materiality thresholds and confirmed the topics consistently ranked high across all dimensions.

The final list of material topics was subsequently reviewed and approved by the Board of Directors, ensuring appropriate governance oversight and alignment with the Group's strategy and enterprise risk management framework.

**Scan for related disclosure**
For further details, please refer to
Letter of Approval of Material Issues for Sustainable Development for the Year 2026

| Pilar | ESG Material Topic 2025 | Stakeholder's priorities | Sustainability Impact Materiality | Financial Materiality | Material topic |
|---|---|---|---|---|---|
| ENVIRONMENT (FOREST) | 1) Climate Change Mitigation and Adaptation | Medium | High | High | Very High Combined Materiality |
| | 2) Greenhouse Gas Emissions and Decarbonization | Medium | High | High | Very High Combined Materiality |
| | 3) Energy Efficiency and Low-Carbon Energy Transition | Low | Medium | Medium | |
| | 4) Circular Economy and Resource Efficiency | Medium | Medium | Medium | |
| | 5) Waste, Wastewater, and Pollution Prevention | Medium | High | Medium | High Combined Materiality |
| | 6) Biodiversity and Responsible Natural Resource Use | Medium | High | Medium | High Combined Materiality |
| | 7) Water Stewardship and Water Security | Medium | High | Medium | High Combined Materiality |
| GOVERNANCE (FUTURE) | 8) Business Integrity and Anti-Corruption | High | Medium | Medium | High Combined Materiality |
| | 9) Enterprise Risk Management and Oversight | Medium | Medium | Medium | |
| | 10) Tax Transparency and Responsible Tax Practices | Low | Low | Low | |
| | 11) Responsible Supply Chain and Partner Responsibility | High | Medium | Medium | High Combined Materiality |
| | 12) Geopolitical and Global Business Resilience | Medium | High | High | Very High Combined Materiality |
| | 13) Digital Transformation and Data Security | Medium | High | High | Very High Combined Materiality |
| | 14) Green and Inclusive Innovation | Low | Medium | Medium | |
| | 15) Product Longevity and Lifecycle Performance | Medium | Medium | Medium | |
| | 16) Sustainable Product and Service Responsibility | High | High | High | Very High Combined Materiality |
| SOCIAL (TOGETHER) | 17) Employee Well-being, Engagement, and Development | High | Medium | High | Very High Combined Materiality |
| | 18) Occupational Health and Safety | High | Medium | Medium | High Combined Materiality |
| | 19) Respect for Human Rights and Community Development | Medium | High | Medium | High Combined Materiality |
| | 20) Customer Responsibility | High | Medium | High | Very High Combined Materiality |

**Legend:** High · Medium · Low · Very High Combined Materiality · High Combined Materiality

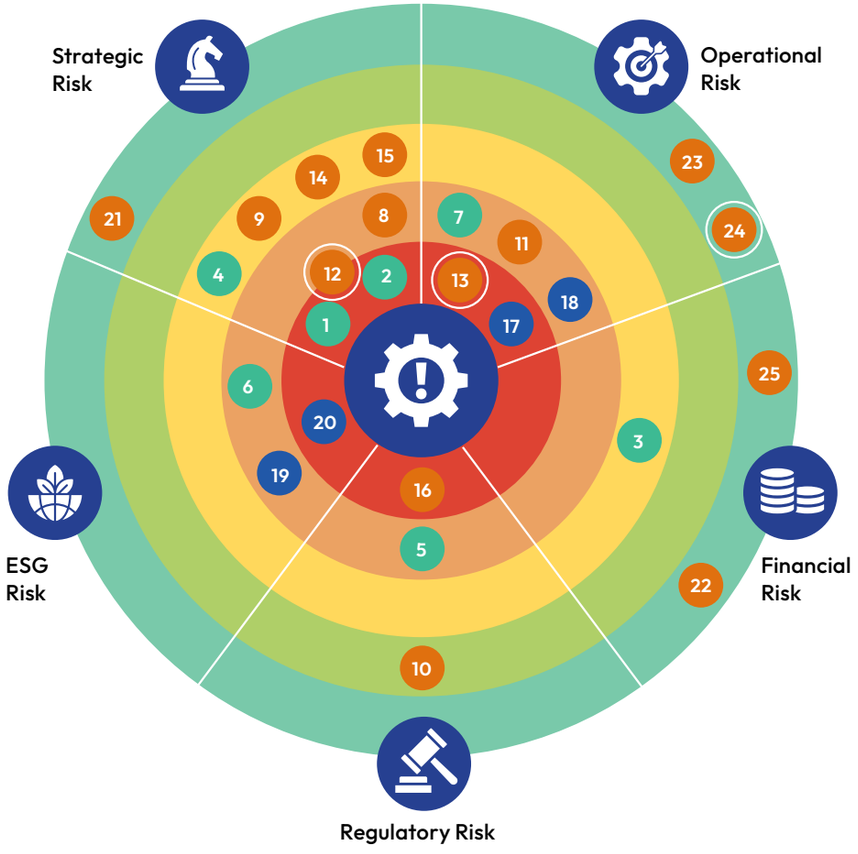
# Vanachai Integrated Risk and Materiality Management (V-IMRA)

## Connecting material ESG issues with enterprise risk management to enable structured decision-making and long-term value creation

Vanachai applies the Vanachai Integrated Materiality and Risk Assessment (V-IMRA) approach to systematically connect material ESG issues with enterprise risk management. Building on the results of the Double Materiality Assessment, V-IMRA enables the Group to identify, assess, and prioritize sustainability-related risks and opportunities alongside key corporate risks within a single, integrated framework.

This approach ensures that material ESG topics are not managed in isolation, but are embedded into risk evaluation, strategic planning, and operational decision-making. By linking impacts, risks, and opportunities across the value chain, V-IMRA strengthens the Group's ability to respond to emerging challenges, allocate resources effectively, and align sustainability priorities with long-term business performance.

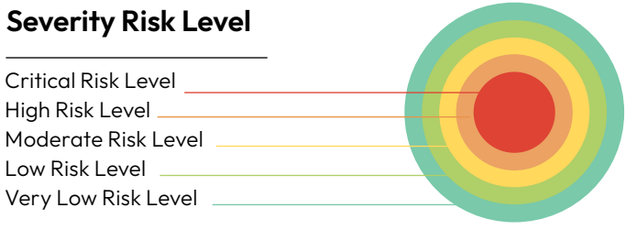
Through this integration, Vanachai enhances transparency, improves risk oversight, and supports more consistent and data-driven decision-making, reinforcing resilience and sustainable value creation in a rapidly evolving business environment.




## Risk Topics

1) Greenhouse Gas Emissions and Decarbonization
2) Climate Change Mitigation and Adaptation
3) Energy Efficiency and Low-Carbon Energy Transition
4) Circular Economy and Resource Efficiency
5) Waste, Wastewater, and Pollution Prevention
6) Biodiversity and Responsible Natural Resource Use
7) Water Stewardship and Water Security
8) Business Integrity and Anti-Corruption
9) Enterprise Risk Management and Oversight
10) Tax Transparency and Responsible Tax Practices
11) Responsible Supply Chain and Partner Responsibility
12) Geopolitical and Global Business Resilience
13) Digital Transformation and Data Security
14) Green and Inclusive Innovation
15) Product Longevity and Lifecycle Performance
16) Sustainable Product and Service Responsibility
17) Employee Well-being, Engagement, and Development
18) Occupational Health and Safety
19) Human Rights and Community Development
20) Customer Responsibility
21) Marketing and Sales
22) Production Cost Control
23) Human Capital Management
24) Emerging Infectious Disease Risk
25) Foreign Exchange Risk

## Severity Risk Level




## Sustainability Dimension

- Environmental Dimension
- Social Dimension
- Governance Dimension

## Company Risk Profile

- Emerging Risk

# Sustainability Strategy

## Driving long-term growth through material ESG priorities and disciplined execution

Vanachai's sustainability strategy is grounded in our Double Materiality Assessment, ensuring that the most critical ESG issues are embedded into strategic decision-making. By aligning sustainability with business strategy, risk management, and value chain activities, the Group transforms ESG priorities into actionable initiatives with clear targets and measurable outcomes. This approach strengthens resilience, supports informed decision-making, and positions Vanachai to create sustainable value in a rapidly evolving business environment.

**High Purpose**

FOREST FUTURE TOGETHER
FOR A SUSTAINABLE LIVING

**Vision**

"Protecting forests through responsible wood-based innovation for a lower-carbon future and more sustainable living."

**Mission**

- Reducing carbon, advancing circular manufacturing, and using resources responsibly to protect forest ecosystems.
- Strengthening transparent governance, integrating risk and sustainability, and advancing digital trust and resilience.
- Creating shared value with customers and communities, developing people, and ensuring safe workplaces through responsible products and services.

VANACHAI SUSTAINABLE MOVE

**Strategy**

**FOREST**

**E Protecting Nature**

- Transitioning Together to a Low-Carbon Future
- Advancing Circular and Resource-Responsible Manufacturing
- Safeguarding Water Resources for the Future

**FUTURE**

**G Governing with Integrity**

- Strengthening Responsible and Resilient Governance
- Driving Digital and Sustainable Innovation
- Designing Durable and Responsible Products

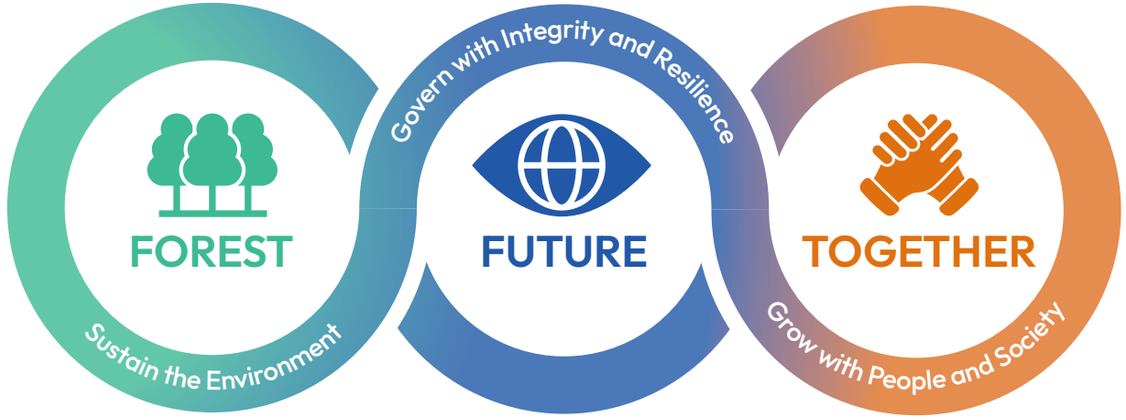
**TOGETHER**

**S Growing Shared Value**

- Empowering People and Ensuring Safe Workplaces
- Creating Shared Value for Society and Customers

**Core Value**

C Customer-Centric H Holistic Sustainability A Aiming for Excellence I Innovation for Greener












**Scan for related disclosure**
For further details, please refer to
Sustainable Development Policy



## FOREST

Vanachai Group's commitment to **safeguarding natural resources and strengthening environmental resilience across our value chain.** The Group recognizes that long-term business success depends on responsible environmental stewardship and the sustainable use of resources.

Vanachai focuses on reducing greenhouse gas emissions, improving energy and resource efficiency, and advancing circular manufacturing practices. The Group also prioritizes responsible water management to ensure operational continuity and protect shared water resources. Through these actions, Vanachai aims to mitigate environmental risks, support regulatory readiness, and contribute to a low-carbon and resource-responsible future.

**Protecting the environment that sustains our business**



## FUTURE

Vanachai Group's commitment to building a **well-governed, resilient, and forward-looking organization** in an increasingly complex global environment. The Group recognizes that strong governance, ethical conduct, and effective risk management are essential foundations for sustainable growth and long-term value creation.

Vanachai strengthens our future by embedding responsible governance across strategy, enterprise risk management, and operations. This includes integrating sustainability, geopolitical, digital, and regulatory risks into decision-making, enhancing transparency and accountability, and maintaining high standards of business integrity and responsible tax practices. At the same time, the Group invests in digital transformation and innovation to improve efficiency, data-driven decisions, and responsiveness to changing market expectations.

**Governing today to remain strong tomorrow**



## TOGETHER

Vanachai Group's belief that sustainable success is achieved through **strong relationships with people, partners, customers, and communities.** The Group places people at the center of our operations, recognizing that engagement, trust, and shared value are essential to long-term performance.

Vanachai promotes employee well-being, development, and safe workplaces that support both physical and mental health. The Group also works closely with customers and communities to deliver responsible products, listen to stakeholder feedback, and contribute positively to society. Through inclusive practices and ongoing engagement, Vanachai seeks to grow alongside the people and communities it serves.

**Succeeding by growing with people and society**

# Sustainability Governance and Policies

## Policies and governance instruments that systematically guide and drive the management of material topics into action

Vanachai Group's material topics are identified to drive action, not merely disclosure. The Policies–Materiality Mapping translates each priority topic into a practical management approach by linking it to the relevant policies, governance instruments, and management processes that guide decision making and implementation across the value chain. Together, these policies and governance instruments systematically support the Group's eight core strategic pillars, enabling progress toward Net Zero 2050 in a transparent, verifiable, and actionable manner.

Each policy clearly defines both "what is to be achieved" and "how it is to be delivered" through specific requirements and control mechanisms, as well as "who is accountable" and "when action and review are required" through assigned ownership, defined roles and responsibilities, and a structured review cycle. This approach enables management to clearly understand the roles and responsibilities of each function, cascade expectations consistently to employees and stakeholders, and align execution across the organization. In turn, it strengthens accountability and supports transparent, verifiable reporting as the Group advances toward our Net Zero 2050 commitment.

| Pillar: FOREST -Environment | Material Issues Shaping Our Future | Relevant Policies/Instruments | Policy Type | Policy ID |
|---|---|---|---|---|
| **Transitioning Together to a Low-Carbon Future** | Climate Change Mitigation and Adaptation | Climate Change | Policy | VNG-ENV-CC-PL-01 |
| | | Climate Change and Carbon Management | Strategic Plan | VNG-ENV-CCCM-SP-01 |
| | Greenhouse Gas Emissions and Decarbonization | Climate Change | Policy | VNG-ENV-CC-PL-01 |
| | | Carbon Capture and Storage | Strategic Plan | VNG-ENV-CCS-SP-01 |
| | Energy Efficiency and Low-Carbon Energy Transition | Environmental | Policy | VNG-ENV-EVT-PL-02 |
| **Advancing Circular and Resource-Responsible Manufacturing** | Circular Economy and Resource Efficiency | Environmental | Policy | VNG-ENV-EVT-PL-02 |
| | Waste, Wastewater, and Pollution Prevention | Environmental | Policy | VNG-ENV-EVT-PL-02 |
| | Biodiversity and Responsible Natural Resource Use | Biodiversity | Policy | VNG-ENV-BD-PL-02 |
| **Safeguarding Water Resources for the Future** | Water Stewardship and Water Security | Environmental | Policy | VNG-ENV-EVT-PL-02 |

| Pillar: TOGETHER -Social | Material Issues Shaping Our Future | Relevant Policies/Instruments | Policy Type | Policy ID |
|---|---|---|---|---|
| **Empowering People and Ensuring Safe Workplaces** | Employee Well-being, Engagement, and Development | Employment | Policy | VNG-SOC-EMP-PL-02 |
| | | Employee Personal Development and Training | Policy | VNG-SOC-EDT-PL-01 |
| | | Supporting Employee Freedom of Association | Policy | VNG-SOC-SEFA-PL-01 |
| | | Employee Compensation and Benefits | Policy | VNG-SOC-ECB-PL-01 |
| | Occupational Health and Safety | Safety, Occupational Health and Working Environment | Policy | VNG-SOC-SOHW-PL-02 |
| **Creating Shared Value for Society and Customers** | Respect for Human Rights and Community Development | Human Rights Policy | Policy | VNG-SOC-HRS-PL-02 |
| | | Community and Social Engagement Policy | Policy | VNG-SOC-CSE-PL-02 |
| | | Community Social: Expectations and Impacts of Operations | Survey Report | VNG-SOC-CRCP-PL-01 |
| | Customer Responsibility and Trust | Customer Responsibility and Consumer Protection | Policy | VNG-SOC-CRCP-PL-01 |
| | | Stakeholder Engagement | Policy and Guideline | VNG-SOC-SHE-PL-02 |

| Pillar: FUTURE-Governance | Material Issues Shaping Our Future | Relevant Policies/Instruments | Policy Type | Policy ID |
|---|---|---|---|---|
| **Strengthening Responsible and Resilient Governance** | Business integrity and Anti-corruption | Business Ethics | Code of Ethics | VNG-GOV-BE-ET-02 |
| | | Anti-corruption | Policy | VNG-GOV-AC-PL-02 |
| | | Gift and Hospitality | Policy | VNG-GOV-GAH-PL-01 |
| | | Board Diversity | Policy | VNG-GOV-DBS-PL-02 |
| | | Good Corporate Governance | Policy | VNG-GOV-GCG-PL-02 |
| | | Conflict of Interest Prevention | Policy | VNG-GOV-CIP-PL-02 |
| | | The Use of Inside Information for Personal Gain | Policy | VNG-GOV-IIPG-PL-02 |
| | | Board of Directors | Charter | VNG-GOV-BOD-CT-02 |
| | | Nomination and Remuneration Committee | Charter | VNG-GOV-NRC-CT-02 |
| | | Audit Committee | Charter | VNG-GOV-AC-CT-02 |
| | | Sustainability Committee | Charter | VNG-GOV-SC-CT-02 |
| | | Sustainable Development | Policy | VNG-GOV-SD-PL-02 |
| | | The Remuneration of the Managing Director and Senior Executives | Policy and Criteria | VNG-GOV-RMDSE-RP-01 |
| | | Anti-Unfair Competition | Policy | VNG-GOV-AUF-PL-02 |
| | | Succession | Policy | VNG-GOV-SUCS-PL-01 |
| | | Assessment of Key Business Operations | Policy and Guideline | VNG-GOV-AKBO-PG-01 |
| | Enterprise Risk Management and Oversight | Enterprise Risk Management | Policy | VNG-GOV-ERM-PL-02 |
| | | Risk Management and Corporate Governance Committee | Charter | VNG-GOV-RMCG-CT-02 |
| | | Continuity Management | Policy | VNG-GOV-CM-PL-01 |
| | Tax Transparency and Responsible Tax Practices | Tax | Policy | VNG-GOV-TAX-PL-02 |
| | Responsible Supply Chain and Partner Responsibility | Sustainable Procurement | Policy | VNG-GOV-SP-PL-02 |
| | | Sustainable Wood Procurement | Policy | VNG-ENV-SWP-PL-01 |
| | | Supply Chain Management | Policy | VNG-GOV-SCM-PL-01 |
| | | Sustainable & Responsible Supply Chain Transformation | Strategic Plan | VNG-GOV-SRSCT-SP-01 |
| | | Business Ethics for Business Partners | Code of Ethics | VNG-GOV-BP-ET-02 |
| | Geopolitical and Global Business Resilience | Enterprise Risk Management | Policy | VNG-GOV-ERM-PL-02 |
| **Driving Digital and Sustainable Innovation** | Digital Transformation and Data Security | Information Technology Security | Policy | VNG-GOV-ITS-PL-02 |
| | | Confidentiality | Policy | VNG-GOV-CONF-PL-02 |
| | | Personal Data Protection | Policy | VNG-GOV-PDP-PL-01 |
| | Green and Inclusive Innovation | Innovation Management and Value Creation | Policy | VNG-GOV-IVC-PL-02 |
| **Designing Durable and Responsible Products** | Product Longevity and Lifecycle Performance | Sustainable Construction and Building Management | Policy | VNG-ENV-SCB-PL-02 |
| | Sustainable Product and Service Responsibility | Product and Service Responsibility | Policy | VNG-GOV-PSR-PL-01 |

# Delivering on Our Sustainability Commitments

## Tracking performance, strengthening accountability, and delivering sustainability outcomes across material ESG priorities

Vanachai delivers our sustainability commitments through disciplined execution, supported by clearly defined targets, robust performance monitoring, and transparent reporting. Guided by our material ESG priorities and strategic pillars, the Group integrates sustainability into operational processes and decision-making across the value chain.

This section provides a comprehensive view of sustainability performance across key material topics, demonstrating progress in environmental management, governance and risk integration, and stakeholder value creation. It reflects the Group's commitment to accountability and our focus on delivering measurable outcomes aligned with long-term strategy.



| Vanachai Sustainability Strategic Moves | | Material Issues Shaping Our Future | Impacts Generated | | Related Strategic Considerations | | Management Approach |
|---|---|---|---|---|---|---|---|
| | | | Positive Impacts | Negative Impacts | Related Risks | Strategic Opportunities | |
| FOREST | **Transitioning Together to a Low-Carbon Future** | Climate Change Mitigation and Adaptation | Reduce greenhouse gas emissions, strengthen business resilience, and enhance competitiveness through renewable energy, energy efficiency, and low carbon products. | Severe weather events and transition-related risks may affect raw material availability, production, logistics, costs, and the Group's overall competitiveness. | Physical risks from severe weather, carbon-related regulatory risks, energy costs, and evolving expectations in export markets. | Opportunities from renewable energy, energy efficiency, low carbon products, and carbon value creation. | Managed through Net Zero 2050, V-IMRA, ERM, MRV, energy efficiency, renewable energy, climate risk assessment, and business continuity and emergency preparedness. |
| | | Greenhouse Gas Emissions and Decarbonization | Reduce greenhouse gas emissions, improve energy efficiency, strengthen energy resilience, and support long term value creation. | Greenhouse gas emissions from energy use and production processes may increase climate impacts, costs, and pressure from regulation and market expectations. | Risks related to carbon and energy costs, climate disclosure requirements, customer and investor expectations, and the Group's competitiveness. | Opportunities from renewable energy, energy efficiency, low carbon products, and enhanced readiness for the transition to a low carbon business model. | Managed through Net Zero 2050, the Scope 1–3 decarbonization pathway, GHG mapping, MRV, energy efficiency, renewable electricity and heat, and integration through V-IMRA and ERM. |
| | | Energy Efficiency and Low-Carbon Energy Transition | Reduce energy use and costs, increase the share of renewable energy, and strengthen the business's energy security. | Reliance on fossil fuels and inefficient energy use may increase greenhouse gas emissions, costs, and exposure to energy price volatility. | Risks from energy prices, carbon costs, energy supply disruption, and requirements linked to the transition to low carbon energy. | Opportunities from renewable electricity and heat, energy efficiency, biomass, solar, and stronger long term competitiveness. | Managed through energy efficiency, renewable electricity and heat, biomass, solar rooftop systems, energy performance monitoring via MRV and Digital Dashboards, and integration through V-IMRA and ERM. |
| | **Advancing Circular and Resource-Responsible Manufacturing** | Circular Economy and Resource Efficiency | Improve resource efficiency, reduce waste, lower reliance on virgin raw materials, and create added value from residual materials. | Inefficient resource use and inadequate waste management may increase costs, resource loss, and environmental impacts. | Risks related to raw material costs, resource scarcity, insufficient segregation efficiency, and more stringent environmental requirements. | Opportunities from increasing recycle, reuse, and recovery rates, greater use of renewable materials, cost reduction, and business development under a circular economy approach. | Managed through efficient resource use, renewable material inputs, the use of wood and wood residues, waste segregation, recovery, and circular economy practices, with monitoring and integration through V-IMRA and ERM. |
| | | Waste, Wastewater, and Pollution Prevention | Increase waste utilisation and create added value from residual materials. | Production waste may increase costs and environmental impacts. | Waste disposal costs and insufficient segregation efficiency. | Increase recycle, reuse, recovery, and circularity performance. | Managed through source segregation, partner recovery, and circular economy practices. |
| | | Biodiversity and Responsible Natural Resource Use | Support the responsible use of natural resources, maintain ecosystem integrity, and strengthen long term raw material security. | Inappropriate sourcing and operational practices may affect ecosystems, biodiversity, and the long term availability of natural resources. | Risks related to raw material scarcity, land use change, more stringent environmental requirements, and rising stakeholder expectations for sustainable sourcing. | Opportunities from sustainable sourcing, stronger supply chain resilience, greater market confidence, and improved ESG performance. | Managed through responsible sourcing, sustainable wood procurement, traceability, efficient use of wood and wood residues, collaboration with farmers, communities, and suppliers, and integration through V-IMRA and ERM. |
| | **Safeguarding Water Resources for the Future** | Water Stewardship and Water Security | Improve water use efficiency, reduce impacts on water resources, and strengthen water security for the business and surrounding communities. | High water intensity, effluent discharge, and inadequate water management may increase impacts on the environment, communities, and operational continuity. | Risks related to high water intensity, wastewater treatment efficiency, more stringent water requirements, and long term water availability. | Opportunities from increasing water recycle and reuse, reducing water intensity and costs, and strengthening the organisation's water resilience. | Managed through efficient water use, wastewater recycling and reuse, wastewater treatment systems, monitoring of water intensity, and continuous control of effluent discharge. |

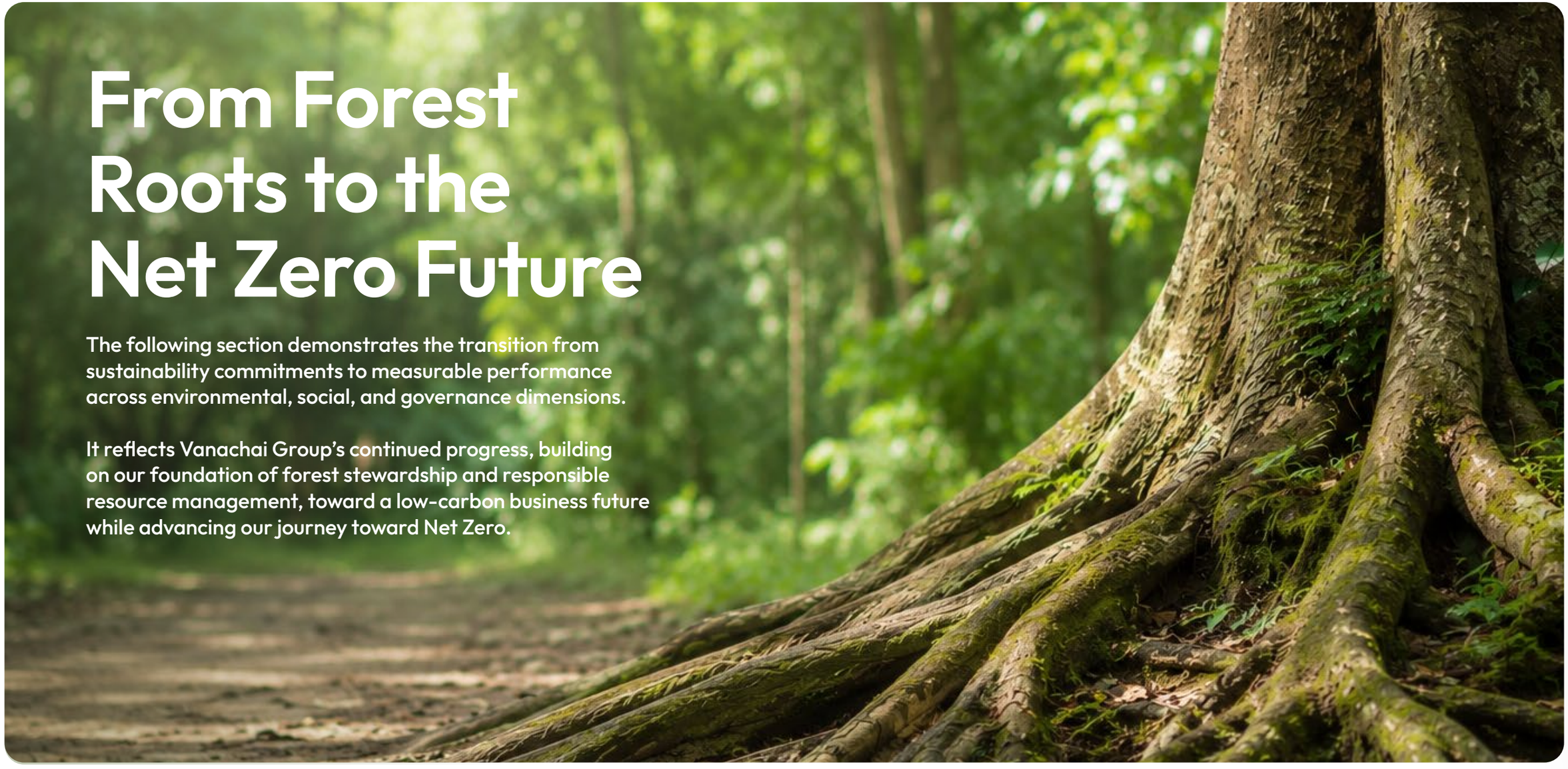
| Performance Targets | | | | | | 2025 Performance | Progress of Work | | Responsible unit | Contribution to the Sustainable Development Goals |
|---|---|---|---|---|---|---|---|---|---|---|
| Core Target | KPI | Unit | Short term 2025 | Medium term 2030 | Long term 2050 | | | | | |
| **FOREST GOAL 1: Change for the Better** – Decarbonising together for forests and the future | Reduce absolute fossil fuel greenhouse gas emissions (Scope 1 and 2) by 50% by the end of 2030 from the 2024 baseline (2024 baseline: 246,329 $tCO_2e$/year) | % | ≤30% (172,430 $tCO_2e$/ year) | ≤50% (123,170 $tCO_2e$/ year) | ≤95% (12,320 $tCO_2e$/ year) | -29.6% (173,299 $tCO_2e$/year) | | **On track:** Performance remains broadly aligned with the 30% reduction target from the 2024 baseline, supported by higher renewable energy use and ongoing energy efficiency improvements. | - Power Plant Section<br>- Production Department<br>- Maintenance Department<br>- Mechanical Engineering<br>- Warehouse & Inventory Section<br>- Environmental & Social Department | |
| | Reduce Scope 1 and 2 greenhouse gas emissions intensity per unit of production from the 2024 baseline (2024 baseline: 0.151 $tCO_2e$) | $tCO_2e$ | ≤0.125 (17% reduction) | ≤0.098 (35% reduction) | ≤0.030 (80% reduction) | 0.128 (15.2% reduction) | | **On track:** Emissions intensity has already been reduced by 15.2% from the 2024 baseline, driven by a higher share of renewable energy and improved energy efficiency, and remains on track. | | |
| | Increase the share of renewable energy (electricity and heat) in total energy consumption (2024 baseline: 71.4%) | % | ≥75% | ≥80% | ≥95% | 71.6% | | **In process:** The share of renewable energy increased to 71.6%, exceeding the 2025 target and reflecting solid progress in the energy transition. | | |
| **FOREST GOAL 2: Save the Forest, Set Zero Waste** – Maximising value from every part of the wood | Increase the share of wood and wood residues (renewable resources) in total material inputs (2024 baseline: 95.0%) | % per tonne of production | ≥95% | ≥96% | ≥97% | 94.7% | | **On track:** The share of renewable raw materials remains consistently high, reflecting stable sourcing and continued use of renewable resources in line with plan. | - Procurement Department<br>- Power Plant Section<br>- Production Department<br>- Electrical Engineering<br>- Mechanical Engineering<br>- Environmental & Social Department<br>- Sustainability Working Group Division | |
| | Increase the share of total waste recovered for beneficial use (Recycle/Reuse/Recovery) (2024 baseline: 83.9%) | % per tonne of production | ≥95% | ≥98% | ≥99% | 96.2% | | **On track:** The rate of waste recovered for beneficial use remains consistently high, reflecting continued progress under the circular economy approach and effective waste management. | | |
| | Share of operating sites covered by biodiversity risk assessment | % of operating sites covered by biodiversity risk assessment | 100% | 100% | 100% | 100.0% | | **Achieved:** The Group completed biodiversity risk assessment across 100% of its six operating sites, reflecting the systematic integration of biodiversity considerations into risk management. | | |
| **FOREST GOAL 3: Focus on Fresh Air & Clean Water** – Every drop restoring value to forests and communities. | Reduce water intensity per unit of total production (2024 baseline: 0.85 $m^3$/tonne of production) | $m^3$ per tonne of production | ≤ 0.63 | ≤ 0.50 | ≤ 0.38 | 0.82 | | **On track:** Efforts are underway to improve water efficiency and increase water reuse in order to manage water intensity in line with plan. | - Power Plant Section<br>- Production Department<br>- Environmental & Social Department | |
| | Increase the share of wastewater recycled and reused relative to total wastewater generated (2024 baseline: 68.4%) | % | ≥85% | ≥90% | ≥95% | 82.1% | | **On track:** Wastewater reuse has remained at a high level, while the Group continues to improve the efficiency of its circular water management system. | | |
| | Maintain zero water withdrawal from water stressed areas (2024 baseline: 0 $m^3$/year) | $m^3$ per year | Maintain at 0 | Maintain at0 | Maintain at 0 | 0 | | **Achieved:** No water has been withdrawn from water-stressed areas, consistent with the location of the Group's facilities and its responsible water management approach. | | |

| Vanachai Sustainability Strategic Moves | | Material Issues Shaping Our Future | Impacts Generated | | Related Strategic Considerations | | Management Approach |
|---|---|---|---|---|---|---|---|
| | | | Positive Impacts | Negative Impacts | Related Risks | Strategic Opportunities | |
| FUTURE | **Strengthening Responsible and Resilient Governance** | Business integrity and Anti-corruption | Strengthen transparency, stakeholder trust, and standards of ethical business conduct over the long term. | Corruption or misconduct may affect the Group's reputation, credibility, performance, and legal compliance. | Risks related to corruption, inappropriate giving or receiving of benefits, breaches of the Code of Conduct, and associated legal and reputational impacts. | Opportunities to strengthen governance, reinforce the confidence of investors, business partners, and stakeholders, and support sustainable growth. | Managed through the anti-corruption policy, Code of Conduct, communication and training, whistleblowing channels, internal audit, and oversight through V-IMRA, ERM, and the Corporate Governance Framework. |
| | | Enterprise Risk Management and Oversight | Strengthen prudent decision making, transparency, accountability, and the Group's long term resilience. | Inadequate governance and risk management may affect decision making, operational efficiency, legal compliance, and stakeholder confidence. | Strategic, operational, financial, legal, compliance, and reputational risks that may affect business continuity. | Opportunities to strengthen governance, integrate risk into strategic decision making, and support sustainable long term value creation. | Managed through ERM, V-IMRA, Board and management oversight, regular risk reviews, internal controls, and ongoing monitoring of KPIs and targets. |
| | | Tax Transparency and Responsible Tax Practices | Strengthen transparency, credibility, and appropriate tax compliance, while supporting good governance and long term value creation. | Inappropriate tax management may lead to legal, financial, and reputational risks, as well as reduced stakeholder confidence. | Risks related to inconsistent interpretation of tax law, non-compliance, insufficient disclosure, and tax disputes. | Opportunities to strengthen tax governance, enhance stakeholder confidence, and support effective financial management. | Managed through strict tax compliance, internal oversight, review by management and relevant functions, appropriate disclosure, and integration through the Corporate Governance and ERM frameworks. |
| | | Responsible Supply Chain and Partner Responsibility | Strengthen a transparent, resilient, and sustainable supply chain, while raising supplier ESG standards over the long term. | Inadequate supplier management may give rise to environmental, social, human rights, legal compliance, and supply continuity risks. | Risks related to supplier non-compliance with ESG standards, raw material quality, supply disruption, and reputational impacts on the Group. | Opportunities from ESG screening and supplier development, stronger raw material security, and shared value creation across the supply chain. | Managed through responsible sourcing, ESG-based supplier screening, regular supplier assessments, supplier capability development, and integration through V-IMRA, ERM, and the Sustainable Procurement Policy. |
| | | Geopolitical and Global Business Resilience | Strengthen business preparedness, operational continuity, and the ability to adapt to market and supply chain volatility. | Geopolitical tensions and global economic uncertainty may affect costs, raw materials, logistics, export markets, and investment decisions. | Risks related to supply chain disruption, price and foreign exchange volatility, trade measures, and constraints in international transportation. | Opportunities from supply chain diversification, greater sourcing and production resilience, and stronger long term competitiveness. | Managed through close monitoring of geopolitical and global economic developments, scenario-based risk assessment, flexible sourcing and logistics, business continuity planning, and integration through V-IMRA, ERM, and BCP. |
| | **Driving Digital and Sustainable Innovation** | Digital Transformation and Data Security | Enhance operational efficiency, improve data quality, and accelerate decision making, while strengthening the Group's competitiveness. | Dependence on digital systems and inadequate data management may increase the risk of disruption, data leakage, and adverse impacts on business operations. | Risks related to cyber security, unauthorised access to data, system continuity, data loss, and compliance with data-related requirements. | Opportunities from digital dashboards, automation, and data-driven efficiency gains, as well as stronger management of energy, carbon, environmental, and production performance, including more timely service and accurate information delivery. | Managed through investment in digital systems, dashboards, automation, data governance, cyber security controls, data backup and system continuity, and integration through V-IMRA, ERM, and IT governance. |
| | | Green and Inclusive Innovation | Advance environmentally friendly products and processes, create greater value for customers, and enable more inclusive stakeholder participation in development. | If innovation does not meet market needs or stakeholder participation is insufficient, market acceptance, operational effectiveness, and sustainability outcomes may be constrained. | Risks related to product development not keeping pace with market demand, development costs, customer acceptance, and insufficient stakeholder participation. | Opportunities from low carbon product development, Low VOC / No VOC solutions, LCA / EPD, and the use of market data and feedback to drive differentiation and sustainable growth. | Managed through green innovation, product development informed by market and end-user insights, engagement with customers, suppliers, communities, and employees, research and development, and integration through V-IMRA, ERM, and the product development process. |
| | **Designing Durable and Responsible Products** | Product Longevity and Lifecycle Performance | Extend product life, improve resource efficiency, and reduce environmental impacts across the life cycle. | If products have a short service life or use resources inefficiently, waste, costs, and environmental impacts may increase across the value chain. | Risks related to product performance not meeting customer needs, inappropriate service life, customer complaints, and increasing pressure for life-cycle product information. | Opportunities from designing products for resource efficiency, longer service life, reduced waste, and stronger market differentiation. | Managed through product design based on resource efficiency, product performance, and durability principles, the use of market and end-user insights, LCA / EPD assessment, and continuous product development across the life cycle. |
| | | Sustainable Product and Service Responsibility | Deliver quality, safe, transparent, and customer-focused products and services, while supporting sustainable living and use. | If products or services do not meet required standards, customer safety, trust, corporate reputation, and business performance may be adversely affected. | Risks related to product quality, incomplete product information, complaints, non-compliance with standards, and adverse impacts on customer confidence. | Opportunities from improving product quality and transparency, developing safe and environmentally friendly products, and creating market differentiation. | Managed through quality control, accurate product information, complaint handling and response, after-sales support, continuous product development, and integration through customer feedback, quality management, LCA / EPD, Low VOC / No VOC, and V-IMRA / ERM. |

| Performance Targets | | | | | | 2025 Performance | Progress of Work | Responsible unit | Contribution to the Sustainable Development Goals |
|---|---|---|---|---|---|---|---|---|---|
| Core Target | KPI | Unit | Short term 2025 | Medium term 2030 | Long term 2050 | | | | |
| **FUTURE GOAL 4: Trusted & Resilient Governance** – Transparent and trusted governance | Share of independent directors on the Board (2030 target: 50%) | % | ≥ 33.3% (5 persons) | ≥ 50% (8 persons) | ≥ 75% (11 persons) | 40% (6 persons) | **On track:** The share of independent directors has been maintained at an appropriate level, while the Board structure continues to be strengthened in line with good governance practices. | - Corporate Secretary Office<br>- Risk Management Department<br>- International Sales Department<br>- Legal and Compliance Department<br>- Procurement & Purchasing Department<br>- Accounting and Finance Department<br>- Logistics and Supply Chain Division |  |
| | Number of significant incidents of non-compliance with environmental, social, and governance laws and regulations | case/year | 0 | 0 | 0 | 0 | **Achieved:** No significant incidents of non-compliance were identified, reflecting ongoing governance and internal control effectiveness. | | |
| | Number of significant incidents of non-compliance with tax laws or material tax disputes | case/year | 0 | 0 | 0 | 0 | **Achieved:** No material incidents of tax non-compliance or tax disputes were identified, reflecting continued tax governance and compliance. | | |
| | Share of new suppliers screened against environmental, social, or governance criteria (2024 baseline: 33 suppliers) | % | 100% | 100% | 100% | 100% of new suppliers, representing 42 suppliers | **Achieved:** The number of new suppliers screened against ESG criteria increased, reflecting the planned integration of ESG requirements into the procurement process. | | |
| | Number of significant business disruption incidents arising from geopolitical factors affecting exports, logistics, or sourcing | Number of interruptions | 0 | 0 | 0 | 0 times when there was no contingency plan | **Achieved:** The Group continues to monitor geopolitical risks and integrate them into risk assessment and business continuity planning on an ongoing basis. | | |
| **FUTURE GOAL 5: Digital-Driven & Data-Smart Business** – Digital enabling business and sustainability | Number of factories with Digital Dashboards for energy, carbon, and environmental management (2024 baseline: 2 factories) | Factory | ≥3 factories | All factories included. 100% coverage. | All factories covered, including new sites | 3 | **On track:** Digital Dashboard deployment now covers 3 factories and remains in line with the planned rollout. | - Production Department<br>- Electrical Engineering<br>- Mechanical Engineering<br>- Environmental & Social Department<br>- Sustainability Working Group<br>- Sales & Customer Relations Department<br>- Information Systems Department<br>- Innovation Department |  |
| | Greenhouse gas emissions avoided or reduced through innovation (2024 baseline: 35,122 $tCO_2e$/year) | % of total GHG | -15% of Scope 1 and 2 GHG emissions | -50% of Scope 1 and 2 GHG emissions | -95% of Scope 1 and 2 GHG emissions | -11.63% (31,037 $tCO_2e$ / year) | **In process:** Emissions avoided or reduced through innovation have continued to increase and remain in line with plan. | | |
| | Share of new capital investment projects incorporating digital or automation technologies (2024 baseline: 10% of processes) | % of the main process | ≥30% | ≥70% | ≥90% | 33.20% | **On track:** Share of new capital investment projects incorporating digital or automation technologies ≥ 30% of main processes. | | |
| **FUTURE GOAL 6: Responsible Durable Design** – Durable and safe products for people and the planet | Share of core products assessed through LCA, with EPD or equivalent environmental labels (with certification: 33.67%; factory-based: 29.59%) | % Main product list | ≥60% | ≥80% | ≥100% | 63.27% (Total COA: Certificate of Analysis) | **On track:** The share of core products assessed through LCA, with EPD or equivalent environmental labels, increased significantly, reflecting progress in improving product environmental transparency. | - Business Development & Innovation Department<br>- Environmental & Social Department<br>- Sustainability Working Group Division<br>- Production Department<br>- Quality Assurance & Control Department |  |
| | Share of products classified as Non Formaldehyde in line with international standards (with certification: 16.45%; factory-based: 7.66%) | % Sales Volume | ≥20% | ≥50% | ≥80% | 24.10% (Total COA) | **On track:** The share of Non Formaldehyde products increased significantly, reflecting progress in developing safer and healthier products. | | |
| | Rate of significant product quality complaints (Base year 2024 = 0.94 case per million $m^3$) | Case per million cubic meters | -30% from base year | -50% from base year | -90% from base year | 113 % (+20.5% from base year) | **Not achieved:** The product quality complaint rate was above threshold indicating that complaint levels remained higher than expected. In response, the Group is accelerating improvements in quality control, root cause analysis, and corrective actions to prevent recurrence and improve performance in the next period. | | |

| Vanachai Sustainability Strategic Moves | | Material Issues Shaping Our Future | Impacts Generated | | Related Strategic Considerations | | Management Approach |
|---|---|---|---|---|---|---|---|
| | | | Positive Impacts | Negative Impacts | Related Risks | Strategic Opportunities | |
| **TOGETHER** | **Empowering People and Ensuring Safe Workplaces** | Employee Well-being, Engagement, and Development | Strengthen employee well-being, engagement, and capabilities, supporting workforce performance and the Group's long term growth. | If employees do not receive adequate development, engagement, or well-being support, workforce performance, retention, and commitment may be adversely affected. | Risks related to skills gaps against business direction, low engagement, high turnover, and declining productivity. | Opportunities to strengthen skills, develop leadership, enhance engagement, and build a workforce that is ready for future change. | Managed through continuous skills development and learning, employee well-being programmes, engagement monitoring, strengthening organisational culture, and integration through HR management processes. |
| | | Occupational Health and Safety | Strengthen the safety, well-being, and confidence of employees and contractors, while supporting operational continuity and efficiency. | Accidents and unsafe working conditions may affect lives, health, operational continuity, and the Group's reputation. | Risks related to workplace injuries, non-compliance with safety standards, insufficient risk controls, and operational disruption. | Opportunities to strengthen safety culture, reduce accidents, improve productivity, and enhance long term organisational resilience. | Managed through occupational health and safety management systems, risk assessment and control, training and awareness building, LTIFR monitoring, and continuous coverage of employees and contractors under OSH management, safety controls, training, monitoring, and V-IMRA / ERM. |
| | **Creating Shared Value for Society and Customers** | Respect for Human Rights and Community Development | Promote respect for fundamental rights, strengthen positive community relationships, and support inclusive improvements in quality of life. | Human rights violations or insufficient community engagement may affect stakeholder trust, relationships, and business continuity. | Risks related to community grievances, human rights violations in the supply chain, stakeholder conflict, and reputational impacts on the Group. | Opportunities to build trust, develop shared value with communities, raise supplier standards, and strengthen the Group's long term social licence to operate. | Managed through the human rights policy, supply chain risk assessment and screening, community engagement, grievance handling, community satisfaction monitoring, and integration through human rights due diligence, stakeholder engagement, grievance mechanisms, and V-IMRA / ERM. |
| | | Customer Responsibility and Trust | Strengthen customer confidence, satisfaction, and long term relationships through quality, transparent, and responsible products and services. | If products, services, or communications do not meet expectations, customer confidence, reputation, and customer relationships may be adversely affected. | Risks related to complaints, product quality, incomplete product information, delayed customer response, and damage to corporate reputation. | Opportunities to enhance customer experience, strengthen product differentiation, build loyalty, and support sustainable growth. | Managed through quality control, accurate product information, complaint handling and response, after-sales support, and the use of customer feedback, service systems, quality management, and V-IMRA / ERM for continuous monitoring and improvement. |

| Performance Targets | | | | | | 2025 Performance | Progress of Work | | Responsible unit | Contribution to the Sustainable Development Goals |
|---|---|---|---|---|---|---|---|---|---|---|
| Core Target | KPI | Unit | Short term 2025 | Medium term 2030 | Long term 2050 | | | | | |
| **TOGETHER GOAL 7:** Safe & Strong People – Empowering Vanachai people and building a safe, sustainable workplace | Average training hours per employee per year | Hour/person/ year | ≥10 | ≥16 | ≥24 | 9.1 | | **In process:** Average training hours per employee remain below the level required to support the organisation's capability-building ambitions. The Group has therefore set more ambitious targets to expand learning opportunities and continuously strengthen employee skills. | - Human Resources & Administration Department<br>- Environmental & Social Department<br>- Production Division |  |
| | Lost Time Injury Frequency Rate (LTIFR) (2021 baseline: 2.85 cases per million hours worked) | Cases/million working hours | ≤ 1.60 (-33% from base year) | ≤ 1.20 (-50% from base year) | ≤ 0.50 Close to 0 (Best-in-class) | 2.02 (-27% from base year) | | **On track:** LTIFR has declined from the baseline and continues to improve, reflecting progress in occupational health and safety performance. | | |
| | Share of employees covered by an occupational health and safety management system (2021 baseline: 1,826 employees) | % of all employees | 100% (3,343 employees) | 100% | 100% | 100% (3,343 employees / 411 contractors) | | **Achieved:** Coverage under the occupational health and safety management system has been maintained at 100%, with contractor coverage expanded in 2025. | | |
| **TOGETHER GOAL 8:** Growing with Communities & Customers – Creating shared value with communities and customers as we grow | Average annual hours of employee participation in social activities (2021 baseline: 3.36 hours/person/year) | Hour/person/ year | ≥ 4 | ≥ 8 | ≥ 16 | 1.18 | | **Not achieved:** The Group has set employee social activity hour targets at 4 hours per person per year in 2025, 8 hours in 2030, and 16 hours in 2050 to strengthen employee participation in shared value creation and foster sustained long term relationships with communities. | - Human Resources & Administration Department<br>- Community Relations & CSR Section<br>- Corporate Communications Section<br>- Sales & Customer Relations Department<br>- Marketing and Business Development Section<br>- Quality Assurance & Control Department |  |
| | Employee participation rate in social activities (2021 baseline: 35.3%) | % Participation in activities | ≥ 35% | ≥ 45% | ≥ 60% | 27.22% | | **Not achieved:** Employee participation in social activities is in the process of recovery, while community engagement continues to be advanced in line with plan. | | |
| | Total number of trees planted (2023 baseline: 6,428 trees) | Trees | ≥ 4,000 | ≥ 10,000 | ≥ 40,000 | 7,386 | | **On track:** The number of trees planted exceeded the 2025 target, reflecting progress in restoring green areas and generating positive environmental impacts. | | |
| | Increase overall customer and consumer satisfaction (2021 baseline: 97.3%) | % Overall satisfaction | ≥ 98.0% | ≥ 98.5% | ≥ 99% | 98.1% | | **On track:** Overall customer satisfaction remains high and continues to improve, reflecting the effectiveness of product development and customer care. | | |
| | Maintain overall community satisfaction (2024 baseline: 85%) | % Overall satisfaction | ≥ 85% | ≥ 87% | ≥ 90% | 87.5% | | **On track:** Community satisfaction remains high and has improved from the baseline, reflecting effective engagement and ongoing relationship building. | | |



# From Forest Roots to the Net Zero Future

The following section demonstrates the transition from sustainability commitments to measurable performance across environmental, social, and governance dimensions.

It reflects Vanachai Group's continued progress, building on our foundation of forest stewardship and responsible resource management, toward a low-carbon business future while advancing our journey toward Net Zero.

# Vanchai Net Zero Roadmap 2050



**71.6%** of energy consumption
**Renewable energy:** share electricity and thermal.

**-30%** Scope 1 &2 GHG reduction (base year 2024)
**Emissions Reduction:** deliver through energy efficiency, renewable electricity and heat

**96.2%** total waste recovery rate
**Act Sustainably:** Reduce waste, total recovery rate under the 4R framework.

**82.1%** of total waste watertotal waste recovery rate
**Waste Water Recycle:** recycle/reuse volume rate

**3 new** green product Categories
**Increase More Low-Carbon Products:** Non-Formaldehyde, Zero-VOC adhesive technology

**7,386** Trees/year
**Plant Trees:** Restore forests and increase green cover

**2024 Base year**
Scope 1+2
246,329 $tCO_2e$

**2025**
Scope 1+2
173,299 $tCO_2e$

By early 2030, the Group targets
**≈50%** reduction in GHG emissions
**2030**

By early 2038, the Group targets
**≈65%** reduction in GHG emissions
**2038**

By 2050, the Group targets
**≈95%** reduction in GHG emissions
**2050 Achieve Net Zero**

Net Zero

# FOREST

## Environmental Sustainability



The Group's Environmental sustainability, under the

**"FOREST: Sustaining the environment through responsible resource management"**

approach, reflects a fundamental commitment to protecting natural resources, enhancing environmental resilience, and supporting long term value creation. The Group recognizes that business continuity, operational efficiency, and stakeholder expectations depend on responsible resource use, effective environmental management, and the ability to respond to evolving environmental risks. To support this, the Group applies an integrated materiality and risk assessment process to ensure that key environmental issues are comprehensively evaluated and effectively linked to strategy setting, operational management, and continuous improvement across the value chain.



# FOREST

## Sustainability in the Environmental Pillar

**TRANSITIONING TOGETHER TO A LOW-CARBON FUTURE STRATEGY**

- → Climate Change Mitigation and Adaptation
- → Greenhouse Gas Emissions and Decarbonization
- → Energy Efficiency and Low-Carbon Energy Transition

**ADVANCING CIRCULAR AND RESOURCE-RESPONSIBLE MANUFACTURING STRATEGY**

- → Circular Economy and Resources Efficiency
- → Waste, Wastewater, and Pollution Prevention
- → Biodiversity and Responsible Natural Resource Use

**SAFEGUARDING WATER RESOURCES FOR THE FUTURE STRATEGY**

- → Water Stewardship and Water Security



**UN Sustainable Development Goals**




Transitioning Together to a Low-Carbon Future Strategy

# Climate Change Mitigation and Adaptation

**Preparing Vanachai for a low-carbon and climate-resilient future through climate risk management, adaptation planning, and transition readines**

**Scan for related disclosure**
For further details, please refer to
Climate Change Policy

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Map climate risks by site**<br>• **Integrate risks into ERM**<br>• **Strengthen BCP drills**<br>• **Confirm financial impact method**<br>• **Prepare LCA and EPD roadmap** | • Quantify scenario impacts<br>• Link climate risk to CAPEX<br>• Expand adaptation projects<br>• Strengthen supplier resilience<br>• Enhance climate disclosure | • Secure climate resilience<br>• Align with Net Zero 2050<br>• Scale carbon value creation<br>• Lead low-carbon readiness<br>• Build resilient value chain |

## Impact & Value Created

Climate change affects Vanachai's continuity, raw materials, operations, logistics, energy costs, and safety. Integrating mitigation and adaptation strengthens resilience, stakeholder confidence, competitiveness, and readiness for low-carbon market expectations.

## Risks & Opportunities

Key climate risks include extreme weather, raw material disruption, downtime, logistics interruption, energy cost volatility, and safety impacts. Transition risks create opportunities to strengthen resilience, climate data, low-carbon product readiness, and stakeholder trust.

## Our Approach

- Assess climate risks through V-IMRA
- Integrate climate risks into ERM
- Strengthen BCP and emergency drills
- Quantify climate financial impacts
- Improve climate data and disclosure
- Prepare LCA and EPD readiness
- Engage suppliers and customers
- Align with Net Zero 2050

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Climate risk and opportunity assessment** | Integrate physical and transition climate risks into V-IMRA and ERM | Climate risks and opportunities were identified and linked to ERM and strategic decision-making | Expand site-level climate risk assessment and time horizons | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION |
| **Climate adaptation and BCP readiness** | Maintain emergency and BCP drills that consider climate-related events | BCP and emergency drills were conducted 6 times in 2025 | Strengthen site adaptation for flood, drought, heat, power/ logistics disruptions | 13 CLIMATE ACTION, 8 DECENT WORK AND ECONOMIC GROWTH |
| **Climate-related financial planning** | Incorporate climate risks into financial planning and project prioritization | Climate-related financial value disclosed, pending data confirmation | Transition risks from disclosure, trade, LCA, EPD, and low-carbon demand recognized | 13 CLIMATE ACTION, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE |
| **Low-carbon market readiness** | Prepare for carbon disclosure, LCA, EPD, and low-carbon expectations | Standardize financial impact method and link to CAPEX, OPEX, resilience investment | Develop product carbon data, LCA/EPD roadmap, and customer readiness | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION |
| **Climate governance and strategic alignment** | Communicate Net Zero 2050 direction and align climate policy, strategy, and carbon management roadmap | Climate Change Policy, Climate Change and Carbon Management Strategy, and CCS Strategy were disclosed | Strengthen TCFD or IFRS S2-aligned climate disclosure, governance oversight, and performance tracking | 13 CLIMATE ACTION, 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |

# Climate Risk is Business Risk

## Embedding climate resilience into decisions, operations, and the value chain.

Climate change is no longer only an environmental issue. For Vanachai, it is a business risk that can affect raw material continuity, factory operations, energy costs, logistics, product competitiveness, and employee safety. Physical risks such as extreme heat, heavy rainfall, floods, drought, and seasonal variability may disrupt operations and supply reliability, while transition risks from carbon disclosure, trade measures, LCA, EPD, and low-carbon product expectations are increasingly shaping market competitiveness.

To respond, Vanachai integrates climate mitigation and adaptation into business planning, climate policies, carbon management strategy, V-IMRA, and Enterprise Risk Management. This enables climate-related risks and opportunities to be identified, prioritized, and translated into practical actions across operations, supply chain, financial planning, and long-term transition readiness.

**Climate Governance**

- Integrate climate risks into V-IMRA and ERM
- Review climate risks by short, medium, and long-term horizons
- Link climate risks to strategy, CAPEX, OPEX, and project prioritization
- Strengthen climate-related policies, accountability, and disclosure
- Improve alignment with FTSE, TCFD, and IFRS S2 expectations

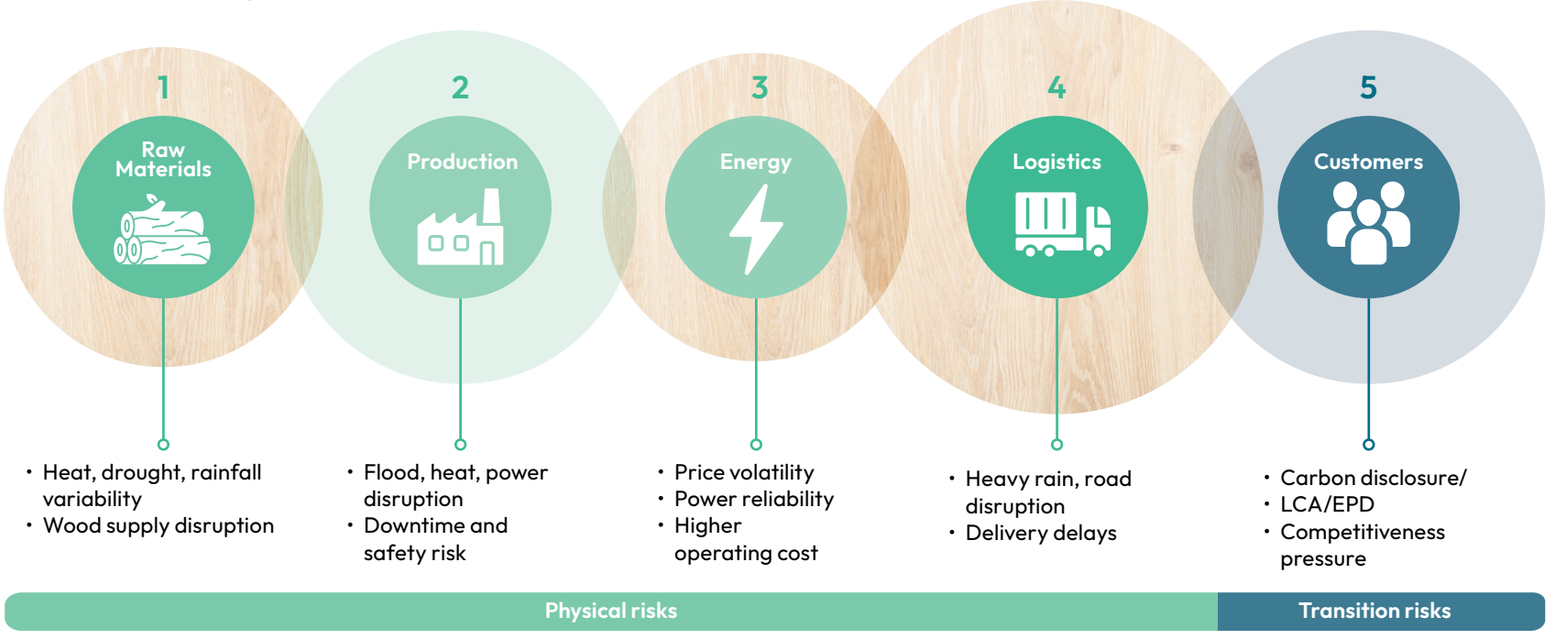
**Climate Action**

- Strengthen BCP and emergency drills for extreme weather
- Improve site-level preparedness for flood, drought, heat, and power disruption
- Assess climate exposure of key raw materials and suppliers
- Prepare LCA, EPD, and product-level carbon data readiness
- Connect climate risk assessment to the next topic: GHG and Decarbonization

By treating climate risk as business risk, Vanachai strengthens resilience today while building the foundation for deeper GHG reduction, decarbonization, and low-carbon product competitiveness.

### Climate risk Across Value Chain

How climate can affect operations and market readiness.



# Governance for Climate Resilience

## Turning climate risks into accountable decisions, controls, and long-term resilience.

Vanachai manages climate change as a strategic business issue, not only as an environmental topic. Climate risks and opportunities are considered through the Group's policy framework, materiality and risk assessment process, and enterprise risk management system to support decision-making, project prioritization, and long-term value creation.

The Board of Directors provides overall oversight of Vanachai's climate change direction, including relevant policies, strategic roadmap, targets, and long-term resilience priorities. Implementation is led by the Head of the Climate Change and GHG Reduction Task Force, who coordinates closely with the Sustainable Development Task Force to translate Board-level direction into practical actions. The task force is composed of representatives from key business units, with strong participation from all plants, ensuring that climate-related risks, mitigation measures, adaptation actions, and GHG reduction initiatives are embedded across operations and integrated into business planning, V-IMRA, and ERM processes.

This governance structure helps ensure that climate-related issues are translated into practical actions, including risk controls, financial planning, BCP readiness, energy and water project prioritization, supply chain preparedness, and the transition toward Net Zero 2050. The approach is also aligned with international climate indicators, which expect companies to disclose climate governance, risk management procedures, strategy integration, financial planning impacts, and climate-related targets.

| Strengthening Oversight | Strengthening Policy and Strategy | Strengthening V-IMRA and ERM |
|---|---|---|
| • Define climate risk owners<br>• Review climate risks annually<br>• Report through ERM process<br>• Track key risk indicators<br>• Escalate material climate risks | • Apply Climate Change Policy<br>• Implement Carbon Management Strategy<br>• Link CCS strategy to long-term resilience<br>• Align with Net Zero 2050 Improve climate disclosure readiness | • Identify physical and transition risks<br>• Prioritize risks by business impact<br>• Integrate risks into Enterprise Risk Register<br>• Link risks to CAPEX, OPEX, and BCP<br>• Monitor and update mitigation actions |

Through climate governance, V-IMRA, and ERM, Vanachai converts climate-related risks into accountable actions, helping protect business continuity while preparing the Group for deeper GHG reduction and decarbonization.

### Climate Governance Flow



**1 Oversight and Accountability :** Board and management provide oversight of climate-related issues, ensuring that climate risks are governed across strategy, operations, finance, and compliance, with clear risk ownership, monitoring, and reporting.



**2 Climate Policy and Strategy :** Climate policies and strategies guide mitigation, adaptation, and transition actions, including the deployment of the Climate Change Policy, Carbon Management Strategy, and CCS Strategy to key stakeholders.



**3 V-IMRA :** identifies, analyzes, and prioritizes climate-related impacts, risks, opportunities, and dependencies to support climate materiality assessment and risk ranking.



**4 ERM Integration :** Climate risks are integrated into Enterprise Risk Management to establish risk controls, key risk indicators, and action plans.



**5 Action and Monitoring :** Climate risk findings are translated into site-level and value-chain actions, including BCP, CAPEX prioritization, adaptation measures, data tracking, projects, and continuous review.

**From oversight to action, climate governance supports long-term resilience and business continuity.**

# Climate Risk and Opportunity Assessment

## Assessing Climate Risks and Opportunities Across Vanachai's the Value Chain

### Value Chain Map




### Priority Climate Risks and Opportunities

- Physical risk
- Transition risk
- Supply chain / operational risk
- Opportunity

| Business Impact & Risk Types | Short term (2024-2029) | Medium term (2030-2037) | Long term (2038-2050) |
|---|---|---|---|
| High | Extreme heat<br>Flood / heavy rainfall | Severe storms<br>Electricity supply disruption | Carbon disclosure requirements<br>GHG emissions and decarbonization expectations |
| Medium | Drought and seasonal variability<br>Energy and raw material price volatility | Water scarcity<br>Technology investment risk | Changing customer demand<br>LCA / EPD expectations |
| Low | Supply chain / operational disruptions | Renewable energy use | Green innovation<br>Circular economy<br>Carbon value creation |

Urgency / Time Horizon

Climate resilience is integrated enterprise risk management, operational controls, supplier management, product development, and long-term business planning, whole supporting opportunities from renewable Energy, low-carbon products, circular resource use, and carbon value creation.

### How Vanachai Responds

**Business Continuity & Emergency Preparedness**
- BCP
- Emergency drills
- Flood preparedness
- Backup power

**Operational Efficiency**
- Energy efficiency
- Process optimization
- Waste reduction
- Maintenance

**Water & Resource Resilience**
- Water recycling
- Water risk assessment
- Water quality monitoring
- Material efficiency

**Climate Resilience Management**

**Supply Chain Resilience**
- Supplier monitoring
- Responsible sourcing
- Backup sourcing
- Supplier code of conduct

**Climate Data Readiness**
- GHG inventory
- Scope 3 readiness
- LCA / EPD roadmap
- TCFD / ISSB-aligned disclosure

# Value Creation Outcomes

## Turning climate action into long-term business value

Vanachai creates long-term value by turning climate resilience and low-carbon transition into business opportunities across the value chain — strengthening competitiveness, building customer trust, and contributing to a low-carbon and nature-positive future.

**Our Goal**
**Climate resilience today, low-carbon leadership tomorrow.**

### Cost Savings

- Lower energy and resource consumption
- Reduced water use and waste
- Improved operational efficiency
- Lower compliance and risk-related costs

### Stronger Competitiveness

- Higher operational resilience
- Better product quality and efficiency
- Innovation-driven differentiation
- Enhanced supply chain reliability

### Customer Retention

- Meeting customer sustainability expectations
- Building trust through transparency
- Delivering green and responsible products
- Long-term customer relationships

### New Revenue Opportunities

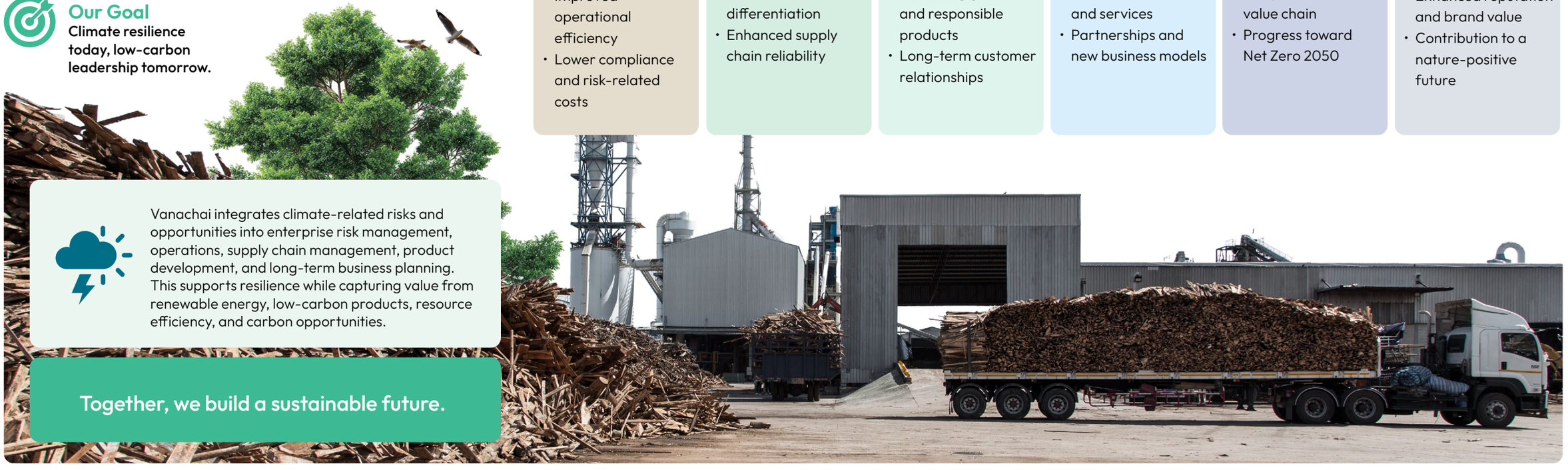
- Low-carbon and green product lines
- Access to green markets and customers
- Innovative solutions and services
- Partnerships and new business models

### Lower Emission Intensity

- Reduced GHG emissions
- Improved energy efficiency
- Lower carbon footprint across the value chain
- Progress toward Net Zero 2050

### Stronger Low-Carbon Positioning

- Leadership in sustainability
- Alignment with global standards and regulations
- Enhanced reputation and brand value
- Contribution to a nature-positive future



Vanachai integrates climate-related risks and opportunities into enterprise risk management, operations, supply chain management, product development, and long-term business planning. This supports resilience while capturing value from renewable energy, low-carbon products, resource efficiency, and carbon opportunities.

**Together, we build a sustainable future.**

## Climate Scenario Analysis under a ~2 °C Pathway

Vanachai assessed physical and transition risks across operations, wood-residue sourcing, and export markets to inform resilience, capital allocation, and low-carbon competitiveness.

**Scenario**
~2 °C pathway

**Time horizons**
Short term 2025–2029
Medium term 2030–2037
Long term 2038–2050

**Scope**
- Surat Thani plant, Chonburi plant
- South & Eastern Thailand feedstock sourcing
- SEA and Middle East markets

**Financial lenses**
- OPEX
- CAPEX
- Revenue at risk

| Risk Category | Scenario | Business impact | Financial effect | Response & KPI |
|---|---|---|---|---|
| 1. **Physical risk \| Surat Thani plant (Short / Medium)** | Heavier rainfall, flooding, stronger seasonal variability | Production downtime; wet feedstock and quality loss, logistics and utility disruption | OPEX High<br>CAPEX Medium | Drainage and flood protection, safeguard critical equipment, BCP, alternate routes. KPIs: downtime days, flood events, off-spec output |
| 2. **Physical risk \| Chonburi plant (Short / Medium)** | Higher temperatures, heatwaves, episodic heavy rainfall | Heat stress and H&S exposure; higher cooling load, intermittent productivity loss | OPEX Medium–High<br>CAPEX Medium | Heat management, ventilation upgrades, worker protection, flexible logistics. KPIs: heat-index days, electricity cost per unit, delayed deliveries |
| 3. **Physical risk \| Wood-residue sourcing (Short / Medium)** | Wetter feedstock, storm disruption, transport volatility | Feedstock cost and quality volatility; higher transport and inspection cost | OPEX High | Diversify sourcing, define moisture specs, buffer stock, backup storage. KPIs: moisture off-spec rate, feedstock price volatility, on-time delivery |
| 4. **Transition risk \| Export markets (Medium / Long)** | Customers increasingly require product carbon data, LCA/ EPD, traceability and greener procurement | Verification and documentation cost; risk of bid loss or reduced market access | OPEX Medium<br>Revenue at Risk Medium–High | Conduct LCA, prepare EPD-ready product data, strengthen MRV and custom-er-ready documentation. KPIs: % products with LCA, # RFPs requiring carbon data, win rate |

### Key Takeaways

Most material physical risks are flood disruption, heat stress, and feedstock moisture volatility.

Most material transition risks are customer carbon-data requirements and procurement traceability.

Priority actions include site resilience capex, supplier diversification, energy efficiency, and product data readiness.

## FY2025 EBITDA Impact under 2.0°C Climate Transition Scenarios

The waterfall illustrates how selected OPEX-related climate impacts may affect Vanachai's FY2025 EBITDA through energy, raw material, logistics, carbon-pricing, and compliance costs, partly offset by decarbonization benefit.

**Current Long-term Warming ~1.1–1.3 °C**

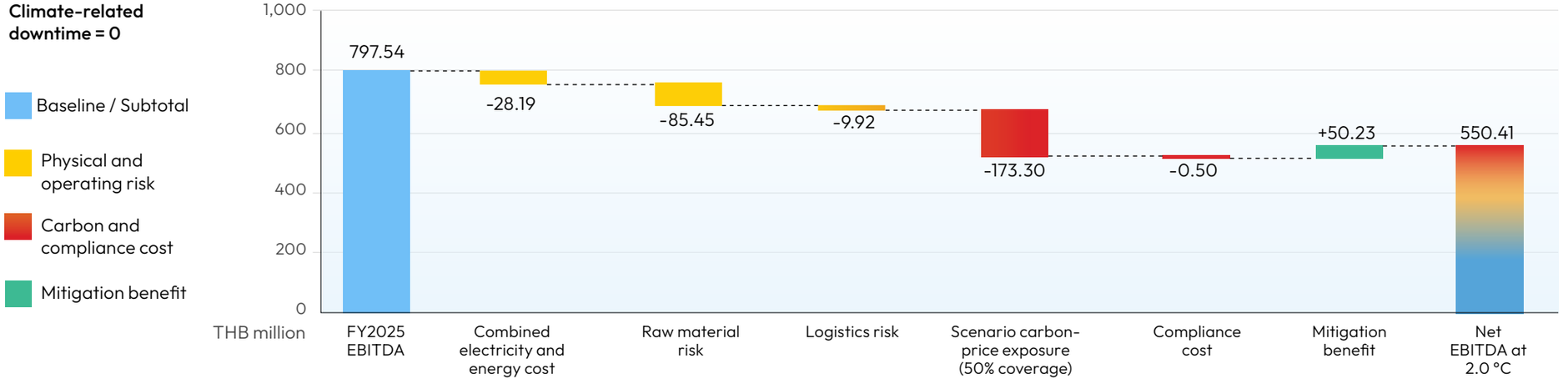
**Paris Reference 1.5 °C**

**Stress test Scenario 2.0 °C**

| Scenario | Estimated Net EBITDA |
|---|---|
| 1.5 °C Paris-aligned reference case | THB 620.02 m |
| 2.0 °C Management stress-test case | THB 550.41 m |

The left page identifies climate-related effects through OPEX, CAPEX, and revenue-at-risk lenses; the right page translates selected OPEX-related impacts into FY2025 EBITDA sensitivity.

### Estimated EBITDA impact under 2.0 °C scenario




**FY2025 EBITDA baseline:** THB 797.54 million

**Carbon price assumption:** THB 2,000/$tCO_2e$

**Scope 1+2 emissions:** 173,299 $tCO_2e$

**Carbon-price coverage assumption:** 50% of Scope 1+2 emissions

***Combined electricity + energy cost basis:** THB 1,409.44 million

**Raw material cost basis:** THB 5,696.70 million

**Logistics cost basis:** THB 661.24 million

**Compliance cost:** THB 0.50 million

Mitigation benefit based on avoided carbon cost from the decarbonization pathway

### Main financial drivers

- Flood-related downtime, repair cost, and logistics disruption
- Feedstock moisture, quality volatility, and higher transport cost
- Higher electricity and energy cost under hotter conditions
- LCA/EPD, MRV, verification, and customer documentation cost
- Revenue at risk from stricter buyer requirements and bid loss

*Combined electricity and energy cost is used because electricity could not be separated from total energy cost and Vanachai uses more than 70% own renewable energy. Balanced management case assumes 50% carbon-price coverage.

# Governance for Climate Resilience

**Building operational readiness against extreme weather, resource disruption, and business continuity risks.**

Vanachai treats climate adaptation as a core part of operational resilience. Climate-related physical risks such as extreme heat, heavy rainfall, flash floods, prolonged drought, seasonal variability, power disruption, and logistics interruption may affect raw material continuity, factory operations, energy costs, delivery reliability, and employee safety. The Group therefore links climate risk assessment with site-level preparedness, BCP, emergency drills, CAPEX prioritization, and continuous monitoring to reduce disruption and strengthen long-term business continuity.

| Resilience Area | Key Climate Exposure | Adaptation Action | BCP Link |
|---|---|---|---|
| **Raw material continuity** | Drought, rainfall variability, storm damage | Monitor wood supply risk and supplier readiness | Alternative sourcing and inventory planning |
| **Factory operations** | Flood, extreme heat, severe storms | Strengthen site-level preparedness and preventive maintenance | Production continuity and emergency response |
| **Energy and utilities** | Power disruption, energy price volatility | Improve energy reliability and backup readiness | Critical utility recovery plan |
| **Water security** | Drought, irregular rainfall | Strengthen rainwater storage, water balance, and water-use controls | Water contingency planning |
| **Logistics and delivery** | Flood, road disruption, storms | Prepare alternative routes and delivery coordination | Logistics continuity plan |
| **Employee safety** | Heat, flood, emergency events | Improve emergency communication and safety drills | Evacuation and worker protection plan |
| **Climate data and finance** | Rising cost, CAPEX needs | Link climate risks to financial planning and project prioritization | Risk-based investment planning |

# BCP as the Core Resilience Mechanism

Vanachai uses Business Continuity Planning, BCP, as the main mechanism to translate climate risk assessment into operational readiness. The BCP should cover climate-related disruption scenarios such as flood, severe storm, power outage, extreme heat, water shortage, raw material disruption, and logistics interruption. In 2025, the Group disclosed 6 BCP and emergency drills considering climate-related events, maintaining the same frequency as 2024 and higher than 4 times in 2021–2022..

## BCP Focus Areas

| BCP Focus | Short Details |
|---|---|
| **Scenario readiness** | Prepare for flood, storm, heat, drought, power outage |
| **Critical operation mapping** | Identify priority processes, assets, utilities, and workforce needs |
| **Emergency response** | Define roles, escalation, communication, and evacuation steps |
| **Recovery planning** | Set recovery actions for production, energy, water, logistics, and IT/data |
| **Drills and review** | Conduct drills, record lessons learned, and update plans annually |
| **ERM integration** | Feed BCP results into V-IMRA, ERM, KRIs, and action plans |

## Action

| Site-Level Adaptation | BCP and Emergency Preparedness | Value Chain Resillience |
|---|---|---|
| • **Map climate risks by plant**<br>• **Assess flood and heat exposure**<br>• **Review power and water readiness**<br>• **Strengthen preventive maintenance**<br>• **Track site-level climate actions** | • Update climate-related BCP scenarios<br>• Conduct annual emergency drills<br>• Test flood and power outage response<br>• Improve emergency communication<br>• Review lessons learned after drills | • Assess raw material supply risk<br>• Prepare alternative logistics routes<br>• Engage key suppliers on continuity<br>• Monitor customer disclosure needs<br>• Link actions to GHG and decar-bonization |

# Climate Change Performance Metrics and Disclosure Alignment

**The following data related to Climate Change for Vanachai Group and our subsidiaries during during 2021–2025, with 2024 as the base year.**

**Scan for related disclosure**
For further details, please refer to
Climate Change and Carbon Management Strategic Plan 2026

**Scan for related disclosure**
For further details, please refer to
Carbon Capture and Storage Strategic Plan

Note on
GRI 2025 Topic Standards: This report is prepared with reference to the GRI Standards 2021. Climate and energy disclosures also include forward-looking mapping to GRI 102: Climate Change 2025 and GRI 103: Energy 2025, effective for reports or materials published on or after 1 January 2027, to support disclosure readiness and future alignment.

| Disclosure Alignment | | Climate Indicator | unit | Vanachai Group Performance | | | | |
|---|---|---|---|---|---|---|---|---|
| GRI | FTSE Russell | | | 2021 | 2022 | 2023 | 2024 | 2025 |
| 102-1, 102-2, 3-3 | ECC43, ECC44, ECC50 | • Climate-related risk and opportunity integrated into risk management and strategy | Status | n/a | n/a | n/a | Disclosed | **Disclosed** |
| 102-1, 102-2, 201-2 | ECC44 | • Financial value of climate-related risk/opportunity integrated into financial planning | THB million | n/a | n/a | n/a | 60.00 | **2,587 (CAPEX and OPEX)** |
| 102-2, 3-3 | ECC05, ECC43, GRM11 | • BCP/emergency drills considering climate-related events | Times | 4 | 4 | 5 | 6 | **6** |
| 102-1, 102-2, 201-2, 3-3 | ECC43, ECC50 | • Climate-related physical and transition risk recognition | Qualitative | n/a | n/a | n/a | Disclosed | **Disclosed** |
| 102-2, 3-3 | ECC43, ECC50 | • Climate adaptation measures for extreme weather, raw material continuity, operations, energy cost and logistics | Qualitative | n/a | n/a | n/a | Disclosed | **Disclosed** |
| 102-1, 102-2, 2-23, 2-24 | ECC01 | • Climate Change Policy and Climate/Carbon Management Strategy | Policy / Framework | n/a | n/a | n/a | n/a / Partial | **VNG-ENV-CC-PL-01, VNG-ENV-CCCM-SP-01, VNG-ENV-CCS-SR-01** |
| 102-1, 102-2, 201-2, 3-3 | ECC43, ECC50 | • Climate-related risks and opportunities identified by time horizon | No. of risks/ opp. | n/a | n/a | n/a | n/a | **Risks, Opportunities** |
| 102-2, 3-3 | ECC50 | • Percentage of operations covered by climate risk assessment | % of sites, prod. volume, or revenue | n/a | n/a | n/a | 100% | **100%** |
| 102-1, 102-2 | ECC45 | • Climate scenario analysis conducted | % sites/ revenue covered | n/a | n/a | n/a | n/a | **100%** |
| 102-2, 3-3 | ECC05 | • Climate adaptation action implementation rate | % completed | n/a | n/a | n/a | 100% | **100%** |
| 102-2, 3-3 | ECC05, ECC50, GRM11 | • Sites with climate adaptation or emergency response plans | % of sites | n/a | n/a | n/a | n/a | **100%** |
| 102-2, 201-2, 3-3 | ECC44, ECC50 | • Production downtime from climate-related events | Hours or days | n/a | n/a | n/a | 0 | **0** |
| 102-2, 308-1, 3-3 | ECC09, ECC10, ECC50 | • Strategic suppliers (Critical Tier 1) raw material supply assessed for climate risk | % | n/a | n/a | n/a | n/a | **100%** |

# Our Net Zero 2050 Roadmap

The Group has set a target to achieve net zero greenhouse gas emissions by 2050, accelerating our original timeline from 2055 to 2050 in line with Thailand's decarbonisation direction and evolving market expectations. This commitment reinforces the Group's low carbon transition through a robust climate change strategy, measurable emissions reduction targets, and transparent performance management. Using a product life cycle approach, the Group will quantify and manage carbon dioxide emissions systematically, supported by ongoing stakeholder engagement across the value chain, from responsible sourcing and manufacturing to logistics and distribution, product use, and end of life management that supports circularity.

## Key Decarbonization Levers

1) Maximize carbon reduction at source through operational efficiency and process optimization.
2) Scale renewable energy (solar, biomass, and other clean energy) and strengthen energy efficiency.
3) Deploy Bio CCS and BECCS to address residual emissions that are technically unavoidable.
4) Work with suppliers and partners across the value chain to reduce Scope 3 emissions throughout the supply chain.
5) Establish a robust MRV system (Measurement, Reporting and Verification) to ensure data accuracy, transparency, and credibility.

### Greenhouse gas emissions across the product value chain, from "wood residues" to "building finishes and furniture"




**Upstream (Early-stage production)**

**Business Development**
Apply GHG-reducing technology and fit-to-use product sizing to minimize waste.

**Ethical Sourcing & Resource Conservation**
Strictly screen wood-residue suppliers, no natural forest timber, prioritize low-GHG/ low-pollution inputs.

**Eco-efficient Manufacturing Excellence**
Increase renewable electricity and heat, and drive zero-waste production.

**Sustainable Market Engagement & Sales**
Provide environmental and GHG data to support lower-impact material selection.

**Low-impact Logistics & Smart Distribution**
Use efficient fleets, deploy emissions-reduction tech, optimize deliveries.

**Downstream (End-stage value chain)**

**Customer Engagement & After-Sales Support**
Provide use and maintenance guidance to minimize waste and extend product life

**Circular Solutions & end-of-life management**
Partner to scale take-back, reuse, and recycling solutions to reduce virgin resource demand

# From 2024 Baseline Transparency to Deep Decarbonization And Verified Removals

Remark:
Manufacturing operations Scope 1, Scope 2, Scope 3 (Cats.)
Scope 3 (Cat 5.) = 169 $tCO_2e$ Waste generated during operations.

## 2025 GHG emissions by major source 785,262 $tCO_2e$

- Raw materials and inputs: **549,931** $tCO_2e$
- Manufacturing operations: **173,468** $tCO_2e$
- Transport and distribution: **48,469** $tCO_2e$
- Travel and employee commuting: **12,221** $tCO_2e$
- Product packaging: **1,173** $tCO_2e$

**92.1%** of total emissions from raw materials, inputs, and manufacturing operations.

*Includes Scope 3 (cat. 5) Waste generated during operations.

**2024**
(Baseline)
**930,553** $tCO_2e$

**2030**
Approximately **50%** Scope 1 and 2 reduction

**2035**
More than 65% Scope 1 and 2 reduction plus CCS scale-up to at least **20,000** $tCO_2e$/year

**2040**
**Value-chain** transformation

**2050**
Approximately **95%** **gross emissions reduction** with residual emissions neutralized through verified high-integrity removals

- Renewable Energy
- Operational Efficiency
- Circular Materials
- Low-Carbon Logistics
- Verified Removals

**71.6%** renewable energy share

**16.82 MWp** solar rooftop Phase 1-4

**9.9 MW** biomass power development

Bio-CCS / BECCS pilot **1,000–3,000** $tCO_2e$/year

# Forward Roadmap: From Resilience to Decarbonization

**Moving from climate risk readiness to long-term low-carbon transformation.**

Vanachai treats climate adaptation as a core part of operational resilience. Climate-related physical risks such as extreme heat, heavy rainfall, flash floods, prolonged drought, seasonal variability, power disruption, and logistics interruption may affect raw material continuity, factory operations, energy costs, delivery reliability, and employee safety. The Group therefore links climate risk assessment with site-level preparedness, BCP, emergency drills, CAPEX prioritization, and continuous monitoring to reduce disruption and strengthen long-term business continuity.

Going forward, Vanachai will build on this resilience foundation and progressively connect climate risk management with GHG reduction, energy transition, product carbon data, LCA/EPD readiness, and carbon value creation. This roadmap supports the shift from managing climate-related business risks today toward achieving long-term decarbonization and Net Zero alignment by 2050.

| Phase | Focus | Action |
|---|---|---|
| **Short Term 2025–2029** | Foundation | Map physical and transition climate risks by site and value chain. Integrate key risks into V-IMRA, ERM, BCP, and emergency drills. Strengthen climate data systems, define risk owners, and prepare LCA/EPD roadmap for key products |
| **Medium Term 2030–2037** | Integration | Apply climate scenario analysis and link material climate risks to CAPEX, OPEX, and project prioritization. Strengthen supplier and logistics resilience, expand product-level carbon data, and improve readiness for low-carbon market requirements. |
| **Long Term 2038–2050** | Transformation | Align climate resilience and business strategy with Net Zero 2050. Build a climate-resilient value chain, scale low-carbon products and technologies, explore carbon credit and carbon removal opportunities, and create long-term carbon value. |



**“Vanachai recognizes the urgency of climate change and our long-term impacts on the global economy, society, and the environment. The Company is therefore committed to advancing a systematic, integrated, and continuous approach to climate change and carbon management, in order to support sustainable business growth while fulfilling our responsibility to the planet and future generations.”**

# Greenhouse Gas Emissions and Decarbonization

**Driving low carbon operations through renewable energy, biomass utilization, energy efficiency, and systematic carbon management.**

## Impact & Value Created

GHG emissions reduction supports Vanachai's competitiveness, energy efficiency, climate resilience, and stakeholder confidence. The Group advances decarbonization through renewable energy, biomass utilization, process efficiency, and carbon management.

## Risks & Opportunities

Key risks include carbon regulations, rising energy costs, climate disclosure expectations, and customer demand for low carbon products. Opportunities include cost savings, energy security, ESG performance, and future carbon value creation.

## Our Approach

- Reduce emissions at source
- Improve energy efficiency
- Expand renewable energy
- Optimize biomass use
- Track Scope 1, 2, 3
- Strengthen GHG Mapping
- Improve MRV readiness
- Engage suppliers and logistics
- Prepare Bio CCS and BECCS
- Disclose climate performance

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • Complete plant level GHG Mapping<br>• Separate biogenic and fossil carbon<br>• Improve Scope 1 and 2 data<br>• Build initial Scope 3 dataset<br>• Optimize boilers and heat systems<br>• Reduce electricity intensity<br>• Strengthen logistics efficiency<br>• Prepare ISO 14064 and T VER MRV | • Integrate carbon into ERM and CAPEX<br>• Expand renewable energy options<br>• Improve supplier carbon data<br>• Develop low carbon product evidence<br>• Advance LCA and EPD readiness<br>• Pilot Bio CCS feasibility<br>• Assess BECCS economics<br>• Strengthen climate scenario planning | • Achieve Net Zero 2050<br>• Decarbonize hard to abate emissions<br>• Scale Bio CCS or BECCS where feasible<br>• Create verified carbon value<br>• Maintain high renewable energy share<br>• Lead in low carbon wood-based products<br>• Align disclosure with global expectations<br>• Support climate resilient value chains |

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **GHG inventory and disclosure** | Establish Scope 1, Scope 2, and relevant Scope 3 data. | Scope 1: 31,037; Scope 2: 142,262; Scope 1+2: 173,299; initial Scope 3: 612,076 $tCO_2e$. | Improve plant level GHG Mapping, data quality, and external assurance readiness. | 13 |
| **GHG intensity reduction** | Reduce Scope 1 and 2 emissions intensity toward 0.068 $tCO_2e$ per ton of production. | Achieved 0.128 $tCO_2e$ per ton, a 15.38% reduction from 2024 baseline but target not fully achieved. | Accelerate energy efficiency, process optimization, and emissions hotspot control. | 7, 13 |
| **Renewable and low carbon energy transition** | Increase renewable energy and low carbon energy use. | Renewable energy share reached 71.6% of total energy use. | Expand renewables, optimize biomass, and assess site low-carbon options. | 7, 12, 13 |
| **Biomass based emissions reduction** | Use biomass as fuel substitution in Power and Energy Plant. | Biomass use reduced approximately 243,455 $tCO_2e$ per year versus fuel oil baseline. | Strengthen sustainable biomass control and improve boiler and heat efficiency. | 12, 13, 15 |
| **Climate risk and carbon management** | Integrate climate risks into operational and financial planning. | Climate risks reflected in planning; 6 BCP/emergency drills. | Integrate climate risk into ERM, CAPEX planning, supplier engagement, and carbon value creation. | 9, 12, 13 |

**Scan for related disclosure**
For further details, please refer to
Environmental Policy

**Scan for related disclosure**
For further details, please refer to
Climate Change Policy

# Our 2025 Emissions Profile and Performance

## Understanding where emissions occur, what improved, and where action must focus next.

In 2025, Vanachai's operational emissions were mainly driven by purchased electricity, followed by direct emissions from fuel combustion, vehicles, forklifts, and refrigerant leakage. The Group reduced Scope 1 and 2 market-based emissions by 29.6% from 2024 and improved GHG intensity by 15.4%, while maintaining a high renewable energy share of 71.6%. Going forward, priority actions will focus on plant-level GHG Mapping, electricity efficiency, low carbon energy options, thermal efficiency, logistics emissions, refrigerant control, and Scope 3 data expansion.

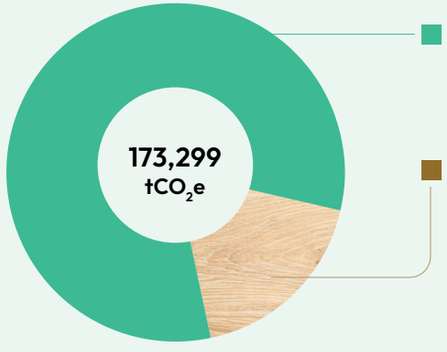
"Vanachai's 2025 performance shows meaningful progress in operational emissions reduction, while the next phase will focus on hotspot analysis, energy efficiency, low-carbon energy, and stronger data readiness."

| Scope 1 direct emissions | Scope 2 market-based emissions | Scope 1 and 2 total | GHG intensity | Renewable energy share |
|---|---|---|---|---|
| 31,037 $tCO_2e$ | 142,262 $tCO_2e$ | 173,299 $tCO_2e$ | 0.128 $tCO_2e$ /ton production | 71.6% |

Scope 1 and 2 emissions decreased by **29.6%** from 2024, while emissions intensity improved by **15.4%.**



### Where emissions occur




- Scope 2 market-based electricity **142,262 $tCO_2e$** **(82.1%)**
- Scope 1 direct emissions: **31,037 $tCO_2e$** **(17.9%)**

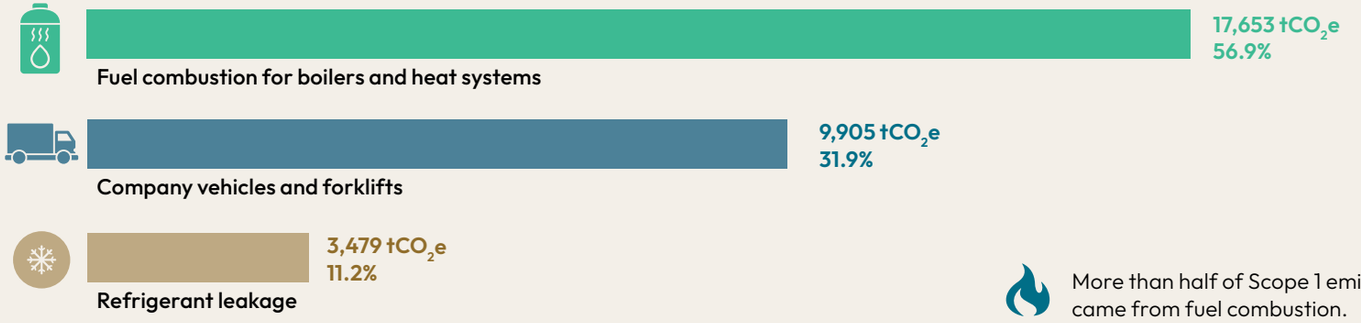
Purchased electricity remains the main emissions hotspot.

### What improved in 2025

| Indicator | 2024 | 2025 | Change |
|---|---|---|---|
| **Scope 1 emissions** | 35,122 | 31,037 | Down 11.6% |
| **Scope 2 market-based emissions** | 211,207 | 142,262 | Down 32.6% |
| **Scope 1 and 2 total** | 246,329 | 173,299 | Down 29.6% |
| **GHG intensity** | 0.151 | 0.128 | Down 15.4% |
| **Renewable energy share** | 71.4% | 71.6% | Up 0.2 pts |

Vanachai's 2025 performance demonstrates measurable progress in reducing operational emissions and improving emissions intensity. The next phase will focus on more granular plant-level GHG Mapping, stronger energy and process efficiency, renewable and low carbon energy options, Scope 3 data expansion, and MRV readiness. These actions will strengthen the credibility of Vanachai's Net Zero 2050 pathway and provide the evidence base for the waterfall analysis on the following page.

## Scope 1 breakdown



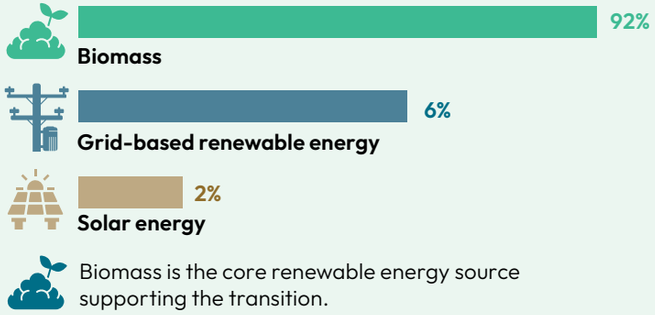

More than half of Scope 1 emissions came from fuel combustion.

## Renewable energy profile supporting decarbonization

Total energy use
**4,839,994 GJ**

Renewable energy use
**3,466,655 GJ**

Renewable energyshare
**71.6%**




Biomass is the core renewable energy source supporting the transition.

## Where action must focus next

### Purchased electricity
Improve electricity efficiency and assess low-carbon electricity options.

### Boilers and heat systems
Optimize boiler efficiency, heat recovery, and biomass performance.

### Vehicles and forklifts
Improve route planning, maintenance, and fleet efficiency.

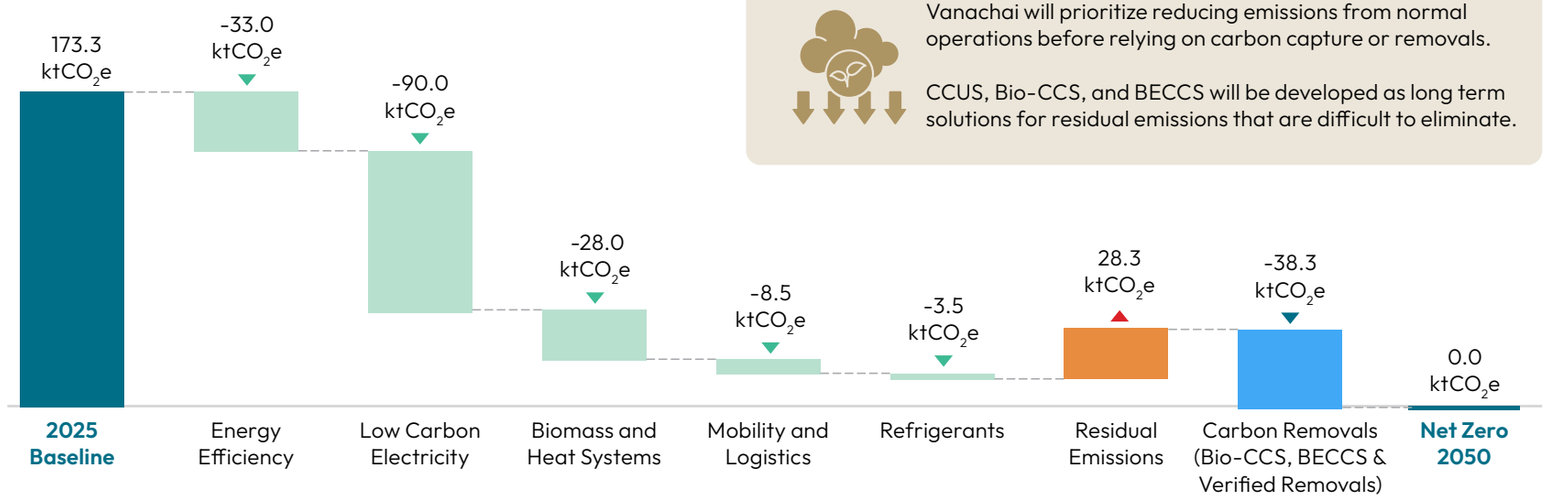
### Refrigerants
Strengthen leakage detection, maintenance, and refrigerant management.

### Scope 3 and data readiness
Expand supplier data and strengthen GHG Mapping and MRV.

# How Vanachai Will Meet Net Zero 2050

## Quantifying the transition from 2025 emissions to long term decarbonization

**Operational Emissions Pathway to Net Zero 2050**
GHG emissions in $ktCO_2e$, Scope 1 and Scope 2 market-based




### Decarbonization First

Vanachai will prioritize reducing emissions from normal operations before relying on carbon capture or removals.

CCUS, Bio-CCS, and BECCS will be developed as long term solutions for residual emissions that are difficult to eliminate.

### Overview of Decarbonization Levers

1. **Energy Efficiency and Process Optimization**
Improve boiler and heat system efficiency, reduce energy loss in production lines, upgrade machinery, and optimize operating schedules to reduce emissions at source.

2. **Low Carbon Electricity and Energy Solutions**
Reduce Scope 2 emissions through electricity efficiency, renewable electricity options, and site-specific low carbon energy solutions.

3. **Biomass and Thermal System Optimization**
Strengthen biomass energy performance, improve thermal efficiency, and separate biogenic and fossil carbon sources to prepare for future Bio-CCS planning.

4. **Mobility, Logistics, and Fleet Efficiency**
Reduce emissions from vehicles, forklifts, and product distribution through route optimization, load efficiency, preventive maintenance, and logistics partner engagement.

5. **Bio-CCS and BECCS Readiness**
Develop MRV systems, ISO 14064 readiness, T-VER alignment, and future carbon removal options for residual emissions through Bio-CCS and BECCS.

**Scope 3 note:** Scope 3 remains under development. Vanachai will expand supplier, logistics, purchased goods, and value chain carbon data to support future full value chain decarbonization.

Strong Governance & Accountability
Innovation & Technology
Operational Excellence
Green Finance & Investment

**Moving forward together, toward a Net Zero future by 2050.**

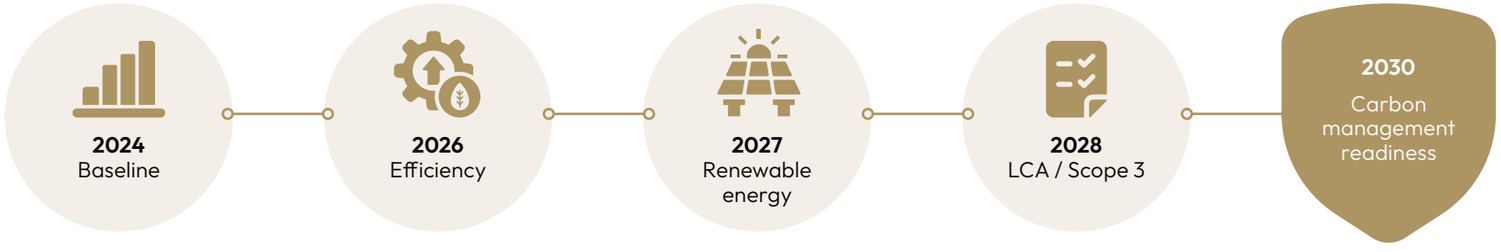
# The Path to Decarbonization

## From at-source reduction to carbon management readiness.

Vanachai's decarbonization pathway focuses first on reducing emissions at source across our wood-based products value chain, from responsible raw material sourcing and efficient production to renewable energy, low-carbon logistics, and circular product design. At the same time, the Company is strengthening carbon management readiness through reliable GHG data, plant-level performance tracking, Scope 3 engagement, and integration with enterprise risk management.

| Unit: $tCO_2e$ / Year | Base Year | Actual | Target | | | |
|---|---|---|---|---|---|---|
| | 2024 | 2025 | 2025 | 2030 | 2038 | 2050 |
| Scope 1,2 Reduction | | -29.6% | -30% | -50% | -65% | Net Zero |
| SCOPE 1 | 35,122 | 31,037 | 24,585 | 17,561 | 12,293 | |
| SCOPE 2 | 211,027 | 142,262 | 147,719 | 105,514 | 73,859 | |
| SCOPE 3 | 684,350 | 612,076 | 479,045 | 342,175 | 234,523 | |

### Carbon Management Readiness Roadmap

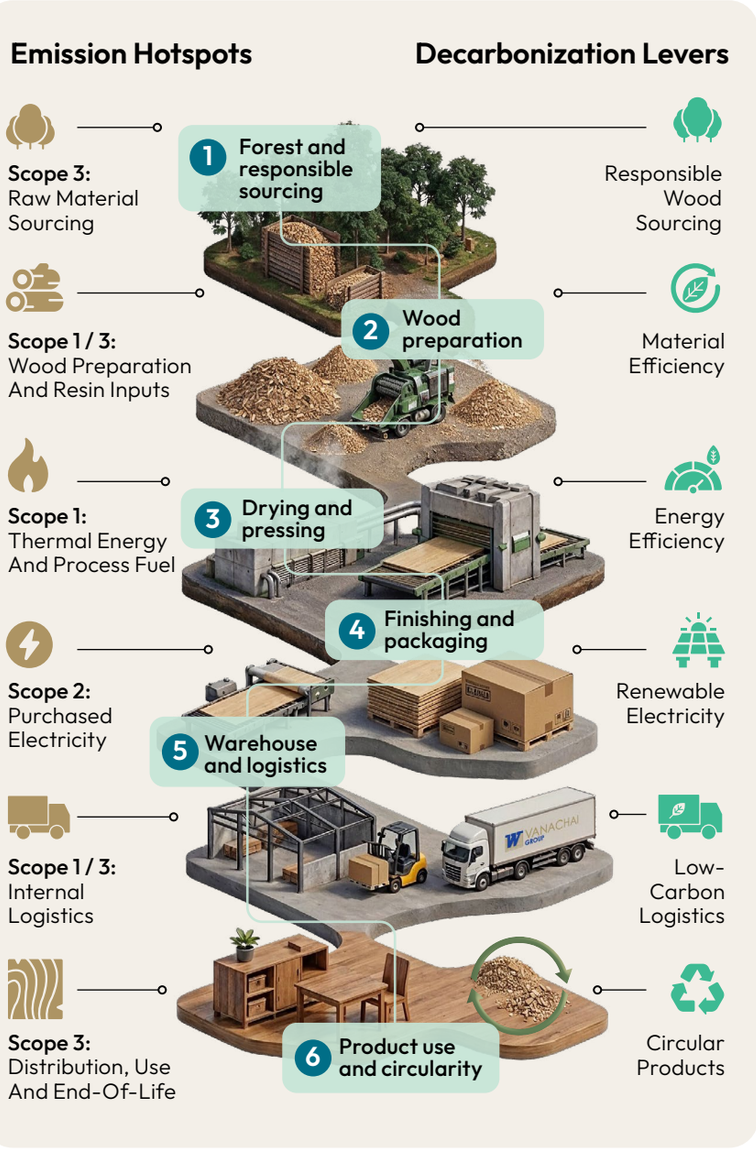



### Key Decarbonization Priorities

1) Improve energy efficiency in drying, pressing, utilities and production processes.
2) Increase renewable electricity and low-carbon energy options.
3) Reduce material loss and promote circular use of wood residues and production waste.
4) Strengthen responsible sourcing and supplier ESG engagement.
5) Prepare product-level carbon and life-cycle information for future market requirements.
6) Build verified GHG data systems and carbon governance aligned with investor expectations.

### From Reduction to Readiness

Vanachai's path to decarbonization is not only about reducing emissions. It is also about building a disciplined carbon management system. The Company will continue reducing emissions at source across production, energy use, logistics, and product value chains, while strengthening GHG data quality, Scope 3 coverage, internal controls, and governance through V-IMRA-ERM. This will support future readiness for customer expectations, regulatory requirements, investor-grade disclosure, and the long-term transition toward net zero.



# Greenhouse Gas Emissions and Decarbonization Performance Metrics and Disclosure Alignment

Below are the data related to Greenhouse Gas Emissions and Decarbonization for Vanachai Group and our subsidiaries during during 2021–2025, with 2024 as the base year.

| Disclosure Alignment | | Greenhouse Gas Indicator | unit | Vanachai Group Performance | | | | |
|---|---|---|---|---|---|---|---|---|
| GRI | FTSE Russell | | | 2021 | 2022 | 2023 | 2024* | 2025 |
| **102-5, 102-6** | ECC14 | • Total Scope 1 and Scope 2 emissions, market-based | $tCO_2e$ | 124,840 | 75,236 | 106,928 | 246,329 | **173,299** |
| **102-4** | ECC38, ECC39 | • Reduction in total Scope 1 and Scope 2 emissions | % | n/a | n/a | n/a | 0.00% | **-29.60%** |
| **102-5** | ECC14 | • Scope 1 direct emissions | $tCO_2e$/year | n/a | 5,929 | 6,261 | 35,122 | **31,037** |
| **102-6** | ECC14 | • Scope 2 purchased electricity, market-based | $tCO_2e$/year | n/a | 69,307 | 100,667 | 211,207 | **142,262** |
| **102-6** | ECC14 | • Scope 2 purchased electricity, location-based | $tCO_2e$/year | n/a | n/a | n/a | n/a | **178,863** |
| **102-7** | ECC49 | • Scope 3 initial data set | $tCO_2e$/year | n/a | n/a | n/a | 684,350 | **612,076** |
| **102-7** | ECC49 | • Largest Scope 3 category: Capital goods (Raw material and input) | $tCO_2e$ | n/a | n/a | n/a | 614,994 | **549,931** |
| **102-8** | ECC14 | • Scope 1 and Scope 2 emissions intensity | $tCO_2e$/ton product | 0.085 | 0.078 | 0.072 | 0.151 | **0.128** |
| **102-4, 102-8** | ECC38, ECC39 | • GHG reduction target, intensity basis | $tCO_2e$/ton product | n/a | 0.081 | 0.077 | 0.072 | **0.068** |
| **102-4, 102-8** | ECC38, ECC39 | • Reduction against 2024 baseline, intensity basis | $tCO_2e$/ton product | n/a | -0.007 | -0.013 | 0.000 | **-0.023** |
| | | | % | n/a | n/a | n/a | n/a | **(-15.38%)** |
| **103-2, 103-4, 103-5** | ECC15, ECC31 | • Renewable energy share, electricity and heat | % | 50.60% | 54.40% | 53.70% | 71.4% | **71.60%** |
| **102-4, 103-5** | ECC77 | • GHG reduction from biomass fuel substitution at Power/Energy Plant | $tCO_2e$/year avoided | n/a | n/a | n/a | 239,666.84 | **243,454.76** |
| **102-5** | ECC14, ECC77 | • GHG from biomass use at Power/Energy Plant | $tCO_2e$/year | n/a | n/a | n/a | 7,111.49 | **7,289.53** |
| **102-1, 102-4, 102-7, 102-9, 102-10, 3-3** | ECC77, ECC78 | • Decarbonization actions: Decarbonization First, CCUS, Bio-CCS, BECCS, Scope 3 value-chain collaboration | Qualitative | n/a | n/a | n/a | n/a | **Disclosed** |
| **102-5, 102-6** | ECC14 | • Total Scope 1 and Scope 2 emissions, market-based | $tCO_2e$ | 124,840 | 75,236 | 106,928 | 246,329 | **173,299** |

Remark:
GRI 2025 Topic Standards: This report is prepared with reference to the GRI Standards 2021. Climate and energy disclosures also include forward-looking mapping to GRI 102: Climate Change 2025 and GRI 103: Energy 2025, effective for reports or materials published on or after 1 January 2027, to support disclosure readiness and future alignment.

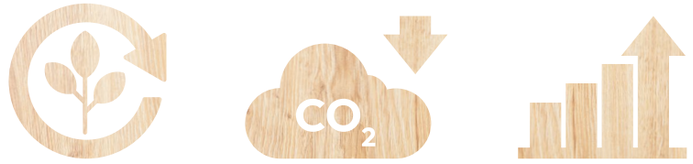
# Legacy of Stewardship, A Future of Decarbonization

**Growing with nature while preparing for a low carbon economy**

**Vanachai's decarbonization journey builds on our long-standing stewardship of wood-based resources. By reducing emissions at source, improving energy efficiency, expanding renewable energy, and preparing credible carbon management systems, the Group aims to grow with nature while contributing to a low carbon future.**




## From Stewardship to Low Carbon Growth




**Stewardship**
Responsible use of wood-based resources, circular material use, and care for natural systems.

**Decarbonization**
Reduce emissions at source through energy efficiency, renewable energy, and operational improvement before relying on removals.

**Carbon value**
Build credible MRV, carbon data quality, and future carbon management capability.



# Energy Efficiency and Low-Carbon Energy Transition

**Advancing energy productivity and low-carbon manufacturing through renewable power and biomass energy.**

**Scan for related disclosure**
For further details, please refer to
Environmental Policy

## Impact & Value Created

Wood-based product manufacturing requires electricity, heat, steam, and process utilities. Efficient energy use lowers production cost exposure, improves operational reliability, and reduces greenhouse gas emissions. In 2025, the Group reduced total energy consumption to 4,839,994 GJ while maintaining a high renewable-energy share of 71.6% and continuing investment in solar and biomass energy.

## Risks & Opportunities

Key risks include fossil-fuel price volatility, electricity tariff increases, d-supplied electricity emissions, operational energy losses, and future climate-related requirements from customers, regulators, and investors. Opportunities include lower energy cost per unit, stronger Scope 2 performance, better use of wood residues as biomass fuel, solar rooftop expansion, and investor-grade disclosure aligned with and FTSE Russell indicators.

## Our Approach

Vanachai manages energy through four integrated levers: process and utilities efficiency, energy data monitoring, renewable and low-carbon energy expansion, and employee energy awareness. The Group focuses on boiler and steam-system efficiency, reduced idle running, energy dashboards and sub-metering, solar rooftop expansion, biomass energy optimization, and practical employee engagement.

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Energy efficiency and intensity reduction** | Reduce total energy intensity per production unit and continue efficiency improvement compared with the 2021 base year and 2024 performance. | Energy intensity was 3.57 GJ/tonne in 2025. This was lower than the 2021 base year of 3.99 GJ/tonne, but higher than 2024 performance of 3.24 GJ/tonne. | Strengthen process efficiency, boiler and steam loss control, and line-level energy monitoring to restore the 2024 efficiency level and move toward the long-term reduction pathway. | 7, 9, 12, 13 |
| **Renewable and low-carbon energy transition** | Increase and maintain the proportion of renewable electricity and heat used in production. | Renewable electricity and heat energy reached 3,466,655 GJ in 2025, representing 71.6% of total energy use. | Expand solar rooftop, optimize biomass systems, and evaluate additional low-carbon electricity procurement such as Green Tariff when market mechanisms are ready. | 7, 12, 13 |
| **Solar and biomass power generation** | Operate and expand renewable power assets to reduce purchased d electricity and associated emissions. | Operating renewable projects reached 26.723 MWp/MW in 2025 and reduced approximately 36,601.56 tCO2 per year from renewable energy use. | Prioritize generation reliability, preventive maintenance, biomass fuel quality, and accurate project-level avoided-emission tracking. | 7, 9, 13 |
| **Energy management and monitoring** | Improve plant-level energy data, dashboards, sub-metering and energy KPIs. | 2025 action plan includes Energy Dashboard / Sub-metering and analysis of energy intensity by process and production line. | Formalize site-level energy management plans and strengthen data quality for future external assurance readiness. | 9, 12, 13 |
| **Employee awareness and behavioral change** | Build an energy-saving culture across operating units. | The Group continues energy awareness activities, training, and communication of practical energy-saving examples. | Link employee engagement to plant energy KPIs and replicate successful shop-floor energy reduction projects across factories. | 7, 12, 13 |

# Performance 2025: Energy Transition Roadmap

**Strengthening energy efficiency, renewable energy use, and low-carbon manufacturing through measurable actions.**

Total energy consumption
**4,839,994 GJ**

Renewable electricity and heat energy
**3,466,655 GJ**

Renewable energy share
**71.6%**

Energy intensity
**3.57 GJ/tonne**

Renewable project capacity
**26.723 MWp/MW**

Avoided emissions from renewable projects:
**36,601.56 $tCO_2e$/year**

## Action Plan

### 1. Short Term (2025–2029)

- Improve process and utilities efficiency
- Strengthen boiler, steam, compressor and motor efficiency
- Develop energy dashboard and sub-metering by factory
- Track energy intensity by production line
- Expand solar rooftop where feasible
- Train employees on practical energy saving

### 2. Medium Term (2030–2037)

- Integrate energy KPIs into ERM and plant performance
- Expand renewable-energy capacity and low-carbon electricity options
- Optimize biomass fuel quality and heat recovery
- Improve assurance readiness of energy data
- Link energy projects to the GHG reduction plan

### 3. Long Term (2038–2050)

- Secure long-term low-carbon energy resilience
- Maintain the energy intensity reduction pathway
- Maximize renewable energy across key factories
- Consider Green Tariff and future low-carbon procurement
- Support Net Zero 2050 pathway and climate ompetitiveness



# Energy Use by Product Group

**Product-first dashboard showing the energy mix used by each wood-based product group (%)**

## Energy Type Overview

**70.2%**
**Biomass**
Biogenic renewable energy

**1.4%**
**Solar rooftop**
Renewable electricity from rooftop solar

**22.2%**
**Grid non-renewable**
Electricity from grid sources

**6.2%**
**Non-renewable**
Fossil or other non-renewable energy

### 1 MDF

**Dominant source:** Biomass



100%

| | |
|---|---|
| Biomass | 71.61% |
| Solar rooftop | 1.45% |
| Grid non-renewable | 24.02% |
| Non-renewable | 2.92% |

### 2 Particleboard

**Dominant source:** Biomass



100%

| | |
|---|---|
| Biomass | 77.2% |
| Solar rooftop | 2.25% |
| Grid non-renewable | 15.26% |
| Non-renewable | 5.29% |

### 3 Melamine Faced Panels

**Dominant source:** Biomass

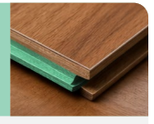


100%

| | |
|---|---|
| Biomass | 92.48% |
| Solar rooftop | 0.00% |
| Grid non-renewable | 2.22% |
| Non-renewable | 5.30% |

### 4 Flooring

**Dominant source:** Biomass



100%

| | |
|---|---|
| Biomass | 64.85% |
| Solar rooftop | 0.00% |
| Grid non-renewable | 29.45% |
| Non-renewable | 5.70% |

### 5 OSB

**Dominant source:** Biomass



100%

| | |
|---|---|
| Biomass | 69.43% |
| Solar rooftop | 0.00% |
| Grid non-renewable | 28.65% |
| Non-renewable | 1.92% |

### 6 Others

**Dominant source:** Grid non-renewable



100%

| | |
|---|---|
| Biomass | 28.00% |
| Solar rooftop | 0.00% |
| Grid non-renewable | 45.41% |
| Non-renewable | 26.59% |

# Energy management practices

## Using energy efficiently, reducing fossil-fuel dependence, and scaling renewable energy to strengthen operational resilience and climate performance.

Vanachai Group manages energy as a core operational and climate topic across our manufacturing sites. The Group focuses on reducing energy losses in production and utilities, improving machinery and internal systems, increasing renewable energy from solar rooftop, biomass, and using energy data to identify opportunities for further improvement. In 2025, total energy consumption decreased to 4,839,994 GJ from 5,283,639 GJ in 2024, while renewable electricity and heat remained a major part of the energy mix at 71.6%.

| Energy Use / Resource | Unit | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|
| • **Total energy consumption within the organization** | GJ | 3,746,738 | 3,391,156 | 3,796,024 | 5,283,639 | **4,839,994** |
| • **Direct energy consumption, total** | GJ | 2,867,124 | 2,729,216 | 3,039,737 | 4,078,923 | **3,764,600** |
| • **Non-renewable energy consumption** | GJ | 970,112 | 883,409 | 1,001,507 | 306,482 | **297,945** |
| • **Renewable electricity and heat energy within the organization** | GJ | 1,897,012 | 1,845,807 | 2,038,230 | 3,772,441 | **3,466,655** |
| • **Indirect energy consumption, total** | GJ | 879,614 | 661,940 | 756,287 | 1,204,716 | **1,075,393** |
| • **Share of renewable electricity and heat energy** | % | 50.6% | 54.4% | 53.7% | 71.4% | **71.6%** |
| • **Energy intensity per unit of production** | GJ / tonne of production | 3.99 | 4.33 | 4.00 | 3.24 | **3.57** |

### 2025 performance interpretation

Total energy use decreased from 2024, and renewable energy remained structurally higher than the 2021 base year. However, energy intensity increased from 3.24 GJ/tonne in 2024 to 3.57 GJ/tonne in 2025, indicating the need for tighter process control, line-level monitoring, and energy-loss reduction to return to the 2024 efficiency level.

### Measures and Guidelines for Energy Efficiency and Loss Reduction

- Monitor energy use by factory, production line, and utility system.
- Review energy intensity and identify high-consumption processes.
- Improve boiler, steam, compressor, motor and heat recovery efficiency.
- Reduce idle running and optimize machine operating parameters.
- Expand solar rooftop and optimize biomass energy systems.
- Improve maintenance to prevent energy leakage and heat loss.
- Train employees on energy-saving behaviour and efficient equipment use.
- Improve energy data quality and assurance readiness

# Renewable power Generation and Avoided Emissions

**Using energy efficiently, reducing fossil-fuel dependence, and scaling renewable energy to strengthen operational resilience and climate performance.**

Wood-based product manufacturing requires electricity, and process utilities. Efficient energy use lowers production cost exposure, improves operational reliability, and reduces greenhouse gas emissions. In 2025, the Group reduced total energy consumption to 4,839,994 GJ while maintaining a high renewable-energy share of 71.6% and continuing investment in solar and biomass energy.









| Location / Project | Capacity (MWp) | | GHG reduction ($tCO_2$/year) | |
|---|---|---|---|---|
| | 2024 | 2025 | 2024 | 2025 |
| Solar Rooftop - Saraburi Plant | 8.671 | 9.040 | 5,091.06 | **5,373.21** |
| Solar Rooftop - Chonburi Plant | 3.292 | 4.542 | 1,868.62 | **2,156.57** |
| Solar Rooftop - Surat Thani Plant | 3.242 | 3.242 | 1,874.10 | **1,766.08** |
| Grid Based Biomass Energy | 9.900 | 9.900 | 32,244.46 | **27,305.71** |
| Power/Energy plants based Biomass Energy | 410.365 | 410.265 | 239,666.84 | **243,454.76** |
| Total operating projects | 435.470 | 437.089 | 280,870.98 | **280,056.32** |

# Energy Efficiency and Low-Carbon Energy Performance Metrics and Disclosure Alignment

**Below are the data related to Energy Efficiency and Low-Carbon Energy for Vanachai Group and our subsidiaries during during 2021–2025, with 2024 as the base year.**

| Disclosure Alignment | | Energy Indicator | unit | Vanachai Group Performance | | | | |
|---|---|---|---|---|---|---|---|---|
| GRI | FTSE Russell | | | 2021 | 2022 | 2023 | 2024* | 2025 |
| **103-2** | ECC15; ECC31 | **Total energy consumption within organization** | GJ | 3,746,738.00 | 3,391,156.00 | 3,796,024.00 | **5,283,639.00** | **4,839,994.00** |
| **103-2-a** | ECC15 | **Total direct energy consumption** | GJ | 2,867,124.00 | 2,729,216.00 | 3,039,737.00 | **4,078,923.00** | **3,764,600.00** |
| **103-2-a-i** | ECC15; ECC31 | Direct non-renewable energy consumption | GJ | 970,112.00 | 883,409.00 | 1,001,507.00 | 306,482.00 | 297,945.00 |
| **103-2-b, 103-2-c** | ECC15; ECC31 | Total renewable electricity and heat energy consumed within organization | GJ | 1,897,012.00 | 1,845,807.00 | 2,038,230.00 | 3,772,441.00 | 3,466,655.00 |
| **103-2-b** | ECC15 | Total indirect energy consumption | GJ | 879,614.00 | 661,940.00 | 756,287.00 | 1,204,716.00 | 1,075,393.00 |
| **103-2, 103-5** | ECC31 | Renewable electricity & heat energy consumption | % | 50.6% | 54.4% | 53.7% | 71.4% | 71.6% |
| **103-4** | ECC15; ECC31 | Energy intensity per unit of production | GJ/ton of prod. | 3.99 | 4.33 | 4.00 | 3.24 | 3.57 |
| **103-1, 103-5** | ECC31; EPR06 | Target reduction of total energy use (electricity and/or fuel), base year 2024 | % | n/a | n/a | n/a | 0.00% | -17% |
| **103-4, 103-5** | ECC31; EPR06 | Target energy intensity / actual energy intensity | GJ/ton of prod. | n/a | n/a | n/a | 3.24 | 3.57 |
| **103-4, 103-5** | ECC31; EPR09 | **Change in energy intensity from prior year** | GJ/ton of prod. | n/a | n/a | n/a | **0.00** | **+0.33** |
| **103-5** | EPR06; EPR09 | **Change in energy requirements of products and services** | % per ton | n/a | n/a | n/a | **n/a** | **+10.18% (increase)** |
| **103-2** | ECC31; ECC15 | Solar rooftop generation capacity - Saraburi plant | MWp | n/a | n/a | n/a | 8.67 | 9.04 |
| | | Solar rooftop generation capacity - Chonburi plant | MWp | n/a | n/a | n/a | 3.29 | 4.54 |
| | | Solar rooftop generation capacity - Surat Thani plant | MWp | n/a | n/a | n/a | 3.24 | 3.24 |
| **103-2** | ECC31; ECC15 | Biomass power generation capacity | MWp | n/a | n/a | n/a | 9.90 | 9.90 |
| **103-2** | ECC31; ECC15 | **Total renewable power generation capacity - operational projects** | MWp | n/a | n/a | n/a | **25.10** | **26.72** |
| **102-4** | ECC15; ECC31 | GHG reduction from solar rooftop - Saraburi | $tCO_2e$/year | n/a | n/a | n/a | 5,091.06 | 5,373.21 |
| | | GHG reduction from solar rooftop - Chonburi | $tCO_2e$/year | n/a | n/a | n/a | 1,868.62 | 2,156.57 |
| | | GHG reduction from solar rooftop - Surat Thani | $tCO_2e$/year | n/a | n/a | n/a | 1,874.10 | 1,766.08 |
| **102-4, 103-5** | ECC14, ECC31, ECC77 | GHG reduction from biomass energy | $tCO_2e$/year | n/a | n/a | n/a | 32,370.36 | 27,305.71 |
| **102-4, 103-5** | ECC14; ECC31, ECC77 | **Total GHG reduction from operational renewable projects** | $tCO_2e$/year | n/a | n/a | n/a | **41,204.14** | **36,601.56** |

Remark:
GRI 2025 Topic Standards: This report is prepared with reference to the GRI Standards 2021. Climate and energy disclosures also include forward-looking mapping to GRI 102: Climate Change 2025 and GRI 103: Energy 2025, effective for reports or materials published on or after 1 January 2027, to support disclosure readiness and future alignment.

# Electricity and Energy Reduction Initiatives

In 2025, Vanachai Group continued to advance electricity and energy reduction initiatives across our wood-based products manufacturing operations, building on the measures implemented in 2024. As an energy-intensive manufacturer, the Group recognizes that improving electricity and fuel efficiency is essential for controlling production costs, reducing greenhouse gas emissions, and strengthening long-term competitiveness. Energy reduction is therefore managed not only through equipment improvement, but also through process innovation, renewable energy expansion, digital monitoring, and employee participation.

Vanachai continued to improve production processes through modern control systems, preventive maintenance, and energy management practices. Key actions include improving boiler and steam system efficiency, reducing heat loss, optimizing machine operating conditions, minimizing idle running, and replacing low-efficiency equipment when investment cycles allow. These initiatives are supported by energy monitoring at factory and production-line levels to identify high-consumption processes and prioritize further improvement opportunities. In 2025, the Group reported total energy consumption of 4,839,994 GJ, renewable energy use of approximately 3.47 million GJ, and energy intensity of 3.57 GJ per tonne of production, reflecting continued focus on energy productivity and low-carbon operations.

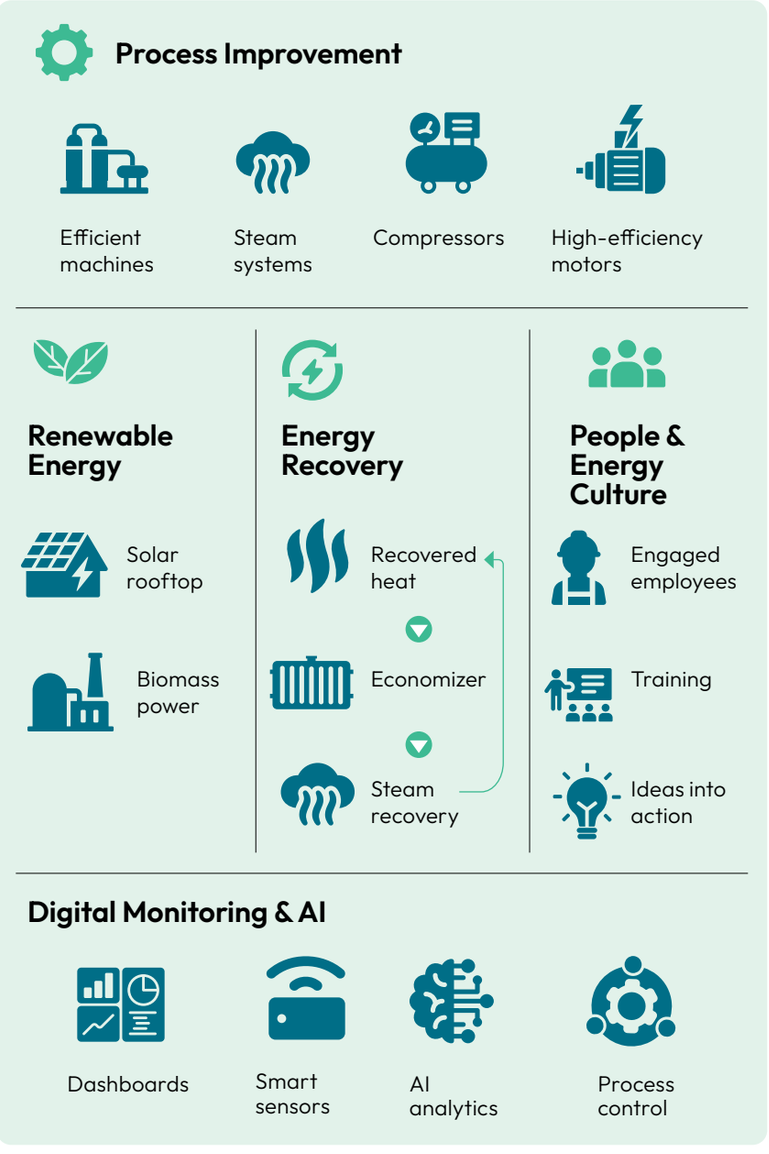
Renewable energy remains a core part of Vanachai's energy reduction strategy. The Group continued to utilize solar rooftop systems and biomass energy to reduce reliance on d electricity and fossil fuels. Solar rooftop projects operated at Saraburi, Chonburi, and Surat Thani plants, while biomass energy from wood residues supported electricity and heat generation. This approach enables the Group to use wood residues such as bark, chips, and sawdust as productive energy resources, reducing waste while supporting lower-carbon manufacturing.

In 2025, Vanachai also strengthened process innovation to improve energy efficiency. The Group applies digital and AI-enabled tools to enhance operational efficiency, including SAP for integrated resource planning, AI and machine learning for production control, and sensor-based monitoring of steam pressure, temperature, specific energy consumption, motor load, moisture content, board thickness, and production quality. These technologies help optimize raw material use, reduce defects, stabilize production quality, and lower unnecessary energy consumption.

Additional innovation initiatives include AI-supported programs such as Drum / Dryer Control & Analysis, Engineering Tool, Wood Cost Calculator, Glue Analytics 2025, and Particle QA Pro. These tools support cost control, quality assurance, cutting efficiency, waste reduction, and centralized data management. The Group has also developed an application for the biomass power plant to record daily electricity generation, calculate fuel use and cost, monitor water and heat values, calculate fuel mix and generation efficiency, track ash volume, reduce paper use, reduce manual calculation errors, and generate faster daily reports.

Vanachai also continued energy recovery and carbon reduction measures. These include solar rooftop expansion, a second biomass power plant project, recovery of waste heat from biomass boilers through economizers, reuse of dryer heat, recycle steam and heat recovery in selected production lines, monitoring of stack temperature, and optimization of air-to-fuel ratios in biomass boilers. The innovation plan notes that economizers can help reduce biomass fuel consumption by approximately 3-5% while enabling real-time performance monitoring.

Through these initiatives, Vanachai aims to reduce energy intensity, improve production efficiency, lower fossil-fuel dependence, and support our transition toward low-carbon manufacturing. The Group will continue to combine engineering improvement, renewable energy, digital technology, and employee engagement to make energy reduction a practical part of everyday operations.



# Energy-related stakeholder collaboration

**Collaborating with employees, suppliers, and energy partners to improve efficiency, expand renewable energy, and accelerate low-carbon operations.**

Vanachai will strengthen collaboration with operating teams, engineering functions, suppliers, contractors, and relevant public or industrial bodies to improve energy efficiency and low-carbon energy transition. Priority areas include equipment upgrades, preventive maintenance, renewable-energy operations, supplier energy and climate expectations, and employee awareness campaigns. Practical improvement projects will be documented, quantified, and scaled across factories where feasible.

| Priority area | 2025-2029 action | Expected value |
|---|---|---|
| **Process and utilities efficiency** | Optimize boilers, steam systems, compressors, motors, heat recovery, and idle-running controls. | Lower energy intensity and production cost exposure. |
| **Energy data and monitoring** | Implement energy dashboard, sub-metering, and line-level intensity tracking. | Better decision-making and audit-ready data. |
| **Renewable energy expansion** | Expand solar rooftop and improve biomass fuel quality and boiler efficiency. | Reduced electricity dependence and lower emissions. |
| **Low-carbon procurement** | Evaluate Green Tariff or credible low-carbon electricity options when policy and market structures are ready. | Improved Scope 2 performance and customer confidence. |
| **Energy culture** | Train employees and replicate successful shop-floor projects across factories. | Sustained behavioural change and operational ownership. |

# Forward Actions

**Strengthening energy efficiency, scaling renewable energy, and improving data reliability for long-term low-carbon resilience.**

Vanachai Group recognizes that energy efficiency and the transition to low-carbon energy are long-term operational commitments that require continuous improvement, capital discipline, and active participation across all factories. Although 2025 renewable energy remained strong and total energy consumption decreased from 2024, the increase in energy intensity from 3.24 to 3.57 GJ per tonne shows that the Group must further strengthen process control, utilities optimization, preventive maintenance, and production-line energy monitoring.

Going forward, Vanachai will prioritize energy-loss reduction in boilers, steam systems, compressors, motors, heat recovery systems, and high-consumption machinery. The Group will develop energy dashboards and sub-metering to improve visibility by factory and production line, link energy KPIs to operational performance, and use energy-intensity analytics to identify priority improvement areas. The Group will continue expanding and optimizing renewable energy through solar rooftop and biomass energy systems. Solar generation will be expanded where roof space, site conditions, and project economics are suitable, while biomass systems will be optimized through improved fuel quality, heat recovery, and boiler efficiency. As Thailand's low-carbon electricity market evolves, Vanachai will also evaluate Green Tariff or other credible low-carbon electricity options to strengthen Scope 2 performance and climate-related competitiveness.

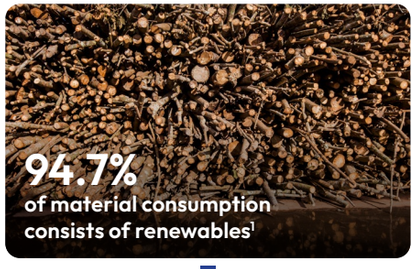


**" Energy efficiency is not only about cost reduction. It is a foundation for operational resilience, climate responsibility, and long-term competitiveness. As energy remains a major operating cost, Vanachai Group will strengthen line-level accountability, cross-factory benchmarking, and best-practice sharing across all factories to systematically reduce energy intensity. Through disciplined energy management, renewable energy expansion, and improved energy data, we aim to ensure that every unit of energy used creates the highest value with the lowest practical carbon impact."**

**Sittiwat Sahawat**
Chief Operating Officer
Responsible for Production and Environmental Management, Vanachai Group

# Climate, Raw Materials and Energy Use/Impact Flow.







**Scope 1**

Emissions from own energy Generation[3]

**31,037** $tCO_2e$

**Scope 2**

Emissions from purchased energy[4]

**142,262** $tCO_2e$

**Scope 3**

Indirect emissions from our value chain[5]

**612,076** $tCO_2e$

**Scope 4**

Avoided emissions[6]

**36,601.56** $tCO_2e$

- Avoided emissions from renewable energy projects
- Full calculation to be disclosed in the next reporting cycle

Purchased raw materials

**Vanachai Process**

Transport to customers

**48,469** $tCO_2e$

Customers and End Markets

**End-of-life**

**(30–40 years[7])**

**Base assumption:**
35 years for indoor MDF applications

Water usage in production facilities

**0.82**

$M^3$/ton of production

Wastewater from production recycling/reuse rate

**82.1%**

Solid waste from production (excluding wood)

**0.08%**

Energy Consumption from renewable sources

**71.6%**

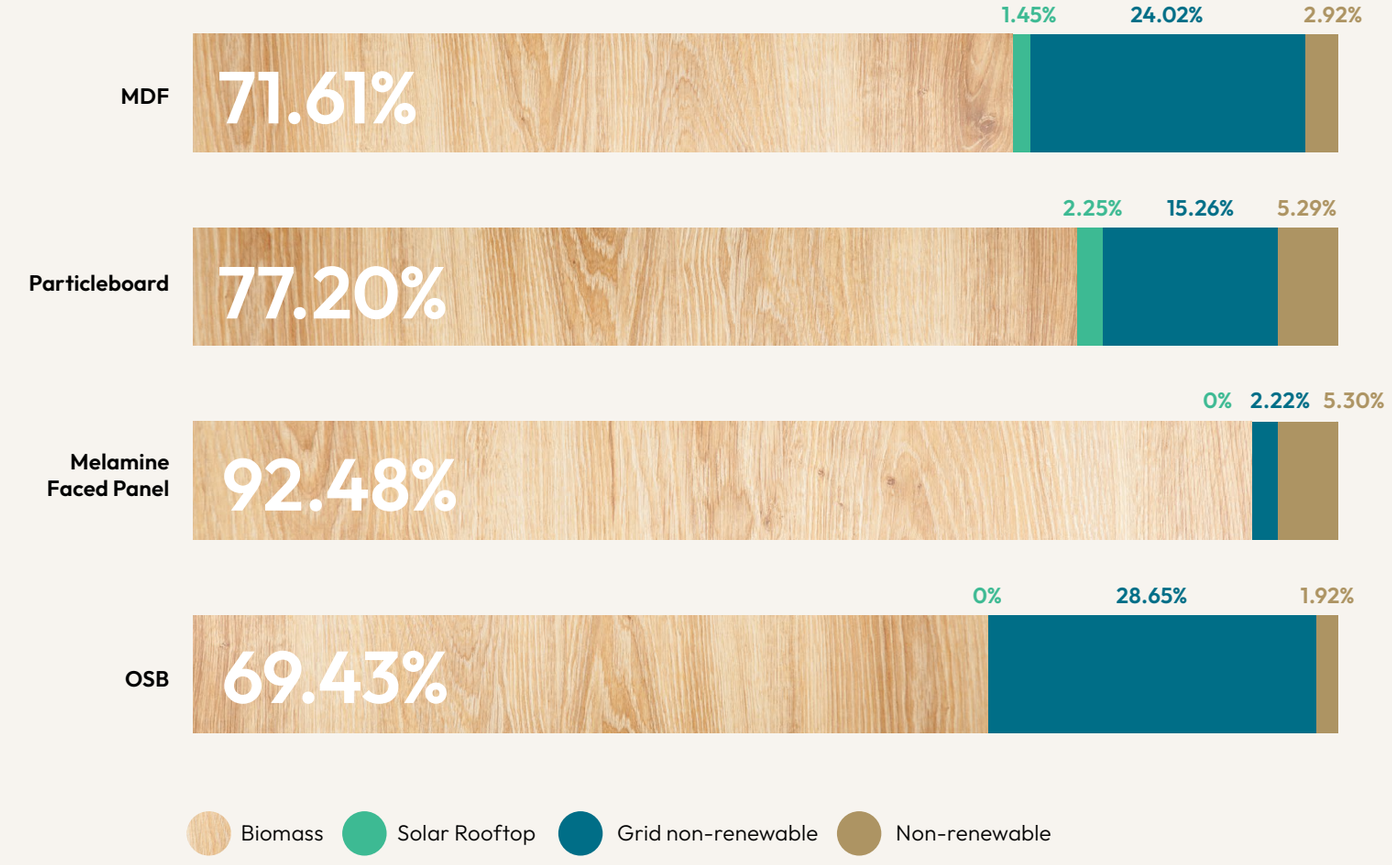
Direct Energy demand:

**119.4** MW avg., supported by

**26.72** MWp renewable capacity

# Where Vanachai's Energy Comes From by Key product

**Conceptual view based on four key products representing 97.8% of 2025 production.**




Remarks:

1 94.7% of material consumption consists of renewable wood-based materials, reinforcing Vanachai's circular resource foundation.
2 Vanachai carefully manages the remaining 5.3% of other raw materials by prioritizing lower environmental and social impacts across sourcing and use.
3 Our Scope 1 emissions came from fuel and gas energy use at our production sites, estimated using GHG protocol and emissions factors from 31,037 $tCO_2e$.
4 Our Scope 2 emissions came from electricity and steam purchased at our production sites, estimated using the GHG protocol and county specific factors. The quoted value is location-based emissions. Our market-based Scope 2 emissions are 142,262 $tCO_2e$.
5 For 2025, Vanachai has calculated its indirect emissions (Scope 3) for 11 out of 15 categories in our value chain according to the GHG protocol. The most relevant categories for the company were found based on a screening in 2024.
6 Avoided emissions from renewable energy project.
7 After 30-40 years our products can be reused in new applications or incinerated for energy recovery.

**Biomass from wood residues, solar rooftop electricity and efficiency controls reduce reliance on fossil-based energy across key products.**



# Advancing Circular and Resource-Responsible Manufacturing Strategy

# Circular Economy and Resources Efficiency

**Maximizing resource value through circular wood use, efficient production, and zero-waste-oriented manufacturing.**

**Scan for related disclosure**
For further details, please refer to
Environmental Policy

## Impact & Value Created

Circular economy supports Vanachai's production efficiency, cost control, forest conservation, and customer confidence. In 2025, the Group used 2.93 million tons of materials, with 2.78 million tons from pararubber wood, branches, and sawmill by-products, representing 94.72% renewable and recyclable wood-based materials and while limited non-renewable and non-recyclable materials to 5.29%.

## Risks & Opportunities

Key risks include resource scarcity, material inefficiency, higher waste, rising costs, stricter customer and regulatory requirements, and supply chain disruption. Circular manufacturing creates opportunities to reduce raw material loss, reuse wood residues, lower waste disposal needs, strengthen sustainable procurement, improve production efficiency, and enhance competitiveness in domestic and export markets. Vanachai integrates this issue into ERM through KPI monitoring and resource efficiency actions.

## Our Approach

- Maximize wood resource efficiency
- Use agricultural wood residues
- Avoid natural forest wood
- Reduce production loss
- Reuse scrap wood and sawdust
- Convert residues to biomass fuel
- Optimize adhesive and chemical use
- Reuse non-conforming products
- Improve packaging circularity
- Apply resource-saving technology
- Strengthen supplier requirements
- Track material-use performance
- Maintain high recyclable material use
- Reduce non-recyclable material intensity

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Renewable wood residue use** | Maintain 95.4% of total raw materials from wood residues, Para rubber branches, stems, slabs, and sawmill by-products reused as renewable raw material. | 94.72%, equal to 2,776,398 tons of recyclable wood-based materials. Target not fully achieved, but renewable materials remained the main raw material base. | Restore performance to at least 95% annually; strengthen supplier proof of origin, no natural forest wood, and digital raw material tracking. | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION, 15 LIFE ON LAND |
| **Other production residues recycled into products** | Maintain at least 3.1% of other production residues recycled into products, carried from last year's target. | 41,538 tons reused or recycled; equivalent to 3.40% per ton of production based on 2025 environmental data. | Maintain target at ≥3.1%; expand reuse of non-conforming products as packaging, padding, and logistics materials. | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION |
| **Reduction or avoidance of natural resource use** | Achieve 100% performance against the target to reduce or avoid natural resource use through reuse, recycling, and replacement materials. | 100% goal achieved and maintained for 2021–2025. | Keep this as the core EPR06 quantified target; disclose scope, baseline, methodology, and annual progress clearly. | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION |
| **Non-recyclable material efficiency** | Limit non-recyclable materials to not more than 5.3% of total materials used and improve adhesive or chemi-cal-use efficiency. | 5.29%, equal to 155,154 tons of non-recyclable materials; adhesive and quality treatment substances totaled 154,625 tons. | Reduce adhesive and chemical intensity per production unit; optimize mix ratios; set a stronger 2026 reduction target. | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE, 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION |

# Circular Wood Value Loop

**Maximizing the value of wood-based resources through responsible sourcing, efficient production, reuse, recycling, and renewable energy.**




### Responsible Wood Sourcing
Pararubber wood, branches, slabs, and sawmill by-products are sourced legally from economic plantations and processing sources.

### Full Resource Utilization
Wood residues and agricultural by-products are used as core inputs for wood-based products, reducing dependence on virgin resources.

### Efficient Manufacturing
Process optimization, cutting techniques, and quality control help reduce material loss and improve production yield.

### Resource-Efficient Inputs
Adhesives and treatment substances are optimized to reduce excess use while meeting product quality requirements.

### Circular Product Value
Wood-based products create lasting value and support a circular bioeconomy across furniture, construction, and interior applications.

### Beneficial Reuse
Scrap wood and sawdust are returned to production or used as biomass fuel, reducing waste and fossil fuel dependence.

### Packaging Circularity
Non-conforming products are repurposed as padding, wrapping, and logistics materials.

### Renewable Energy
Wood residues support biomass energy generation for operations, helping reduce greenhouse gas emissions.

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Maintain recyclable materials ≥95%**<br>• **Reduce wood loss in production**<br>• **Reuse scrap wood and sawdust**<br>• **Use residues as biomass fuel**<br>• **Reduce adhesive and chemical intensity**<br>• **Track waste and resource data** | • Scale digital raw material tracking<br>• Improve material intensity KPIs<br>• Expand circular packaging<br>• Strengthen supplier traceability<br>• Develop product LCA readiness<br>• Enhance data assurance readiness | • Lead circular wood-based manufacturing<br>• Minimize non-recyclable material use<br>• Embed circular product design<br>• Strengthen circular supply chain<br>• Achieve transparent circularity data<br>• Link circularity with climate value |

## Performance of Circular Economy and Resources Efficiency In 2025 and Key Initiatives

### Embedding circular resource use and waste control into daily operations

Responsible resource management remains a material issue for Vanachai Group as a producer of wood-based products that uses natural and renewable resources at scale. Under the E2: Advancing Circular and Resource-Responsible Manufacturing strategy, the Group aims to shift from a “take, make, dispose” model toward efficient and circular resource use across raw materials, energy, waste, natural resources, and the surrounding ecosystem. This approach supports cost control, regulatory risk reduction, lower pressure on forests and water resources, biodiversity conservation, and long-term business resilience.

## Vanachai Helps Protect Forests

**Starting from not wasting even a single part of wood**





### Branches

**OSB / MDF / Particleboard**

- Used for sawn timber and plywood
- Small wood residues become OSB, MDF, and Particleboard
- Every wood part creates value



### Trunk Base

**Plywood & Sawm Timber**

- The main part of the tree
- Used for sawn timber and plywood



### Roots

**Biomass Energy**

- Wood residues become biomass energy
- Helps replace fossil fuels and cut emissions

**Zero Waste is the foundation of true sustainability**

In 2025, Vanachai Group used 2.93 million tonnes of total materials in manufacturing. Of this amount, 2.78 million tonnes were para rubber wood, branches, stems, slabs, wood residues, and sawmill by-products, representing 94.72% of total materials used. This confirms that the Group’s production base continues to rely mainly on renewable and recyclable wood-based materials, while non-recyclable materials, mainly adhesives, quality treatment substances, and door panel primer, were limited to 155,154 tonnes, or 5.29% of total materials used.

The Group also managed **41,538** tonnes of products and packaging through reuse, recycling, or circular application, and maintained **100% performance** against our target to reduce or avoid natural resource use for the fifth consecutive year. Environmental fines and penalties were zero, while 25% of sites were covered by ISO 14001 environmental management systems, supporting compliance and operational control.

Circular resource use also contributed to climate performance. Wood residues and sawdust were either returned to production as raw materials or used as biomass fuel. In 2025, biomass energy capacity remained at **9.900 MW**, contributing to **27,305.71 tCO2e per year** of greenhouse gas emission reduction from renewable energy use.



## Key Initiatives in 2025

Vanachai Group advanced circular economy and resource efficiency through the following key initiatives:

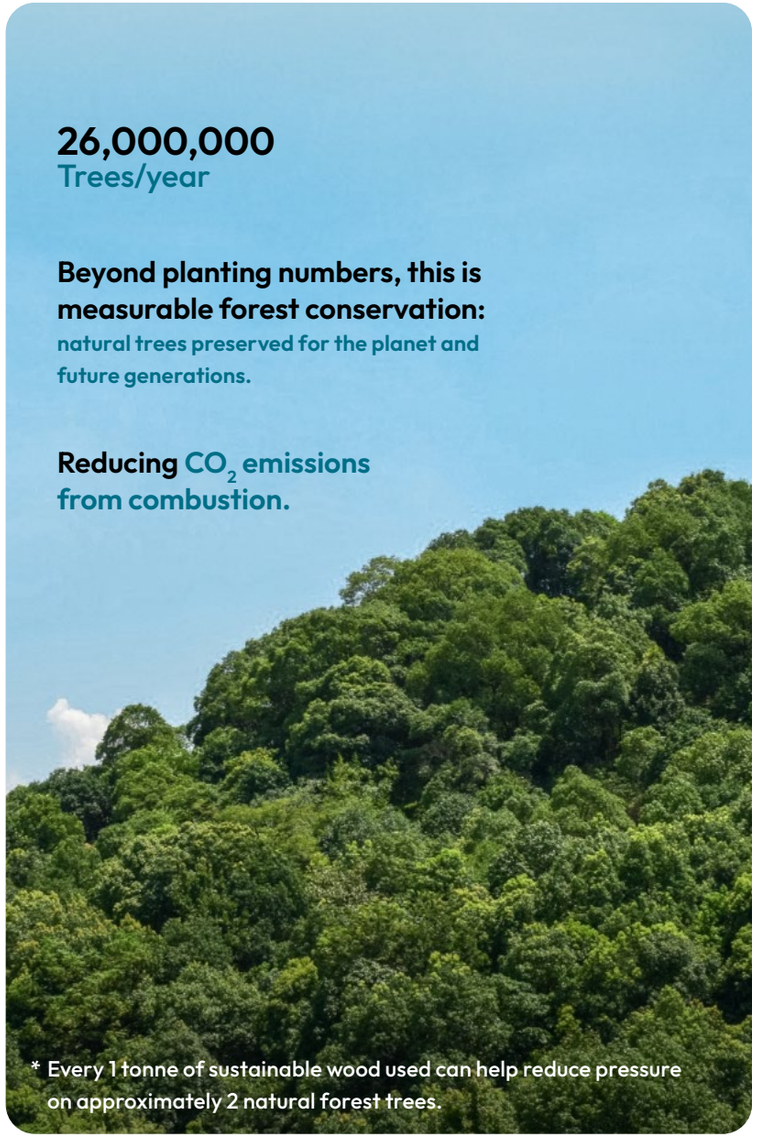
| Key Risk Area | 2025 implementation and value created |
|---|---|
| **Responsible wood sourcing** | Strengthened ESG procurement conditions, supplier awareness, proof of wood origin, legal compliance, and the Sustainable Wood Procurement Policy. Wood from natural forests is not accepted in Vanachai's procurement system. |
| **Efficient wood utilization** | Improved cutting techniques, production planning, and quality control to reduce unnecessary scrap wood and increase material yield into finished products. |
| **Residue reuse and biomass energy** | Reused scrap wood and sawdust as production inputs where feasible and used part of the residues as biomass fuel, reducing waste, open burning, and fossil fuel dependence. |
| **Adhesive and chemical efficiency** | Controlled adhesive and quality treatment substance mix ratios to meet product quality and safety standards while reducing excessive chemical use and long-term environmental risk. |
| **Circular packaging** | Reused non-conforming products as padding, wrapping, and logistics materials, reducing the use of new packaging and avoiding disposal of usable materials. |
| **Technology for resource efficiency** | Applied the Automatic Intermediate Storage System to reduce product and packaging damage from repeated movement and converted diesel forklifts to electric forklifts to reduce fuel use and emissions. |
| **Circular product and packaging design** | Selected packaging materials that are easier to reuse or recycle and continued to manage recycled products and packaging against the natural resource reduction target. |

# Circular Economy and Resources Efficiency Performance Metrics and Disclosure Alignment

Below are the data related Circular Economy and Resources Efficiency for Vanachai Group and our subsidiaries during during 2021–2025, with 2021 as the base year.

| Disclosure Alignment | | Resource Efficiency Indicator | unit | Vanachai Group Performance | | | | |
|---|---|---|---|---|---|---|---|---|
| GRI | FTSE Russell | | | 2021* | 2022 | 2023 | 2024 | 2025 |
| **301-1** | EPR11 | **Total materials used in manufacturing** | Tonne | 2,022,765 | 1,877,794 | 2,245,191 | 3,350,361 | **2,931,023** |
| **301-1, 301-2*** | EPR11 | • Para rubber wood, branches, stems, and slabs | Tonne | 1,918,616 | 1,785,198 | 2,140,663 | 3,183,003 | **2,776,398** |
| **301-1** | EPR11 | • Adhesives (Synthetic resin adhesives) | Tonne | 102,695 | 91,231 | 102,695 | 160,813 | **142,381** |
| **301-1** | EPR11 | • Quality treatment substances | Tonne | 1,454 | 1,365 | 1,833 | 6,545 | **12,245** |
| **301-2*** | EPR11, EPR06, EPR09 | • Recyclable materials | Tonne | 1,918,616 | 1,785,198 | 2,140,663 | 3,183,003 | **2,776,398** |
| **3-3, 301-2** | EPR06 | • Target: Maintain renewable/recyclable material | % | 95.0% | 95.0% | 95.0% | 95.0% | **95.0%** |
| **301-2*** | EPR11, EPR06, EPR09 | **Recyclable materials as percentage of total materials used** | % | 94.9% | 95.1% | 95.3% | 95.0% | **94.7%** |
| **301-1** | EPR11 | • Non-recyclable materials | Tonne | 104,149 | 92,596 | 104,528 | 168,176 | **155,154** |
| **301-1** | EPR11, EPR06, EPR09 | • Non-recyclable materials as percentage of total materials use | % | 5.15 | 4.93 | 4.66 | 5.02 | **5.29** |
| **301-1** | EPR11 | • Adhesives and quality treatment substances | Tonne | 104,149 | 92,596 | 104,528 | 168,176 | **155,154** |
| **301-1** | EPR11 | • Door skin water-based primer | Tonne | n/a | n/a | n/a | 817 | **529** |
| **301-3, 306-4** | EPR08, EPR26 | • Products and packaging reused or recycled | Tonne | 28,092 | 23,638 | 28,492 | 47,013 | **41,538** |
| **301-3, 306-4** | EPR08, EPR26 | • Recycled products and packaging rate | % | 100% | 100% | 100% | 100% | **100%** |
| **3-3, 306-4** | EPR05, EPR08 | **Target: reduction or recycle all other production residues into products and packaging** | % | 100% | 100% | 100% | 100% | **100%** |
| **3-3, 301-2, 306-4** | EPR09 | **Performance in reduction or avoidance of natural resource use** | **%** | 100% | 100% | 100% | 100% | **100%** |
| **301-2, 103-2** | ECC15, ECC31, EPR13 | • Biomass energy generation capacity from wood residues | MW | n/a | n/a | n/a | 9,900 | **9,900** |
| **102-4, 103-5** | ECC14, ECC31, ECC77 | • GHG emissions reduction from biomass energy | $tCO_2e$/year | n/a | n/a | n/a | 32,370.36 | **27,305.71** |
| **2-27** | EPR27 | • Environmental fines and penalties. | THB million | 0 | 0 | 0 | 0 | **0** |
| **3-3, 201-1** | EPR15 | • Cost savings and avoided costs from circularity and resource efficiency | THB million | n/a | n/a | n/a | n/a | **308.82** |
| **3-3, 201-1** | EPR15 | • Investment in circularity, resource efficiency, waste reduction, and R&D projects | THB million | n/a | n/a | n/a | 60 | **2,560** |
| **3-3** | EPR28 | • Environmental management system coverage percentage of sites covered by ISO 14001 | % | 25 | 25 | 25 | 25 | **25** |

Remark:
- *301-2 where Vanachai classifies wood residues, sawmill by-products, reclaimed products, or packaging as recycled/reclaimed input materials under our circular economy methodology.
- The data covers Vanachai Group and our subsidiaries, with 2021 as the base year. Recyclable materials mainly include para rubber wood, branches, stems, slabs, wood residues, andsawmill by-products used as renewable production inputs. Non-recyclable materials mainly include adhesives, treatment substances, and door panel primer. Products and packaging referto materials reused, recycled, or applied in circular processes. Natural resource reduction performance is measured against the Group's internal circular resource management target.




## Vanachai grows with forests, communities, and the future.

Vanachai is a Thai company built for the planet and future generations. Beyond producing wood-based products, we see ourselves as a steward of forests, clean air, and responsible natural resource use. With more than 70,400 Hectares (440,000 rai) of managed forest areas, equivalent to approximately 1,222 Lumpini Parks, Vanachai supports tree rotation, forest restoration, and long-term conservation that helps protect more than 26 million natural forest trees per year. Through annual tree planting with employees and communities, forest fire prevention, and responsible sourcing from Thai farmers, rubberwood plantations, mixed plantation residues, and certified sources, we aim to reduce deforestation while strengthening local livelihoods. This purpose is embedded in our **E2: Advancing Circular and Resource-Responsible Manufacturing strategy**, which focuses on circular resource use, biodiversity protection, ecosystem restoration, and reducing pressure on forests and natural resources.

**Scan for related VDO, please refer to the**
Vanachai Forest

## Forward Actions 2026

To further strengthen circular economy performance and FTSE Russell assessment readiness, Vanachai Group will:

1. Maintain renewable wood-based materials at not less than 95% of total materials used annually.
2. Develop digital raw material tracking to analyze material yield and loss by production line.
3. Set intensity targets for adhesives and treatment substances per ton of production.
4. Disclose wood residues reused in production and wood residues used as biomass fuel in tons and percentage.
5. Add three-year data on recycled waste, non-recycled waste, hazardous waste, and environmental fines.
6. Expand supplier engagement on legal origin, non-deforestation, and sustainable procurement requirements.
7. Develop product circularity or life-cycle assessment for key wood-based product groups.
8. Increase disclosure on ISO 14001 or recognized environmental management system coverage.
9. Link circular economy performance with cost savings, avoided waste, renewable energy, and GHG reduction value.

# Waste, Wastewater, and Pollution Prevention

**Reducing waste and pollution at source through circular resource use, wastewater reuse, emissions control, and responsible disposal.**

**Scan for related disclosure**
For further details, please refer to
Environmental Policy

## Impact & Value Created

Waste and pollution management supports Vanachai's legal compliance, operational efficiency, cost control, employee health, community confidence, and environmental protection. The Group focuses on waste prevention, recycling, energy recovery, wastewater reuse, and air emissions control to reduce environmental impact while strengthening resource efficiency across our wood-based products operations.

## Risks & Opportunities

Key risks include higher waste generation, hazardous waste handling, stricter environmental regulations, emissions from production and energy systems, wastewater discharge, community concerns, and reputational impact. These risks also create opportunities to improve process efficiency, increase high-value recycling, recover energy from production residues, reduce fossil fuel use, strengthen pollution controls, and improve ESG data transparency.

## Our Approach

- Prevent waste at source through process efficiency and raw material control
- Reuse non-conforming products as packaging or support materials
- Recycle non-hazardous and hazardous waste where feasible
- Recover energy from scrap wood and sawdust through biomass use
- Treat wastewater to legal standards and reuse treated water
- Control NOx, CO, VOCs, TSP, PM2.5 and PM10 emissions
- Maintain pollution control equipment and improve combustion efficiency
- Shift from diesel to electric forklifts to reduce indoor emissions
- Use licensed service providers for final disposal
- Monitor waste, wastewater, and air emissions data across factories
- Review performance through sustainability and environmental management teams

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Waste reduction and recycling** | **Maintain 100%** waste reduction / avoidance target and maximize recycling | **Achieved 100%** waste reduction / avoidance result; recyclable waste 533.00 tons | Prevent waste at source and maintain high recycling rate | 12 |
| **Hazardous waste management** | **Recover ≥90%** of hazardous waste through recycling, reuse, and energy recovery; keep final disposal ≤10% | **Achieved / above target: 94.2%** recovered and 5.7% final disposal. Result was 4.2 percentage points above the recovery target | Increase high-value recovery and reduce disposal volume | 12, 13 |
| **Wastewater reuse and discharge control** | **Reuse or recycle wastewater ≥90%** and maintain treated discharge rate ≤3% | **Partly achieved:** wastewater reuse was 82.1%, 7.9 percentage points below target; treated discharge was 2.9%, within target; 0 non-compliance cases | Improve water balance, process reuse, wastewater treatment control, COD tracking, and data assurance | 6, 12 |
| **Air pollution prevention and control** | **Reduce or avoid total air pollutant emissions by 20%** from 2021 base year | **Target not achieved;** total air pollutants reached 673,476.61 kg and intensity was 0.83 kg per tonne; however, ODS and SOx remained zero, with zero chemical spills and zero environmental fines | Review NOx, CO and TSP sources; improve combustion efficiency, dust capture, VOC control, and site-level monitoring | 3, 12, 13 |
| **Environmental monitoring and compliance** | Monitor waste, wastewater, and pollution data across factories | Multi-year data disclosed; **ODS and SOx remained 0 in 2025** | Strengthen site-level data quality, review process, and assurance readiness | 12, 16 |

# Waste Flow

## Toward a Circular and Low-Impact Operation

"We manage waste, wastewater, and pollution responsibly across ever process for a cleaner environment and a sustainable future."

### 1 Identify Sources

Waste, wastewater, and pollutions are identified by production process and operating site.

Waste · Wastewater · Pollutions

- Identify sources from all production processes
- Assess environmental impacts and risks
- Map key waste, wastewater and pollution streams

### 2 Prevent At Source

Improve process efficiency, raw material control, product design, and packaging use.

Efficiency · Material Control · Product Design

- Improve process and equipment efficiency
- Control raw materials and reduce defects
- Design products for durability, recyclability and less waste
- Reduce resource use and packaging

### 3 Reuse, Recycle and Recover

Reuse non-conforming products, recycle non-hazardous waste, and recover energy from suitable waste.

Reuse · Recycle · Energy Recovery

- Reuse non-conforming products and materials
- Recycle non-hazardous waste to maximize value
- Recover energy from suitable waste (e.g., biomass)
- Minimize waste to landfill

### 4 Treat And Control

Treat wastewater to legal standards and manage waste responsibly. Control air pollutions at source.

Wastewater Treatment · Waste Management · Pollution Control

- Treat wastewater to meet legal standards and promote reuse.
- Segregate waste by type and manage through appropriate methods.
- Control and reduce emissions of NOx, CO, TSP, VOCs, ODS and SOx.

### 5 Monitor and Improve

Track data, review performance, and improve controls through sustainability and factory teams.

Data Tracking · Performance Review · Continuous Improvement

- Track key environmental data and indicators
- Review performance against targets
- Implement improvement actions and share learnings
- Engage teams for continuous improvement

## Our Impact

**Reduce Impact**
Minimize waste, wastewater and pollution across operations.

**Use Resources Wisely**
Maximize reuse, recycling, energy recovery and resource efficiency.

**Protect Environment**
Ensure clean water, clean air and healthy ecosystems.

**Create Value Together**
Build sustainability with communities and stakeholders.

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Reduce waste at source**<br>• **Maintain high recycling rate**<br>• **Recover hazardous waste ≥90%**<br>• **Improve wastewater reuse to ≥90%**<br>• **Review NOx, CO, TSP controls** | • Expand circular material use<br>• Increase energy recovery<br>• Upgrade pollution control systems<br>• Strengthen factory-level KPIs<br>• Improve data quality and assurance | • Move toward near-zero waste disposal<br>• Achieve near closed-loop water reuse<br>• Use cleaner energy and equipment<br>• Embed pollution KPIs into EMS<br>• Lead in transparent environmental disclosure |

## Performance of Waste Managementy In 2025 And Key Initiatives

### Embedding circular resource use and waste control into daily operations

In 2025, Vanachai strengthened waste management by embedding circular resource use, source reduction, segregation, recycling, reuse, and energy recovery into daily operations. The Group continued to manage waste as a resource rather than a disposal burden, building on our 2024 approach of reducing waste at source, reusing production residues, maintaining systematic waste separation, and encouraging employee participation in waste reduction. In 2025, total waste generated was 672.32 tonnes, comprising 447.18 tonnes of non-hazardous waste and 225.14 tonnes of hazardous waste. All non-hazardous waste was recycled, while hazardous waste was managed through recycling, reuse, energy recovery, and licensed final disposal. Total recycled waste reached 533.00 tonnes, supporting operational efficiency, regulatory compliance, cost control, and lower environmental impact.

## Zero Waste to Landfill Commitment

### Company-wide 4R Culture for Waste Reduction

Vanachai Group advances our **Zero Waste to Landfill** commitment through a company-wide waste reduction culture, supported by environmental policy, systematic waste management, and employee participation across both production and support functions. The Group focuses on reducing waste at source, improving resource efficiency, separating waste correctly, and minimizing materials that become daily operational waste. This direction supports Vanachai's broader waste management approach, which links waste, wastewater, and pollution management to legal compliance, operational efficiency, stakeholder confidence, and long-term environmental protection.

**"Vanachai is committed to Zero Waste to Landfill by embedding the 4Rs: Reduce, Reuse, Repair, and Reject, across all functions to reduce daily waste and strengthen environmental responsibility."**

**Phattra Sahawat**
Managing Director



In 2025, Vanachai reported 672.32 tonnes of total waste generated, including 447.18 tonnes of non-hazardous waste and 225.14 tonnes of hazardous waste. Total recycled waste reached 533.00 tonnes, while non-hazardous waste disposed by landfill remained zero tonnes, demonstrating continued progress in waste diversion and circular resource use. To expand this commitment beyond production, Vanachai promotes the 4R principles across the organization:

**REDUCE:** Reduce daily waste generation by minimizing disposable materials, improving consumption habits, and promoting campaigns such as **"Your Buddy Cup Reduce Waste"** and **"Bye Bye Straw at Canteens"** to reduce single-use cups and straws.

**REUSE:** Encourage reuse of office materials, containers, equipment, and suitable packaging materials to extend product life and reduce unnecessary purchasing.

**REPAIR:** Maintain and repair office equipment, tools, furniture, machinery, and reusable materials to extend useful life and prevent avoidable waste.

**REJECT:** Avoid unnecessary, single-use, or difficult-to-manage materials, and encourage employees to choose more environmentally responsible alternatives where feasible.

Building on last year's campaign to place waste in the correct color-coded bins, these initiatives strengthen employee awareness and turn waste reduction into daily behavior. By combining clear waste separation, practical 4R actions, and daily employee engagement, Vanachai expects to significantly reduce avoidable waste while reinforcing a shared culture of environmental responsibility.

# Employee Engagement for Waste Reduction

## Embedding the 4Rs into daily workplace behavior

Vanachai Group promotes employee engagement as a key driver of waste reduction across the organization, not only in production but also in offices, canteens, and daily workplace activities. Building on the previous waste segregation campaign using color-coded bins, the Group continued to strengthen waste separation at source and proper disposal practices in 2025. This supports Vanachai's wider waste prevention approach, which focuses on reducing waste at source, improving resource efficiency, reusing materials, and maintaining strong waste monitoring across factories.

In 2025, Vanachai launched two employee campaigns: **"Your Buddy Cup Reduce Waste"** and **"Bye Bye Straw at Canteens."** These initiatives encourage employees to reduce single-use cups and straws by bringing personal cups and avoiding unnecessary disposable items. Together with proper waste sorting, material reuse, repair, and digital document practices, these activities help reduce daily non-hazardous waste, lower disposal burden, and build a shared culture of environmental responsibility.

## Key Activities

- Reduce single-use items through the "Your Buddy Cup Reduce Waste" and "Bye Bye Straw at Canteens" campaigns
- Separate waste at source using color-coded bins for recyclable waste, general waste, and food waste
- Improve disposal discipline by rinsing containers before disposal and placing waste in the correct bins
- Reuse office materials such as cardboard boxes, document envelopes, paper clips, folders, and packaging materials
- Reduce paper use through double-sided printing, reduced unnecessary printing, and wider use of electronic documents
- Promote Repair & Share by maintaining, repairing, and sharing usable items such as furniture, tools, and office equipment
- Build awareness through waste management communication, training, and knowledge sharing among employees and families









# Waste Reduction Activities

## Employee Waste Segregation Campaign




## Employee-led Waste Collection Activity Supporting Community Development









## Recyclable Waste Donation and Fundraising Initiative










## Food Waste Microbial Composting







# Zero Waste in the Production Process

**Turning production residues into resources, reducing waste while creating operational and environmental value.**

VVanachai applies a zero-waste production approach by maximizing resource use at every stage of our wood-based products manufacturing process. The Group responsibly sources plantation-grown wood, community wood scraps such as branches and roots, wood residues from furniture factories, and end-of-life rubber trees, transforming materials that may otherwise be underutilized into value-added products. Within the production process, wood scraps, bark, and sawdust are reintegrated into the system as substitute raw materials or used as biomass fuel for energy generation, while wastewater from production is reused where feasible to moisten raw materials and logs, supporting process efficiency and reducing resource loss.



The Company also systematically reintroduces off-specification materials and non-conforming products into production or repurposes them as pallets, packaging, or support materials for transport and storage. This closed-loop production concept enables continuous reuse of wood, water, adhesives, and chemicals wherever technically feasible, reducing waste requiring disposal and lowering dependency on new raw materials. The approach is guided by the new **6R principles: Reduce, Reuse, Recycle, Reject, Repair and Recovery**, complemented by energy recovery from suitable production residues.

Through this approach, Vanachai reduces environmental impacts, improves resource productivity, lowers raw material and waste disposal costs, supports legal compliance, and strengthens the Group's position as a socially and environmentally responsible manufacturer. The model also reinforces investor confidence by demonstrating that waste management is not only a compliance activity, but also a source of operational efficiency, cost resilience, circular value creation, and long-term competitiveness.



## 6R Principles in Production:

### Recycle: wood residues
Reintegrate wood residues, bark, sawdust, and recoverable production materials into the manufacturing process or other value-added uses.

### Reduce: raw materials
Improve raw material efficiency, minimize production defects, reduce disposable materials, and optimize product and packaging design to lower waste generation at source.

### Reuse: materials and equipment
Reuse off-specification boards, non-conforming products, cardboard boxes, office supplies, and suitable production materials as pallets, packaging, or support materials for transport and storage.

### Reject: harmful materials
Avoid or reduce the use of materials that may be harmful to health or the environment, including certain chemicals or adhesives where feasible, while promoting safer and more environmentally friendly alternatives.

### Repair: machinery and equipment
Maintain and repair machinery, equipment, and reusable materials to extend useful life, reduce replacement needs, prevent avoidable waste, and improve operational efficiency.

### Recovery: Energy
Use suitable wood scraps, bark, and wood dust as biomass fuel, reducing disposal burden and supporting energy efficiency in production.

# Zero Waste in the Production Process

**ZERO WASTE**
Zero non-hazardous waste to landfill

**CIRCULAR USE**
Resources are reused, recycled and recovered

**RESOURCE EFFICIENCY**
Lower raw material use and operating cost

**SUSTAINABLE VALUE**
Environmental, social and economic value

## A closed-loop system for circular and low-impact manufacturing

Vanachai applies a zero-waste production approach by maximizing resource use at every stage. Raw materials are sourced responsibly, and all production residues, water and materials are kept in circulation through the 6R principles—Reduce, Reuse, Recycle, Reject, Repair and Recover—creating value while reducing environmental impact.

### Input Sources

**Plantation Wood**
Responsibly managed plantation-grown wood

**Community Wood Scraps**
Branches, roots and community wood scraps

**Furniture Factory Residues**
Wood residues from furniture factories

**End-of-Life Rubber Trees**
Utilizing end-of-life rubber trees

**All raw materials are transformed into value-added products.**




### 6R Principles in Production

- Recycle
- Reduce
- Reuse
- Reject
- Repair
- Recover

### Key Benefits for The Business

1. **Lower Environmental Impact:** Reduce emissions, pollution and resource depletion.
2. **Cost Efficiency:** Lower raw material costs and waste disposal expenses.
3. **Operational Resilience:** Efficient resource use and stable production processes.
4. **Regulatory Compliance:** Align with environmental laws and requirements.
5. **Stronger Reputation and Value Creation:** Enhance investor confidence and long-term sustainable economic value.

# Waste Management Performance Metrics and Disclosure Alignment

Below are the data related to waste for Vanachai Group and our subsidiaries during during 2021–2025, with 2021 as the base year.

| Disclosure Alignment | | Waste Management Data Indicator | unit | Vanachai Group Performance | | | | |
|---|---|---|---|---|---|---|---|---|
| GRI | FTSE Russell | | | 2021* | 2022 | 2023 | 2024 | 2025 |
| **306-3** | EPR24 / EPR25 / EPR26 | **Total waste generated** | Tonnes | 262.77 | 174.71 | 304.38 | 340.16 | **672.32** |
| **306-3** | EPR25 / EPR26 | • Non-hazardous waste generated | Tonnes | 212.70 | 130.46 | 246.82 | 290.94 | **447.18** |
| **306-3** | EPR24 | • Hazardous waste generated | Tonnes | 50.07 | 44.25 | 57.56 | 49.22 | **225.14** |
| **306-4 / 306-5** | EPR25 / EPR26 | • Non-hazardous waste management | Tonnes | 212.70 | 130.46 | 246.82 | 290.94 | **447.18** |
| **306-4** | EPR26 | • Recycled non-hazardous waste | Tonnes | 212.70 | 130.46 | 246.82 | 290.94 | **447.18** |
| **306-5** | EPR25 | • Non-hazardous waste disposed by safe landfill | Tonnes | 0 | 0 | 0 | 0 | **0** |
| **306-5** | EPR25 | • Non-hazardous waste disposed by other safe methods | Tonnes | 0 | 0 | 0 | 0 | **0** |
| **306-4 / 306-5** | EPR24 / EPR25 / EPR26 | • Hazardous waste management | Tonnes | 50.07 | 44.25 | 57.56 | 49.22 | **225.14** |
| **306-4** | EPR26 | • Recycled hazardous waste | Tonnes | 50.07 | 44.25 | 57.56 | 49.22 | **85.82** |
| **306-4** | EPR26 | • Reused hazardous waste | Tonnes | n/a | n/a | n/a | n/a | **0.54** |
| **306-4** | EPR26 / EPR13 | • Hazardous waste sent for energy recovery | Tonnes | n/a | n/a | n/a | n/a | **125.84** |
| **306-5** | EPR25 | • Hazardous waste disposed by safe landfill | Tonnes | n/a | n/a | n/a | n/a | **1.32** |
| **306-5** | EPR25 | • Hazardous waste disposed by other safe methods | Tonnes | n/a | n/a | n/a | n/a | **11.62** |
| **306-4** | EPR26 | **Total waste recycled** | Tonnes | 262.77 | 174.71 | 304.38 | 340.16 | **533.00** |
| **306-5** | EPR25 | **Total non-recycled waste** | Tonnes | n/a | n/a | n/a | n/a | **139.32** |
| **306-2** | EPR05 | • Target to reduce or avoid waste generation, 2021 base year | % | 100% | 100% | 100% | 100^ | **100%** |
| **3-3 / 306-2** | EPR08 | • Progress against waste reduction or avoidance target | % | 100% | 100% | 100% | 100^ | **100%** |
| **201-1, 3-3** | ERP15 / EWT28 | • Investment in reducing waste, wastewater, and pollution impact | THB Million | n/a | n/a | n/a | n/a | **54.98** |
| **2-27** | EPR27, EWT29 | • Waste, Water-related, and Pollution non-compliance | Case | 0 | 0 | 0 | 0 | **0** |

# Wastewater Management and Circular Water Use

**Maximizing treated wastewater reuse, minimizing discharge, and protecting shared water resources through site-level water control.**

Vanachai Group manages wastewater under the principle of "use water efficiently, circulate as much as possible, and discharge only what is necessary." The Group treats wastewater through site-level treatment systems and reuses treated water where feasible in production, utilities, cleaning, and other supporting activities. This approach reduces freshwater dependency, lowers discharge impact, supports regulatory compliance, and strengthens operational resilience across Vanachai's wood-based products operations.

In 2025, Vanachai generated **181,538 m³ of wastewater**, of which **148,972 m³ was recycled** or reused, representing a **wastewater reuse rate of 82.1%**. Treated wastewater discharged after treatment was **32,566 m³, equal to a 2.9% discharge rate**. Although **the reuse result was below the 90% annual target**, the treated discharge rate remained controlled, and the Group recorded **zero water-related non-compliance incidents**. Vanachai will continue strengthening water balance control, wastewater treatment efficiency, process reuse, and data quality to restore circular water performance and move toward a near closed-loop water system.

## Our Process

- Maintain site-level water management plans and water balance reviews
- Treat wastewater through controlled treatment systems before reuse or discharge
- Reuse treated wastewater in production and supporting activities where feasible
- Monitor wastewater volume, reuse rate, discharge volume, and discharge quality
- Control discharge to comply with legal and environmental standards
- Track progress against the ≥90% wastewater reuse target
- Maintain zero water-related non-compliance incidents
- Improve COD data, site-level monitoring, and assurance readiness

## Forward Commitment

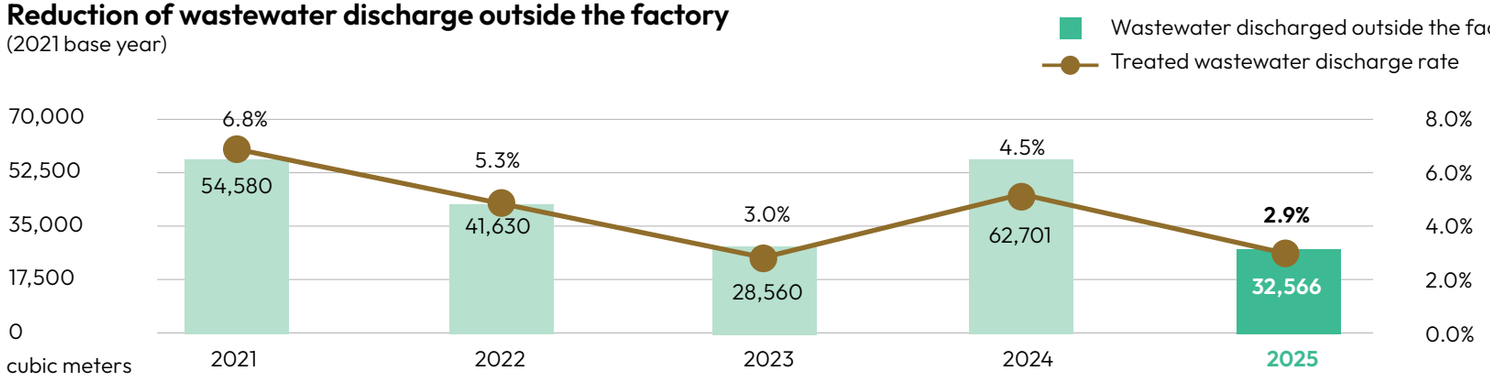
Vanachai is committed to improving wastewater reuse, maintaining legal compliance, strengthening site-level water balance, and moving toward near closed-loop water management to protect shared water resources and support long-term operational resilience.

## Treatment, Reuse and Discharge Control

Vanachai continues to strengthen our wastewater treatment and reuse systems to reduce discharge, improve water efficiency, and support circular water use across our operations. Building on our previous Zero Liquid Discharge direction and the Aerated Lagoon wastewater treatment system, the Group treats wastewater to applicable environmental standards and reuses treated water where feasible within the organization, including in production processes, cooling systems, cleaning activities, and other supporting uses. This approach helps reduce raw water withdrawal, minimize external discharge, and improve the efficiency of water resource management.

In 2025, Vanachai further advanced our Water Circular Economy approach by developing systems to control wastewater treatment and treated water reuse within production and related processes. The system enables treated wastewater to be circulated back for operational use, while wastewater quality is monitored before reuse or discharge. Only treated wastewater that meets regulatory requirements is discharged under controlled conditions.

**Reduction of wastewater discharge outside the factory**
(2021 base year)



# Wastewater and Pollution Performance Metrics and Disclosure Alignment

Below are the data related to wastewater and pollution for Vanachai Group and our subsidiaries during during 2021–2025, with 2021 as the base year.

| Disclosure Alignment | | Wastewater and Pollution Data Indicator | unit | Vanachai Group Performance | | | | |
|---|---|---|---|---|---|---|---|---|
| GRI | FTSE Russell | | | 2021* | 2022 | 2023 | 2024 | 2025 |
| **Wastewater Data** | | | | | | | | |
| **303-4** | EPR10 / EWT30 | **Total wastewater generated** | m³ | 119,700 | 105,700 | 133,700 | 198,626 | **181,538** |
| **303-1 / 303-4** | EPR03 / EPR09 / EWT24 | • Wastewater recycled or reused | m³ | 65,120 | 64,070 | 105,140 | 135,926 | **148,972** |
| **303-1 / 303-4** | EPR09 / EWT24 / EWT06 | • Wastewater recycling or reuse rate | % | 54.4% | 60.6% | 78.6% | 68.4% | **82.1%** |
| **303-4** | EPR10 / EWT30 | • Treated wastewater discharged | m³ | 54,580 | 41,630 | 28,560 | 62,701 | **32,566** |
| **303-4** | EPR10 / EWT30 | • Treated wastewater discharge rate | % | 6.8% | 5.3% | 3.0% | 4.5% | **2.9%** |
| **Pollution Data** | | | | | | | | |
| **305-6** | EPR01 / EPR07 | • Ozone-depleting substances, ODS emissions | kg CFC-11e / tonne of prod. | 0 | 0 | 0 | 0 | **0** |
| **305-7** | EPR18 | • Nitrogen oxides, NOx emissions | Kg | 86,901 | 116,518 | 68,928 | 50,226 | **101,180** |
| **305-7** | EPR18 / EPR07 | • NOx emissions intensity | kg CFC-11e / tonne of prod. | 0.07 | 0.10 | 0.06 | 0.04 | **0.07** |
| **305-7** | EPR19 | • Sulphur oxides, SOx emissions | Kg | 0 | 0 | 0 | 0 | **0** |
| **305-7** | EPR01 / EPR07 | • Carbon monoxide, CO emissions | Kg | 238,146 | 593,261 | 423,066 | 521,175 | **572,263** |
| **305-7** | EPR01 / EPR07 | • CO emissions intensity | kg / tonne of prod. | 0.18 | 0.53 | 0.31 | 0.38 | **0.76** |
| **305-7** | EPR21 | • Volatile organic compounds, VOCs emissions | Kg | 0 | 0 | 0 | 0 | **34** |
| **305-7** | EPR21 / EPR07 | • VOCs emissions intensity | kg / tonne of prod. | 0 | 0 | 0 | 0 | **0** |
| **305-7** | EPR01 / EPR07 | • Total suspended particulates, TSP, including PM2.5 and PM10 | Kg | 5,950 | 40,799 | 33,704 | 39,967 | **30,612** |
| **305-7** | EPR01 / EPR07 | • TSP emissions intensity | kg / tonne of prod. | 0.00 | 0.04 | 0.02 | 0.03 | **0.04** |
| **305-7** | EPR07 / EPR18 / EPR19 | **Total air pollutant emissions** | Kg | 325,047.81 | 709,779.15 | 491,993.88 | 571,400.43 | **673,476.61** |
| **305-7** | EPR07 | **Total air pollutant emissions intensity** | kg / tonne of prod. | 0.24 | 0.63 | 0.37 | 0.42 | **0.83** |
| **3-3 / 305-7** | EPR07 | • Reduction or avoidance of total air pollutant emissions | % | n/a | n/a | -26.11% | -21.44% | **19.79%** |
| **3-3 / 305-7** | EPR04 | • Target to reduce or avoid total air pollutant emissions, 2022 base year | % | n/a | n/a | 10% | 13% | **20%** |
| **3-3 / 305-7** | EPR07 | • Progress against total air pollutant reduction target | % | n/a | n/a | 100% | 100% | **Pollution increased** |

# Pollution Prevention and Control

## Clean Air, Low-Impact Operations

Vanachai Group manages pollution prevention as a core part of environmental compliance, operational efficiency, employee health, community confidence, and long-term business resilience. As a manufacturer of wood-based products, the Group monitors and controls key air pollutants from production and energy systems, including **NOx, CO, SOx, VOCs, ODS, and total suspended particulates, TSP, including PM2.5 and PM10**. The Group applies environmental policies, source control, cleaner energy use, combustion efficiency improvement, dust control systems, equipment maintenance, and annual environmental quality monitoring to reduce impacts on air quality and surrounding communities.

In 2025, Vanachai **maintained zero ODS emissions, zero SOx emissions, zero significant chemical spill incidents, and zero environmental fines.** Total air pollutant emissions were 673,476.61 kg, with an emissions intensity of 0.83 kg per tonne of production. Key emissions included NOx of 101,180 kg, CO of 572,263 kg, VOCs of 34 kg, and TSP of 30,612 kg. Although the 2025 performance did not achieve the total pollution reduction target, the result provides a clear operating baseline for strengthening emission source reviews, improving combustion and dust capture efficiency, and upgrading monitoring and control measures. Vanachai considers this data a basis for continuous improvement rather than a setback, and will use it to drive stronger pollution prevention across production sites.

## Our Process

- Identify significant emission sources from production, biomass energy, resin production, material handling, and logistics.
- Monitor key air pollutants, including NOx, CO, SOx, VOCs, ODS, TSP, PM2.5 and PM10.
- Maintain zero ODS and zero SOx emissions through controlled operations and fuel management.
- Improve combustion efficiency and maintain dust capture and air pollution control systems.
- Control VOCs and chemical risks from urea-formaldehyde resin production.
- Replace diesel forklifts with electric forklifts to reduce indoor CO, NOx, smoke, and noise.
- Use automated storage systems to reduce product handling, forklift movement, CO emissions, and noise.
- Monitor air quality, odor, noise, light, and chemical leakage risks inside factories and nearby areas.
- Track performance against pollution reduction targets and use results to improve control measures.

## Key Initiatives Supporting Pollution Prevention

1. **Electrostatic Precipitator: ESP,** Vanachai installs Electrostatic Precipitator, ESP systems to capture fine particulates from biomass combustion and keep stack emissions within legal limits. The system captures PM2.5 and PM10 with efficiency of 99% or more, producing cleaner stack emissions with minimal visible dust. Our low pressure drop also reduces the load of ID fans and supports lower electricity consumption. Captured dust is reused as co-fuel in the combustion system, supporting circular resource recovery.
2. **Bag Filter Systems,** Vanachai applies bag filter systems at major emission points to improve particulate capture, especially during peak production periods. These systems strengthen control of PM2.5 and PM10, reduce dust emissions from production and biomass activities, and support compliance with air quality standards.
3. **Continuous Emissions Monitoring System: CEMS,** Vanachai upgrades stack monitoring through Continuous Emissions Monitoring Systems, CEMS, particularly at biomass boiler operations. The system tracks key pollutants such as particulates, NOx, and CO in real time, enabling faster corrective action when emission levels approach control thresholds.
4. **Cleaner Material Handling through Electric Forklifts,** Vanachai continues replacing diesel forklifts with electric forklifts to reduce fossil fuel use, indoor smoke, noise, and employee exposure to air pollutants. This initiative supports lower CO and NOx emissions from internal transport activities and improves workplace air quality.
5. **Automatic Intermediate Storage System,** The Automatic Intermediate Storage System reduces repeated product movement, forklift use, product damage, and workplace noise. It supports pollution prevention by lowering internal transport activities, reducing CO emissions, improving safety, and increasing operational efficiency.
6. **VOC and Formaldehyde Control,** Vanachai controls VOC and formaldehyde-related risks from resin and wood-based panel production through strict process control and product quality standards. This supports indoor air quality, consumer safety, and alignment with recognized formaldehyde emission standards.
7. **Environmental Quality Monitoring and Compliance Control,** Vanachai monitors air quality, odor, noise, light, and chemical leakage risks within factories and surrounding areas.

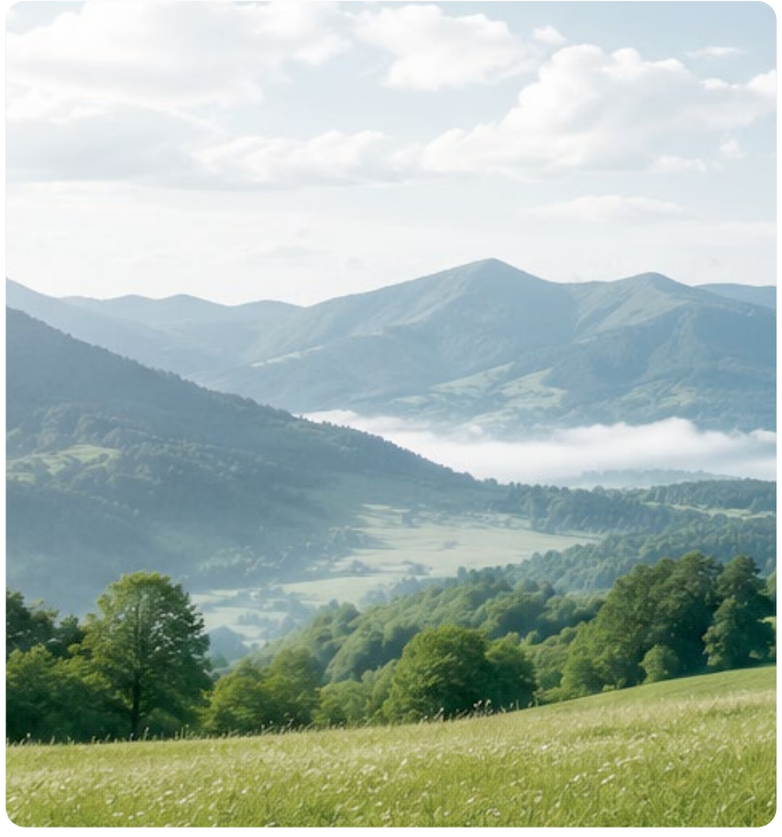
# Forward Actions and Continuous Improvement

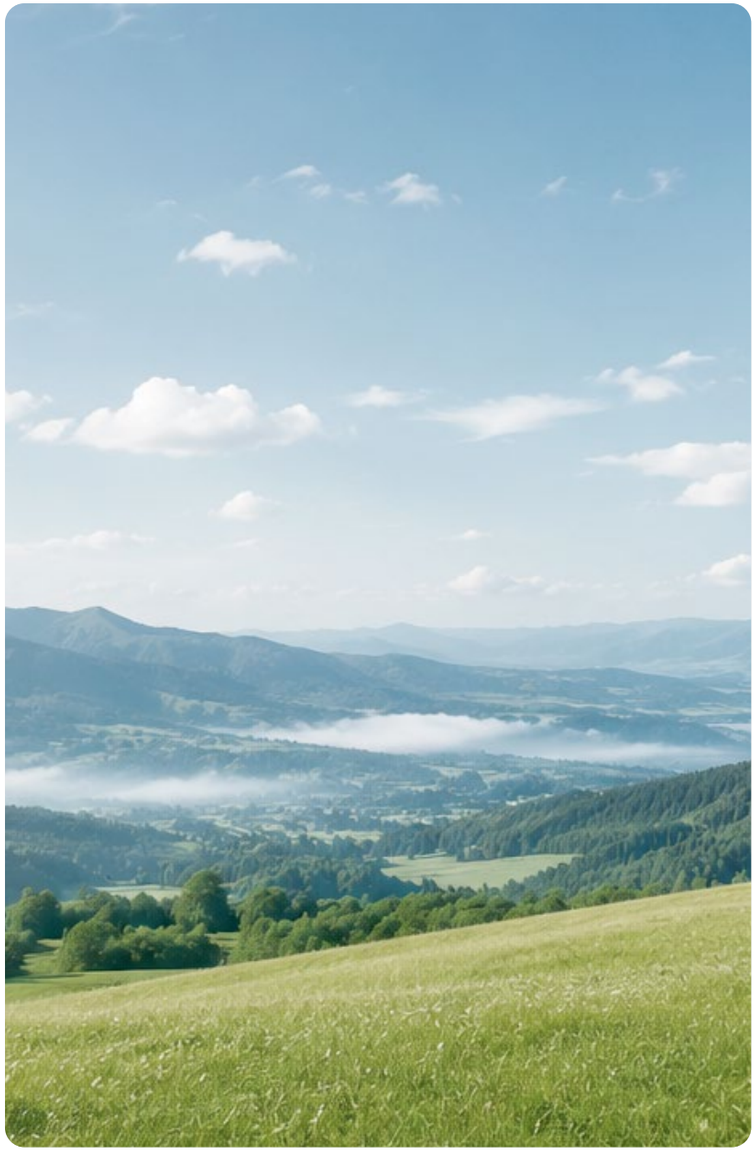
## Strengthening circular resource use, water reuse, pollution control, and ESG data quality

1. **Strengthen waste prevention and circular use:** Expand 4R and 6R practices across offices and production, maintain high recycling rates, reduce avoidable waste, and increase value recovery from production residues.
2. **Improve wastewater reuse and water balance:** Increase treated wastewater reuse toward the ≥90% target, improve site-level water balance control, enhance COD tracking, and move toward near closed-loop water management.
3. **Upgrade pollution prevention systems:** Review NOx, CO, TSP, VOC and particulate sources, enhance ESP, bag filter and CEMS performance, and improve combustion efficiency at key emission points.
4. **Reinforce compliance and operating discipline:** Maintain zero environmental fines, zero significant chemical spills, zero ODS and zero SOx emissions, while ensuring all discharge and emissions remain within legal standards.
5. **Improve data quality and assurance readiness:** Standardize waste, wastewater and pollution data across sites, strengthen factory-level KPIs, improve evidence collection, and prepare environmental data for higher assurance readiness.

## Our Commitment

Vanachai is committed to continuous improvement in waste, wastewater, and pollution prevention by embedding circular practices, cleaner technology, stronger controls, and transparent data management into daily operations, supporting sustainable growth while protecting communities and the environment.





# Biodiversity and Responsible Natural Resource Use

**Protecting ecosystems and strengthening resilient wood-based product value chains through responsible sourcing, biodiversity risk management, and restoration.**

**Scan for related disclosure**
For further details, please refer to
Biodiversity Policy

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Update biodiversity risks**<br>• **Maintain 100% policy coverage**<br>• **Maintain 100% sustainable sourcing**<br>• **Close restoration gap**<br>• **Improve supplier screening** | • Integrate biodiversity into ERM<br>• Expand site-level BAPs<br>• Strengthen supplier traceability<br>• Monitor habitat quality<br>• Improve assurance readiness | • Build nature-positive resilience<br>• Maintain zero-deforestation sourcing<br>• Enhance ecosystem connectivity<br>• Lead in biodiversity transparency<br>• Protect shared natural resources |

## Impact & Value Created

Vanachai Group recognizes biodiversity and natural resources as critical foundations for raw material security, operational continuity, and long-term value creation. By sourcing rubberwood and wood residues responsibly, improving resource efficiency, restoring green areas, and integrating biodiversity risk assessment across operating sites, the Group reduces pressure on natural forests while strengthening the resilience of our wood-based product value chain.

## Risks & Opportunities

Key risks include biodiversity loss, deforestation exposure in upstream supply chains, resource scarcity, land-use impacts, regulatory tightening, and reputational risk. Opportunities include stronger supplier traceability, circular use of wood residues, ecosystem restoration, community engagement, improved ESG ratings readiness, and enhanced customer and investor confidence in responsibly sourced wood-based products.

## Our Approach

- Maintain biodiversity policy coverage
- Assess site-level biodiversity risks
- Screen habitats and sensitive areas
- Source wood raw materials responsibly
- Use wood residues circularly
- Restore and conserve green areas
- Engage suppliers and communities
- Improve disclosure and data quality

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Biodiversity policy coverage** | Maintain biodiversity **policy coverage** across all operating units. | **Achieved 100% coverage** of operating units under biodiversity policy. | Review policy annually and strengthen linkage with responsible sourcing, site risk control, and disclosure. | 12, 15 |
| **Risk assessment and habitat screening** | Conduct biodiversity risk assessment across 4 factories, 1 head office, and 1 Depot. | Achieved **100% biodiversity risk assessment** across all defined operating sites. | Update site-level biodiversity risks and habitat data annually. | 13, 15 |
| **Responsible wood sourcing** | **Maintain 100% sustainable wood/raw material sourcing** from rubberwood, wood residues, and sawmill by-products. | **Achieved 100%** sustainable sourcing and screened **42 new suppliers** using environmental criteria. | Strengthen supplier traceability and certification-readiness records. | 12, 15 |
| **Green area restoration and conservation** | Restore **or conserve 30%** of the total target green area, equivalent to approximately 85 hectares, from a total target area of approximately 283 hectares. | Restored or conserved approximately **73.7 hectares, equal to 26%; target partially achieved**. | Close the gap toward the 30% target, strengthen site-level Biodiversity Action Plans, and track survival rate / ecological condition of restored areas. | 13, 15 |

# Biodiversity Approach and 2025 Performance

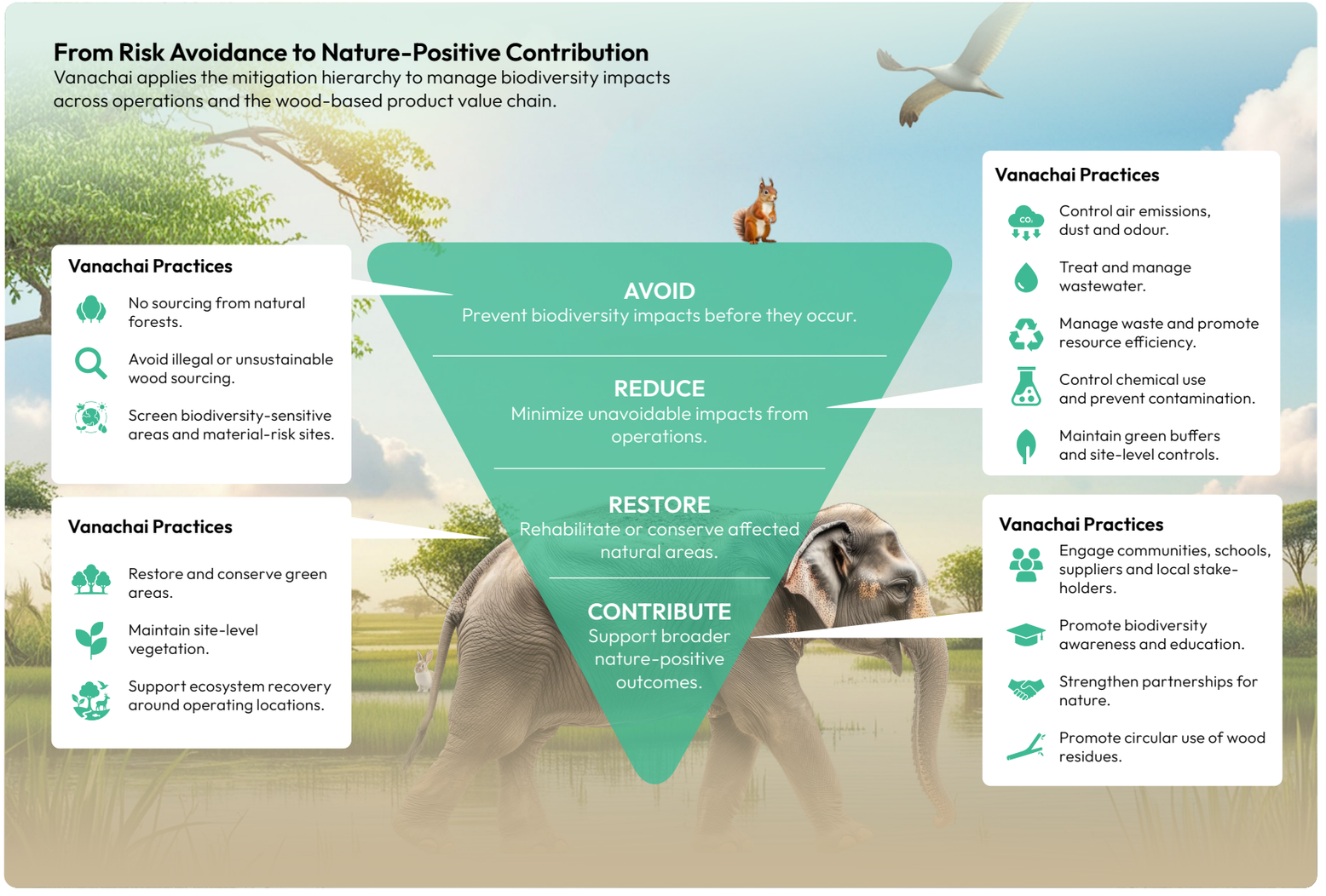
## Biodiversity Approach

### Risk Avoidance to Nature-Positive Contribution

Vanachai applies the **biodiversity mitigation hierarchy** to manage potential impacts across our operations, new project development, and wood-based product value chain. The Group prioritizes avoidance of impacts on sensitive habitats, reduction of operational risks, restoration and conservation of green areas, and contribution to broader biodiversity awareness with surrounding communities. For the Surat Thani biomass power plant expansion, Vanachai has integrated biodiversity considerations into project planning, construction oversight, and future site monitoring, covering habitat screening, water quality, air emissions, waste management, green buffer areas, and responsible biomass sourcing.

To strengthen site-level biodiversity management, Vanachai uses **species richness** as a practical baseline indicator for monitoring plants and animals within defined survey areas. The Group will build on the EIA baseline by working with nearby communities, local schools, and academic experts from local universities to support future plant and animal observation, species monitoring, and biodiversity learning activities. This approach strengthens Vanachai's readiness for disclosing on biodiversity risk assessment, biodiverse habitat information, stakeholder engagement, and Biodiversity Action Plans.

## Biodiversity Mitigation hierarchy



# Biodiversity Performance Metrics and Disclosure Alignment

Below are the data related to Biodiversity for Vanachai Group and our subsidiaries during during 2021–2025, with 2024 as the base year.

| Disclosure Alignment | | Biodiversity Indicator | unit | Vanachai Group Performance | | | | |
|---|---|---|---|---|---|---|---|---|
| GRI | FTSE Russell | | | 2021 | 2022 | 2023 | 2024* | 2025 |
| **3-3, 101-1** | EBD17 | • Operating units covered by the Biodiversity Policy | % | n/a | n/a | n/a | 100% | **100%** |
| **3-3, 101-4. 101-5** | EBD05, EBD06 | • Biodiversity risk assessment and habitat screening coverage across operating sites | % | n/a | n/a | n/a | 100% | **100%** |
| **3-3, 101-4. 101-5** | EBD05, EBD06 | • Operating sites with Biodiversity Impact Assessment | % | n/a | n/a | n/a | 100% | **100%** |
| **3-3, 101-2** | EBD05, EBD09 | • Biodiversity risks mitigated within 12 months | % | n/a | n/a | n/a | 100% | **100%** |
| **3-3, 101-4, 101-5** | EBD06 | • Biodiversity-sensitive or material-risk sites screened | % of risk areas | n/a | n/a | n/a | 100% | **100%** |
| **3-3, 101-1, 101-2** | EBD02, EBD09 | • Target for restored or conserved green areas, based on total target area of 283.4 hectares | % | n/a | n/a | 100% | 100% | **100%** |
| **101-2** | EBD02, EBD06, EBD09 | • Target green area to be restored or conserved | Hectares | n/a | n/a | n/a | 56.6 | **85** |
| **101-2** | EBD02, EBD06, EBD09 | • Green areas restored or conserved for biodiversity protection | Hectares/ year | n/a | n/a | n/a | 63.2 | **73.7** |
| **101-2, 101-7** | EBD02, EBD06, EBD09 | • Achievement against total restoration and conservation target | % | n/a | n/a | n/a | 22.3 | **26.0** |
| **3-3, 101-2** | EBD08 | • Community biodiversity capacity-building projects | Projects | n/a | n/a | n/a | 1 | **1** |
| **301-1, 301-2, 101-6** | EBD12 related; ESC09 relate | • Wood raw materials sourced from sustainable sources, including rubberwood, wood residues, and sawmill by-products | % | n/a | n/a | n/a | 100% | **100%** |
| **308-1** | ESC09 related | • New suppliers screened using environmental criteria | Suppliers | n/a | n/a | n/a | 33 | **42** |
| **301-1, 301-2, 308-1** | EBD12, EBD14; ESC09 related | • Responsible wood sourcing and supplier screening | % | n/a | n/a | n/a | 100% | **100%** |
| **303-3, 303-5, 101-6** | EWT26, EWT27; Biodiversity cross-theme | • Water withdrawal or consumption from water-stressed areas | $m^3$ / year | n/a | n/a | n/a | 0 | **0** |
| **301-2, 203-2, 3-3, 101-2, 101-6** | EBD08, EBD12 | • Community wood residues procured under biodiversity-related circular resource use initiatives | Million kg | 1,671 | 1,443 | 1,668 | 1,766 | **1,752** |
| **301-1, 101-6** | EBD12 related | • Rubberwood used in production processes | Million tonnes | 1.92 | 1.79 | 2.14 | 3.18 | **2.78** |

• 1 rai = 0.16 hectares.

# Site-Level Biodiversity Risk Assessment

**Biodiversity risk assessment covered six operating locations: four factories, one head office, and one Depot. The assessment considered site activities, surroundin g ecosystems, species exposure, key risks, mitigation controls, and residual risk after controls.**

**100% site coverage**
Biodiversity risk assessment covered all defined operating locations.

**Site-specific mitigation**
Operational controls address air, water, waste, chemical, sourcing, and land-use impacts.

**Low residual risk**
Material biodiversity risks were reduced through site-level mitigation measures.

The 2024 biodiversity assessment describes site-level risks, ecosystems, species exposure, mitigation controls, and residual risks for the six operating locations; page 77-82.

| Site | Ecosystem / Context | Key Biodiversity Risks | Main Controls | Operational Site (Hectare) | | | Residual Risk |
|---|---|---|---|---|---|---|---|
| | | | | Total Area | Green Area | % of Green | |
| **Head Office, Bangkok** | Urban green spaces, drainage system, urban biodiversity | Resource use, waste generation, urban land-use pressure | Waste separation, recycling, resource efficiency, green area management | 1.17 | 0.14 | 12.0% | Low |
| **Surat Thani Plant** | Tropical ecosystem, acultural areas, biomass sourcing areas | Biomass sourcing, wastewater, air emissions, wood dust | Sustainable biomass sourcing, waste-water treatment, air filtration, green buffers | 117.28 | 43.61 | 37.2% | Low |
| **Rayong Plant** | Industrial estate near acultural and mangrove-linked areas | Chemical leaks, VOCs, wastewater, chemical residues | Spill prevention, VOC controls, waste-water treatment, safe chemical management | 3.96 | 0.20 | 5.1% | Low |
| **Chonburi Plant** | Agricultural areas, urban buffers, indus-trial estate ecosystem | Wood dust, emissions, wastewater, coating chemicals, logistics | Dust collection, air controls, wastewater treatment, chemical controls, buffer zones | 48.00 | 9.60 | 20.0% | Low |
| **Saraburi Plant** | Dry dipterocarp forest context, agricultural areas, drainage systems | Wood dust, emissions, chemical residues, wastewater, waste from wood processing | Air filtration, waste-water treatment, safe chemical use, recycling, green spaces | 47.84 | 9.57 | 20.0% | Low |
| **Chachoengsao Depot** | Urban and suburban ecosystem, bio swale, landscaped areas | Waste, vehicle emissions, noise, water quality, land-use change | Waste separation, EV support, bio swale maintenance, native plants, green space | 5.13 | 0.10 | 1.9% | Low |
| **Total (Hectare)** | | | | **223.38** | **63.22** | **28.3%** | **Low** |

## Vanachai Biodiversity Pioneer Initiative

Vanachai's Surat Thani Plant in Southern Thailand serves as a pioneer site for biodiversity management and disclosure. As part of the EIA biological survey for the VEI 9.9 MW biomass power plant project, species richness was adopted as a key biodiversity baseline indicator, reflecting the number of species recorded within the defined survey area. The first-year baseline recorded 126 plant species, and 109 wildlife species, comprising 9 mammals, 73 birds, 17 reptiles, and 10 amphibians. Within the project area, 59 wildlife species were identified. These findings provide a site-level biodiversity baseline to support habitat screening, future monitoring, restoration planning, and biodiversity-related disclosure. The site is also expanding our renewable energy capacity through a new 9.9 MW biomass power plant, currently under construction and expected to be completed by the end of 2026. Once operational, Surat Thani Plant's total biomass power capacity will increase to 19.8 MW.

## Community Collaboration and Forward Actions

Vanachai recognizes that biodiversity protection requires collaboration beyond operational boundaries. Through local engagement and biodiversity learning activities, including animal study initiatives with local schools, the Group aims to build awareness of local ecosystems, strengthen community participation, and support long-term stewardship of natural resources surrounding operating areas.

## Local Collaboration Activities

- Share biodiversity knowledge with local schools
- Use site survey data for learning activities
- Promote awareness of local species and habitats
- Encourage youth participation in nature monitoring
- Build community understanding of ecosystem value
- Support long-term biodiversity stewardship

## Forward Action

| Focus Area | Forward Actions |
|---|---|
| **Governance and disclosure** | Formalize the Surat Thani Biodiversity Pioneer Project as Vanachai's first site-level biodiversity baseline disclosure, using species richness as the primary baseline indicator. Strengthen international standards alignment and disclose annual progress on biodiversity risk, habitat screening, and monitoring. |
| **Risk management** | Use the EIA biodiversity baseline to update site-level biodiversity risk assessment for the Surat Thani Plant, especially during construction and future operation of the new 9.9 MW biomass power plant. Strengthen controls for habitat disturbance, water quality, air emissions, waste, and green buffer areas |
| **Restoration and monitoring** | Monitor changes in species richness, habitat condition, green areas, and ecological quality around the water treatment reservoir and project area. Track flora and fauna indicators, including 126 plant species, and 109 wildlife species recorded in the EIA study area. |
| **Supply chain** | Improve traceability of biomass, rubberwood, wood residues, and other wood raw materials to support responsible sourcing and reduce pressure on natural forests. Expand supplier environmental screening and ESG capability building linked to biodiversity and natural resource use. |
| **Community engagement** | Expand biodiversity education and local school collaboration by using the Surat Thani baseline as a learning platform. Promote community-based monitoring of local species and habitats, including birds, mammals, reptiles, amphibians, and plant species identified through the EIA survey. |

**Species richness refers to the number of species recorded within a defined survey area. It does not represent population size or a biodiversity diversity index. The Surat Thani baseline is based on the EIA biological survey for the VEI biomass power plant project.**

## Our Commitment

Vanachai is committed to strengthening biodiversity resilience across our operations, supply chain, and surrounding communities through responsible sourcing, site-level risk management, restoration, circular resource use, and transparent disclosure.




## Biodiversity Pioneer Project

### Site-level Biodiversity Baseline

| Flora Group | Species Recorded |
|---|---|
| Agricultural area plants | 41 |
| Community area plants | 39 |
| Nearby forest area plants | 30 |
| Other plants | 16 |
| Flora species richness: Study Area | 126 |
| Within Project area | 61 |

| Fauna Group | Species Recorded |
|---|---|
| Mammals | 9 |
| Birds | 73 |
| Reptiles | 17 |
| Amphibians | 10 |
| Wildlife species recorded: Study Area | 109 |
| Within Project area | 59 |


Safeguarding Water Resources for the Future Strategy

# Water Stewardship and Water Security

**Securing water for production, communities, and ecosystems through efficient use, reuse, and responsible wastewater management.**

**Scan for related disclosure**
For further details, please refer to
Environmental Policy (Water Section)

## Impact & Value Created

Water supports Vanachai's production continuity, quality, and community trust. The Group improves efficiency, reuses treated water, and controls wastewater quality to reduce freshwater dependence and protect local water resources. In 2025, no sites were located in water-stressed areas.

## Risks & Opportunities

Key risks include drought, irregular rainfall, rising costs, stricter rules, and community concerns. Water stewardship strengthens resilience, compliance, cost efficiency, and trust. Vanachai manages water by site context: two factories self-produce water and two use local or industrial estate supply.

## Our Approach

- Assess site-level water risks
- Maintain zero water use from water-stressed areas
- Improve water intensity per production unit
- Reduce freshwater withdrawal
- Treat wastewater to legal standards
- Reuse treated water where feasible
- Strengthen rainwater storage
- Monitor water use and discharge data
- Disclose water performance transparently

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Assess site-level water risks**<br>• **Improve water efficiency**<br>• **Reduce freshwater dependence**<br>• **Strengthen rainwater storage**<br>• **Track water data by source** | • Integrate water into ERM<br>• Expand water balance systems<br>• Strengthen drought readiness<br>• Improve site-level water KPIs<br>• Enhance water disclosure | • Secure long-term water resilience<br>• Maintain zero water-stressed<br>• Optimize alternative water sources<br>• Lead in water transparency<br>• Protect shared water resources |

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Water efficiency and consumption reduction** | **Reduce water** use per production unit by **10%** from the previous year | Water intensity improved to 0.59 m³/ production unit, a **4.84% reduction** from 2024, but target not fully achieved | Strengthen process efficiency, water balance, and loss control to move toward 2030 target | 6, 12, 13 |
| **Water risk screening and water-stressed area control** | Maintain **0 m³ water withdrawal** or consumption from water-stressed areas | Achieved **0 m³ water withdrawal** or consumption from water-stressed areas | Conduct annual site-level water risk screening and drought preparedness review | 6, 13, 15 |
| **Water source diversification and security** | Strengthen water security through suitable water sources, reserve planning, and rainwater storage | Total **water use was 1,107,991 m³**; operations **used self-produced water and local or industrial estate supply** | Expand rainwater storage and alternative water preparedness where feasible | 6, 13 |
| **Site-level water management plan** | Maintain water management across all operating sites, including water source monitoring and efficiency actions | Water management covered all key sites through risk screening, water balance preparation, and contingency planning | Formalize site-level water management plans and improve tracking by factory | 6, 12 |
| **Water data monitoring and disclosure** | Disclose water use, sources, recycling, discharge, and water-stressed area data | Multi-year water data disclosed; **THB 1.89 million invested** to reduce waste-water impact | Improve site-level data tracking and external assurance readiness | 6, 12, 16 |

# Water management practices

## Strengthening water efficiency through site-level management, source monitoring, and long-term reduction plans

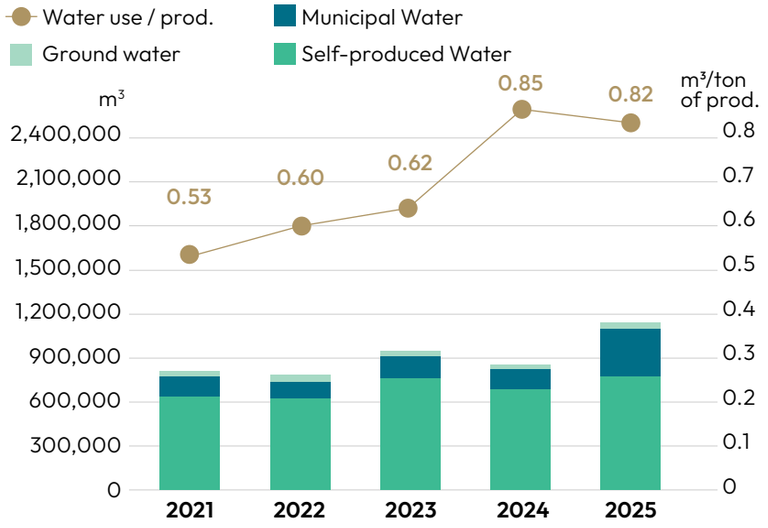
Vanachai Group implements site-level water management plans across our four factories to strengthen water security, reduce freshwater dependence, and improve water-use efficiency. The plans cover water source monitoring, water risk screening, water balance review, contingency planning, rainwater storage, process efficiency improvement, and appropriate reuse of treated water. Two factories operate self-produced water systems, while two factories use water supplied by local authorities or industrial estate systems, enabling water management to be adapted to each site's operating context.

In 2025, site-level water management plans covered 100% of Vanachai's four factories, and total **water use** increased to **1,137,638 cubic meters**, and **water-use intensity** rose to **0.82 m³ per ton of production**, meaning the Group did not achieve our water reduction target. This reflects operational challenges that require stronger process controls and site-level efficiency actions. Despite this, Vanachai maintained **zero water withdrawal or consumption from water-stressed areas** and remains committed to reducing water intensity through water balance improvement, loss control, preventive maintenance, rainwater storage, and employee participation.

## Measures and Guidelines for Water Conservation and Loss Reduction

- Monitor water use by source and production process
- Review site-level water balance
- Improve process efficiency to reduce water intensity
- Maintain equipment to prevent leakage
- Strengthen rainwater storage and reserve water readiness
- Train employees on responsible water use
- Track annual progress against reduction targets
- Improve data quality for future assurance readiness

Although 2025 water intensity increased, Vanachai remains committed to long-term water reduction through site-level water balance, process efficiency, and strengthened loss control.




| Water Use / Resource | unit | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|
| **Total water withdrawal by source** | | | | | | |
| • Self-produced water (Chonburi and Surat Thani) | m³ | 637,687 | 616,853 | 758,117 | 1,006,000 | **769,315** |
| • Municipal water from industrial estates (Saraburi and Rayong) | m³ | 136,483 | 127,669 | 153,438 | 368,245 | **335,288** |
| • Provincial water supply for Woodsmith Depot | m³ | n/a | n/a | n/a | 7,160 | **3,388** |
| • Groundwater (Surat Thani) | m³ | 29,929 | 40,786 | 35,175 | 21,649 | **33,035** |
| **Total water withdrawal** | **m³** | 804,099 | 785,308 | 946,730 | 1,403,054 | **1,141,026** |
| **Net water use across all operating sites** | **m³** | 712,330 | 668,500 | 841,160 | 1,392,953 | **1,107,991** |
| **Water use relative to production** | | | | | | |
| Water use per unit of production | m³/ton of prod. | 0.53 | 0.60 | 0.62 | 0.85 | **0.82** |
| Change in water-use intensity from 2021 base year | % | n/a | 13.2% | 17.0% | 60.4% | **54.7%** |

# Water Consumption, Withdrawal, Discharge Performance Metrics and Disclosure Alignment

Below are the data related to Biodiversity for Vanachai Group and our subsidiaries during during 2021–2025, with 2021 as the base year.

| Disclosure Alignment | | Water Use Indicator | unit | Vanachai Group Performance | | | | |
|---|---|---|---|---|---|---|---|---|
| GRI | FTSE Russell | | | 2021* | 2022 | 2023 | 2024 | 2025 |
| **303-3** | EWT31 | • Total water withdrawal by source | $m^3$ | 804,099 | 785,308 | 946,730 | 1,403,054 | **1,141,026** |
| **303-5** | EWT31 / EWT09 | • Net water use across all operating sites | $m^3$ | 712,330 | 668,500 | 841,160 | 1,392,953 | **1,107,991** |
| **3-3, 303-1** | EWT34 | **Target to reduce total water-use intensity compared with prior year** | % | 10% | 10% | 10% | 10% | **10%** |
| **303-3, 303-5** | EWT09 / EWT34 | • Total water-use intensity | $m^3$ / Ton of production unit | 0.53 | 0.60 | 0.62 | 0.85 | **0.82** |
| **3-3, 303-1** | EWT09 / EWT34 | • Change in total water-use intensity | % | N/A | 13.2% (Increase) | 17.0% (Increase) | 60.4% (Increase) | **54.7% (Increase)** |
| **303-1, 303-3** | EWT24 / EWT31 | • Reserve water source volume | $m^3$ / ton | 91,769 | 116,808 | 105,570 | 261,863 | **338,761** |
| **3-3, 303-1** | EWT35 / EWT26 | **Target for water withdrawal or consumption in water-stressed areas** | $m^3$ | 0 | 0 | 0 | 0 | **0** |
| **303-3, 303-5** | EWT26 / EWT27 | • Water withdrawal or consumption in water-stressed areas | $m^3$ | 0 | 0 | 0 | 0 | **0** |
| **303-4** | EWT30 | • Total wastewater generated | $m^3$ | 119,700 | 105,700 | 133,700 | 198,626 | **181,538** |
| **303-4** | EWT30 | • Treated effluent discharge rate | % | 6.8% | 5.3% | 3.0% | 4.5% | **2.9%** |
| **3-3, 303-1** | EWT24 / EWT06 / EWT34 | **Target for wastewater recycling and reuse, at least 90% per year by 2026** | % | 90% | 90% | 90% | 90% | **90%** |
| **303-1, 303-4** | EWT24 / EWT06 | • Total wastewater recycled or reused | % | 54.4% | 60.6% | 78.6% | 68.4% | **82.1%** |
| **3-3, 303-1** | EWT35 | **Target to reduce water use or withdrawal at facilities affected by water stress** | % | 100% | 100% | 100% | 100% | **100%** |
| **3-3** | EWT09 / EWT35 | • Achievement rate against target for facilities affected by water stress | % | 100% | 100% | 100% | 100% | **100%** |
| **303-2, 303-4** | EWT43 | • COD load intensity | kg COD / tonne of production | n/a | n/a | n/a | 0.0015 | **0.0010** |
| **3-3, 201-1** | EWT28 | • Investment to reduce or avoid wastewater impacts | THB million | 1.62 | 1.53 | 1.90 | 1.99 | **1.89** |
| **2-27** | EWT29 | • Water non-compliance with water quality / quantity permits, standards, and regulations | Case/Incident | 0 | 0 | 0 | 0 | **0** |

## Water-related stakeholder collaboration

Although no Vanachai sites are located in water-stressed areas, the Group continues water-related collaboration through local and industrial platforms. The Saraburi and Rayong plants are located in industrial estate areas and engage with the Industrial Estate Authority of Thailand. The Rayong plant also participates in the Environmental Quality Monitoring Committee of Map Ta Phut Industrial Estate, supporting environmental monitoring, water-related coordination, and opportunities for industrial ecology where technically feasible.



## Forward Actions

### Strengthening water efficiency, restoring circular water performance, and building long-term water resilience

Vanachai Group recognizes that water stewardship is a long-term operational commitment requiring continuous improvement, stronger process discipline, and active participation from all factories. Although the 2025 water-use intensity result did not fully meet the annual reduction target, the Group remains focused on improving water efficiency and restoring performance to the level previously achieved in manufacturing operations, where process water was managed with a high level of circularity and 100% recycled water use in production was achieved in 2024.

Going forward, Vanachai will strengthen site-level water balance reviews, improve water-use monitoring by production process, and identify priority areas where water intensity can be reduced. The Group will place greater emphasis on leakage prevention, preventive maintenance, process control, rainwater storage, and employee awareness to ensure that water is used responsibly and efficiently. Each factory will be encouraged to set clearer water efficiency actions and track progress against measurable KPIs, while maintaining zero water withdrawal or consumption from water-stressed areas.

Vanachai will also enhance the quality of our water-related data and disclosures. The Group will continue to report COD load intensity from four plants, strengthening transparency on water quality performance and supporting alignment with international Water Security indicators. These actions will help improve operational resilience, reduce freshwater dependence, protect local water resources, and strengthen stakeholder confidence in Vanachai's environmental management.



**"Water efficiency is a key priority for our production and environmental management. Vanachai will continue to improve water-use efficiency, strengthen process controls, and work toward returning manufacturing water recycling performance to the level previously achieved. We are committed to using water responsibly, reducing unnecessary withdrawal, and protecting shared water resources for the long term."**

**Sittiwat Sahawat**
Chief Operating Officer
Responsible for Production and
Environmental Management, Vanachai Group

# FUTURE

## Governance
## Sustainability



The Group's Governance and Economic sustainability, under the

**"GOVERNANCE: Driving business through strong governance and sustainable economic performance"**

approach, reflects a fundamental commitment to transparency, accountability, and long-term value creation. The Group recognizes that stakeholder trust, competitiveness, and business continuity depend on robust governance structures, systematic risk management, and ethical business conduct. To support this, the Group applies an integrated materiality and risk assessment process to ensure that significant sustainability issues are comprehensively evaluated and effectively linked to strategy setting, management practices, and business decision making.



# FUTURE

## Sustainability in the Governance and Economic Pillar

### STRENGTHENING RESPONSIBLE AND RESILIENT GOVERNANCE STRATEGY

- Business integrity and Anti-corruption
- Enterprise Risk Management and Oversight
- Tax Transparency and Responsible Tax Practices
- Responsible Supply Chain and Partner Responsibility
- Geopolitical and Global Business Resilience

### DRIVING DIGITAL AND SUSTAINABLE INNOVATION STRATEGY

- Digital Transformation and Data Security
- Green and Inclusive Innovation

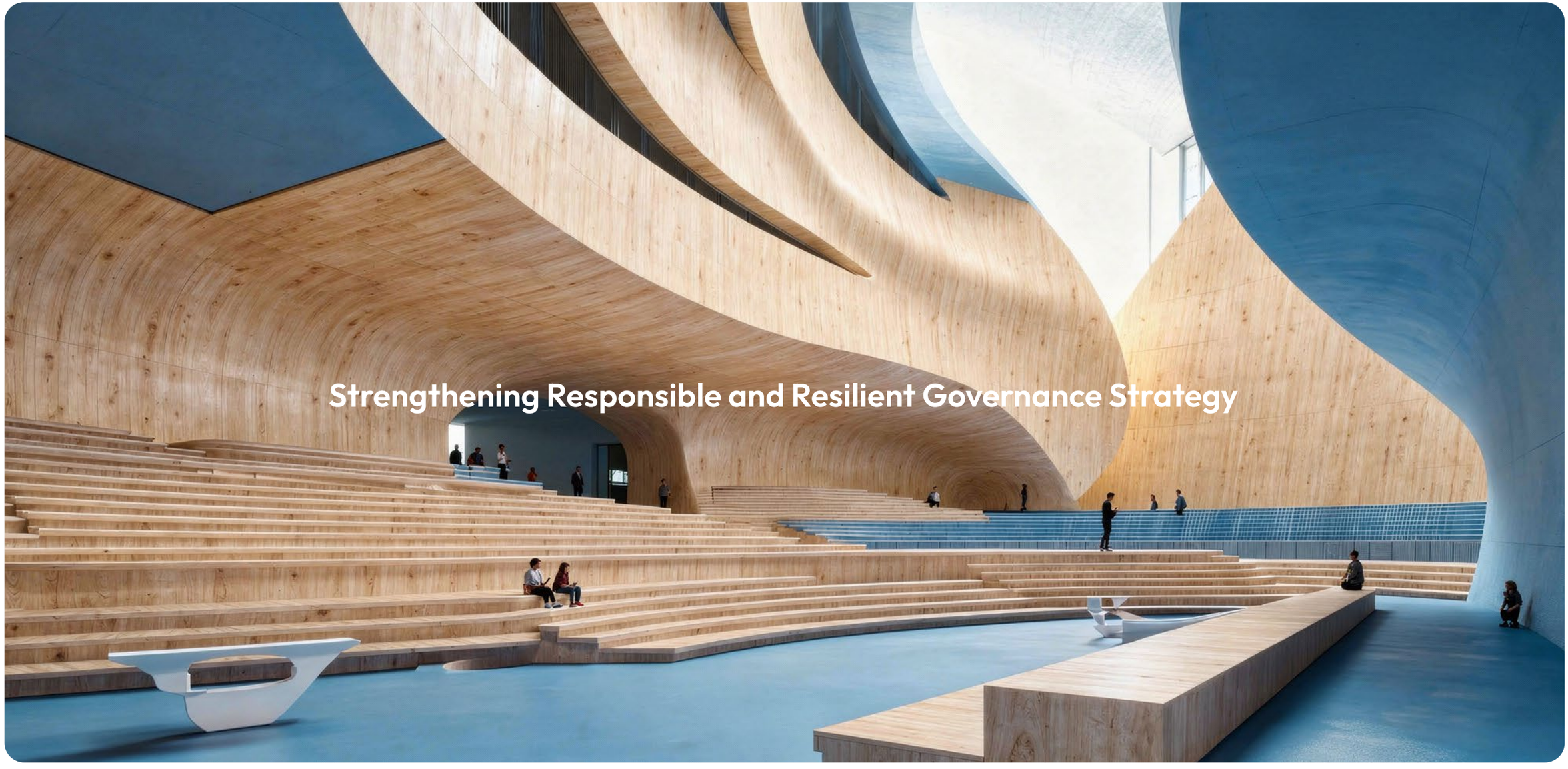
### DESIGNING DURABLE AND RESPONSIBLE PRODUCTS STRATEGY

- Product Longevity and Lifecycle Performance
- Sustainable Product and Service Responsibility

### UN Sustainable Development Goals





# Strengthening Responsible and Resilient Governance Strategy

# Business integrity and Anti-corruption

**Upholding ethical business conduct, transparency, and accountability across the organization and value chain**

## "Business integrity"

**Scan for related disclosure**

For further details, please refer to the policies

- Board of Directors Charter
- Conflict of Interest Prevention Policy
- Nomination and Remuneration Committee Charter
- The Use of Inside Information for Personal Gain Policy
- Audit Committee Charter
- Anti-Unfair Competition Policy
- Policy and Criteria for the Remuneration of the Managing Director and Senior Executives
- Board of Directors Self-assessment
- Board Diversity Policy
- Managing Director Evaluation

## Impact & Value Created

Strengthens resilience and stakeholder trust through ethical conduct, transparent governance, and effective anti-corruption controls, while reducing legal, financial, and reputational risks.

## Risks & Opportunities

Integrity risks include corruption, fraud, conflicts of interest, non-compliance, and reputational damage if controls are weak. Stronger governance, anti-corruption systems, and transparent reporting create opportunities to build investor confidence, strengthen partner trust, and support resilient long-term growth.

## Our Approach

- Embed integrity into governance and operations
- Maintain zero tolerance for corruption
- Integrate integrity risks into ERM
- Strengthen internal controls and audits
- Maintain whistleblowing and protection mechanisms
- Train employees and engage business partners
- Improve transparent disclosure

## Our Policies Summary

- Strengthen integrity governance and oversight
- Enhance anti-corruption compliance, awareness, and reporting mechanisms
- Strengthen conflict of interest controls and commitment to board diversity
- Strengthen partner due diligence and supply chain integrity
- Integrate integrity risk into ERM and internal control systems
- Improve transparency in governance and anti-corruption disclosure

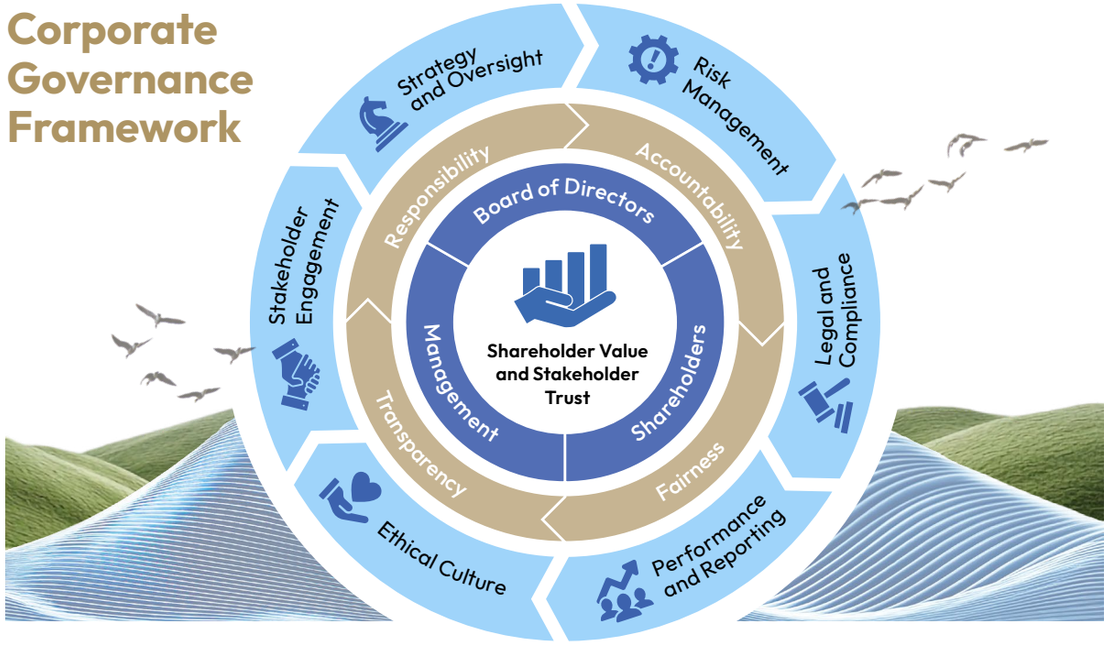
## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Strengthen integrity governance and oversight** | Maintain clear governance oversight of integrity and anti-corruption, **with zero reported business ethics breach complaints.** | **Governance roles are defined across the Board, Audit Committee, Sustainability Committee, management, and internal audit, with zero reported complaints** relating to breaches of business ethics. | Strengthen systematic monitoring of integrity risks and reporting to the Board and relevant committees. | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |
| **Strengthen partner integrity and risk management** | **Achieve 100% ESG assessment of suppliers through due diligence and ethics-based screening,** while strengthening integrity risk monitoring across the value chain. | **Integrity expectations, due diligence, and partner evaluation were embedded across 100%** of supplier and business partner requirements (see Supply Chain section). | Expand ethics screening, improve partner monitoring, and integrate integrity risks more deeply into ERM and supply chain oversight. | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |
| **Integrate integrity risk into ERM and internal controls** | **Incorporate business integrity and corruption risks into ERM,** internal control, and internal audit processes to support systematic risk monitoring and mitigation | **Integrity and anti-corruption risks were integrated into V-IMRA, ERM, and internal control processes,** supported by committee oversight and internal audit. | Strengthen integrity risk monitoring, internal controls, audit follow-up, and reporting through deeper ERM integration. | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • Expand ethics training together with anti-corruption assessment<br>• Strengthen whistleblowing channels<br>• Screen partner integrity<br>• Assess integrity risks<br>• Reinforce policy communication | • Deepen ERM integration<br>• Strengthen audits and controls<br>• Expand supply chain monitoring<br>• Improve case management<br>• Enhance disclosure quality | • Embed integrity culture<br>• Maintain zero-tolerance enforcement<br>• Lead trusted governance practices<br>• Strengthen stakeholder confidence<br>• Sustain continuous improvement |

## Corporate Governance Framework




## Board Committee Information

**Board of Directors**
**15 Members**

**Independent Directors**
**6 Members** (40%)

**Women on the Board**
**2 Members** (13.33%)

**Executive Committees**
**9 Members** (60%)

**Number of meeting time**

| | |
|---|---|
| The Board of Directors | 6 |
| Risk Management & Governance Committee | 2 |
| Sustainability Committee | 2 |
| Nomination and Remuneration Committee | 2 |
| Audit Committee | 4 |

**Men on the Board**
**13 Members** (86.67%)

As of 31 December 2025, the Board of Directors comprised 15 members, including 6 non-executive directors (40%) and 9 executive directors (60%). The Board included 6 independent directors (40%), of whom 2 were female independent directors, representing 13.33% of the full Board. All independent directors met the Company's independence criteria, which are more stringent than the requirements of the Capital Market Supervisory Board. **The Board reflects diversity in gender, age, qualifications, knowledge, skills, professional backgrounds, expertise, and experience, providing a broad and balanced range of competencies aligned with the Company's business needs and long-term strategic direction.** Supported by an appropriate governance structure and board committees with relevant expertise, this composition strengthens oversight, internal control, and ethical business conduct, while supporting effective decision-making and smooth business operations.

# Committee Structure, Composition, and Diversity

| Board Directors | Position | Age | Start Holding | No. Meeting | AGM | Executive Director | Independent Director |
|---|---|---|---|---|---|---|---|
| 1) Mr. Sompop Sahawat | Chairman | 73 | 1 Nov 1994 | 5/6 | 1/1 | ◉ | |
| 2) Mr. Suebtrakul Soonthornthum | Independent Director, Vice Chairman, Chairman of the Nomination and remuneration Committee | 83 | 1 Nov 1994 | 5/6 | 1/1 | | ◉ |
| 3) Ms. Yupaporn Boongate | Vice Chairman | 71 | 4 Jan 1995 | 6/6 | 1/1 | ◉ | |
| 4) Mr. Kraithip Krairiksh | Independent Director, Chairman of the Audit Committee | 71 | 12 Dec 2008, 7 Dec 2023 | 6/6 | 1/1 | | ◉ |
| 5) Pol. Gen. Soontorn Saikwan | Independent Director | 81 | 19 Apr 2005, 7 Nov 2023 | 6/6 | 1/1 | | ◉ |
| 6) Pol. Gen Visanu Prasattongosoth | Independent Director | 63 | 7 Nov 2023 | 6/6 | 0/1 | | ◉ |
| 7) Mr. Praphan Anaman | Independent Director, Chairman of the Risk Management & Governance Committee Committee | 74 | 7 Nov 2023 | 6/6 | 1/1 | | ◉ |
| 8) M.L. Dispanadda Diskul | Independent Director | 51 | 8 Aug 2024 | 6/6 | 1/1 | | ◉ |
| 9) Mr. Wanthana Jaroennawarat | Director, Chairman of the Executive Committee | 65 | 1 Nov 1994 | 6/6 | 1/1 | ◉ | |
| 10) Mr. Suthep Chaipattanavanich | Director | 62 | 1 Nov 1994 | 6/6 | 1/1 | ◉ | |
| 11) Mr. Patta Sahawat | Director, Executive Director | 53 | 25 Apr 2001 | 6/6 | 1/1 | ◉ | |
| 12) Ms. Phattra Sahawat | *Managing Director, Chairman of the Sustainability Committee, Executive Director | 51 | 24 Apr 2002 | 6/6 | 1/1 | ◉ | |
| 13) Mr. Somprasong Sahavat | Deputy Managing Director, Executive Director | 49 | 13 May 2003 | 6/6 | 1/1 | ◉ | |
| 14) Mr. Sittiwat Sahawat | Deputy Managing Director, Executive Director | 45 | 14 May 2019 | 6/6 | 1/1 | ◉ | |
| 15) Mr. Surapong Dumrisilp | Director, Executive Director | 68 | 6 Mar 2015 | 6/6 | 1/1 | ◉ | |
| **Total** | | | | | | **9** | **6** |

# Information on Board Committees

**Scan for related disclosure**
For further details, please refer to the
Annual Report 56-1 (One Report) 2025, page 131-149 (PDF page 129-147).

## 1) Audit Committee

| Committee Members | Position | No. Meeting |
|---|---|---|
| 1. Mr. Kraithip Krairiksh | Chairman & INED | 4/4 |
| 2. Pol. Gen. Soontorn Saikwan | INED | 4/4 |
| 3. Pol. Gen Visanu Prasattongosoth | INED | 4/4 |
| 4. Mr. Praphan Anaman | INED | 4/4 |

## 2) Risk Management and Governance Committee

| Committee Members | Position | No. Meeting |
|---|---|---|
| 1. Mr. Praphan Anaman | Chairman & INED | 2/2 |
| 2. Mr. Suthep Chaipattanavanich | | 2/2 |
| 3. Mr. Somprasong Sahavat | | 2/2 |

## 3) Nomination and Remuneration Committee

| Committee Members | Position | No. Meeting |
|---|---|---|
| 1. Mr. Suebtrakul Soonthornthum | Chairman & INED | 2/2 |
| 2. Mr. Patta Sahawat | | 2/2 |
| 3. Mr. Sittiwat Sahawat | | 2/2 |

## 4) Sustainability Committee

| Committee Members | Position | No. Meeting |
|---|---|---|
| 1. Ms. Phattra Sahawat | Chairman | 2/2 |
| 2. M.L. Dispanadda Diskul | INED | 2/2 |
| 3. Mr. Somprasong Sahavat | | 2/2 |

* INED - Independent Non-Executive Director

## Meetings of Sustainability-Related Committees in 2025

| Committee | Summary Key Issues |
|---|---|
| **Board of Directors**<br>**6 times/year** | • Set strategy, direction, and policy across all time horizons<br>• Integrate Double Materiality and value chain risks and opportunities<br>• Consider outside-in and inside-out ESG impacts<br>• Set ESG-aligned metrics and targets |
| **Risk Management & Governance Committee**<br>**2 times/year** | • Develop and propose the risk management policy<br>• Set risk criteria, frameworks, and mitigation plans<br>• Conduct risk assessment and prioritization<br>• Monitor risk management implementation and advise management<br>• Support V-IMRA implementation |
| **Sustainability Committee**<br>**2 times/year** | • Review the Sustainability Development Plan and strategic framework<br>• Consider value chain adjustments and sustainability priorities<br>• Guide Net Zero strategy, implementation, and progress<br>• Review plans to improve SET ESG performance |
| **Nomination & Remuneration Committee**<br>**2 times/year** | • Review and nominate qualified director candidates<br>• Assess executive performance and recommend remuneration<br>• Facilitate advance shareholder nomination of directors |
| **Audit Committee**<br>**4 times/year** | • Review financial reporting and the Audit Committee report<br>• Oversee internal controls, internal audit, and legal compliance<br>• Recommend the external auditor and meet privately at least annually<br>• Review related-party transactions and other Board-assigned matters |

# Board Skills, Experience and Expertise Matrix

The Board Skills Matrix is designed to ensure that the Board maintains coverage of the capabilities most material to Vanachai's business, beyond generic governance classifications. In line with the Company's governance framework, the Board is expected to oversee risk management, sustainability governance, internal control, disclosure quality, anti-corruption, stakeholder confidence, and long-term value creation. Given Vanachai's multi-site wood-based products operations, export exposure, renewable energy assets, complex supply chains, and rising climate and regulatory expectations, the Board requires a balanced mix of expertise to guide strategy and oversee performance effectively. Expertise in wood-based industry dynamics and sustainable resource stewardship is also strategically important. Accordingly, the matrix is structured around the core capabilities needed to oversee the business effectively, with particular depth in governance, finance, industrial operations, risk management, sustainability and climate, and legal and regulatory compliance.

| Board of Directors | Experience and skills relevant to the successful oversight of our strategy | | | | | | | | Experience and skills relevant to effective oversight and governance | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Wood-Based Industry and Sustainable Resource | Industrial Operations and Manufacturing | Sustainability, Climate and Natural Resource | Supply Chain and Procurement Governance | Market, Customer and International Trade | Technology and Cyber-security Governance | Human Capital, Succession and Remuneration | Strategy, Transformation and Long-Term Investment | Corporate Governance and Board Oversight | Finance, Audit and Capital Allocation | Risk Management and Internal Control | Legal, Regulatory and Compliance | Business Integrity and Anti-Corruption |
| 1) Mr. Sompop Sahawat | ● | ● | ● | ● | | | ● | ● | ● | ● | ● | | ● |
| 2) Mr. Suebtrakul Soonthornthum | | | | | ● | | ● | ● | ● | ● | ● | ● | ● |
| 3) Ms. Yupaporn Boongate | ● | | | | | | | ● | ● | | ● | | ● |
| 4) Mr. Kraithip Krairiksh | | | | | | ● | | ● | ● | ● | ● | ● | ● |
| 5) Pol. Gen. Soontorn Saikwan | | | | | | | | ● | ● | ● | ● | ● | ● |
| 6) Pol. Gen Visanu Prasattongosoth | | | | | ● | ● | | ● | ● | ● | ● | ● | ● |
| 7) Mr. Praphan Anaman | | | | | | | | ● | ● | ● | ● | ● | ● |
| 8) M.L. Dispanadda Diskul | | | ● | ● | ● | ● | | ● | ● | ● | ● | ● | ● |
| 9) Mr. Wanthana Jaroennawarat | ● | ● | ● | ● | ● | | ● | ● | ● | ● | ● | | ● |
| 10) Mr. Suthep Chaipattanavanich | ● | ● | ● | | | ● | | ● | ● | ● | ● | | ● |
| 11) Mr. Patta Sahawat | ● | ● | ● | | ● | ● | ● | ● | ● | | ● | | ● |
| 12) Ms. Phattra Sahawat | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ● | ● | ● |
| 13) Mr. Somprasong Sahavat | ● | ● | ● | ● | | ● | | ● | ● | ● | ● | | ● |
| 14) Mr. Sittiwat Sahawat | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ● | | ● |
| 15) Mr. Surapong Dumrisilp | ● | ● | ● | | | | | ● | ● | ● | ● | ● | ● |
| Total | 9 | 8 | 9 | 6 | 7 | 8 | 6 | 15 | 15 | 11 | 15 | 8 | 15 |

# Annual Board and Board Committee Performance Evaluation

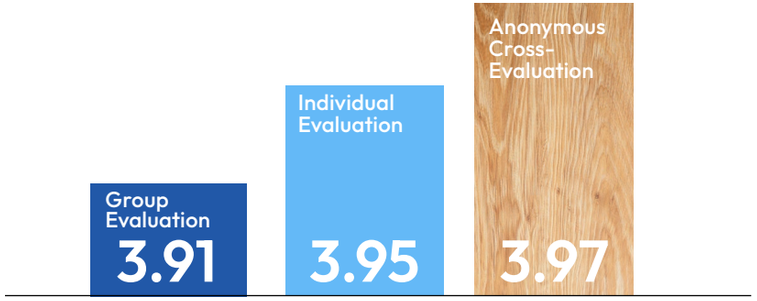
The Company conducts a performance evaluation of the Board of Directors and all Board Committees **on an annual basis**, at least once every year, to support effective governance, accountability, and continuous improvement in oversight. The evaluation is carried out using the assessment form developed by the Stock Exchange of Thailand (SET), covering both collective performance at the Board and committee level and the average contribution of individual directors. **The results are used as one of the key inputs in determining the remuneration of the Board of Directors and all Board Committees**, reinforcing responsible governance, Board effectiveness, and alignment with the Company's long-term strategic direction.

## Evaluation Criteria

The Company conducts a self-evaluation of the Board of Directors and Board Committees at least once a year using the assessment form developed by the Stock Exchange of Thailand (SET), with reference to SEC corporate governance principles, the Thai IOD Corporate Governance Report framework, and SET's ESG concept. The evaluation is designed to support performance review, governance effectiveness, and continuous improvement at both the collective and individual levels, and covers three formats: Board self-evaluation, individual director evaluation, and Board Committee self-evaluation. Key assessment areas include Board structure and qualifications, roles and responsibilities, meeting effectiveness, directors' performance, relationship with management, and director development, while Board Committees are also assessed against their specific mandates under each committee charter. All evaluations are based on a **standardized 0–4 scoring scale**, enabling consistent year-on-year comparison and supporting the ongoing enhancement of Board and committee effectiveness.

| Board and Board Committee | Number of Directors | Group Evaluation | Individual Evaluation | Evaluation Level |
|---|---|---|---|---|
| **The Board of Directors** | 15 | 3.91 | 3.95 | Very High |
| **Anonymous Cross-Evaluation** | 15 | 3.97 | | Very High |
| **Audit Committee** | 4 | 3.97 | | Very High |
| **Nomination & Remuneration Committee** | 3 | 3.97 | | Very High |
| **Risk Management & Governance Committee** | 3 | 3.99 | | Very High |
| **Sustainability Committee** | 3 | 3.95 | | Very High |

### Board Performance Evaluation




### Board Committee Performance Evaluation




**Scan for related disclosure**
For further details, please refer to the
Board of Directors Self-assessment 2026

# Senior Executives Renuneration

Vanachai Group Public Company Limited has designed our senior executive remuneration structure to support responsible leadership, business performance, and long-term value creation. The remuneration framework is intended to be fair, transparent, and aligned with the scope of responsibilities of each executive role, while also supporting the attraction, retention, and motivation of capable executives. Further details are available in the 2025 Annual Report (56-1 One Report, page 139; PDF page 137), together with the policy and criteria governing remuneration for the Managing Director and senior executives. Senior executive remuneration is determined in accordance with the principles and policies approved by the Board of Directors and is linked to the Group's operating performance and the individual performance of each executive. In 2025, the Company disclosed that remuneration for executive committee members and executives consisted solely of salaries, totaling **THB 36.60 million for 8 executives**, with no other forms of remuneration disclosed.

## Governance and oversight

Oversight of senior executive remuneration is exercised through the Company's governance structure. The **Nomination and Remuneration Committee** is responsible for establishing the criteria and processes relating to the nomination, appointment, performance evaluation, and remuneration of directors and senior executives. In doing so, the Committee considers appropriateness, fairness, performance, risk exposure, and alignment with the Company's long-term strategic objectives. This approach helps ensure that remuneration decisions are not based solely on short-term financial results, but also reflect governance quality, responsible business conduct, and sustainable leadership.

## Performance linkage

The Group applies a structured performance evaluation process for senior executives. At present, the **Managing Director (MD) is assessed based on 65% management plan progress against material sustainability-related priorities and 35% performance assessment, while the Deputy Managing Director (DMD) is assessed based on 60% and 40%**, respectively. For the Managing Director, the management performance component covers both financial targets and ESG targets, demonstrating that sustainability-related criteria have already been integrated into the executive evaluation framework and are measured as a percentage of target achievement. In addition, the performance assessment form uses a standardized 0–4 scoring scale, enabling consistent comparison of evaluation results across both assessment topics and reporting periods.

"Executive motivation is not driven solely by short-term remuneration, but also by a commitment to sustaining the business with profitability, transparency, and long-term responsibility to society and the environment."

**Scan for related disclosure**
For further details, please refer to the
Succession Policy 2026

## Forward Actions

To further strengthen governance quality and disclosure practices, the Group may consider revising the annual evaluation weighting to **60:40 for the Managing Director** and 55:45 for the Deputy Managing Director, together with the introduction of **a long-term incentive or a three-year deferred remuneration mechanism** linked to strategic execution, ESG performance, and sustainable business outcomes. Such an approach would provide a clearer link between remuneration, leadership effectiveness, risk oversight, and long-term shareholder value creation.

Although the Group already applies an executive evaluation framework linked to both financial performance and ESG performance, the disclosure of senior executive remuneration as salary only may not yet fully reflect the incentive structure supporting long-term value creation. For Executive Directors who are family members, a key source of motivation also derives from the family's long-standing stewardship values, which emphasize business continuity across generations, sustainable profitability, and responsibility to society and the environment.

Accordingly, the Group will consider enhancing the remuneration structure by introducing elements linked to long-term performance, risk management, and ESG targets, in order to strengthen governance effectiveness and investor confidence.

**Scan for related disclosure**
For further details, please refer to the
Senior Executive Performance Evaluation Report 2025

# Corporate Governance Across the Value Chain

## Upstream

### Investors & Shareholders
Engage through the AGM, annual reporting, and transparent disclosure to support accountability, oversight, and long-term value creation.

### Business Development & Innovation
Promote fair innovation, clear approval, and recognition for employees and partners who create value.

### Responsible Procurement & Supply Chain
Apply procurement policy, supplier due diligence, integrity expectations, and trusted logistics partnerships.

## Own Operations

### Integrity in Production
Embed ethics, accountability, and operational discipline across production and plant activities.

### Internal Controls & Fair Operations
Strengthen controls, efficiency, fairness, and responsible decision-making across daily operations.

### Risk, Reporting & Speak-Up
Support clear reporting lines, whistleblowing access, and timely escalation of issues.

## Downstream

### Responsible Products
Deliver safe, reliable, and sustainable products that meet customer and project needs.

### Transparent Customer Communication
Provide clear product information, fair communication, and responsive service.

### Trusted Customer Relationships
Build trust with developers, distributors, contractors, and end users through responsible engagement.

## Governance Principles Across the Value Chain

- Integrity
- Fairness
- Transparency
- Accountability
- Trust

## Value Created

- Stakeholder trust
- Risk reduction
- Better compliance
- Operational resilience
- Long-term value

# Driving fairness, integrity, and trust from investor engagement to customer delivery

## 1) Communication with All Stakeholders

- Maintain transparent and inclusive communication with all stakeholder groups
- Build shared understanding of key issues across the organization and value chain
- Support aligned action through clear, fair, and accessible communication
- Strengthen trust, align expectations, and reduce information gaps through regular engagement and feedback

## 2) AGM as a Forum of Sincerity and Trust

- Use the AGM as a key governance forum for communication with shareholders
- Communicate with sincerity, transparency, and accountability
- Provide explanation of performance, future direction, and other material matters
- Reinforce trust, open dialogue, and respect for shareholder rights

**Scan for related disclosure**
For further details, please refer to QR Codes:
https://www.vanachai.com/en/investor-relations/shareholder-meeting

**Scan for related disclosure**
For further details, please refer to
One Report 56-1 2025, page 114 (PDF page 112).









# Business integrity and Anti-corruption

**Preventing bribery and corruption through ethical conduct, strong controls, and transparent governance**

"Anti-corruption"

## Impact & Value Created

Strengthens long term resilience and stakeholder trust through ethical conduct, transparent governance, and effective anti-corruption controls, while reducing legal, financial, and reputational risks.

## Risks & Opportunities

Integrity risks include bribery, fraud, conflicts of interest, weak controls, unethical partner conduct, and reputational damage. Stronger anti-corruption governance creates opportunities to enhance investor confidence, strengthen partner trust, and support sustainable long-term growth.

## Our Approach

- Apply zero tolerance for bribery and corruption
- Integrate integrity risks into V-IMRA and ERM
- Maintain whistleblowing, investigation, and protection mechanisms
- Strengthen internal controls, audits, and governance oversight
- Conduct partner due diligence and supply chain monitoring
- Promote ethics awareness through training and communication

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Conduct annual corruption risk assessments**<br>• **Maintain secure whistleblowing channels**<br>• **Implement the No Gift Policy group-wide**<br>• **00% Train employees on anti-corruption and ethics** | • Integrate gift risks into governance review<br>• Report issues to the Audit Committee<br>• Strengthen controls across all functions<br>• Review high-risk partners and train relevant groups<br>• Enhance transparency against external benchmarks | • Maintain zero proven cases of corruption or bribery across the organization<br>• Embed transparency and integrity into the Company's core values and organizational culture<br>• Strengthen industry recognition as a transparent and well-governed organization |

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Corruption risk assessment and anti-corruption capability building** | Annual corruption risk assessments completed across key operations, with **cumulative Train & Test coverage reaching 50% of all employees** | Annual corruption risk assessments were conducted across key operations, while **cumulative Train & Test coverage reached 47.9% of all employees** | Expand coverage across all functions and achieve 100% employee Train & Test coverage by 2027 | 16 |
| **Corruption risk assessment and targeted controls** | **Conduct corruption risk assessment by risk type and business process,** with targeted controls in high-risk areas | **Corruption risk assessment framework defined across key business processes,** with controls linked to whistleblowing, due diligence, internal audit, and investigations | Enhance controls, monitoring, and disclosure | 16, 17 |
| **Maintain confidential whistleblowing channels and full case investigation** | **Maintain secure, confidential channels** and timely case investigation | Whistleblowing channels remained in place, with **zero reported cases** relating to ethics, bribery, or corruption | Strengthen speak-up culture and case management readiness | 16 |

**Scan for related disclosure**
For further details, please refer to the policies
Anti-corruption Policy

**Scan for related disclosure**
For further details, please refer to the policies
Gift and Hospitality Policy

# Corruption Risk Assessment

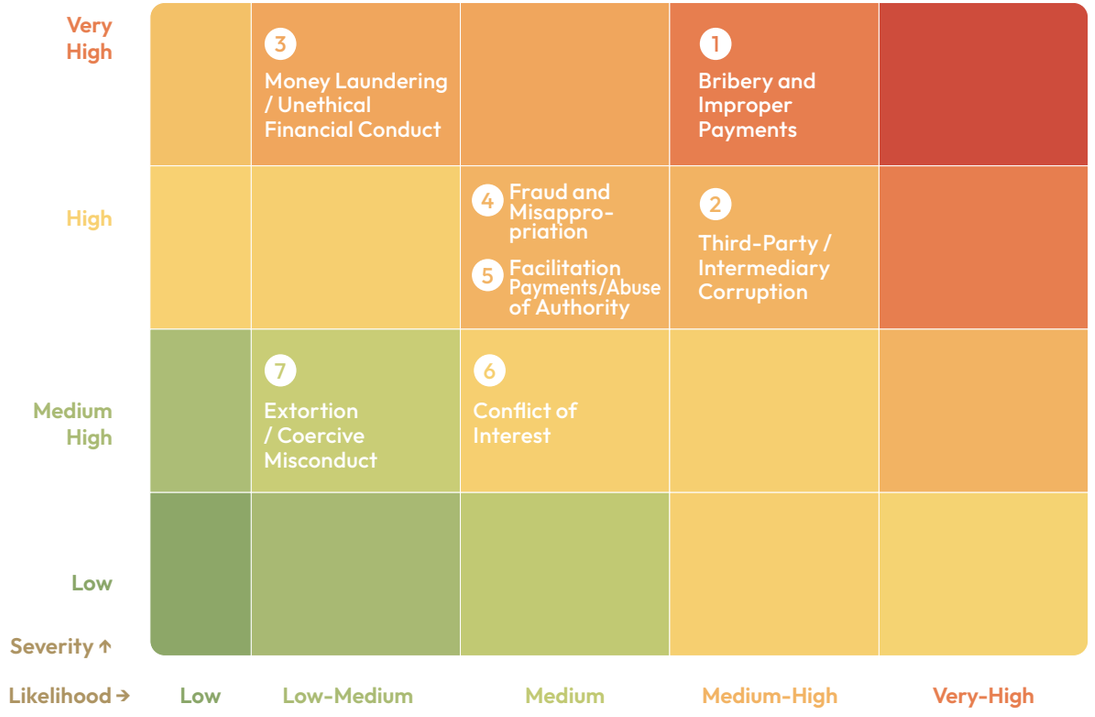
The Group defines corruption risk broadly to include bribery, conflicts of interest, fraud, extortion, facilitation payments, money laundering, and other improper advantages, whether direct or indirect. These risks may arise across key business activities, including procurement, sales, financial management, donations, recruitment, data management, and dealings with suppliers, contractors, agents, and other intermediaries. The Group therefore assesses corruption risk by type and by business process, with consideration given to legal, financial, operational, and reputational impacts. Key controls include policy requirements, conflict-of-interest disclosure, due diligence, internal controls, whistleblowing channels, investigation procedures, internal audit, and oversight by the Board of Directors, Audit Committee, and management.

"The Group assesses corruption risk both by risk type and by business process in order to implement more targeted controls and strengthen the effectiveness of governance oversight."

| Corruption Risk | How the Risk May Arise | Potential Business Impact | Key Controls and Oversight |
|---|---|---|---|
| 1 **Bribery and improper payments** | May arise in sales, international trade, procurement, licensing, customs, government dealings, and intermediary engagement | Legal sanctions, financial penalties, contract loss, reputational damage, and loss of stakeholder trust | Anti-corruption Policy, Gift and Hospitality Policy, approval controls, anti-bribery requirements, employee training, whistleblowing channels, internal audit, and Board-level oversight |
| 2 **Third-party and intermediary risk** | Suppliers, contractors, agents, distributors, customs brokers | Indirect bribery, compliance breaches, supply chain risk | Due diligence, Supplier Code of Conduct, contract clauses, monitoring, corrective actions |
| 3 **Money laundering and unethical financial conduct** | Trade transactions, financial flows, high-risk counterparties | Regulatory breach, financial crime exposure, investor concern | Counterparty screening, finance controls, documentation review, audit oversight |
| 4 **Fraud and misappropriation** | Payments, expense claims, procurement, inventory, data handling | Financial loss, control failure, loss of trust | Internal controls, segregation of duties, internal audit, investigation process |
| 5 **Facilitation payments and abuse of authority** | Operations, logistics, customs clearance, permits, site-level decisions | Compliance breaches, misconduct risk, reputational damage | Zero-tolerance policy, staff guidance, escalation, management oversight |
| 6 **Conflict of interest** | Purchasing, vendor selection, hiring, donations, sponsorships, business decisions | Biased decisions, unfair transactions, governance weakness | Disclosure requirements, approval process, internal verification, committee oversight |
| 7 **Extortion and Coercive Misconduct** | May arise when employees or third parties are pressured to provide improper benefits | May result in legal breaches, control weakness, unsafe conditions, and reputational harm | Managed through whistleblowing channels, escalation, investigation, management action, and non-retaliation safeguards |

# Corruption Risk Assessment

**Assessing corruption risk by risk type and business process to strengthen targeted controls and governance oversight.**




## What is Corruption Risk?

Corruption risk includes bribery, conflicts of interest, fraud, extortion, facilitation payments, money laundering, and other improper advantages.

## Exposure Can Arise Across

procurement, sales, financial management, donations, recruitment, data management, and dealings with suppliers, contractors, agents, and intermediaries.

## Why It Matters

Corruption can lead to legal penalties, financial loss, operational disruption, and severe reputational damage, there by undermining trust with investors, customers, and communities.

## High-Risk Areas

Procurement, sales, international trade, customs, government interaction, and intermediary engagement present heightened exposure to corruption risk across our operations.

## Governance Response

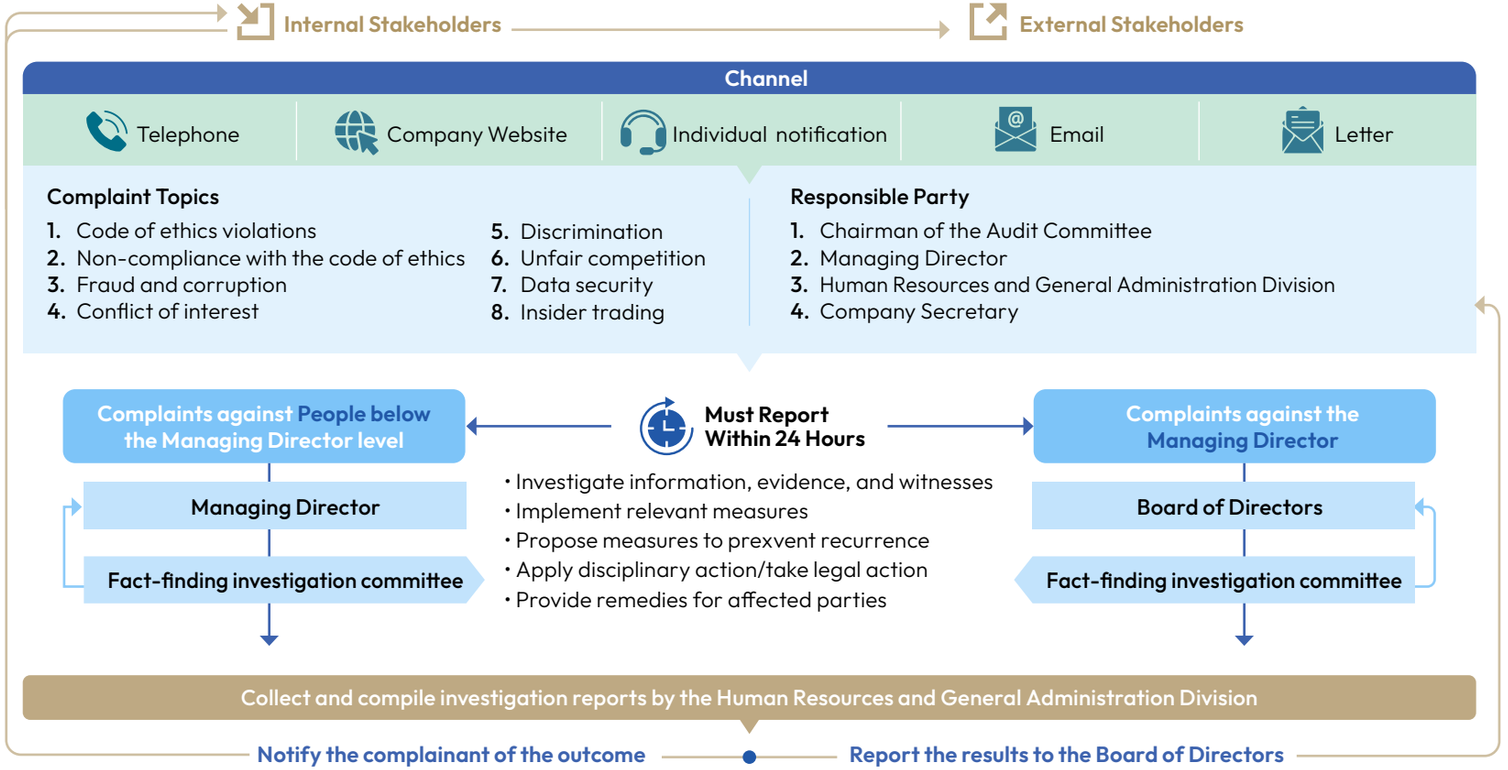
Governance oversight is led by the Board, Audit Committee, and management through the Company's V-IMRA system, enabling ongoing monitoring and evaluation with clear accountability.

## Key Control Measures

- Policy Requirements
- Conflict-of-Interest Disclosure
- Due Diligence
- Internal Controls
- Whistleblowing Channels
- Investigation Procedures
- Internal Audit and Board Oversight

# Whistleblowing and Complaint Handling Procedures

The Group maintained whistleblowing channels throughout 2025, with zero reported cases relating to ethics, bribery, or corruption during the year. Formal complaint and whistleblowing procedures remained available to internal and external stakeholders through multiple channels, including telephone, the Company's website, email, letter, and direct notification. The mechanism covers key misconduct risks, including breaches of the Code of Ethics, fraud and corruption, conflicts of interest, unfair competition, insider trading, data security, and other non-compliance risks, particularly in higher-risk areas such as sales, international trade, and operations.




In parallel, the Group provided employee training on anti-bribery and anti-corruption based on CAC Assessment questions to strengthen awareness and support consistent implementation across the organization. The Group targets 100% employee training coverage by 2027, with this training mandatory for all new employees. Complaints are investigated through a formal fact-finding process, escalated as appropriate, and reported through the relevant governance channels, reinforcing timely response, clear accountability, and effective integrity oversight.

## Complaints and Whistleblowing

| Complaints and Whistleblowing Cases | 2023 | 2024 | 2025 |
|---|---|---|---|
| Total number of complaints related to fraud, bribery, and corruption | 0 | 0 | **0** |
| Number of employees disciplined or removed from position for breaches of the Anti-Corruption Policy | 0 | 0 | **0** |
| Monetary fines or regulatory penalties arising from corruption cases | 0 | 0 | **0** |

## Employee training on the Anti-Bribery and Anti-Corruption Policy

| Training on Anti-Corruption and Anti-Bribery | 2023 | 2024 | 2025 |
|---|---|---|---|
| Number of employees completing online/offline training | 0 | 520 | **1,080** |
| Training completion rate (% of total employees, cumulative) | 0 | 31% | **47.9%** |

# Enterprise Risk Management and Oversight

**Strengthening resilience through integrated risk governance.**

## Impact & Value Created

Improves resilience, governance, and long-term value by integrating enterprise and sustainability risks into decision-making, strengthening preparedness, transparency, and continuity across the Group.

## Risks & Opportunities

Weak risk oversight may impair strategy execution, operational continuity, compliance, and stakeholder confidence. Limited visibility of interconnected and emerging risks may delay response and weaken preparedness. Conversely, stronger ERM, clear governance, and V-IMRA integration improve prioritization, resilience, disclosure quality, and investor confidence.

## Our Approach

- Apply the **COSO ERM Framework** and **ISO 31000** as the foundation of enterprise risk management
- Maintain **oversight through the Board of Directors**, relevant committees, management, and internal audit
- **Use Risk Appetite to guide prioritization**, escalation, and decisions
- **Integrate V-IMRA into ERM** to capture material sustainability-related risks and opportunities
- **Embed monitoring, review**, and continuous improvement
- **Support resilience through business continuity planning**, scenario-based preparedness, and risk culture development

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Strengthen ERM governance and policy alignment** | **Revise the ERM Policy** in line with COSO ERM, ISO 31000, and FTSE Russell GRM, with clear Board oversight and roles. | **ERM Policy Version 2/2025** took effect on 11 November 2025, with stronger governance, Board oversight, and GRM alignment. | Review regularly and strengthen governance alignment with evolving ESG and market expectations. | 16 |
| **Integrate V-IMRA into ERM and risk reporting** | **Embed V-IMRA into ERM and the Risk** Register, with quarterly Board reporting, monthly management reporting, and annual audit review. | **V-IMRA was embedded into ERM and risk reporting**, supported by quarterly governance reporting, monthly management summaries, and annual audit review. | Deepen linkage to strategy, capital allocation, KRIs, and risk dashboards. | 16, 9 |
| **Strengthen management of emerging risks and business resilience** | **Identify and monitor key emerging risks**, and integrate them into ERM and BCM with clear owners, controls, and reporting. | **Three emerging risks were elevated in 2025:** geopolitical resilience, digital and information security, and emerging disease risk. | Expand scenario analysis and resilience planning for climate, cyber, geopolitical, and supply chain risks. | 16, 13, 8 |
| **Build risk culture, awareness, and organization-wide accountability** | **Strengthen risk awareness, communication, and ownership across all levels** through ongoing training and engagement. | **Risk culture was reinforced through policy direction**, internal communication, and organization-wide awareness building. | Build a structured training roadmap and clearer KPIs for risk awareness and control effectiveness. | 4, 16, 8 |

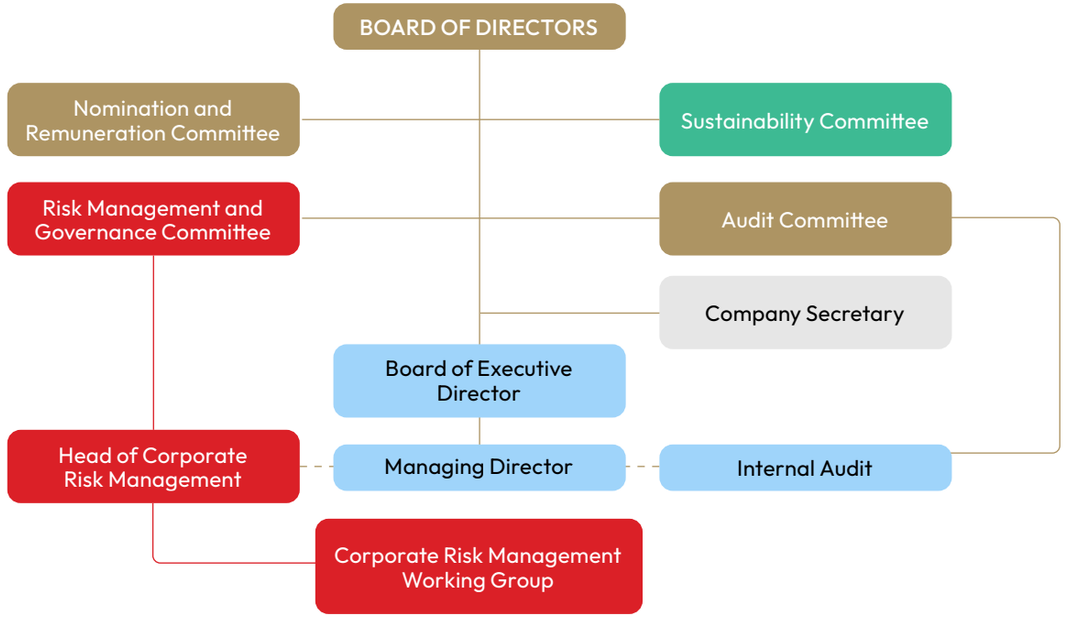
**Scan for related disclosure**
For further details, please refer to the policies

- Enterprise Risk Management Policy
- Continuity Management Policy
- Risk Management and Corporate Governance Committee Charter
- Code of Business Ethics

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Implement updated ERM Policy**<br>• **Embed V-IMRA into ERM**<br>• **Complete annual risk assessments**<br>• **Update risk register and action plans**<br>• **Strengthen risk awareness and training** | • Integrate risk into strategy and investment<br>• Expand KRIs and early warning tools<br>• Strengthen BCM and scenario planning<br>• Monitor emerging risks more closely<br>• Improve reporting and review cycles | • Build resilience culture<br>• Continuously refine V-IMRA and ERM<br>• Improve controls from lessons learned<br>• Strengthen transparent disclosure<br>• Protect long-term enterprise value |

## Enterprise Risk Organization




## Enterprise Risk Management and Oversight

Vanachai Group applies an enterprise-wide risk management framework to strengthen governance, business resilience, and long-term value creation. The Board of Directors oversees the framework, approves the Enterprise Risk Management Policy and Risk Appetite, and reviews system effectiveness through regular governance reporting. Risk governance is supported by the Risk Management and Corporate Governance Committee, management, the Risk Management Working Group, and Internal Audit, with clearly defined roles and responsibilities across the organization.

The Group applies **COSO ERM 2017 and ISO 31000** as the foundation of enterprise risk management, covering strategic, operational, financial, compliance, and ESG risks. To strengthen sustainability-related risk identification and prioritization, the Group integrates the **Vanachai Integrated Materiality and Risk Assessment (V-IMRA) into ERM**, using our outputs to support the Enterprise Risk Register, strategic planning, risk appetite setting, and ongoing monitoring.

Risk management is reinforced **through regular monitoring, reporting, and review**. The Risk Management and Corporate Governance Committee reports key risks to the Board, management receives routine updates, and Internal Audit reviews the effectiveness of risk management and internal controls. Business continuity and incident preparedness, including risk review, response planning, cyber recovery, testing, and emergency drills, further strengthen resilience.

The Group also **maintains confidential complaint and whistleblowing channels**, supported by a corporate-wide process for investigating and following up non-compliance matters. Governance, business ethics, and related policy compliance are overseen through the Group's governance structure, with further evidence referenced in relevant governance and financial disclosures.

## Risk Governance Structure

| Governance body | Risk management role | Reporting / review frequency |
|---|---|---|
| **Board of Directors** | Oversees ERM framework, risk appetite and key risks | Semiannual and annual review |
| **Risk Management and Governance Committee** | Reviews enterprise risks, emerging risks and mitigation progress | Semiannual |
| **Management** | Implements controls, mitigation plans and KRIs | Quarterly |
| **Corporate Risk Management Working Group** | Maintains risk register, coordinates V-IMRA integration and risk reporting | Monthly / quarterly |
| **Internal Audit** | Reviews adequacy and effectiveness of risk management and internal controls | Annually |
| **Business units** | Own risks, implement actions and report incidents | Ongoing |

## Senior Responsibility for Risk Management

Vanachai Group assigns clear senior responsibility for enterprise risk management through designated leadership roles and formal reporting lines. **Mr. Somprasong Sahavat, Director and Risk Management and Governance Director, leads the Group's risk management function** and reports directly to the Chairman of the Risk Management and Corporate Governance Committee, with a functional reporting line to the Managing Director. **Ms. Satrirat Sapphiboon, Head of the Corporate Risk Management Working Group**, supports risk coordination, monitoring, and reporting, and reports to the Risk Management and Governance Director, with a functional reporting line to the Managing Director reviews system effectiveness and remains separate from management risk ownership.

This structure enables timely risk escalation, management coordination, and effective oversight of enterprise and sustainability-related risks. Risk oversight is led by the Risk Management and Corporate Governance Committee, while Internal Audit independently reviews the effectiveness of the risk management and internal control systems and remains separate from management risk ownership to preserve assurance independence and governance integrity.

## Integrated ERM Framework: From Risk Identification to Resilience and Continuous Improvement

Vanachai Group applies an enterprise-wide risk management framework based on COSO ERM 2017 and ISO 31000 to identify, assess, prioritize, manage, monitor, and report strategic, operational, financial, compliance, ESG, and emerging risks. The framework is overseen by the Board of Directors and supported by the Risk Management and Corporate Governance Committee, management, the Corporate Risk Management Working Group, business units, and Internal Audit.

The Group integrates V-IMRA into ERM to ensure that material sustainability-related risks and opportunities are incorporated into the Enterprise Risk Register, risk appetite setting, risk ownership, control measures, mitigation plans, Key Risk Indicators, and reporting to management and the Board. Risk Appetite is used to guide prioritization, escalation, and decision-making, while Business Continuity Management strengthens preparedness for severe disruption events.

Risk management is supported by regular monitoring and review, including monthly management reporting, quarterly Committee and Board reporting, and annual independent review by Internal Audit. This approach strengthens governance, transparency, accountability, resilience, and long-term value protection.

## Risk Appetite and Risk Assessment Methodology

Vanachai Group applies a structured risk appetite and risk assessment methodology to support disciplined decision-making, effective prioritization, and timely escalation of significant risks. Risk appetite defines the level of risk the Group is willing to accept in pursuing our strategic objectives, while the risk assessment methodology provides a consistent basis for evaluating the likelihood, severity, control effectiveness, and residual exposure of each risk.

The methodology is applied across strategic, operational, financial, compliance, ESG, and emerging risks. It is integrated with the Enterprise Risk Register, Key Risk Indicators, V-IMRA, Business Continuity Management, and regular governance reporting. This enables the Group to manage risks in a consistent and comparable manner, while ensuring that material sustainability-related risks and opportunities are incorporated into enterprise-level decision-making.

Using the above risk appetite and assessment methodology, Vanachai Group identifies and prioritizes key enterprise and sustainability-related risks that may affect business operations, stakeholder confidence, compliance, resilience and long-term value creation. The following table summarizes the key risk factors, potential impacts and management measures in 2025.

# Integration of V-IMRA into ERM

Vanachai Group integrates the Vanachai Integrated Materiality and Risk Assessment, or V-IMRA, into our Enterprise Risk Management framework to strengthen the identification, assessment, prioritization, monitoring and escalation of material sustainability-related risks and opportunities. V-IMRA provides a structured mechanism for translating sustainability issues into enterprise risk language and embedding them into the Group's risk governance, decision-making and long-term resilience planning.

The integration of V-IMRA enables the Group to assess material issues from both a business impact perspective and a sustainability impact perspective. Business impact considers potential effects on financial performance, operational continuity, regulatory compliance, market access, reputation, customer confidence and long-term enterprise value. Sustainability impact considers potential effects on employees, customers, suppliers, communities, the environment, natural resources and other stakeholders.

Material issues identified through V-IMRA are incorporated into the Enterprise Risk Register, where they are categorized into relevant risk groups, including strategic, operational, financial, regulatory, ESG and emerging risks. Each material risk is assigned to responsible risk owners, linked with control measures and mitigation plans, and monitored through Key Risk Indicators where applicable. This ensures that sustainability-related risks are managed with the same discipline as other enterprise risks.

V-IMRA also supports risk appetite setting and risk prioritization by helping management assess the severity, likelihood, control effectiveness and residual exposure of each material issue. Where a risk exceeds the defined appetite level or may materially affect operations, compliance, stakeholder confidence, reputation or business continuity, the matter is escalated to the relevant management and governance level for timely response.

The integration of V-IMRA into ERM also strengthens forward-looking risk management. Emerging issues such as geopolitical risk resilience, digital and information security, climate-related risk, supply chain resilience and public health risks are reviewed through V-IMRA and incorporated into ERM, Business Continuity Management and scenario planning where relevant. This helps the Group improve preparedness, strengthen resilience and support effective Board oversight of both current and emerging risks.

Risk information generated through V-IMRA is reviewed through the Group's monitoring and reporting process. Monthly risk summaries are provided to management, while key enterprise and sustainability-related risks are reported quarterly to the Risk Management and Corporate Governance Committee and the Board of Directors. Internal Audit independently reviews the adequacy and effectiveness of the risk management and internal control systems through the established governance process.

Using the integrated ERM and V-IMRA process, Vanachai Group identifies, assesses and prioritizes key enterprise and sustainability-related risks that may affect business operations, stakeholder confidence, compliance, resilience and long-term value creation. The following table summarizes the key risk factors, potential impacts and management measures in 2025.

## Five-level risk rating scale

| Risk level | Meaning | Required management response |
|---|---|---|
| Critical | Risk exceeds appetite and may cause severe business, ESG, legal, financial or reputational impact | Immediate escalation to senior management and relevant governance body, urgent mitigation and close monitoring |
| High | Risk is above appetite or may materially affect operations, compliance, stakeholders or business continuity | Management action plan, assigned owner, KRIs and regular reporting to the Committee or Board where the risk is material |
| Watchlist | Risk is within manageable range but may increase due to external change or weak controls | Enhanced monitoring, early warning indicators and preventive action |
| Medium | Risk is within appetite with existing controls | Continue controls, monitor KPIs and review periodically |
| Low | Risk is well controlled and unlikely to materially affect the Group | Maintain routine monitoring and periodic review |

# Risk Factors Affecting the Company's Business Operations

Key enterprise and sustainability-related risks identified through ERM and V-IMRA, with potential impacts and management measures to protect business resilience and long-term value.

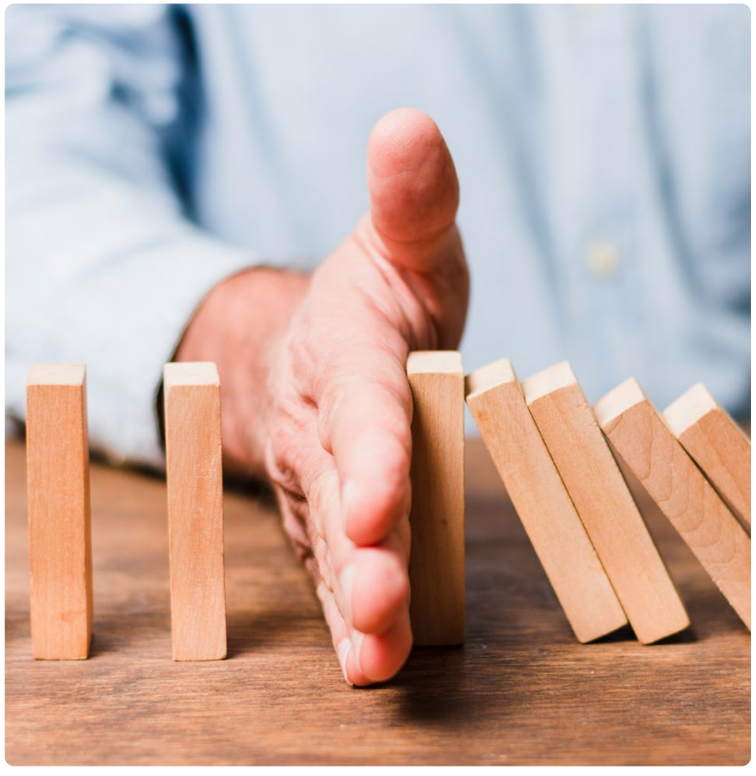
| Risk Factor | Risk Description | Risk Impact | Risk Management Measures |
|---|---|---|---|
| **Strategic Risks** | | | |
| **1.** Greenhouse Gas Emissions and Decarbonization | Transition risks arising from regulatory requirements, market expectations and customer requirements. | Increased costs, market access constraints, delivery and order risks, and reputational exposure. | Implement emissions reduction plans and energy efficiency initiatives, monitor KPIs and reporting, and integrate the issue into the V-IMRA and ERM processes. |
| **2.** Climate Change | Physical risks from extreme weather events and resource variability. | Disruption to production and logistics, higher costs, and asset damage. | Conduct climate risk assessments and adaptation planning, integrate risks into Business Continuity Management, monitor relevant indicators, and review through the V-IMRA and ERM processes. |
| **8.** Business Integrity and Ethics | Risks related to fraud, corruption and non-compliance with business ethics. | Reputational damage, litigation or penalties, and loss of stakeholder trust. | Implement ethics policies and training, whistleblowing channels, internal controls and audits, incident monitoring, and regular reporting to the Board of Directors. |
| **4.** Circular Economy and Resource Efficiency | Risks related to resource use, waste generation and material efficiency. | Higher costs, increased waste, and risk of non-compliance with applicable requirements. | Improve resource efficiency, reduce and recycle waste, monitor KPIs, and integrate resource-related risks into ERM. |
| **9.** Enterprise Risk Management and Governance | Risks arising from inadequate risk governance or untimely risk information. | Inaccurate decision-making, delayed controls, and recurring incidents. | Strengthen ERM and risk culture, use Risk Registers and Key Risk Indicators, conduct regular reporting, and link V-IMRA with ERM. |
| **14.** Green Innovation and Inclusive Engagement | Risks from innovation not keeping pace with market needs or stakeholder expectations. | Loss of business opportunities, slower revenue growth, and reduced competitiveness. | Develop a green innovation roadmap, conduct R&D with customers and suppliers, and assess project value, feasibility and risk exposure. |
| **15.** Product Useful Life and Life-Cycle Performance | Risks related to product quality, useful life and life-cycle impacts. | Claims, complaints, reputational damage, and higher service costs. | Apply product quality standards and testing, design products for durability, monitor complaints, and drive continuous improvement. |

| Risk Factor | Risk Description | Risk Impact | Risk Management Measures |
|---|---|---|---|
| **Operational Risks** | | | |
| **17.** Employee Well-being, Engagement and Capability Development | Risks related to employee retention, skills gaps and low engagement. | Lower productivity, higher workforce costs, and labour-related risks. | Implement capability development and succession plans, conduct employee engagement surveys, provide welfare and well-being programs, and monitor turnover and workforce KPIs. |
| **7.** Water Management and Water Security | Risks related to water scarcity, water quality and wastewater requirements. | Production disruption, higher costs, and legal or regulatory risks. | Implement water efficiency plans, water recycling and treatment, assess water-risk areas, and monitor water consumption and quality. |
| **11.** Responsible Supply Chain and Supplier Stewardship | Risks from supplier non-compliance with standards or delivery disruption. | Raw material shortages, higher costs, and reputational damage. | Conduct supplier selection and assessment, implement Supplier Code of Conduct requirements, monitor and manage corrective actions, support supplier development, and maintain contingency plans. |
| **18.** Occupational Health and Safety | Risks related to accidents, occupational diseases and inadequate workplace controls. | Injuries, lost time, compensation costs, and reputational impact. | Implement an Occupational Health and Safety management system, conduct job risk assessments, provide training and personal protective equipment, investigate incidents, monitor TRIR and LTIFR, and report performance. |
| **Financial Risk** | | | |
| **3.** Energy Efficiency and Transition to Low-Carbon Energy | Risks from energy price volatility, low energy efficiency and clean energy requirements. | Higher production costs, reduced competitiveness, and compliance risks. | Implement energy-saving projects, upgrade machinery, increase the use of clean energy, monitor energy KPIs, and integrate energy-related risks into ERM. |
| **Regulatory Risks** | | | |
| **16.** Sustainable Product and Service Responsibility | Risks from products not meeting standards or customer requirements. | Complaints, recalls, higher costs, and reputational damage. | Apply product standards and testing, strengthen quality controls, provide documentation, labelling and customer information, monitor complaints, and improve processes. |
| **5.** Waste, Wastewater and Pollution Prevention | Risks from waste or wastewater not complying with laws, or from leakage and pollution incidents. | Penalties, remediation costs, production shutdown, and reputational damage. | Segregate and reduce waste, treat wastewater, control pollution, prepare emergency plans, conduct monitoring and legal reporting, and perform internal audits. |
| **ESG Risks** | | | |
| **20.** Customer Responsibility and Trust | Risks from complaints, inconsistent service quality or incomplete customer information. | Loss of customers, reduced revenue, and reputational damage. | Implement service and quality standards, complaint management systems, SLA and satisfaction monitoring, and customer data protection measures. |
| **6.** Biodiversity and Responsible Use of Natural Resources | Risks from ecosystem impacts and stricter requirements on land use and natural resources. | Permitting risks, higher costs, project delays, and reputational damage. | Conduct biodiversity impact assessments and management plans, source raw materials responsibly, implement restoration or offset measures, and monitor biodiversity-related KPIs. |
| **19.** Human Rights and Community Development | Risks from human rights violations in operations or the supply chain, or conflicts with communities. | Disputes, operational disruption, reputational damage, and legal risks. | Implement a human rights policy, conduct supplier due diligence, maintain grievance channels, engage with communities, and implement grievance management plans. |

# Emerging Risk

**Forward-looking risk oversight to strengthen preparedness, resilience, and enterprise value protection over the next three to five years.**

Current and Emerging Risks Affecting the Business Operations of the Company or the Group Over the Next Three to Five Years



## 1. Resilience to Geopolitical Risk

The Company assesses geopolitical and global economic volatility as a strategic risk that is expected to become increasingly material over the next three to five years. This risk may directly affect the Company's export business, transportation and distribution activities, and overall business continuity.

Potential impacts include disruption to order continuity, changes in trade terms, trade protection measures, international transportation constraints, and higher logistics costs. These factors may materially affect the Company's revenue, cost structure and competitiveness.

The Company closely monitors this risk through the ERM system and applies the results of the V-IMRA assessment to elevate the issue to enterprise-level governance. Appropriate mitigation plans are developed and adjusted in response to rapidly changing external conditions.

## 2. Digital Transformation and Information Security

Digital transformation and information security have been elevated as an emerging material risk due to their potential impact on operational efficiency, business continuity and stakeholder confidence.

The Company has made significant investments in implementing SAP as our Enterprise Resource Planning, or ERP, system to enhance data integration and standardize business processes. As a result, risks related to system, technology and workforce readiness, system outages, cyber threats and data leakage are expected to increase over the next three to five years.

Such risks may cause disruption to core business processes, financial losses, system recovery costs and reputational damage. The Company therefore integrates this issue into ERM through the V-IMRA assessment process to clearly define systemic risks, risk owners, control measures and Key Risk Indicators. Reporting and escalation mechanisms are also established for management and the Board of Directors in accordance with defined criteria.

## 3. Emerging Infectious Disease Risk

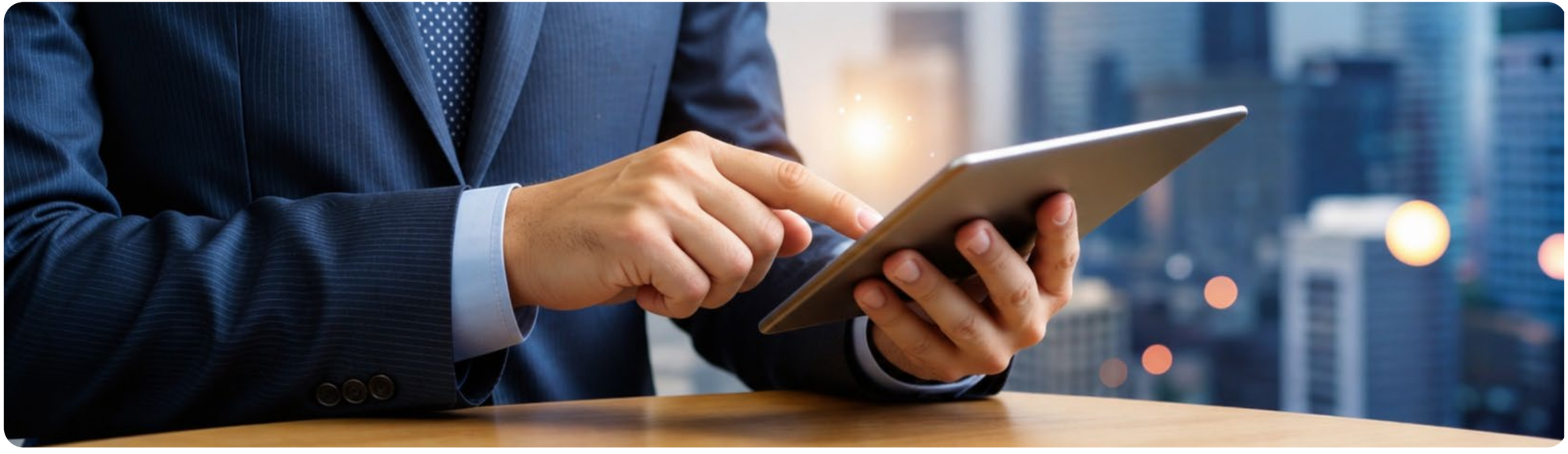
The Company assesses emerging infectious diseases and future public health events as emerging risks that may affect workforce safety and continuity, production processes, transportation and logistics, and the readiness of key suppliers and contractors across the value chain.

Such events may result in operational restrictions, increased management costs and risks to timely product delivery. The Company prioritizes occupational health and safety risk management, including the prevention and management of significant communicable disease risks.

The Company recognizes that public health risks are not limited to emerging diseases. They also include significant communicable diseases that continue to occur, such as HIV/AIDS, tuberculosis and malaria, which may become material to operations due to contemporary factors such as international travel, workforce mobility, contractor engagement and geographically diverse value chain activities.

Management measures include health communication and awareness, appropriate screening and surveillance, support for non-discriminatory access to healthcare, and the provision of safe and hygienic working conditions. The Company integrates this issue into Business Continuity Management, or BCM, and uses V-IMRA as a forward-looking risk assessment mechanism to support surveillance, preparedness and timely response to changing conditions.

| Risk Factor | Risk Description | Risk Impact | Risk Management Measures |
|---|---|---|---|
| **Strategic Risks** | | | |
| **9.** Geopolitical Risk Resilience | Risks arising from uncertainty in trade, logistics and measures imposed by trading partner countries. | Export volatility, higher transportation and insurance costs, and revenue impact. | Monitor external developments and response plans, diversify markets and logistics routes, manage supply and inventory, and integrate the issue into ERM. |
| **Operational Risks** | | | |
| **13.** Digital and Information Security | Risks related to system outages, cyber threats and data leakage. | Operational disruption, financial loss, and reputational damage. | Strengthen cybersecurity and access controls, implement backup and system recovery measures, conduct scenario drills, monitor KRIs, and report through ERM. |
| **24.** Emerging Infectious Disease Risk | Risks from outbreaks or public health restrictions affecting the workforce and supply chain. | Disruption to production and transportation, higher costs, and delayed delivery. | Implement BCM plans, surveillance and health measures, conduct drills and communication, and monitor the issue through V-IMRA and ERM. |



# Vanachai Integrated Corporate Risk and Materiality Radar: V-IMRA

**A forward-looking radar that translates material ESG issues into enterprise risk priorities for monitoring, mitigation, and governance escalation.**

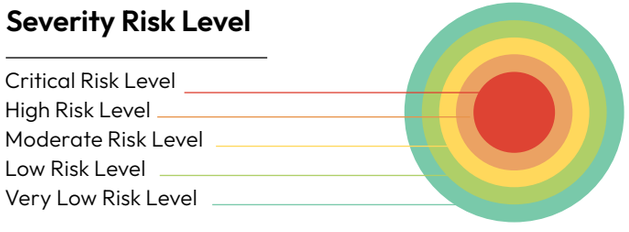
### Sustainability Dimension

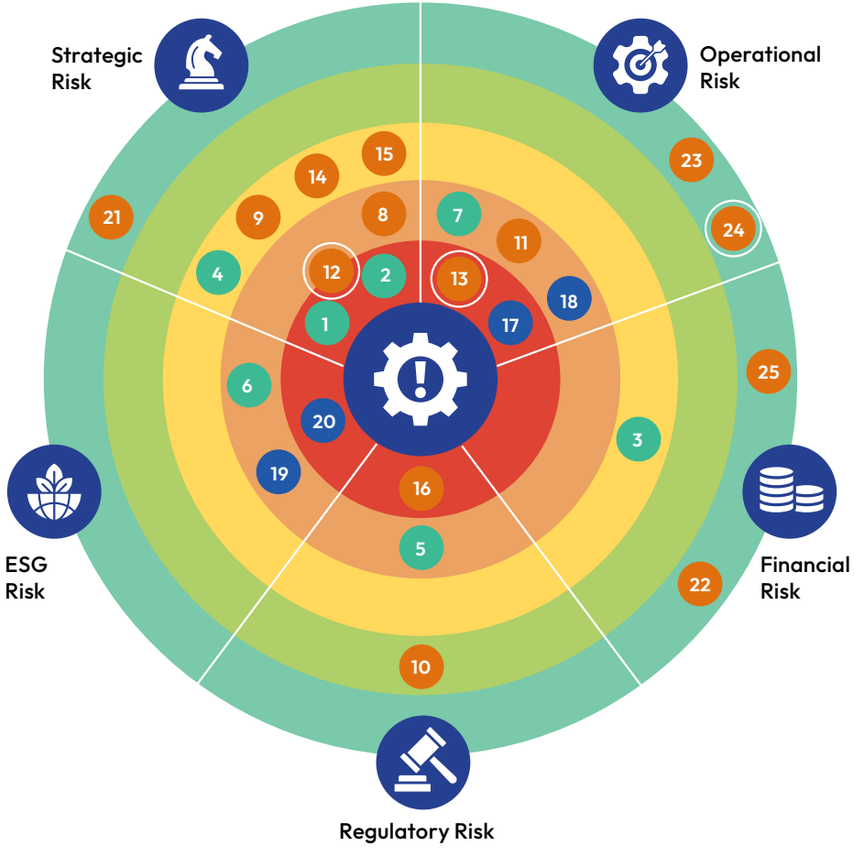
- Environmental Dimension
- Social Dimension
- Governance Dimension

### Company Risk Profile

- Emerging Risk

### Severity Risk Level




### Risk Topics

1) Greenhouse Gas Emissions and Decarbonization
2) Climate Change Mitigation and Adaptation
3) Energy Efficiency and Low-Carbon Energy Transition
4) Circular Economy and Resource Efficiency
5) Waste, Wastewater, and Pollution Prevention
6) Biodiversity and Responsible Natural Resource Use
7) Water Stewardship and Water Security
8) Business Integrity and Anti-Corruption
9) Enterprise Risk Management and Oversight
10) Tax Transparency and Responsible Tax Practices
11) Responsible Supply Chain and Partner Responsibility
12) Geopolitical and Global Business Resilience
13) Digital Transformation and Data Security
14) Green and Inclusive Innovation
15) Product Longevity and Lifecycle Performance
16) Sustainable Product and Service Responsibility
17) Employee Well-being, Engagement, and Development
18) Occupational Health and Safety
19) Human Rights and Community Development
20) Customer Responsibility
21) Marketing and Sales
22) Production Cost Control
23) Human Capital Management
24) Emerging Infectious Disease Risk
25) Foreign Exchange Risk

# Risk Preparedness, Scenario Planning and Business Continuity

**Scenario-based risk preparedness to strengthen response capability, business continuity, and long-term enterprise resilience.**

Vanachai Group applies scenario planning to assess severe but plausible risk events that may materially affect operations, compliance, stakeholder confidence, and long-term enterprise value. The process helps the Group understand potential impacts, identify early warning indicators, strengthen preparedness, define response actions, and support business continuity. Scenario planning is integrated with enterprise risk management, V-IMRA, monitoring and escalation processes.

## Scenario 1: Climate Transition and Physical Climate Resilience

Vanachai Group assesses climate transition and physical climate resilience as a severe-impact scenario because regulatory requirements, market expectations, customer decarbonization requirements, energy cost volatility, extreme weather and resource variability may directly affect production, logistics, market access and long-term competitiveness. A significant climate-related event may result in higher operating costs, delivery disruption, asset damage, reduced export competitiveness, customer order risk and reputational exposure.

To manage this risk, the Group applies emissions reduction plans, energy efficiency initiatives, clean energy transition, climate risk assessment, adaptation planning, KPI monitoring and Business Continuity Management. In the event of a severe climate-related disruption, the Group will activate continuity measures, prioritize critical operations, review logistics or supply alternatives, accelerate mitigation actions and escalate material cases through the ERM and V-IMRA governance process.

## Scenario 2: Sustainable Product, Customer Responsibility and Trust

Vanachai Group assesses sustainable product responsibility, customer responsibility and trust as a severe-impact scenario because product quality, compliance, documentation, labelling, customer information and service quality are directly linked to customer confidence, market access and long-term business value. A significant failure may result in complaints, claims, recall exposure, customer loss, reduced revenue, regulatory scrutiny and reputational damage.

To manage this risk, the Group applies product standards and testing, quality control, documentation and labelling controls, complaint handling, customer satisfaction monitoring and customer data protection. In the event of a severe incident, the Group will isolate affected products, conduct root-cause analysis, implement corrective and preventive actions, communicate with affected customers and escalate material cases through the ERM and V-IMRA governance process.

**Building resilience, Protecting value;** through proactive planning, disciplined execution and strong governance, Vanachai Group strengthens our capability to respond, recover and adapt to emerging risks.

## Scenario 3: Digital and Data Security / ERP Continuity

Vanachai Group assesses digital and data security, including ERP continuity, as a severe-impact scenario because system outages, cyber threats, data leakage, technology readiness and workforce readiness may directly affect operational efficiency, business continuity and stakeholder confidence. A significant incident may result in disruption to core business processes, delayed delivery, financial loss, system recovery cost and reputational damage

To manage this risk, the Group strengthens cybersecurity controls, access controls, data backup, system recovery measures, ERP governance, scenario drills, KRI monitoring and ERM reporting. In the event of a severe cyber or system incident, the Group will activate incident response procedures, isolate affected systems, restore critical operations, communicate with relevant stakeholders where required and escalate material cases to management, the Committee and the Board.

| Scenario | Severe but plausible event | Potential business impact | Early warning indicators | Preparedness and controls | Response and continuity actions | Governance escalation |
|---|---|---|---|---|---|---|
| **1.** **Climate Transition and Physical Climate Resilience**  | Stricter customer decarbonization requirements, carbon-related market expectations, rising energy costs, extreme weather, or resource disruption affect production, logistics and market access. | Higher operating cost, production or logistics disruption, delivery delay, asset damage, reduced export competitiveness, customer order risk, reputational exposure. | GHG intensity, energy intensity, renewable energy share, energy price trend, customer carbon requests, extreme weather alerts, logistics disruption, water stress exposure. | Emissions reduction plan, energy efficiency projects, clean energy transition, climate risk assessment, adaptation planning, resource efficiency measures, emergency response, BCM integration. | Activate business continuity plan, secure alternative logistics or supply routes, prioritize critical operations, accelerate decarbonization actions, review adaptation measures, update mitigation plan. | Escalate to management and the Risk Management and Corporate Governance Committee when disruption, cost impact, customer risk, or climate-related incident exceeds thresholds. Material matters are reported to the Board. |
| **2.** **Sustainable Product, Customer Responsibility and Trust**  | Severe product quality, compliance, documentation, labelling, customer information, service, or product responsibility failure affects customer confidence and market reputation. | Complaints, claims, recall exposure, higher service costs, customer loss, reduced revenue, regulatory scrutiny, delayed delivery, reputational damage. | Customer complaint rate, repeat complaints, product non-conformity rate, claim or recall cases, corrective action closure rate, customer satisfaction score, SLA performance, labelling or documentation errors. | Product standards and testing, quality control, product documentation and labelling, customer information management, complaint handling, service standards, satisfaction monitoring, customer data protection. | Isolate affected products or batches, conduct root-cause analysis, activate customer response process, implement corrective and preventive actions, strengthen quality and documentation controls, communicate with affected customers, monitor recovery. | Escalate major claims, repeated non-conformity, customer loss, recall exposure, regulatory concern, or reputationally sensitive cases through ERM and V-IMRA governance reporting. |
| **3.** **Digital and Data Security / ERP Continuity**  | Cyberattack, data leakage, unauthorized access, ERP outage, or critical system failure disrupts production planning, logistics, customer service, financial reporting, or internal operations. | Operational disruption, delayed delivery, data loss, financial loss, recovery cost, stakeholder concern, business interruption, reputational damage. | System downtime, failed access attempts, cyber security incidents, high-risk vulnerabilities, backup failure, recovery test results, phishing test results, ERP incident frequency, data protection incidents. | Cybersecurity controls, access control, data backup, system recovery plan, ERP governance, user authorization review, incident response protocol, cyber awareness, system monitoring, BCM testing. | Activate cyber incident response, isolate affected systems, restore from backup, prioritize critical business processes, communicate where required, conduct post-incident review, improve controls. | Escalate material data breach, prolonged system outage, production or delivery disruption, financial loss, or reputationally sensitive incident to management, the Committee, and the Board where the risk is material. |

# Monitoring, Reporting, Escalation and Compliance Follow-up

## Structured monitoring, escalation, and compliance follow-up to support accountability, remediation, and transparent risk governance.

Vanachai Group maintains a structured process for monitoring, reporting and escalating enterprise, ESG and emerging risks through the Enterprise Risk Register, KRIs, control reviews and V-IMRA integration. Monthly risk summaries are reported to senior management, while quarterly risk reports are reviewed by the Risk Management and Corporate Governance Committee and escalated to the Board of Directors. Internal Audit independently reviews the adequacy and effectiveness of the risk management and internal control system annually.

Where risk exposure exceeds defined thresholds, or where significant compliance, whistleblowing, cyber, environmental or business continuity incidents arise, the matter is promptly escalated for investigation, corrective action and follow-up. The Group maintains confidential complaint and whistleblowing channels for employees, contractors, business partners and external stakeholders to report breaches of laws, policies, codes of conduct or other concerns. All reported matters are reviewed through the appropriate governance process to ensure accountability and timely remediation. For 2025, Vanachai Group recorded no ESG-related fines or settlements requiring provision or disclosure in the audited financial accounts.

**Monitoring**

- Maintain the Enterprise Risk Register and KRIs.
- Track risk exposure, controls, and emerging trends.
- Monitor strategic, operational, ESG, and emerging risks.
- Integrate V-IMRA outputs into ERM review and risk prioritization.

**Reporting**

- Provide monthly risk reports to management.
- Submit quarterly risk reports to the Committee and Board.
- Conduct annual Internal Audit review of risk management effectiveness.
- Disclose material risk issues in annual external reporting.

**Escalation**

- Escalate risks exceeding defined thresholds.
- Escalate major incidents and non-compliance matters promptly.
- Escalate emerging enterprise-wide risks for higher-level review.
- Activate response, investigation, or BCM measures where needed.

# Anonymous Whistleblowing

## Confidential and anonymous reporting mechanism to strengthen risk oversight, accountability and timely remediation

Vanachai Group provides confidential and anonymous channels for employees, contractors, business partners, external stakeholders and members of the public to report risk-related concerns, suspected breaches, non-compliance, misconduct or events that may affect business continuity, legal compliance, stakeholder confidence or ESG performance. The mechanism supports timely escalation, independent review, investigation, corrective action and follow-up through the Group's risk governance process.




**Risk-related Topics**

1. Breach of risk policy or risk appetite
2. Non-compliance with laws, regulations or internal policies
3. Fraud, corruption or conflict of interest
4. Environmental, climate, safety or community incidents
5. Cybersecurity, data leakage or ERP continuity incidents
6. Product quality, customer responsibility or customer trust issues
7. Supplier misconduct or supply chain ESG risk
8. Business continuity disruption or unreported severe risk event

**Responsible Parties**

1. Chairman of the Risk Management and Corporate Governance Committee
2. Risk Management and Governance Director
3. Head of Corporate Risk Management Working Group
4. Internal Audit
5. Company Secretary
6. Human Resources and General Administration Division

**1. Initial Screening**
Receive and classify the report based on severity, sensitivity and independence requirements.

**2. Escalation Route**
Assign to the relevant risk owner or escalate sensitive cases to the Board of Committee.

**3. Investigation**
Appoint a fact-finding team to review information, evidence, witnesses and root cause.

**4. Corrective Action**
Implement corrective and preventive actions, strengthen controls, and apply disciplinary or legal action where appropriate.

**5. Follow-up and Reporting**
Track action closure, notify the complainant where possible, and report material cases to management, the Committee and the Board.

Timely escalation of material risk cases

Evidence retained for ERM, V-IMRA, audit and ESG disclosure

# Tax Transparency and Responsible Tax Practices

**By contributing to the economy through taxes**

## Impact & Value Created

Supports public services, infrastructure, and economic development through transparent and responsible tax practices, while strengthening governance, compliance, and stakeholder trust.

## Risks & Opportunities

Tax-related risks include non-compliance, disputes, penalties, and reputational damage if governance or disclosure is weak. Stronger tax transparency and disciplined compliance create opportunities to build investor confidence, strengthen governance credibility, and support long-term resilience.

## Our Approach

- Apply a responsible tax strategy aligned with corporate governance, risk management, and ethical business conduct
- Pay the right amount of tax, in the right place, at the right time, based on economic substance
- Avoid aggressive tax planning and ensure all tax positions are commercially justified and compliant
- Integrate tax management into enterprise risk management processes, with clear oversight and accountability

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Strengthen tax governance**<br>• **Enhance tax compliance**<br>• **Strengthen tax compliance**<br>• **Improve tax verification**<br>• **Improve tax transparency**<br>• **Integrate tax risk into ERM** | • Align tax with ESG standards<br>• Enhance tax disclosures<br>• Strengthen Board oversight<br>• Develop tax data systems<br>• Support sustainable growth | • Lead in tax transparency<br>• Integrate tax with sustainability<br>• Contribute to public revenues<br>• Maintain governance and trust<br>• Support inclusive development |

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Strengthen tax governance and oversight** | Maintain Board and committee oversight of tax policy and risk | Oversight structure maintained | Strengthen the systematic monitoring of tax risk and reporting to the Board | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |
| **Enhance tax transparency and disclosure** | Expand structured tax disclosure | Key tax data disclosed in audited reports | Expand tax disclosures in a more structured format, including domestic and international coverage | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |
| **Strengthen tax compliance and controls** | Maintain compliant tax conduct across jurisdictions | Compliance approach maintained | Integrate tax risk into ERM and continue to enhance verification processes | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |

**Scan for related disclosure**
For further details, please refer to the policies
One Report 2025
Page 113 & 183 (PDF 111 & 181)

**Scan for related disclosure**
For further details, please refer to the policies
Tax Policy

# Performance In 2025

In 2025, the Group's income tax payable decreased significantly to THB 1.47 million, compared with THB 33.30 million in 2024 and THB 56.95 million in 2023. This decline was mainly driven by weaker profitability, reflecting lower revenues under difficult market conditions and continued geopolitical uncertainty affecting global demand, pricing, and overall business performance. As corporate income tax obligations are directly linked to taxable earnings, the lower tax payable was consistent with the Group's financial results for the year and did not indicate any change in tax policy, tax strategy, or tax management practices.

From both a financial and governance perspective, the 2025 outcome is significant. Financially, the lower tax payable reflected softer earnings generation during the year. From a governance standpoint, however, the Group continued to apply responsible tax principles, with no indication that the reduction resulted from aggressive tax planning or weaker compliance.

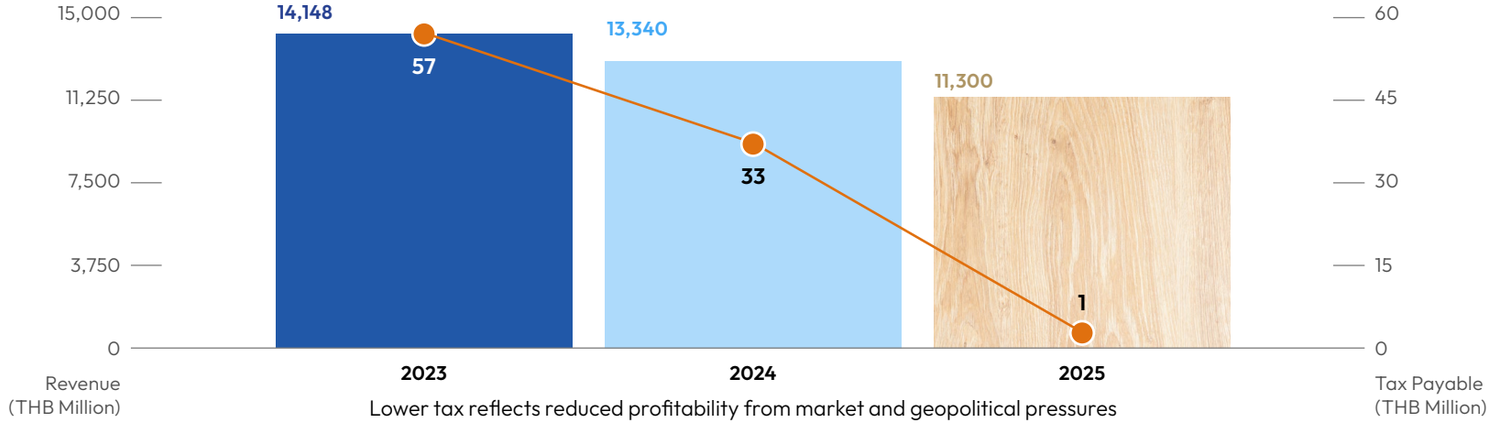
Instead, the year's tax outcome remained aligned with the economic substance of the business and our actual operating performance.

The Group also maintained structured tax disclosure through our audited annual financial statements and notes. Income tax payables remained disclosed in the Statement of Financial Position under current liabilities, while current tax expenses and deferred tax were disclosed in the relevant notes. This reporting structure helps investors and other stakeholders understand the relationship between tax outcomes, earnings performance, and balance sheet impacts, while supporting transparency, traceability, and external assurance.

During the year, tax oversight continued under the Group's established governance framework, including Board-level oversight of tax policy and tax risk, executive accountability through the Chief Financial Officer, and implementation by the accounting and finance function. Tax-related disclosures remained subject to external audit, while internal audit supported ongoing review of tax processes and internal controls. This combination of oversight and assurance demonstrates that responsible tax practices were maintained even in a year of significantly lower tax contribution.

Overall, performance in 2025 shows that Vanachai continued to manage tax matters in a disciplined and transparent manner despite a weaker earnings environment. Although income tax payable declined substantially year on year, the outcome remained consistent with business performance, while tax governance, compliance, verification, and disclosure practices were maintained. This supports confidence that the Group's tax approach remained responsible, compliant, and aligned with its broader governance commitments.

**Financial Performance VS. Tax Contribution**




**Tax Disclosure Coverage (2025)**

**Income tax payables**
Statement of Financial Position

**Current tax expense**
Note 23 (One Report P. 181-185)

**Deferred tax assets / liabilities**
Note 13 (One Report P. 181-185)

**Audited by external auditor**

# Tax Governance and Oversight

## Governance

The Group manages our tax affairs under a clearly defined governance framework. The Board of Directors provides oversight of the Group's tax policy at the enterprise level, including tax risk management, and regularly reviews the policy to ensure alignment with business strategy, applicable laws, and international best practices.

The Risk Management and Corporate Governance Committee and/or the Audit Committee oversee the implementation of the tax policy, monitor tax-related risks, and assess the adequacy of internal controls. This governance structure ensures that tax practices are conducted in a transparent, accurate, and auditable manner.




## Roles and Responsibilities

**(Further details are available in the Tax Policy)**

- Board of Directors: Oversees tax policy and tax risk at the Group level
- Risk Management and Corporate Governance Committee / Audit Committee: Oversees policy implementation and internal controls
- Chief Financial Officer (CFO: Mr. Somprasong Sahavat): Accountable for overall tax management, execution oversight, and reporting to the Board
- Accounting and Finance Function: Responsible for tax compliance, filings, payments, and monitoring regulatory developments
- Internal Audit: Reviews tax processes and internal control systems
- External Advisors and Auditors: Provide advisory support and independent assurance in accordance with applicable standards

## Verification

Tax-related disclosures in the Group's annual financial statements, including income tax payables, current tax expenses, and deferred tax, are subject to audit by an independent external auditor, AMARC Co., Ltd., as part of the consolidated financial statement audit of Vanachai Group Public Company Limited and our subsidiaries, as well as the Company's separate financial statements.

In addition, the Group conducts regular internal audits to assess the effectiveness of internal controls and the accuracy of tax processes. These mechanisms enhance the transparency, reliability, and integrity of tax disclosures and support stakeholder confidence.

# Tax Data Disclosure in the Annual Report (Form 56-1 One Report)

The Group discloses tax-related information in a structured manner through our financial statements and notes to the financial statements.

Key disclosures include:

- Income tax payables: THB 1.47 million, presented in the Statement of Financial Position under current liabilities
- Current tax expenses: disclosed in Note 23 to the financial statements
- Deferred tax assets and liabilities: disclosed in Note 13 to the financial statements

These disclosures reflect the Group's tax position and tax performance in alignment with our financial results and in accordance with applicable financial reporting standards.

# Forward Actions

To further enhance transparency and align with international best practices, the Group plans to:

- Expand tax disclosures at domestic and international levels
- Strengthen the linkage between tax information, business performance, and ESG reporting
- Enhance tax monitoring and reporting systems to provide more structured and granular information
- Continuously improve tax governance and tax risk management processes
- Support responsible tax practices in line with internationally recognized principles

# Responsible Supply Chain and Partner Responsibility

**Advancing a transparent, resilient, and responsible supply chain through ethical sourcing, partner accountability, and long-term collaboration.**

## Impact & Value Created

Strengthens supply chain resilience, traceability, and partner accountability by embedding ESG considerations into procurement, supplier management, and responsible sourcing. This supports business continuity, reduces sustainability-related risk, and creates shared value across the value chain.

## Risks & Opportunities

Weak supply chain governance, non-traceable sourcing, supplier non-compliance, and over-reliance on high-risk suppliers may disrupt operations, increase costs, and damage reputation. Conversely, stronger ESG screening, traceability, supplier development, and responsible sourcing can reduce risk, strengthen resilience, improve disclosure quality, and support long-term value creation.

## Our Approach

- Integrate supply chain ESG risks into V-IMRA and ERM.
- Apply the Supplier Code of Conduct across suppliers and partners.
- Conduct supplier due diligence, ESG screening, assessment, and audits.
- Promote legal, responsible, and traceable sourcing of key materials.
- Strengthen supplier capability through training, engagement, and development.
- Improve resilience through traceability, diversification, and risk-based oversight.
- Maintain grievance and non-compliance follow-up mechanisms.
- Monitor KPIs and disclose progress through corporate reporting.

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **ESG supplier screening and evaluation** | 100% of new suppliers screened on ESG criteria and 100% of Critical Tier 1 Suppliers evaluated. | ESG screening and evaluation continued for new suppliers and Critical Tier 1 Suppliers. | Expand risk-based ESG assessment across key and higher-risk suppliers. | 8, 12, 16, 17 |
| **Responsible and traceable sourcing** | 100% of key raw materials sourced from renewable, legal, traceable, or sustainability-aligned sources. | Responsible sourcing and traceability controls remained in place for key raw materials. | Strengthen digital traceability and increase certified sourcing coverage. | 12, 13, 15, 17 |
| **Physical ESG audits for critical suppliers** | Conduct physical ESG audits for at least 50% of Critical Tier 1 Suppliers. | Physical audits were conducted under the risk-based supplier monitoring process. | Increase audit coverage and strengthen corrective action follow-up. | 8, 12, 16 |
| **Supplier capability and ESG training** | Conduct at least 1 supplier training / engagement program on social and environmental requirements. | Supplier communication and ESG awareness activities continued through training and engagement. | Expand supplier development, especially for SMEs, local, and higher-risk suppliers. | 8, 12, 17 |

**Scan for related disclosure**

For further details, please refer to the policies and Strategic Plan

Sustainable Wood Procurement Policy

Supply Chain Management Policy

Code of Business Ethics for Business Partners

Sustainable Procurement Policy

# Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **ESG screening and supplier code rollout**<br>• **Traceable sourcing controls**<br>• **Supplier training and SAQ**<br>• **Critical supplier audit priori-tization** | • ESG-led procurement decisions<br>• Broader audits and CAP follow-up<br>• Supplier capability and traceability improvement<br>• Lower single-source dependency | • Resilient and transparent supply chain<br>• Higher certified and responsible sourcing<br>• Strategic supplier partnerships<br>• Full V-IMRA–ERM integration |

# Integrated Circular Wood-Based Supply Chain

Vanachai Group operates a structured and resilient supply chain model that integrates local sourcing, risk-based supplier management, and sustainability controls across our value chain. Suppliers are broadly categorized into **micro suppliers, consisting of local villagers and farmers who supply wood-based raw materials**, and corporate suppliers, including SMEs and industrial partners providing wood slabs, chemicals, and operational services. **Micro suppliers represent approximately 75%** of total wood procurement, reflecting the Group's strong reliance on locally sourced renewable materials and our contribution to community income generation. **Corporate suppliers account for the remaining 25%**, supporting operational continuity and production efficiency.

## Responsible Raw Material Sourcing

Sustainable and traceable wood resources form the foundation of our business.

**Local Sourcing**
**90%**

- Micro Suppliers **75%**
- Corporate Suppliers **25%**

**Imported**
**10%**

## Our Sustainability Foundation

- Responsible Sourcing
- Circular Production
- Renewable Energy
- Community & Biodiversity
- Governance & Tranparency

To ensure consistent quality and compliance, the Group applies a Supplier Audit Checklist covering certifications, legal compliance, environmental impact, and forest management practices. Suppliers are further classified based on risk and criticality into Tier 1, Critical Tier 1, and Critical Non-Tier 1 categories, with enhanced monitoring applied to business-critical suppliers. Currently, no Critical Non-Tier 1 suppliers have been identified, indicating limited upstream indirect risk exposure.

Overall, **approximately 90% of suppliers are local, reinforcing supply chain resilience** while supporting regional economic development. This diversified sourcing structure, combined with proactive risk mitigation measures including plantation reserves, enables Vanachai to maintain stable raw material supply while delivering long-term environmental and social value.



# Supplier ESG Standards and Policy Coverage

**Embedding environmental and social requirements into supplier expectations, procurement decisions, and business partner accountability.**

Vanachai Group embeds environmental and social requirements into our responsible procurement framework through supply chain, sustainable procurement, sustainable wood procurement, business ethics, human rights, occupational health and safety, and environmental policies. These requirements are communicated to suppliers through supplier registration, screening, evaluation, training, and ongoing monitoring, supporting supplier accountability and alignment with Vanachai's ESG standards.



## Supplier ESG Requirements framework

| Focus Area | Disclosure Coverage | Policy Related |
|---|---|---|
| **Environmental policy coverage** | | |
| **Climate** | Supplier requirements on GHG reduction, climate-related environmental responsibility | Climate Change Policy (VNG-ENV-CC-PL-01) |
| | | Climate Change and Carbon Management Strategic Plan (VNG-ENV-CCCM-SP-01) |
| **Biodiversity** | Requirements on biodiversity protection, legal and traceable sourcing | Biodiversity Policy (VNG-ENV-BD-PL-02) |
| **Energy, Water, Pollution and Waste** | Requirements on energy efficiency, water management, waste reduction, prevent pollution, environmental harm, and non-compliance | Environmental Policy (VNG-ENV-EVT-PL-02) |
| **Environmental impact and Resource use** | Requirements on circular material use, and efficient resource use | Sustainable Wood Procurement Policy (VNG-ENV-SWP-PL-01) |
| | | Sustainable Construction and Building Management Policy (VNG-ENV-SCB-PL-02) |
| **Social policy coverage** | | |
| **Child labor and forced labor** | Prohibition of child labor and forced labor | Human Rights Policy (VNG-SOC-HRS-PL-02) |
| | | Code of Business Ethics (VNG-GOV-BE-ET-02) |
| **Non-discrimination** | Equal treatment, non-discrimination, and fair working conditions | Human Rights Policy (VNG-SOC-HRS-PL-02) |
| **Freedom of association and collective bargaining** | Compliance with applicable labor rights and local laws | Supporting Employee Freedom of Association Policy (VNG-SOC-SEFA-PL-01) |
| **Working hours and wages** | Compliance with legal working hours, wage standards, and fair employment practices | Employment Policy (VNG-SOC-EMP-PL-02) |
| | | Code of Business Ethics (VNG-GOV-BE-ET-02) |
| **Health and safety** | Occupational health and safety requirements for suppliers and contractors | Safety, Occupational Health and Working Environment Policy (VNG-SOC-SOHW-PL-02) |
| **Communication** | Supplier Code of Conduct communicated through registration, supplier evaluation, training, and engagement | Code of Business Ethics for Business Partners (VNG-GOV-BP-ET-02) |

# Supplier ESG Due Diligence, Assessment, and Audit Coverage

**Applying risk-based screening, self-assessment, supplier evaluation, on-site audits, and corrective actions to strengthen supplier ESG performance.**

Vanachai Group strengthens supplier ESG performance through a risk-based due diligence process covering registration, ESG screening, self-assessment, supplier evaluation, on-site audits, corrective action follow-up, and supplier development. The process supports the identification and management of environmental and social risks, including legal sourcing, biodiversity, resource use, labor standards, human rights, and occupational health and safety, while reinforcing supplier accountability and long-term supply chain resilience.

## Supply Chain Risk Assessment

Vanachai Group conducts risk assessments across our supply chain to identify, evaluate, and prioritize environmental and social issues that may affect business continuity, stakeholder confidence, and long-term sustainability performance. The assessment is carried out through supplier screening, ESG self-assessment, risk-based supplier evaluation, and physical audits, with findings integrated into supplier monitoring, corrective actions, and broader supply chain oversight. The process is also supported by V-IMRA and linked to the Company's ERM framework to strengthen risk visibility and management across the value chain.

## Environmental Risk Assessment

Environmental risk assessment focuses on supplier practices that may create adverse impacts on natural resources and ecosystems. Key issues assessed include legal and traceable sourcing, deforestation and biodiversity risks, greenhouse gas emissions, energy and water use, waste and wastewater management, pollution, and inefficient resource use. Suppliers with elevated environmental risk are prioritized for closer monitoring, audit, and corrective action to support more responsible and resilient sourcing.

## Social Risk Assessment

Social risk assessment covers supplier compliance with human rights, labor standards, occupational health and safety, and fair working conditions. Key issues include child labor, forced labor, discrimination, unsafe working conditions, and potential adverse impacts on workers and local communities. The Company uses supplier assessments, code-of-conduct requirements, engagement, and audits to identify gaps, require corrective actions, and strengthen supplier capability on responsible business conduct across the supply chain.

### Procurement Process

**5 Development**
Ongoing collaboration with suppliers is conducted to enhance capabilities, strengthen compliance, and improve ESG performance. Corrective actions, performance tracking, and continuous improvement initiatives are implemented to drive long-term value.
- Collaborate & build capability
- Implement corrective actions & training
- Track progress & drive continuous improvement

**4 Assessment**
Suppliers are systematically evaluated on operational performance, product quality, reliability, and ESG indicators. The assessment applies structured criteria to identify risks, gaps, and improvement opportunities across the supply chain.
- Evaluate performance & quality
- Assess ESG indicators
- Identify risks & improvement opportunities

**3 Vendor List**
Qualified suppliers are approved and included in the authorized vendor list. Critical and high-risk suppliears are prioritized for additional verification, monitoring, and engagement based on their risk profile and strategic importance.
- Approved and authorized
- Prioritize critical & high-risk suppliers
- Verification & monitoring

**2 Screening**
Suppliers undergo risk-based due diligence, covering regulatory compliance, business integrity, and ESG-related criteria. This step ensures alignment with company standards before progressing into the approved supplier pipeline.
- Risk-based due diligence
- Compliance & ESG screening
- Align with company standards

**1 Register**
Suppliers submit required legal, financial, and business documentation for onboarding, including company registration, tax records, and relevant certifications. All information is reviewed and formally recorded to establish eligibility for further evaluation.
- Submit registration application
- Provide legal & financial documents
- Information reviewed & recorded

# Supply Chain Due Diligence: Environmental and Social Risk Assessment and Supplier Monitoring

**Applying risk-based screening, ESG self-assessment, on-site audits and corrective actions to strengthen responsible sourcing and supplier ESG performance.**

Vanachai applies a supplier ESG risk assessment matrix to prioritize environmental and social risks based on severity and likelihood of occurrence. The key environmental risks include illegal or unsustainable sourcing of wood raw materials, limited environmental knowledge among SME and community-based suppliers, and supplier gaps in pollution control, waste management, resource use, or environmental compliance. The key social risks include labor law violations, unsafe working conditions, human rights and vulnerable labor risks, and weak grievance or corrective action mechanisms. Suppliers classified as high or critical risk are prioritized for supplier self-assessment, document review, on-site audits, corrective action planning, and supplier development. This risk-based approach supports responsible sourcing, strengthens supplier accountability, and aligns supply chain monitoring with GRI 308-2, GRI 414-2, and FTSE Russell Supply Chain: Environmental and Social expectations.




| Priority | | Risk Topic | Risk Level | Risk Mitigation Plans | Target |
|---|---|---|---|---|---|
| 1 | E1 | Illegal or unsustainable sourcing of wood raw materials from restricted areas or conservation forests | | Verify source documents, apply responsible sourcing requirements, conduct high-risk supplier audits, and provide legal sourcing training. | Zero illegal sourcing cases and 100% screening of new wood suppliers. |
| 2 | S1 | Labor law violations or unsafe working conditions | | Apply labour and safety checklist, provide safety training, and verify through on-site audits. | 100% labour and safety screening of critical suppliers and closure of critical findings. |
| 3 | E3 | Supplier gaps in pollution control, waste management, resource use, or environmental compliance | | Include environmental compliance in SAQ and audits, require CAPs, and verify closure. | 100% closure of critical/high environmental findings within timeline |
| 4 | E2 | Limited environmental knowledge among SME and community-based suppliers | | Provide simple environmental guidelines, basic training, and follow-up evaluation. | 100% training for high-risk SME/community suppliers and reduced repeated gaps. |
| 5 | S2 | Human rights and vulnerable labor risks, including forced labor, child labor, migrant labor, or subcontractor labor risks | | Conduct human rights due diligence, require Code of Conduct acknowledgement, and review labour documents. | Zero tolerance for child labour, forced labour, and severe human rights violations. |
| 6 | S3 | Weak grievance channels, worker communication, or corrective action closure at supplier level | | Require grievance channels, track CAP status, verify evidence, and escalate overdue actions. | 100% CAP tracking and closure verification for supplier ESG findings. |

| Stage | |
|---|---|
| 1 | Critical Alert |
| 2 | High Concern |
| 3 | Watchlist |
| 4 | Moderate Review |
| 5 | Cleared / Safe |

# Supplier Capability Development and Shared Value

**Strengthening supplier capability, local partnerships, and shared value creation through continuous communication, ESG awareness, capacity-building, and long-term responsible engagement.**

### Capability Building
The Group supports suppliers through training, ESG communication, guidance on responsible business conduct, and improvement plans where performance gaps are identified.

### Responsible Partnership
The Group encourages long-term collaboration with suppliers and business partners through transparency, fair procurement, shared standards, and continuous development of sustainability capability.

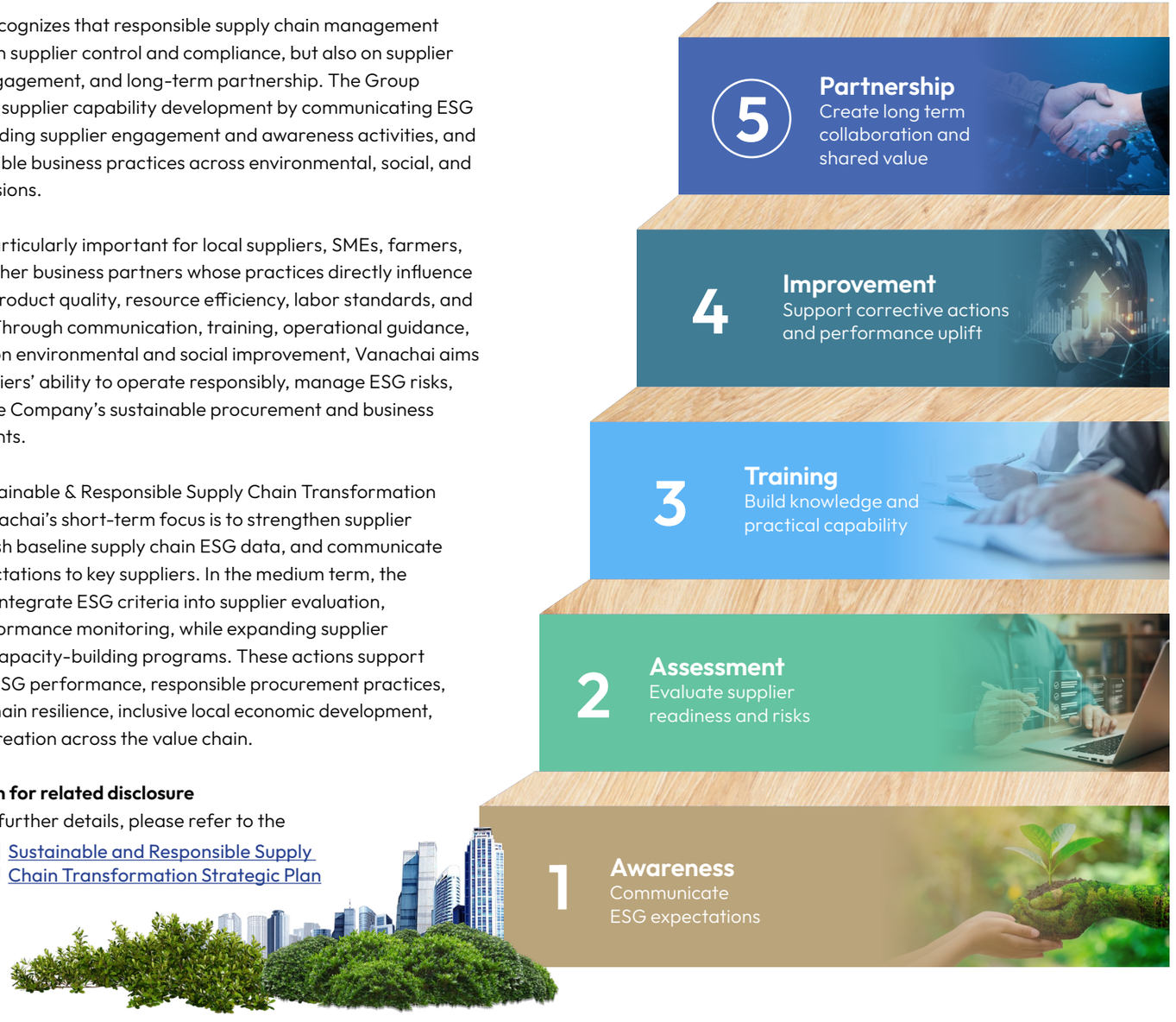
### Local and Community Value
Vanachai promotes sourcing relationships that support local suppliers, community partners, and SMEs, helping strengthen livelihoods, local economic circulation, and longer-term supply stability.

Vanachai Group recognizes that responsible supply chain management depends not only on supplier control and compliance, but also on supplier capability, local engagement, and long-term partnership. The Group therefore supports supplier capability development by communicating ESG expectations, providing supplier engagement and awareness activities, and promoting responsible business practices across environmental, social, and governance dimensions.

This approach is particularly important for local suppliers, SMEs, farmers, contractors, and other business partners whose practices directly influence sourcing stability, product quality, resource efficiency, labor standards, and stakeholder trust. Through communication, training, operational guidance, and collaboration on environmental and social improvement, Vanachai aims to strengthen suppliers' ability to operate responsibly, manage ESG risks, and comply with the Company's sustainable procurement and business partner requirements.

In line with our Sustainable & Responsible Supply Chain Transformation Strategic Plan, Vanachai's short-term focus is to strengthen supplier awareness, establish baseline supply chain ESG data, and communicate sustainability expectations to key suppliers. In the medium term, the Company plans to integrate ESG criteria into supplier evaluation, selection, and performance monitoring, while expanding supplier development and capacity-building programs. These actions support improved supplier ESG performance, responsible procurement practices, long-term supply chain resilience, inclusive local economic development, and shared value creation across the value chain.

**Scan for related disclosure**
For further details, please refer to the
Sustainable and Responsible Supply Chain Transformation Strategic Plan



# Examples of supplier capability development and shared value creation activities




**KS Energy:** Rayong
**Date:** 20 May 2025



**IDER:** Ban Bueng
**Date:** 23 April 2025



**MVT Power:** Saraburi
**Date:** 28 December 2025



**Siam Insulation Access:** Rayong
**Date:** 25 May 2025



**PM Firetech:** Saraburi
**Date:** 15 December 2025



**Controllogic Systems:** Surat Thani
**Date:** 19 May 2025

# Supply Chain ESG Performance Dashboard

## Monitoring progress through measurable indicators aligned with international Standards.

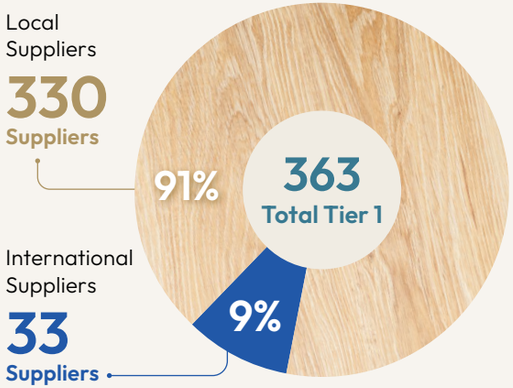
The Company monitors supply chain sustainability initiatives through defined KPIs, supplier evaluation processes, ESG risk assessment, and periodic sustainability performance reviews. Monitoring covers environmental, social, and governance aspects across the value chain, including responsible sourcing, supplier compliance, environmental impact management, labor practices, human rights, occupational health and safety, and business ethics. Assessment results are reviewed by relevant functions to identify improvement areas, prioritize higher-risk suppliers, support corrective actions, allocate resources effectively, and strengthen continuous improvement across procurement and supplier management processes.

Supply chain disclosures cover policy commitments, strategic initiatives, supplier engagement practices, ESG screening and evaluation activities, audit coverage, corrective action follow-up, environmental and social performance trends, and progress against defined targets. The Company prepares disclosures in alignment with FTSE Russell ESG indicators for Supply Chain: Environment and Supply Chain: Social, GRI Standards, and relevant stakeholder expectations. This approach supports transparency, comparability, and accountability by linking supplier management practices with measurable performance indicators, while demonstrating how responsible procurement contributes to supply chain resilience, risk reduction, business continuity, and long-term sustainable value creation.




### Suppliers Information

**Tier 1 Suppliers**




**Key Summary**

Total Suppliers
**1,568**

Total Tier 1
**363**

Total critical Tier 1
**35**

Total Non-Tier 1
**1,205**

| KPI Area | 2025 Status |
|---|---|
| **New supplier ESG screening** | 100% of new suppliers screened in 2025, covering 42 suppliers. |
| **Critical Tier 1 evaluation** | 65% of Critical Tier 1 suppliers were assessed for sustainability risks, covering 23 suppliers. |
| **Critical Tier 1 suppliers risk-assessed** | 23 suppliers, 65% of the Critical Tier 1 suppliers |
| **Physical ESG audits** | 33% of Critical Tier 1 suppliers underwent physical ESG audits, covering 12 suppliers. |
| **Responsible sourcing** | 100% key raw materials from renewable, legal, traceable or sustainability-aligned sources |
| **Local sourcing** | Local suppliers accounted for 91% of total suppliers, representing 330 suppliers. |
| **Local SME procurement spend** | Local SME procurement accounted for 37% of local procurement spend. |
| **Tier 1 suppliers briefed on Supplier Code of Conduct** | 100% of Tier 1 suppliers acknowledged the Code of Business Ethics for Business Partners |
| **Tier 1 suppliers engaged/ trained on sustainability** | 12 suppliers participated in the ESG engagement/training program, with 185 participants in total. |
| **Suppliers under corrective action plans** | 100% of suppliers requiring corrective action received support for improvement. |
| **Suppliers terminated due to negative impacts** | 0 suppliers were terminated due to negative ESG impacts |
| **Suppliers supported on corrective actions** | 0 suppliers required additional corrective action / 0 companies |

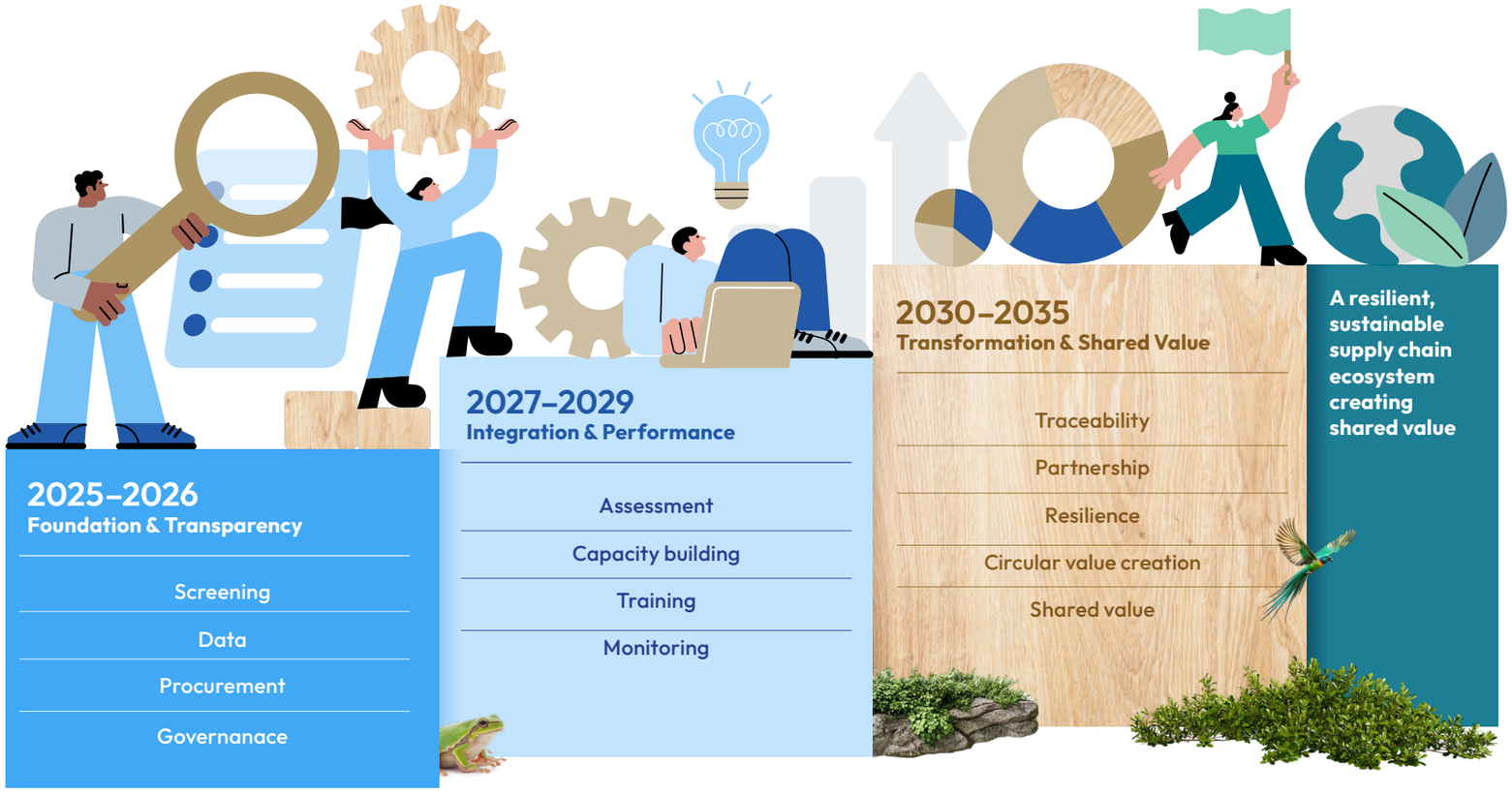
# Sustainable & Responsible Supply Chain Transformation Strategic Plan

**Transitioning from governance and transparency toward integrated, resilient and value-creating supply chains.**

Vanachai's Sustainable & Responsible Supply Chain Transformation Strategic Plan provides a forward-looking framework to embed sustainability and responsibility into supply chain governance, procurement decision-making, supplier relationships and value chain management. The Plan focuses on responsible sourcing, supplier engagement and development, environmental and social risk management, traceability and long-term supply chain resilience.

The roadmap progresses from foundation and transparency in 2025–2026, to integration and performance improvement in 2027–2029, and toward transformation and value creation by 2030–2035. This phased approach is informed by V-IMRA, integrated with ERM.

Vanachai recognizes that responsible supply chain management is essential to long-term business resilience, environmental performance, social responsibility and stakeholder trust. Guided by **"FOREST | FUTURE | TOGETHER – for a Sustainable Living"** and the principle of **"Growing with Nature,"** the Company is committed to working with suppliers and business partners to strengthen transparency, fairness, traceability, responsible sourcing and shared value creation across the supply chain.




STRONGER SUPPLIERS | LOWER IMPACT | GREATER RESILIENCE | SHARED VALUE

| Timeframe | Strategic Focus | Key Outcomes | Key Indicators |
|---|---|---|---|
| 2025–2026 | Foundation and transparency | ESG governance, supplier database, critical supplier prioritization | % Tier 1 suppliers screened, ESG supplier database |
| 2027–2029 | Integration and performance improvement | ESG criteria embedded into procurement and supplier development | % procurement spend assessed, number of suppliers trained |
| 2030–2035 | Transformation and value creation | Resilient, low-risk and sustainability-driven supply chain | % strategic suppliers meeting sustainability standards, FTSE improvement |

# Geopolitical and Global Business Resilience

**Market Diversification and Revenue Resilience**

## Impact & Value Created

- Strengthens revenue resilience and long-term competitiveness through market diversification, reduced concentration, and better responsiveness to geopolitical and demand volatility.

## Risks & Opportunities

- Global demand slowdown
- Geopolitical and trade disruption
- Logistics, energy, and FX volatility
- Export concentration risk
- Margin and revenue pressure
- Domestic market expansion opportunity
- New export market opportunity
- Value-added product growth
- Stronger resilience through diversification

## Our Approach

- Expand domestic sales channels to enhance revenue stability.
- Diversify export markets to reduce regional dependency.
- Continuously monitor global market trends and demand dynamics.
- Rebalance sales strategies between domestic and international markets.
- Strengthen customer relationships across diversified regions.
- Integrate geopolitical and market risks into enterprise risk management.
- Enable proactive decision-making to support business continuity and long-term growth.

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Expand domestic ESG partnerships**<br>• **Grow new export markets in SEA and South Asia**<br>• **Launch value-added low-emission products**<br>• **Strengthen diversified sales channels** | • Scale domestic and export market presence<br>• Advance sustainable product innovation<br>• Strengthen market intelligence and demand planning<br>• Enhance digital sales and customer engagement | • Build a balanced domestic and global portfolio<br>• Lead in sustainable product innovation<br>• Strengthen resilient and adaptive growth<br>• Integrate diversification with long term value creation |

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Market diversification** | Expand domestic sales channels and diversify export markets to reduce concentration risk, with entry into at least **3 new export markets**. | Overall sales declined 17%, with domestic sales down 11% and export sales down 18% amid weaker market demand; however, the Group entered **2 new export markets**. | Accelerate domestic growth and new market entry. |  |
| **Product competitiveness** | Develop more **value-added products**, with at least one new product category launched. | Value-added product development continued, including **an OSB non-formaldehyde category** and **new low-emission, moisture-resistant solutions.** | Scale ESG-driven product innovation and expand market uptake of higher-value products. |  |
| **Market intelligence and commercial agility** | Strengthen market intelligence, demand forecasting, and sales response, **with forecast variance below 15%.** | Sales forecast **variance was 19.7%**, reflecting market slowdown, pricing pressure, and demand volatility. | Strengthen market insight, customer reach, and digital sales tools. |  |
| **Risk integration and revenue resilience** | **Integrate geopolitical and market risks into ERM** to support scenario planning and business continuity. | Revenue and profitability were affected by demand volatility, trade conditions, logistics costs, energy prices, and exchange rate movements. | Build a more balanced domestic and international revenue mix and strengthen decision resilience. |  |

# Performance In 2025

In 2025, the Group's total revenue from sales was THB 11,300 million, a decrease of 17% from 2024, mainly due to weaker demand in both domestic and international markets. Domestic sales declined by approximately 11%, while export sales decreased by 18%, reflecting the impact of global market slowdown and geopolitical uncertainty across key trading regions. The Group also reported a net loss attributable to equity holders of THB 602 million, compared with a net profit of THB 230 million in 2024, driven primarily by lower sales volumes, particularly in MDF and Particleboard, together with lower average selling prices in certain product categories.

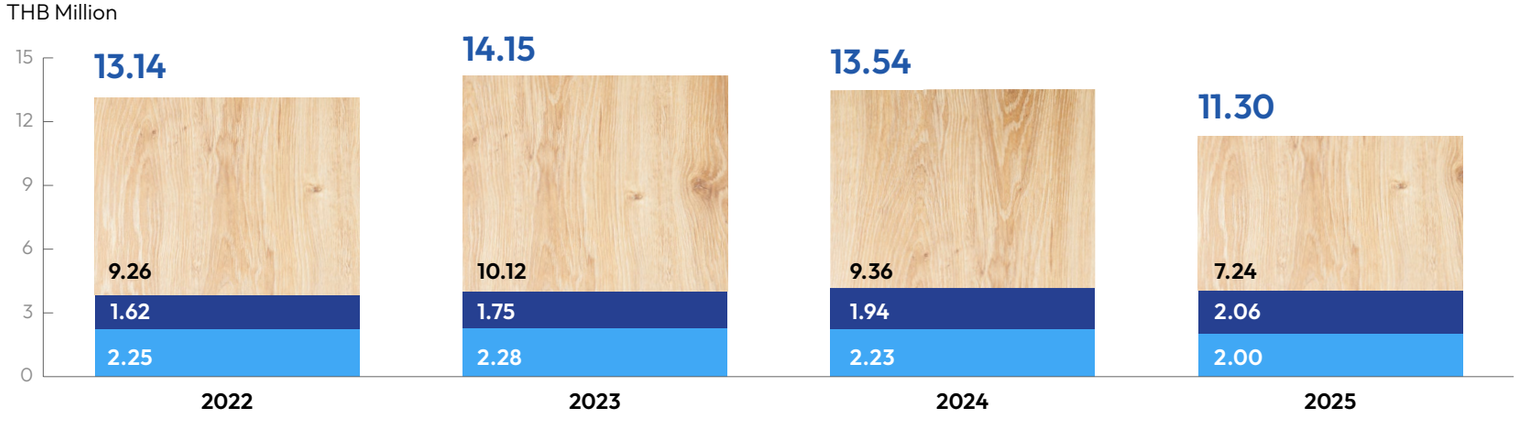
These results highlight the Group's exposure to geopolitical and market volatility, including trade conditions, logistics costs, energy prices, exchange rate movements, and shifting customer demand. In response, the Group continued to expand domestic sales channels and entered two new export markets, although this remained below the 2025 target of at least value-added development, including an OSB no-formaldehyde product category, together with new low-emission and moisture-resistant solutions, supporting competitiveness and alignment with changing market and sustainability expectations. The Group also recorded a slight increase in sales to CLMV markets in 2025, indicating early traction in regional diversification and reinforcing the importance of continuing to build our presence across CLMV.

The year also underscored the importance of stronger market intelligence and forecasting discipline. Sales forecast variance was 19.7%, above the 2025 target threshold of below 15%, reflecting demand uncertainty and pricing pressure in a weaker market environment. Despite near-term financial pressure, the Group continued to integrate geopolitical and market risks into enterprise risk management to support more proactive scenario planning, faster commercial response, and stronger business continuity. Overall, 2025 represents a transition year in which the Group continued to rebalance our markets, improve product resilience, and strengthen risk management capabilities to support more diversified and durable long-term growth.

### Revenue Diversification: Domestic vs Export

Export Sales  Export Sales – CLMV  Domestic Sales

Domestic sales increased to strengthen revenue resilience amid global market volatility.




# Forward Actions

To strengthen resilience against geopolitical uncertainties and global market volatility, the Group will continue to advance our market diversification, product development, and risk management capabilities through the following actions:

- Expand the domestic market through stronger partnerships across construction, real estate, and furniture value chains, with emphasis on ESG-driven solutions.
- Diversify exports into high-growth markets, especially Southeast Asia, South Asia, and other strategic regions, to reduce reliance on traditional destinations.
- Develop more value-added, environmentally friendly wood-based products, including low-emission and high-performance solutions.
- Strengthen market intelligence and demand forecasting to respond more quickly to global demand shifts.
- Integrate geopolitical and market risks into ERM to support scenario planning, mitigation, and timely decisions.
- Use digital tools and data analytics to optimize sales channels, customer engagement, and market visibility.
- Build a more balanced domestic and international revenue mix to support resilient and diversified income streams.


Driving Digital and Sustainable Innovation Strategy

# Digital Transformation and Data Security

**Secure digital transformation for resilient operations and data protection**

## Impact & Value Created

- Strengthens resilience, data integrity, efficiency, compliance, and stakeholder trust through secure digital transformation.

## Risks & Opportunities

- Cyber threats may cause disruption, unauthorized access, data leakage, or privacy breaches.
- Privacy and compliance exposure.
- Higher digital and cloud security demands.
- Stronger cybersecurity and privacy management improve resilience, compliance, and trust.
- Secure digital systems support efficiency, better decisions, and scalable growth.

## Our Approach

- Implement robust IT security governance covering access control, data protection, and risk management.
- Protect data through encryption, classification, and secure access systems.
- Strengthen cybersecurity via cloud infrastructure, backup, and business continuity planning.
- Monitor risks through system auditing, logging, and incident response.
- Build employee awareness through training and clear data practices.
- Integrate cybersecurity into enterprise risk management and digital strategy.

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Strengthen cybersecurity governance and controls**<br>• **Enhance access control and authentication**<br>• **Expand employee training and awareness**<br>• **Optimize ERP (SAP) security**<br>• **Improve incident detection and response** | • Deploy advanced cybersecurity and automation<br>• Strengthen real-time monitoring and threat detection<br>• Enhance data governance and privacy frameworks<br>• Improve system resilience and redundancy | • Build fully integrated digital security ecosystem<br>• Lead in cyber-security and data protection practices<br>• Enable secure data-driven decision-making<br>• Sustain long-term resilience against evolving threats |

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Cybersecurity incident prevention** | Maintain **zero reported complaints** or incidents relating to cybersecurity or data breaches. | **Zero reported cybersecurity incidents** or data breaches. | Maintain zero incidents while strengthening monitoring, detection, and incident response capabilities. | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |
| **Enhance tax transparency and disclosure** | **Achieve 100% annual training** completion for IT personnel responsible for data security. | **100% of relevant IT personnel** completed data security training. | Sustain 100% annual completion and continue refreshing technical capabilities against evolving cyber risks. | 8 DECENT WORK AND ECONOMIC GROWTH; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |
| **Strengthen tax compliance and controls** | **Train at least 25% of key data-related departments** on data privacy awareness. | **30% of employees across other functions** received SAP and data privacy awareness training. | Expand coverage across key departments and strengthen organization-wide responsible data handling. | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |

**Scan for related disclosure**
For further details, please refer to the policies
Confidentiality Policy

**Scan for related disclosure**
For further details, please refer to the policies
Information Technology Security Policy

## Performance in 2025

In 2025, the Group continued to strengthen our digital transformation and data security capabilities, ensuring reliable operations, enhanced data protection, and stakeholder confidence amid increasing cyber risks and digital business expansion.

The Group achieved **zero cases of cybersecurity incidents or data breaches**, reflecting the effectiveness of our preventive controls, monitoring systems, and risk-based cybersecurity management approach. This outcome reinforces the Group's commitment to safeguarding sensitive information and maintaining business continuity.

To build strong internal capabilities, **100% of IT personnel responsible for cybersecurity and data protection received comprehensive training**, supported by clearly defined procedures for data governance, access control, and incident management. In addition, **30% of employees across other functions were trained** on SAP systems and data privacy awareness, promoting a broader culture of responsible data handling and reducing operational risks related to human error.

The Group also enhanced our digital infrastructure by developing a new corporate website, improving accessibility, user experience, and communication efficiency with customers and stakeholders. This supports the Group's transition toward more digital engagement while maintaining secure and reliable information management.

These efforts are particularly important for Vanachai as the business expands into B2C channels and digital platforms, where customer and partner data volumes are increasing and require higher levels of protection. Strengthening cybersecurity, data governance, and digital systems not only mitigates risks but also builds trust, supports regulatory compliance, and enables sustainable business growth in a digital environment.

Overall, the 2025 performance demonstrates the Group's progress in embedding cybersecurity and data protection into our operations, while laying a strong foundation for secure digital transformation and long-term resilience.



**0**
Zero cybersecurity incidents or data breaches



**30%**
Employees trained on SAP and data privacy awareness



**100%**
IT team fully trained on data security



**NEW**
Developed digital platforms to enhance communication efficiency

## Forward Actions

To support secure digital transformation and address evolving cyber risks, the Group will continue to strengthen our digital capabilities, data protection, and cybersecurity governance through the following actions:

- **Enhance cybersecurity governance and controls** by continuously updating policies, standards, and internal controls to align with emerging risks and international best practices.
- **Strengthen data protection and privacy management** through improved data classification, access control, and compliance with applicable data protection regulations.
- **Expand organization-wide awareness and capability** by increasing employee training on cybersecurity, data privacy, and responsible data handling across all functions.
- **Advance digital infrastructure and system security** by optimizing ERP (SAP), cloud systems, and network security to ensure reliability, scalability, and protection against cyber threats.
- **Enhance monitoring and incident response capabilities** through real-time threat detection, system logging, and continuous improvement of incident management processes.
- **Leverage digital technologies and analytics** to improve operational efficiency, data-driven decision-making, and secure business processes.
- **Integrate cybersecurity into enterprise risk management** to enable proactive risk identification, scenario planning, and resilient business continuity under evolving digital risks.

"Strengthened cybersecurity controls and digital capabilities, supporting secure business growth and stakeholder trust."

# Green and Inclusive Innovation

**Driving sustainable innovation that creates value for business, society, and the environment**

**Scan for related disclosure**
For further details, please refer to the
Innovation Management and Value Creation Policy

## Impact & Value Created

- Creates higher-value growth through customer-led green innovation that improves product performance, reduces reliance on natural timber, supports circular use of resources, and delivers shared value for business, society, and the environment.

## Risks & Opportunities

- Slow innovation or weak market response may reduce competitiveness. Strong green R&D, open innovation, and low-emission product development can expand markets, improve margins, and support long-term climate and sustainability ambitions.

## Our Approach

- **Embed innovation culture** — drive structured internal innovation across functions.
- **Use customer insight** — turn feedback and complaints into product improvement.
- **Advance green R&D** — develop safer, low-emission, high-performance products.
- **Apply ESG screening** — assess feasibility, business value, and ESG impacts.
- **Expand open innovation** — collaborate with universities and research partners.
- **Scale from pilot to market** — test, refine, commercialize, and communicate clearly.
- **Link innovation to climate goals** — support circularity, lower emissions, and net zero transition.

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Build R&D and innovation capability**<br>• **Develop LCA and carbon data**<br>• **Launch pilot green products**<br>• **Improve material efficiency** | • Scale sustainable product lines<br>• Integrate lifecycle-based design<br>• Expand collaboration with customers and partners<br>• Increase use of low-impact and certified materials<br>• Improve innovation-driven process efficiency<br>• Strengthen supplier and partner innovation networks | • Lead in sustainable innovation<br>• Advance low-carbon solutions<br>• Embed sustainability across the innovation pipeline<br>• Expand market reach for green offerings<br>• Align innovation with net zero ambitions |

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Product innovation** | Advance at least 3 green product innovation streams. | Advanced 2 product streams: **Non-formaldehyde eco-friendly boards, Specialty boards**, including HMR, Hybrid, Super OSB, laminated, and fire-retardant solutions and **Zero-VOC adhesive technology**. | Scale commercialization of higher-value green products and strengthen fit-for-use innovation pipeline. | 9 12 13 |
| **Service innovation** | Pilot 1 digital service solution. | **Service innovation pipeline identified**, including QR-based product information, supplier/stakeholder platform concepts, and logistics matching; formal rollout not yet completed. | Launch priority digital service pilots and strengthen customer-facing sustainable innovation solutions. | 9 12 17 |
| **Process innovation:** digital and operational intelligence | Deploy SAP in 5 functions and develop 5 digital tools. | **SAP applied across FI/CO, MM, PP, SD, and PM; developed** at least 5 AI/Gemini tools and expanded sensor-based production control. | Expand digital integration, strengthen data-driven production, and scale AI-enabled decision support. | 8 9 12 |
| **Process innovation:** resource efficiency and low-carbon systems | Implement 5 efficiency or carbon projects. | **Advanced multiple projects** including solar rooftop, biomass power, water recirculation, heat recovery, SEC monitoring, and ESP dust control. | Scale decarbonization innovation and improve resource productivity across operations. | 7 9 12 13 |

# From Customer Feedback to Innovation

**Turning customer insight into better products, services, and processes**

01



**Customer Feedback**
Comments, suggestions, complaints, product needs

02



**Collection Channels**
Sales teams, service channels, website, digital tools

03



**Capture & Record**
Log issues and customer input systematically

04



**Analysis & Trend Review**
Identify recurring issues, needs, and opportunities

05



**Cross-Functional Review**
Sales, customer service, operations, quality control, R&D

06



**Innovation Development**
Develop product, process, or service improvements

07



**Testing & Implementation**
Prototype, validate, and apply improvements

08



**Improved Customer Value**
Better quality, safer products, stronger service, higher satisfaction

**Continuous improvement**



**Product Innovation**
New features, safer materials, better performance



**Process Innovation**
Efficiency, quality control, waste reduction



**Service Innovation**
Better communication, faster response, stronger trust

# Innovation Performance 2025

## Green and Inclusive Innovation: Product, process, service, and low-carbon execution

In 2025, Vanachai advanced innovation across four connected areas: greener products, smarter processes, digital or service solutions, and operational decarbonization. Together, these actions strengthened product differentiation, efficiency, transparency, and resource use.

**Product innovation was the clearest commercial output, process innovation was the strongest internal capability upgrade, service innovation remained in pilot or concept stage, and low-carbon innovation improved resource efficiency and transition readiness.**

### Product innovation

- Non-formaldehyde and eco-friendly boards (NAF/ENF)
- Specialty boards: Low formaldehyde HMR, Super OSB, Hybrid HMR flooring, Ultra hybrid flooring
- Formaldehyde-free adhesive technology

### Process innovation

- SAP applied across FI/CO, MM, PP, SD, and PM
- AI and machine learning used in production control and quality tracking
- Digital tools for wood cost, glue analytics, particle QA, and engineering

### Service innovation

- Stakeholder platform concept for supplier queue, payment, and quality visibility
- Digital Product Passport via QR code for carbon and sourcing information
- Logistics matching concept to cut empty runs and improve coordination

### Efficiency and carbon

- Solar rooftop and biomass energy projects
- Water recirculation, heat recovery, and SEC monitoring
- ESP dust capture and resource recovery supporting circular operations



## Performance in 2025

In 2025, Vanachai's innovation performance was led by product innovation across three priority categories, reflecting the Group's focus on healthier, lower-emission, and longer-lasting wood-based solutions. These included non-formaldehyde products that support safer indoor air quality and healthier living environments, high-quality moisture-resistant HMR boards that enhance durability and support product Longevity in furniture and structural applications, and formaldehyde-free adhesive technology that helps reduce volatile emissions in indoor spaces and lower potential long-term health risks. Collectively, these innovations demonstrate Vanachai's commitment to creating safer, high-performance products that support better living quality, longer service life, and stronger market differentiation.

Process innovation was the strongest internal capability upgrade in 2025. The Group expanded digital and operational tools through SAP, AI, machine learning, production sensors, and in-house applications to improve quality control, cost management, speed, and decision-making. At the same time, low-carbon efficiency projects such as solar rooftop, biomass energy, water recirculation, heat recovery, SEC monitoring, and dust capture systems helped connect innovation with resource efficiency and decarbonization. Service innovation also progressed, although it remained at an earlier stage, with pilot or concept development for stakeholder platforms, digital product information, and smarter logistics coordination. Overall, 2025 reflects a shift from stand-alone innovation projects toward a more integrated innovation system that supports business value, ESG outcomes, and long-term transition readiness.







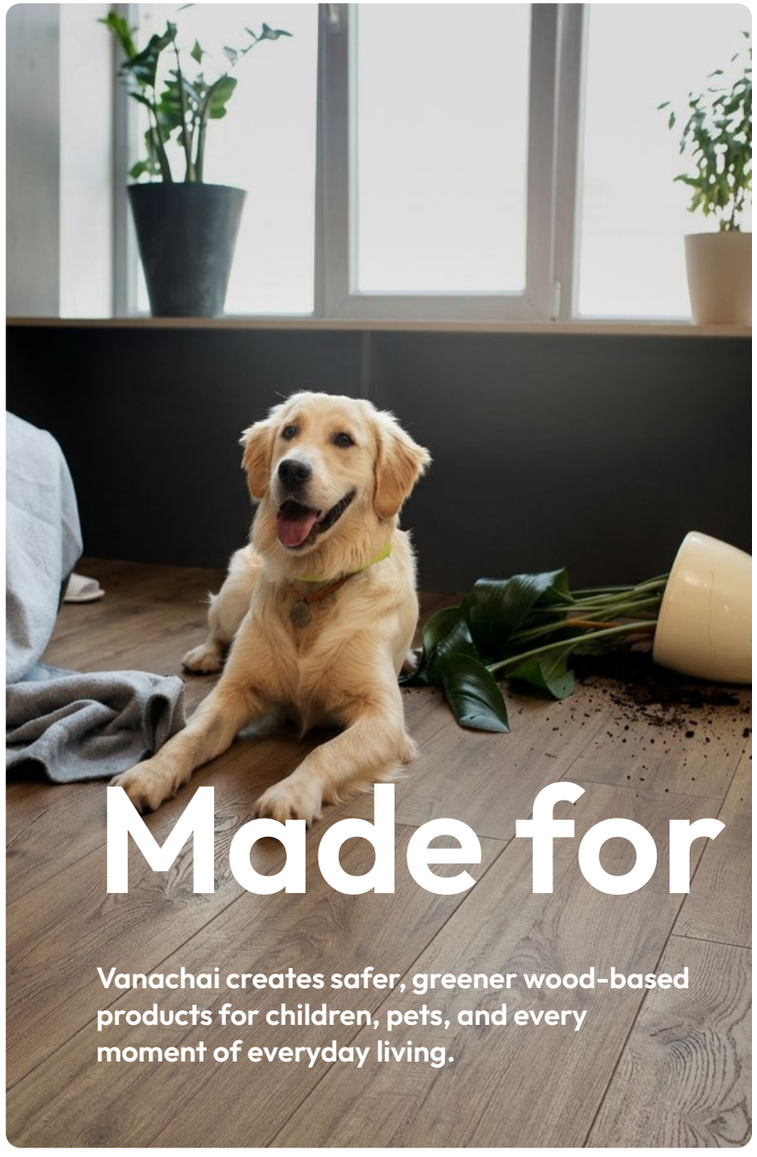



## Forward Actions

To accelerate green and inclusive innovation, Vanachai Group will continue to strengthen customer-led R&D, expand sustainable product development, and scale new opportunities that create both ESG value and long-term business growth.

- **Strengthen customer-led innovation processes** to systematically integrate customer insight and market needs into product development and continuous improvement.
- **Expand low-carbon and health-focused product development** to deliver safer, low-emission, and high-performance products aligned with evolving sustainability expectations.
- **Scale innovation into new applications and business areas** to diversify product uses, including packaging and advanced materials, and support future revenue growth.
- **Enhance R&D and open innovation collaboration** to accelerate development through partnerships with academia, suppliers, and external stakeholders.
- **Integrate lifecycle and carbon data into innovation processes** to improve design decisions and support customer ESG and decarbonization needs.
- **Promote circular and resource-efficient solutions** to reduce material use, waste, and environmental impacts across the value chain.
- **Strengthen commercialization and market adoption** to expand sustainable offerings and increase market penetration through ESG-led positioning

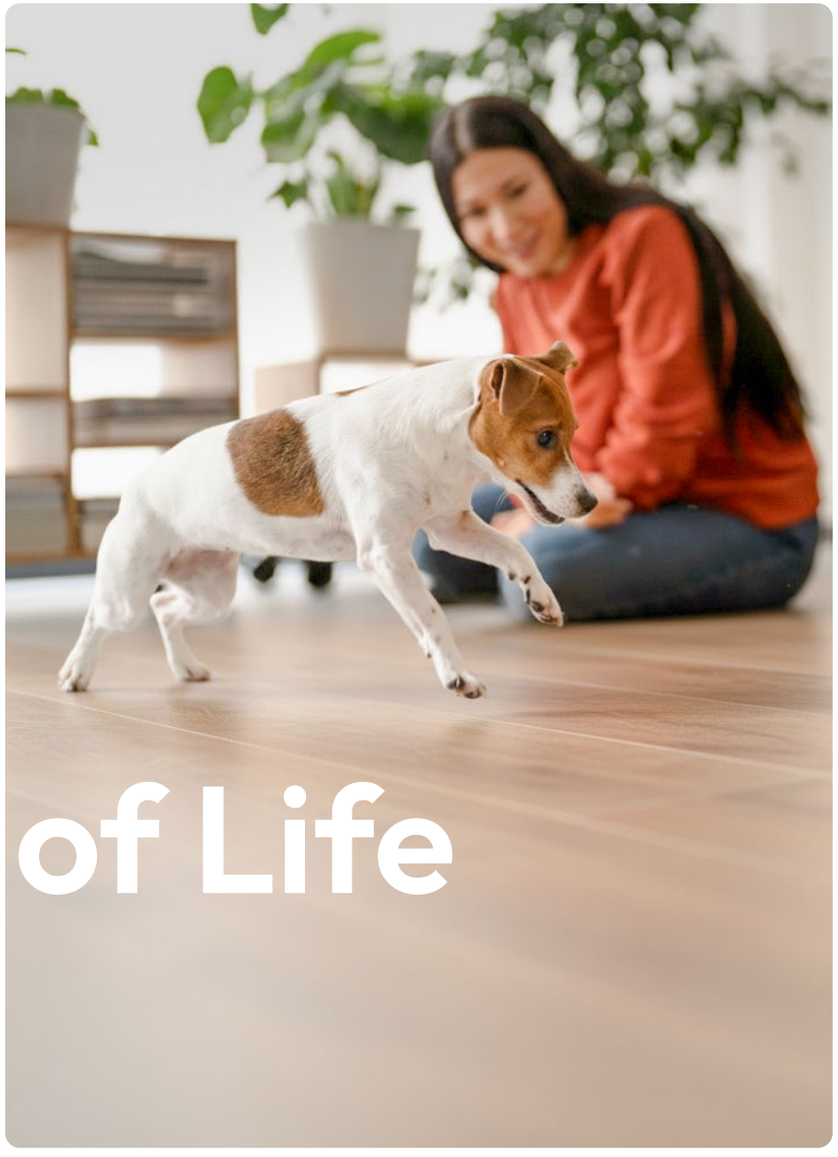
In summary, Vanachai's 2025 innovation performance was strongest in products and processes, while service innovation remained in development and low-carbon innovation strengthened the operational foundation for future growth.

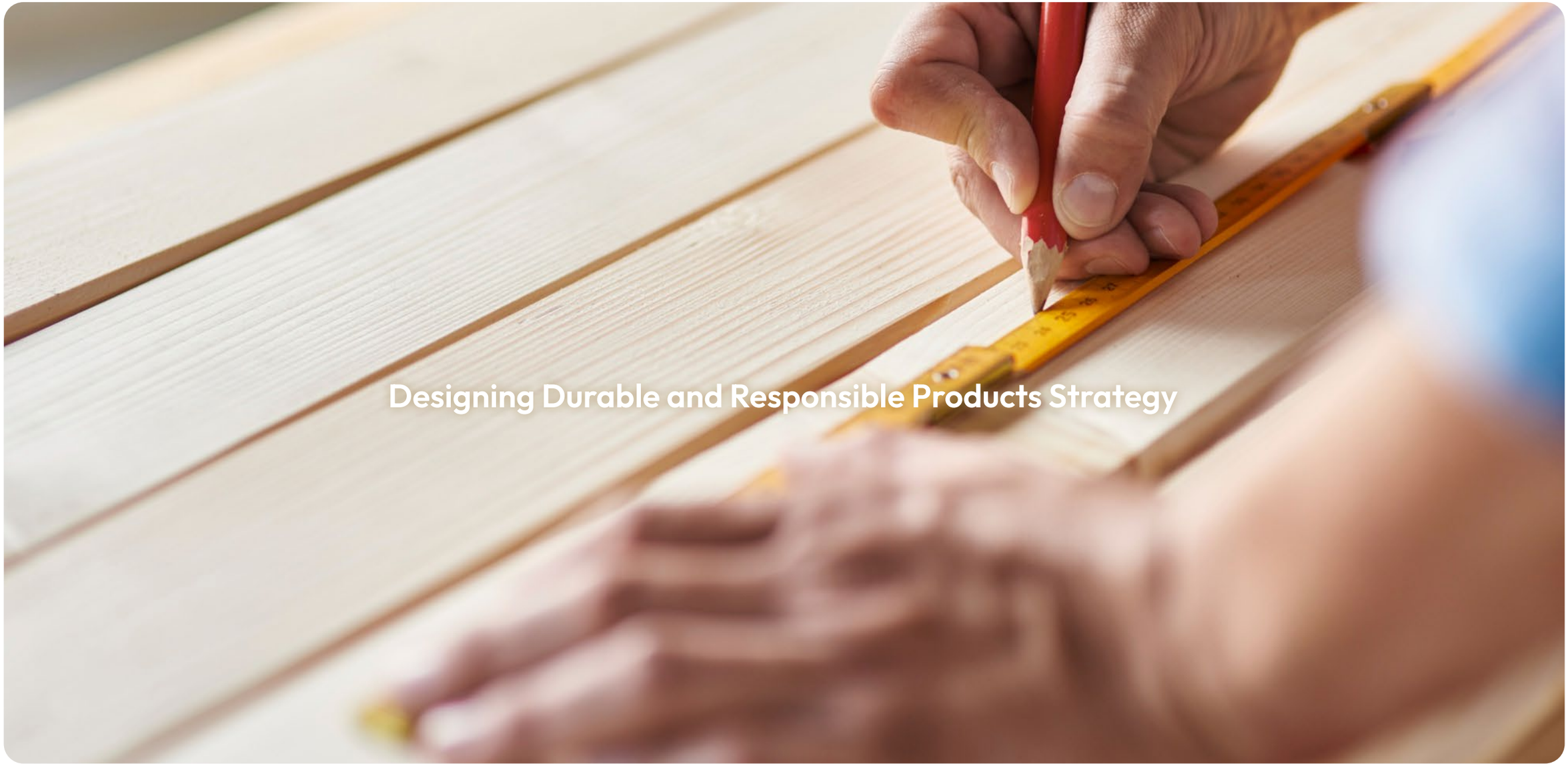


# Made for Home Full of Life

**Vanachai creates safer, greener wood-based products for children, pets, and every moment of everyday living.**







# Designing Durable and Responsible Products Strategy

# Product Longevity and Lifecycle Performance

**Advancing durable, low-carbon products for sustainable living and long-term performance**

**Scan for related disclosure**
For further details, please refer to the
Sustainable Construction and Building Management Policy

## Impact & Value Created

- Supports long-term customer value and lower life-cycle impacts by advancing durable, low-carbon wood-based products that improve resource efficiency, extend service life, and contribute to more sustainable and resilient projects.

## Risks & Opportunities

- Weak durability, short product life, poor lifecycle performance, or limited environmental data may reduce competitiveness and increase regulatory, reputational, and market risk. In contrast, durable low-carbon products with LCA and circular design can strengthen differentiation and support sustainable construction demand.

## Our Approach

- Design for durability — extend product life and long-term performance.
- Apply lifecycle thinking — assess impacts from sourcing to end-of-life.
- Advance low-carbon materials — promote lower-emission wood-based products.
- Support circular design — reduce waste and improve material recovery.
- Strengthen product data — develop LCA, EPD, and carbon information.
- Align with green building needs — support major certification pathways.
- Integrate into V-IMRA and ERM — manage lifecycle and climate risks systematically.

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Expand durable low-carbon products**<br>• **Set eco-design criteria**<br>• **Apply design-out-waste**<br>• **Strengthen LCA and product data**<br>• **Improve durability testing**<br>• **Use customer feedback faster** | • Scale circular resource systems<br>• Pilot take-back and recovery<br>• Deepen partner co-development<br>• Reduce landfill disposal<br>• Integrate lifecycle risk into V-IMRA and ERM<br>• Support green building applications | • Lead next-generation green wood-based solutions<br>• Scale circular and low-carbon products<br>• Minimize lifecycle impact<br>• Enable sustainable building demand<br>• Strengthen long-term market differentiation<br>• Create lasting stakeholder value |

## Targets

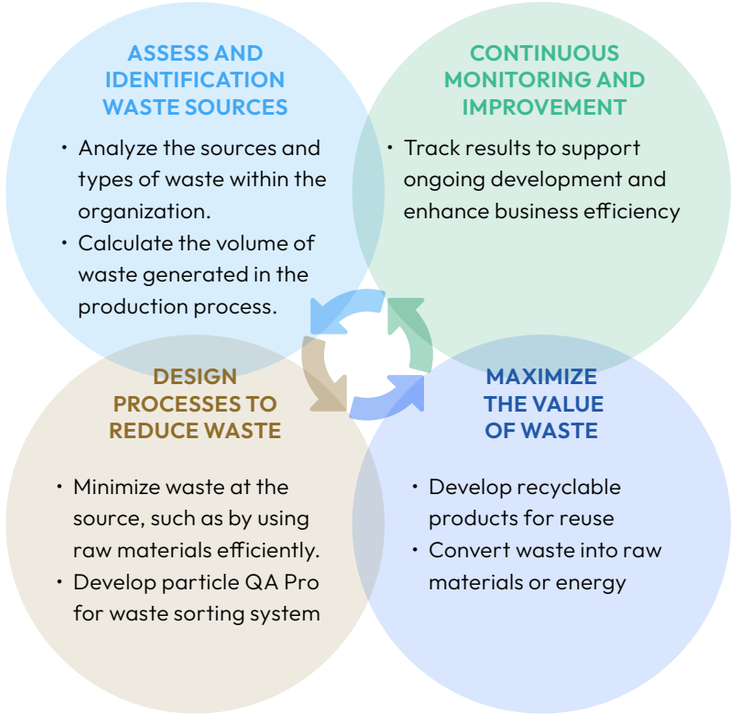
| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Durable low-carbon product development** | Expand durable, low-carbon product solutions, with at least one new category supporting longer life and lower emissions. | Advanced OSB, non-formaldehyde and new low-emission, moisture-resistant products. | Scale longer-life, lower-emission product offerings across priority applications and markets. | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 13 CLIMATE ACTION |
| **Lifecycle data and product transparency** | Develop product-level LCA / CFP / EPD data for key products and embed lifecycle thinking into product development. | Lifecycle responsibility and low-carbon material principles were formally embedded in policy and product direction. | Expand verified lifecycle data coverage to support customer carbon reporting and green building requirements. | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 13 CLIMATE ACTION |
| **Circularity and waste reduction** | Apply design-out-waste and 5Rs, increase recyclable inputs, and reduce landfill disposal. | 93.5% of production inputs were reusable or recyclable, while 3.7% of total waste was disposed to landfill. | Further reduce landfill disposal and strengthen circular material use across product lines and operations. | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 13 CLIMATE ACTION |
| **Green building support and lifecycle risk integration** | Support durable low-carbon solutions aligned with LEED / BREEAM / TREES, and integrate lifecycle risks into V-IMRA and ERM. | Green building alignment, lifecycle thinking, and risk integration were established through the policy framework. | Deepen collaboration with customers, designers, and partners to support durable, low-carbon, and resource-efficient projects. | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 11 SUSTAINABLE CITIES AND COMMUNITIES; 16 PEACE, JUSTICE AND STRONG INSTITUTIONS; 17 PARTNERSHIPS FOR THE GOALS |

# Performance in 2025

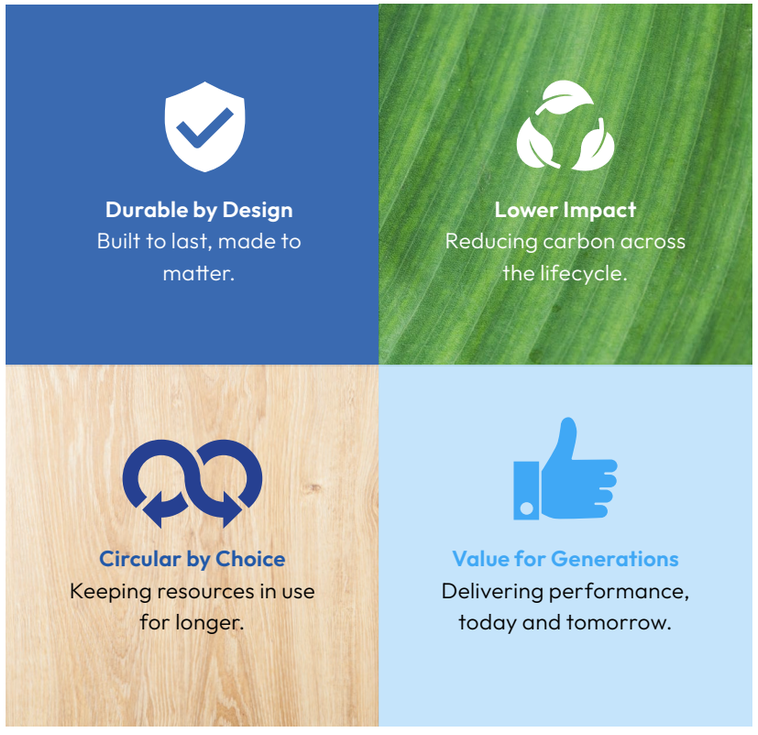
In 2025, the Group advanced product longevity and lifecycle performance through a fully integrated approach combining **product innovation, lifecycle assessment, and circular resource management**.

Building on our “Design Out Waste” principle, the Group continued to improve material quality and production efficiency, recognizing that higher-quality materials not only reduce financial losses but also minimize environmental impacts such as greenhouse gas emissions and waste generation.

## Designing a circular waste management system




The Group further strengthened our Life Cycle Assessment (LCA) capabilities for key products such as MDF, covering raw material sourcing, production, transportation, and product use. This enables the identification of environmental hotspots and supports data-driven improvements in product design, including reductions in emissions, energy use, and resource consumption.




In 2025, the Group launched new products to enhance durability and environmental performance, including:

- **High moisture-resistant flooring (over 72 hours)**, extending product lifespan and reducing replacement frequency
- **Non-formaldehyde products**, improving indoor air quality and supporting healthier living environments

All products are designed to be **low-emission, environmentally friendly, and safe for children and pets**, with low odor and ready-to-use characteristics that support immediate occupancy and green building applications.

The Group also strengthened our **circular economy practices**, including:

- Reuse of wood residues and by-products in production
- Recycling and reprocessing of MDF waste back into raw materials
- Collaboration with partners to manage end-of-life products through recycling and biomass energy utilization

These efforts contribute to reducing landfill waste, improving resource efficiency, and supporting sustainable construction practices.

Overall, the Group has progressed from waste management toward lifecycle-driven product stewardship, integrating durability, environmental performance, and circularity to create long-term value for customers and stakeholders.

# Product Life Cycle Assessment - LCA

Vanachai Group recognizes that the environmental impacts of wood-based products occur throughout the product life cycle. The Company therefore conducted a Life Cycle Assessment, or LCA, for MDF products, which accounted for 69.7% of total product volume. The study used 2024–2025 data and applied a cradle-to-customer boundary, covering raw material sourcing, production, and product delivery to customers. The assessment is carried out in accordance with ISO 14040 and ISO 14044, covering the defined system boundary, functional unit, data sources, calculation assumptions, and impact assessment categories relevant to each product group.

Vanachai Group applies GaBi software and internationally recognized life cycle inventory databases, together with internal production data, energy and water consumption data, raw material data, logistics data, and product specific assumptions. The Company also continues to build technical knowledge on LCA among relevant functions, including production, product development, quality assurance, environmental management, procurement, and sales teams, to ensure that LCA results are practically applied across business processes.

The results of the assessment are used to guide product and process improvements, including improving material efficiency, reducing energy and water intensity, minimizing emissions and waste, enhancing product durability, and supporting the use of renewable or responsibly sourced raw materials. LCA findings also support the Company's circular economy approach by helping identify opportunities to reduce virgin resource use, increase the value of by products and recycled materials, and design products with lower environmental impacts over their life cycle.

In addition, LCA data strengthens the Company's ability to respond to customer requirements, green building standards, and market expectations for low impact construction materials. By improving the environmental performance of our wood-based products, Vanachai Group supports more sustainable building material choices and contributes to the transition toward a lower carbon and more resource efficient construction sector in Thailand and export markets.




## Life Cycle Assessment Results for MDF Products per 1 cubic meter ($m^3$)

| Assessed Impacts | Quantity | Unit | Assessment Method |
|---|---|---|---|
| **Global Warming (GWP)** | 654.20 | kg $CO_2$-eq per $m^3$ | CML 2001 / IPCC 2013 GWP |
| **Acidification (AP)** | 1.45 | kg $SO_2$-eq per $m^3$ | CML 2001 |
| **Eutrophication (EP)** | 0.12 | kg $PO_4^{3-}$-eq per $m^3$ | CML 2001 |
| **Abiotic Depletion** | 3.75 | kg Sb-eq | CML 2001 / ReCiPe |
| **Photochemical Ozone Creation Potential** | 0.07 | kg $C_2H_4$-eq / 1 $m^3$ | CML 2001 |
| **Energy Consumption** | 4,000 | Megajoule (MJ) | CED |
| **Water Use: Total** | 950.00 | $m^3$ water eq per $m^3$ | AWARE / ReCiPe / WFN |
| **- Direct** | 332.50 | $m^3$ water eq per $m^3$ | |
| **- Indirect** | 617.50 | $m^3$ water eq per $m^3$ | |

LCA is part of Vanachai Group's broader ESG strategy to enhance competitiveness while reducing environmental impacts. The Company will continue to improve the quality-of-life cycle data, expand the application of LCA insights to high-volume and strategically important product groups, and integrate findings into product innovation, operational efficiency programs, and sustainability performance management.

# Product Lifecycle Excellence

**Advancing durable and eco-friendly products through an integrated, lifecycle-driven approach.**



## 1 IDENTIFYING IMPACT HOTSPOTS

**IDENTIFYING IMPACT HOTSPOTS**

- Assess product lifecycle impacts
- Identify areas for GHG savings and resource efficiency
- Develop data-driven solutions



## 2 ECO-DESIGN FOR LOW-CARBON PRODUCTS

**LIFE-CYCLE ASSESSMENT (LCA)**

- Non-formaldehyde, low-emission materials
- High moisture-resistant (>72 hrs) and durable flooring
- Extend product lifespan



## 3 CIRCULAR SYSTEMS

**CIRCULAR RESOURCE MANAGEMENT**

- Advanced recycling and biomass systems
- Take-back program for end-of-life products
- Convert wood waste into reusable resources



## 3 GREEN BENEFITS

**HIGH VALUE AT LOW ENVIRONMENTAL IMPACT**

- Sustainable construction materials
- Low-emission, child-safe, pet-safe products
- Reduced waste and enhanced customer value



**DATA-DRIVEN LCA SOLUTIONS**



**LOW-CARBON, DURABLE PRODUCTS**



**CIRCULAR AND BIOMASS SYSTEMS**

## Contractor Training to Reduce Material Waste during Construction and Finishing

Vanachai continued our contractor training program in 2025 to promote material efficiency and reduce waste during construction and interior finishing. The program focuses on building contractors' understanding of proper product handling, cutting, installation, storage, and finishing practices to minimize avoidable material loss at project sites.

This initiative supports Vanachai's Design Out Waste concept, which prioritizes waste prevention from the design and installation stage rather than relying only on post-construction waste management. By sharing practical guidance and best practices with contractors, Vanachai helps improve installation quality, reduce rework, lower material waste, and promote more responsible use of wood-based products across the value chain.

Through this program, Vanachai strengthens environmental responsibility beyond factory operations, creating shared value with customers, contractors, and project partners while supporting resource efficiency, cost reduction, and more sustainable construction practices.

## Forward Actions

To further strengthen product longevity and lifecycle performance, the Group will continue to advance our eco-design, circular systems, and sustainable material innovation through the following actions:

- **Integrate LCA into product development** at scale, enabling systematic identification of environmental hotspots and continuous reduction of lifecycle impacts
- **Expand low-carbon and health-focused product innovation**, including non-formaldehyde, low-emission, and high-durability materials aligned with green building standards
- **Scale circular resource systems**, including waste recovery, recycling, and biomass utilization to minimize landfill and maximize resource efficiency
- **Enhance "Design Out Waste" implementation**, improving product design, sizing, and production processes to reduce material loss across the value chain
- **Strengthen value chain collaboration**, working with customers, contractors, and partners to reduce waste at construction sites and promote sustainable material use
- **Leverage LCA results for market differentiation**, supporting green building certifications and expanding access to environmentally conscious customers



# Sustainable Product and Service Responsibility

**Delivering safe, high-quality, and sustainable products through responsible design to enable low-carbon, resource-efficient projects**

**Scan for related disclosure**
For further details, please refer to the
Product and Service Responsibility Policy

## Impact & Value Created

Delivers safer, higher-quality wood-based products that reduce waste, support lower-emission applications, strengthen customer trust, and enhance long-term competitiveness through responsible design, transparent information, and lifecycle-oriented management..

## Risks & Opportunities

Product quality, safety, disclosure, complaint handling, lifecycle impacts, and customer data privacy present legal, operational, and reputational risks. Conversely, safer low-emission products, transparent communication, and stronger feedback loops can deepen trust, differentiate offerings, and strengthen long-term market resilience.

## Our Approach

- **Design for fit-for-use** — align specifications with customer needs.
- **Design out waste** — reduce waste at source and support reuse and recycling.
- **Control quality and safety** — apply standards, testing, and process controls.
- **Manage lifecycle impacts** — address impacts from raw materials to end-of-life.
- **Disclose product information clearly** — communicate proper use and limitations.
- **Handle complaints fairly** — investigate, remedy, and prevent recurrence.
- **Use customer insight to improve** — turn feedback into product and process upgrades.
- **Integrate into V-IMRA and ERM** — manage risks systematically.

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Strengthen quality, safety, and fit-for-use controls**<br>• **Improve product information and complaint handling**<br>• **Integrate product risks into V-IMRA and ERM**<br>• **Design out waste in products and processes** | • Expand low-emission and resource-efficient product innovation<br>• Use customer feedback to improve products and service response<br>• Reduce landfill disposal and increase material circularity<br>• Strengthen lifecycle-based product management | • Embed lifecycle responsibility across the value chain<br>• Advance safer, lower-carbon, circular product solutions<br>• Build long-term customer trust through responsible products<br>• Strengthen sustainable growth through continuous improvement |

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Product quality and safety** | Strengthen product quality, safety, and fit-for-use controls, while maintaining **100% product certification under ISO 9001:2015**. | Policy established; quality and safety embedded in governance and operations; **100% of relevant operations remained ISO 9001:2015 certified**. | Reduce recurring non-conformities and strengthen preventive controls. | 12, 16 |
| **Customer communication & remedy** | Improve product information, complaint handling, and response timeliness, while maintaining **zero product quality complaints**. | Complaint and remedy mechanisms defined; product communication established; **2 complaints resolved per procedure**. | Strengthen response time, resolution quality, and customer trust. | 12, 16 |
| **Customer satisfaction and continuous improvement** | Maintain and improve product satisfaction not less than 98,1% and **service satisfaction not less than 97.9%.** | **Product satisfaction 98.2%; Service satisfaction 98.0%**; complaints remained very low for over 3 years, with annual monitoring in place. | Convert customer insights into product, process, and service improvements. | 9, 12 |
| **Lifecycle responsibility and risk integration** | Integrate lifecycle impacts and product risks into V-IMRA and ERM, **while reducing landfill disposal toward zero**. | Lifecycle and product risks were integrated into sustainability and risk processes; **93.5% of inputs were reusable or recyclable, and 3.7% of waste was disposed to landfill**. | Strengthen low-emission, resource-efficient products and embed lifecycle risk management. | 9, 12, 13 |

# Performance in 2025

In 2025, Vanachai Group strengthened our sustainable product and service responsibility by advancing product quality, customer value, and responsible product management across the value chain. The Group continued to deliver high-quality, safe, and sustainable wood-based products while enabling customers to achieve more efficient and lower-impact construction outcomes.

Customer satisfaction remained at a high level, with **overall satisfaction at 98.1%, including 98.2% for product quality and approximately 98.0% for service performance**, reflecting consistent delivery of products that meet customer expectations across both domestic and international markets. These results demonstrate the Group's strong capability in aligning product performance with customer needs and application requirements. The Group maintained strong product safety and compliance standards, with all products meeting international requirements, including formaldehyde emission limits in line with the U.S. Environmental Protection Agency (EPA) standards. Product testing was continuously conducted through Small Chamber Test and GP-DMC methods, ensuring reliable control of emissions and supporting healthier indoor environments. No cases of non-compliance related to product safety, labeling, or marketing communication were identified during the year.

Vanachai further enhanced customer value through fit-for-purpose product design and tailored solutions, particularly for business customers such as furniture manufacturers and property developers. These solutions helped optimize material use, reduce waste at customer sites, and improve overall project efficiency. This reflects the Group's shift from product supply to solution-oriented support for customer operations.

During the year, the Group also advanced product innovation to better address health, durability, and emerging market needs. This included the continued development of non-formaldehyde products, which support healthier living and working environments, improve indoor air quality, and respond to growing customer demand for safer materials. At the same time, the Group developed products with longer service life and improved durability, helping extend usage, reduce replacement frequency, and create greater long-term value for customers.

In addition, Vanachai continued to develop new products for new applications and new business opportunities, expanding the potential use of wood-based products in response to evolving market trends and customer requirements. These efforts support the Group's ability to enter new market segments, strengthen commercial resilience, and create future growth opportunities through sustainable product innovation.

Ongoing investment in research and development (R&D) supported continuous improvement in product performance, environmental attributes, and production efficiency. Improvements in production processes also contributed to better resource efficiency, reduced material loss, and enhanced product consistency.

The Group further strengthened engagement with customers and partners through technical support, product development collaboration, and participation in industry exhibitions and product showcases. These activities helped expand market awareness of low-emission and sustainable wood-based materials, while supporting the adoption of environmentally responsible solutions in construction and manufacturing sectors.

Overall, the 2025 performance demonstrates Vanachai's progress in integrating product quality, customer-centric ESG value, and responsible product practices. This approach enhances operational efficiency, supports customers' sustainability goals, and reinforces the Group's competitive position as a provider of sustainable solutions for low-carbon and efficient projects.

## Product Quality Standards

| | | | |
|---|---|---|---|
| SGS CARB ATCM | MDF<br>PARTICLEBOARD<br>HDF<br>DOOR SKIN | SGS US EPA TSCA TITLE VI | MDF<br>PARTICLEBOARD<br>HDF<br>DOOR SKIN |
| JIS | PARTICLEBOARD<br>OSB<br>MELAMINE<br>LAMINATED ON PB<br>Type : F**** | Bureau of Indian Standards | MDF<br>PARTICLEBOARD<br>MELAMINE<br>LAMINATED ON PB |
| | MDF | | PARTICLEBOARD |

Vanachai Group is committed to delivering high-quality products in line with international standards, supported by continuous process improvement and a strong belief that superior quality builds long-term stakeholder trust. The company has achieved international certifications, reflecting our commitment to responsible and transparent business practices.

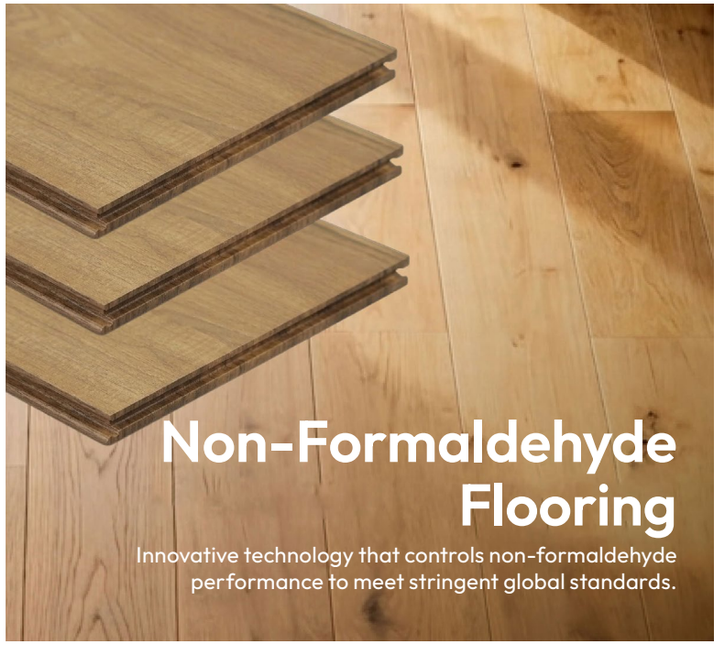
Clear product labeling and comprehensive service information are provided, supported by rigorous quality control across all stages—from raw materials and production to final delivery—to ensure products consistently meet customer expectations and support ongoing quality, innovation, and sustainability.

# Because material choices are not only about homes, they are about lives: The Floor Varnish

**Invisible risks deserve visible action. Vanachai advances responsible wood-based innovation for safer homes, cleaner indoor air, and long-term wellbeing.**

The Floor Varnish is a conceptual short film that reflects Vanachai's commitment to product responsibility, consumer awareness, and safer living environments. Through the language of psychological horror, the film invites audiences to recognize invisible risks that may exist in everyday materials, including formaldehyde-related concerns. As a wood-based products manufacturer, Vanachai continues to strengthen responsible product design by improving adhesive technology and quality treatment processes, reducing excessive chemical use, and managing long-term environmental and health-related risks.

In 2025, the launch of Non-Formaldehyde products marks an important step toward serving health-conscious consumers, supporting safer indoor air quality, and expanding into markets that value long-term wellbeing, product safety, and sustainability.









**Scan for related** further details, please refer to the **Floor Varnish**

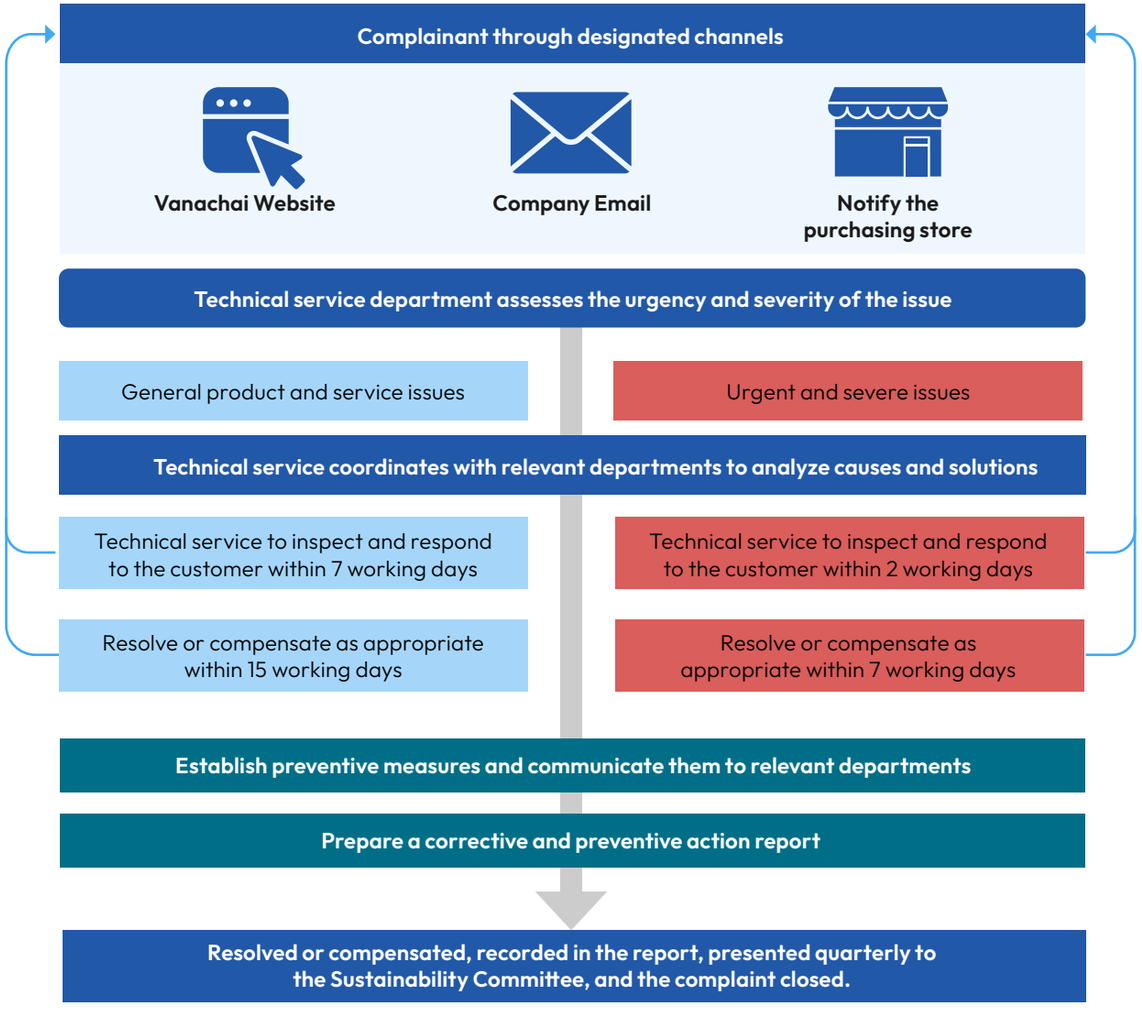
Watch the film and reconsider the materials that surround your everyday living.

# Forward Actions

To further strengthen sustainable product and service responsibility, Vanachai Group will continue to enhance product innovation, customer value, and lifecycle-based product management, while expanding our role in supporting low-carbon and efficient projects.

- **Strengthen complaint handling and customer feedback use**, to resolve issues with care and turn suggestions into product and service improvements.
- **Expand low-carbon and non-formaldehyde products**, to meet demand for safer and lower-emission materials.
- **Develop product-level LCA and CFP data**, to support customer carbon reporting and green building needs.
- **Strengthen eco-design and lifecycle development**, to improve performance and reduce environmental impacts.
- **Scale tailored solutions and new applications,** to optimize material use and reduce waste.
- **Enhance product durability and long-term performance**, to extend service life and create greater customer value.
- **Strengthen product and service complaint handling**, to resolve issues with care, respond fairly and promptly, and use customer suggestions to improve products and services.
- **Increase collaboration with customers and partners**, to support low-carbon and efficient project delivery.
- **Expand product exposure and market engagement**, to raise awareness of sustainable product solutions.
- **Strengthen R&D and sustainable innovation**, to support future growth through responsible products.

## Product and Service Complaint Handling Procedures



# Delivering Responsible Products and Services Across the Value Chain

* **LCA** = Life Cycle Assessment
**EPD** = Environmental Product Declaration

## Powered by RESPONSIBLE WOOD SOURCING

**94.7%**
Increase the raw material share of **wood & wood residues**

## Powered by EMISSIONS REDUCTION

**71.6%**
Increase the share of **renewable energy**

**-29.6%**
Reduce absolute fossil fuel GHG **Scope 1 and 2 emissions**

## Powered by SUSTAINABLE PRODUCTS

**98.2%**
**Product Satisfaction Score**

## Powered by RESPONSIBLE SERVICES

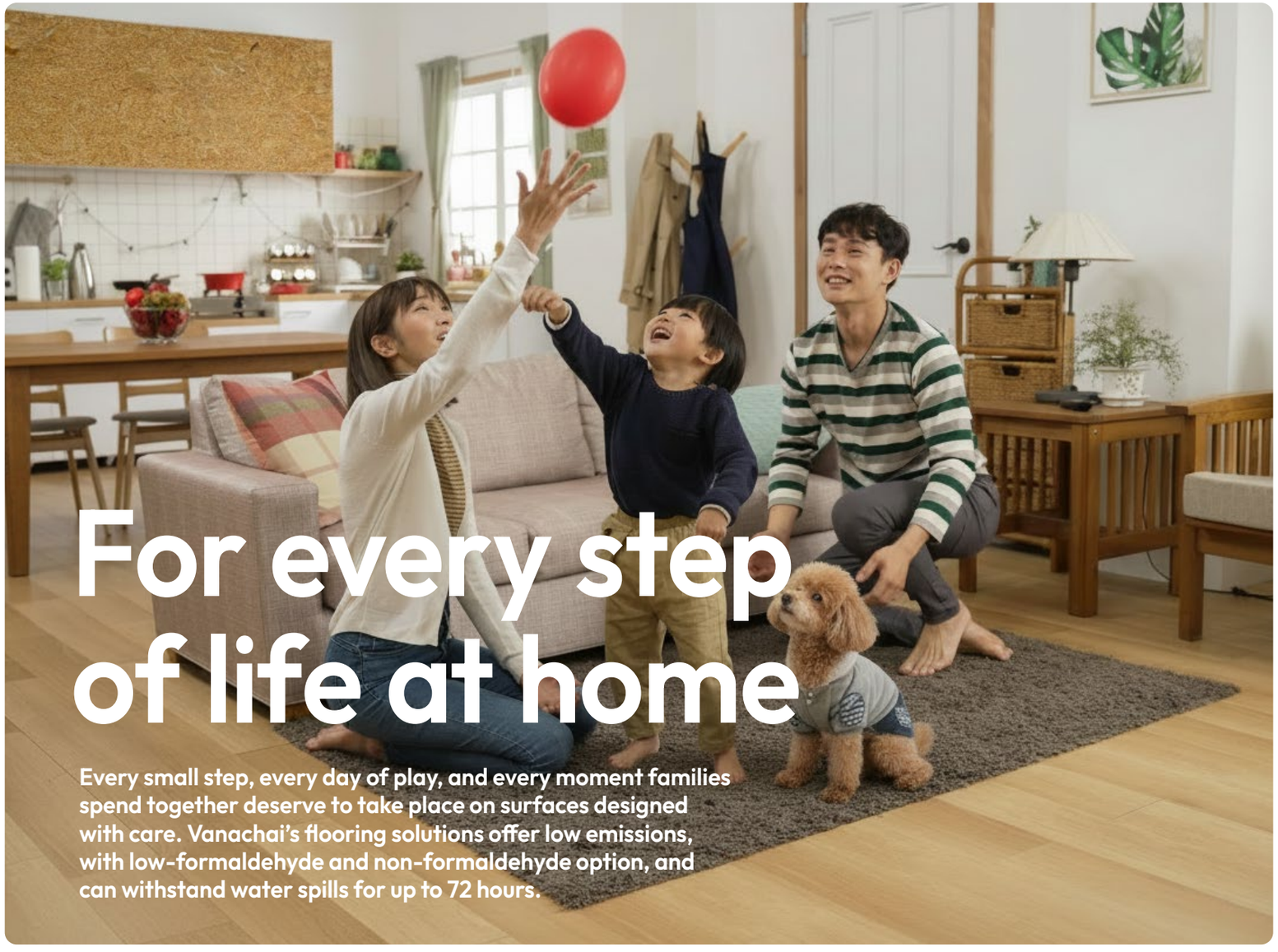
**98.0%**
**Service Satisfaction Score**

**63.3%**
Share of core products assessed through *** LCA with EPD**

## Powered by SUSTAINABILITY INTEGRATION

**24.1%**
Share of **Low & Non-Formaldehyde** products





# For every step of life at home

Every small step, every day of play, and every moment families spend together deserve to take place on surfaces designed with care. Vanachai's flooring solutions offer low emissions, with low-formaldehyde and non-formaldehyde option, and can withstand water spills for up to 72 hours.



For a safer, more comfortable home designed for children, pets and the people we love.

# TOGETHER

## Social Sustainability



The Group's Social sustainability, under the

**"TOGETHER: Growing with people and communities for shared value"**

approach, reflects a fundamental commitment to inclusive growth, respect for human rights, and long-term value creation for all stakeholders. The Group recognizes that workforce capability, community trust, and business resilience depend on responsible labor practices, safe working environments, and meaningful stakeholder engagement. To support this, the Group applies an integrated materiality and risk assessment process to ensure that significant social issues are comprehensively evaluated and effectively linked to people management, stakeholder engagement, and business decision making.



# TOGETHER

## Sustainability in the Social Pillar

**EMPOWERING PEOPLE AND ENSURING SAFE WORKPLACES STRATEGY**

- → Employee Well-being, Engagement, and Development
- → Occupational Health and Safety

**CREATING SHARED VALUE FOR SOCIETY AND CUSTOMERS STRATEGY**

- → Respect for Human Rights and Community Development
- → Customer Responsibility and Trust



**UN Sustainable Development Goals**





# Empowering People and Ensuring Safe Workplaces Strategy

# Employee Well-being, Engagement, and Development

**Building a Future-Ready, Engaged, Fair, and Inclusive Workforce**

## Impact & Value Created

Employee well-being and development strengthen productivity, retention, and competitiveness. In 2025, Vanachai achieved 96.59% engagement, 30,422 training hours, 100% appraisal coverage, and 0.75:1.0 gender wage parity, supporting workforce stability and future readiness.

## Risks & Opportunities

Key risks include retention pressure, skill gaps, low engagement, and workforce readiness for technology and sustainability transitions. Strong engagement, upskilling, fair rewards, and inclusive employment can improve productivity, reduce turnover, strengthen and resilience.

## Our Approach

- Build a future-ready workforce
- Strengthen employee trust and engagement
- Develop skills for productivity and growth
- Promote fair pay and inclusive employment
- Retain talent and reduce workforce risk

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Run engagement survey and action plans**<br>• **Strengthen welfare committee & communication**<br>• **Map critical skills and training needs**<br>• **Maintain 100% performance appraisal**<br>• **Track turnover by key employee groups** | • Build human capital analytics dashboard<br>• Expand leadership and succession programs<br>• Upskill technical, digital, safety, and ESG capabilities<br>• Strengthen career paths and internal mobility<br>• Improve well-being and fair rewards | • Build a future-ready workforce<br>• Embed continuous learning culture<br>• Maintain high engagement and retention<br>• Strengthen inclusive employment<br>• Support business and sustainability transformation |

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Employee Engagement and Voice** | Engagement ≥80%; survey coverage ≥90% | Engagement 96.59%; welfare committee 46 employees; minimum notice period 30 days | Close the feedback loop by site and function, and communicate improvement actions to employees | 8 |
| **Retention and Workforce Stability** | Voluntary turnover below sector benchmark 16.9% and Thailand benchmark 12.9% | Turnover 12.38%, below sector by 4.52 p.p. and below Thailand benchmark by 0.52 p.p. | Focus retention actions on critical roles, younger employees, and high-turnover locations | 8 |
| **Employee Development and Performance Appraisal** | Maintain annual training and 100% appraisal coverage | 30,422 training hours; 9.10 hours/person/year; 100% appraisal coverage | Link IDPs, skill matrix, training effectiveness, and succession planning | 4, 8 |
| **Fair Pay, Benefits, and Well-being** | Maintain female-to-male wage ratio at 1:1 and full benefit access | Wage ratio 0.75:1.00; social security contribution THB 25.56 million; retirement/benefit plan contribution THB 18.05 million | Strengthen pay equity review, benefits adequacy, and well-being ROI measurement | 5, 8 |
| **Inclusive and Balanced Workforce** | Monitor contractor dependency; maintain disabled employment above legal requirement | Women in permanent workforce 30.45%; contractors 10.95% of workforce; disabled employees 39, equal to 116.7% of legal ratio | Expand inclusive hiring, career access, and targeted development for underrepresented groups | 5, 10 |

**Scan for related disclosure**
For further details, please refer to the policies

Employment Policy

Employee Personal Development and Training Policy

Supporting Employee Freedom of Association Policy

Code of Business Ethics

# Employee Well-being, Engagement, and Development Performance Metrics and Disclosure Alignment

Below are the data related to Employee Well-being, Engagement, and Development for Vanachai Group and our subsidiaries during during 2021–2025, with 2021 as the base year.

| Disclosure Alignment | | Employee Well-being, Engagement and Development Indicator | unit | Vanachai Group Performance | | | | |
|---|---|---|---|---|---|---|---|---|
| GRI | FTSE Russell | | | 2021* | 2022 | 2023 | 2024 | 2025 |
| **2-7; 405-1** | SLS33 | Permanent employees | persons | 1,826 | 2,062 | 2,020 | 1,886 | **3,343** |
| **2-7; 405-1** | SLS33 | Female permanent employees | % | 31.3% | 33.2% | 32.3% | 30.8% | **30.5%** |
| **2-8** | SLS25 | Contractors / temporary workers | persons | 0 | 0 | 0 | 0 | **411** |
| **2-8** | SLS25 | Contractor share of total workforce | % | 0.0% | 0.0% | 0.0% | 0.0% | **10.9%** |
| **2-7; 2-8** | SLS25, SLS33 | Total workforce include contractors | persons | 1,826 | 2,062 | 2,020 | 1,886 | **3,754** |
| **401-1** | n/a | New hires | persons | 406 | 344 | 131 | 45 | **107** |
| **401-1** | SLS24 | Employee turnover - all resignations | persons | 166 | 224 | 281 | 229 | **414** |
| **401-1** | SLS24 | Voluntary turnover rate | % | 9.1% | 10.9% | 13.9% | 12.1% | **12.4%** |
| **401-1** | SLS28 | Variance vs sector benchmark | p.p. | -7.8 | -6.0 | -3.0 | -4.8 | **-4.5** |
| **2-23; 405-1** | SLS11; SLS32 | Employees with disabilities | persons | 21 | 27 | 26 | 23 | **39** |
| **2-23; 405-1** | SLS32 | Disability hiring vs legal quota | % of quota | 115.0% | 130.9% | 128.7% | 122.0% | **116.7%** |
| **405-1** | SLS33 | Women across all job levels | % | 31.3% | 32.6% | 32.3% | 30.8% | **30.5%** |
| **405-1** | n/a | Women in senior management | % | 20.0% | 18.2% | 18.2% | 18.2% | **23.5%** |
| **405-1** | n/a | Women in middle management | % | 33.3% | 34.6% | 32.1% | 29.6% | **21.2%** |
| **405-1** | n/a | Women in first-line management | % | 23.5% | 28.1% | 31.3% | 30.9% | **35.4%** |
| **405-2** | SLS34 | Female-to-male remuneration ratio | ratio | 0.89:1 | 0.85:1 | 0.91:1 | 0.99:1 | **0.75:1** |
| **406-1** | SLS16, SLS21 | Discrimination incidents | cases | 0 | 0 | 0 | 0 | **0** |

| Disclosure Alignment | | Employee Well-being, Engagement and Development Indicator | unit | Vanachai Group Performance | | | | |
|---|---|---|---|---|---|---|---|---|
| GRI | FTSE Russell | | | 2021* | 2022 | 2023 | 2024 | 2025 |
| **n/a** | SLS05; SLS06 | Employee engagement score | % | 94.13% | 95.49% | 96.64% | 97.01% | **96.59%** |
| **n/a** | SLS05; SLS06 | Engagement target | % | n/a | n/a | n/a | n/a | **97.0%** |
| **n/a** | SLS05; SLS06 | Engagement survey coverage | % | n/a | n/a | n/a | n/a | **90.0%** |
| **2-23; 407-1** | SLS05; SLS06 | Freedom of association policy | policy | n/a | n/a | n/a | n/a | **VNG-SOC-SEFA-PL-01** |
| **2-30, 403-4** | SLS05, SLS06, SHS05 | Welfare committee members | persons | n/a | n/a | n/a | 20 | **46** |
| **2-30, 403-4** | SLS05, SLS06, SHS05 | Welfare committee share of employees | % | n/a | n/a | n/a | 1.06% | **1.38%** |
| **2-30** | SLS06 | Collective bargaining coverage | % | 100% | 100% | 100% | 100% | **100%** |
| **402-1** | n/a | Minimum notice period for changes | days | 30 | 30 | 30 | 30 | **30** |
| **401-2** | n/a | Social security coverage | % | n/a | n/a | n/a | 100% | **100%** |
| **401-2** | n/a | Company social security contribution | THB mn | n/a | n/a | n/a | 15.33 | **25.56** |
| **201-3** | n/a | Retirement benefit contribution | THB mn | n/a | n/a | n/a | 274.00 | **18.05** |
| **404-1** | SLS26 | Total training hours | hours | 12,837 | 23,280 | 27,048 | 19,294 | **30,422** |
| **404-1** | SLS26 | Average training hours per employee | hours/person | 7.03 | 11.29 | 13.39 | 10.23 | **9.10** |
| **404-2** | SLS29 | Upskilling / reskilling programs | programs | 6 | 15 | 22 | 18 | **138** |
| **404-2** | n/a | Upskilling expenditure | THB mn | 1.30 | 2.83 | 93.50 | 59.43 | **3.15** |
| **404-3** | SLS29 | Performance appraisal coverage | % | 100% | 100% | 100% | 100% | **100%** |
| **2-23, 404-2** | SHS05 | Training and capability policy | policy | n/a | n/a | n/a | VNG-SOC-EMP-PL-01 | **VNG-SOC-EMP-PL-02** |

# Employment, Labor Rights and Fair Workplace Practices

**Building a fair, inclusive and resilient workforce across Vanachai's operations and supply chain.**

**OUR PEOPLE OUR STRENGTH**
Vanachai Group recognizes employees as a key foundation of long-term business resilience and sustainable growth. The Company is committed to fair employment, safe and respectful working conditions, equal opportunity, and appropriate welfare for all employees. Employment practices are managed in accordance with applicable labor laws, human rights principles, and internal policies covering recruitment, remuneration, development, promotion, workplace treatment, and employee welfare.

**ZERO TOLERANCE CLEAR EXPECTATIONS**
The Company prohibits forced labor, child labor, discrimination, harassment, and all forms of unfair employment practices across its operations and supply chain. These requirements are embedded in governance documents including the Supply Chain Management Policy, Sustainable Procurement Policy, Sustainable Wood Procurement Policy, and Code of Business Ethics for Business Partners. Suppliers and contractors are expected to comply with these requirements as part of contractual and business partner expectations.

**FAIR TREATMENT CONTINUOUS IMPROVEMENT**
Vanachai promotes equal opportunity and non-discrimination in recruitment, employment, compensation, training, career development, promotion, and workplace engagement. The Company supports employee communication, welfare mechanisms, grievance channels, and risk-based labor rights due diligence to identify, prevent, mitigate, and address potential labor-related risks. Where concerns are identified, the Company applies fact-finding, engagement, corrective action planning, monitoring, and prevention measures.



## 2025 Employment Highlights

**0**
Discrimination incidents

**100%**
Employee communication and welfare coverage

**4**
Key supplier governance policies

**30 Days**
Minimum notice period

**EQUAL OPPORTUNITY**
Fair recruitment, development, and promotion

**RESPONSIBLE EMPLOYMENT**
Respecting labor rights across operations and supply chain

## Labor Rights Due Diligence Process

1. **Commit**
Policy commitment against forced labor, child labor, and discrimination

2. **Embed**
Integrate requirements into operations and supply chain management

3. **Assess**
Monitor labor risks for employees, contractors, and suppliers

4. **Respond**
Investigate concerns and implement corrective action

5. **Monitor and Improve**
Follow up, track progress, and prevent recurrence

# Human Rights Employment Risk Assessment, Prioritization and Response

**Focusing on the most salient labor and employment-related human tights issues across our workforce and supply chain.**

Vanachai Group issues a structured due diligence approach to identify, assess, prioritize, respond to, and monitor human rights risks related to employment across our operation and supply chain. Our assessment considers the severity of impact, likelihood of occurrence, affected stakeholders, and business relevance and exposure. This is prioritization helps us focus our resources and actions on most significant labour and employment issues, strengthen preventive controls, and drive continuous improvement.

## How We Prioritize Human Rights Risks



**Severity of impact**
Considers the scale, scope and irremediable nature of potential impacts on people.



**Likelihood of occurrence**
Assesses how likely risks are to occur based on context, history and controls.



**Affected stakeholders**
Considers who may be impacted, including vulnerable or at-risk groups.



**Business relevance and exposure**
Evaluates alignment with business activities, geographies, and supply chain exposure.

## Response and Remediation Approach

**1.**



**Receive concern or identify issue**
Receive reports through multiple channels or identify risks through monitoring and audits.

**2.**



**Investigate and verify facts**
Conduct fair and confidential investigations to understand root causes and impact.

**3.**



**Implement corrective action plan**
Address root causes, take corrective actions and support affected workers.

**4.**



**Follow up with affected parties and suppliers**
Engage with affected parties and suppliers to verify effectiveness of actions.

**5.**



**Monitor closure and prevent recurrence**
Track outcomes, strengthen controls and embed learnings to prevent recurrence.

# Employment-Related Human Rights Risk Salience and Prioritization






**3,754**
Total workforce

**3,343**
Employees in scope

# Top Employment-related Human Rights Risks

## Forced labor risk in supply chain

Risk of forced, bonded or involuntary labor in our suppliers' operations and subcontractors.

**Our Response / Controls**
Strict supplier requirements, contract clauses, worker interviews and ongoing monitoring.

HIGH PRIORITY

## Child labor risk in supply chain

Risk of employment of children below the minimum working age within our supply chain.

**Our Response / Controls**
Prohibition of child labor, age verification expectations and supplier screening and monitoring.

HIGH PRIORITY

## Discrimination and unequal treatment

Risk of unequal treatment based on gender, age, disability, nationality, religion or other status.

**Our Response / Controls**
Equal opportunity policies, non-discrimination training, fair treatment accountability and monitoring.

HIGH PRIORITY

## Working conditions, fair pay and welfare

Risks related to working hours, fair remuneration, benefits, welfare and notice period practices.

**Our Response / Controls**
Competitive pay, social protection, welfare support, and adherence to working time and notice standards.

MEDIUM TO HIGH PRIORITY

## Freedom of association and grievance access

Risk of limiting workers' ability to form associations and access effective grievance mechanisms.

**Our Response / Controls**
Welfare committee, collective bargaining coverage and accessible grievance and communication channels.

MEDIUM TO HIGH PRIORITY

# Preventing Forced Labor and Child Labor in the Supply Chain

**Strengthening due diligence, supplier standards, and remediation to protect vulnerable workers across Vanachai's supply chain.**

Vanachai recognizes that forced labor and child labor are among the most severe human rights and labor risks that may arise in extended supply chains, particularly in relation to raw materials, outsourced services, contractors, logistics providers, migrant workers, seasonal labor, and labor-intensive activities. The Group applies a prevention-based due diligence approach covering supplier requirements, risk screening, contractual commitments, monitoring, grievance channels, corrective action, and remediation. This approach supports responsible sourcing, legal labor practices, and respect for human rights across Vanachai's supply chain.

| Priority risks in supply chain | |
|---|---|
| Forced Labor | High Priority |
| Child Labor | High Priority |

Applies to suppliers, contractors, outsourced services, logistics providers, and other relevant business partners.

## Priority Risks in the Supply Chain

| Risk | Risk Description | High-risk areas |
|---|---|---|
| **Forced labor** | May occur through debt bondage, coercion, recruitment fees, retention of identity documents, restriction of movement, or forced overtime. | Contractors, outsourced services, logistics, migrant workers, labor-intensive activities. |
| **Child labor** | May occur where age verification is weak, seasonal workers are used, or informal labor is involved. | Raw material sourcing, subcontractors, seasonal work, small or informal suppliers. |

| Prevention Approach | Key controls |
|---|---|
| **Forced Labor Prevention**<br>Vanachai prohibits forced, bonded or involuntary labor, human trafficking, and coercion. Suppliers and contractors must ensure voluntary employment, worker-held IDs, lawful freedom to leave, and no recruitment fees or unlawful wage deductions. | • Zero tolerance in supplier requirements and contracts<br>• Prohibition of recruitment fees and debt bondage<br>• No retention of passports or personal identification documents<br>• Voluntary employment and freedom of movement<br>• Monitoring of excessive overtime and wage practices<br>• Corrective action and escalation for non-compliance |
| **Child Labor Prevention**<br>Vanachai prohibits child labor and requires suppliers and contractors to comply with minimum age laws and labor standards. Suppliers must maintain age verification, prevent young workers from hazardous work, and promptly report and remediate child labor concerns to protect children's welfare and rights. | • Minimum age and legal compliance requirements<br>• Age verification during onboarding and supplier review<br>• Prohibition of young workers in hazardous work<br>• Monitoring of contractors and higher-risk suppliers<br>• Immediate remediation and protection of affected children<br>• Supplier corrective action or termination where necessary |

### Supply chain due diligence and remediation approach



# Employee Care and Inclusive Recruitment

## Building an Inclusive, Fair and Resilient Workforce

Vanachai Group places employee care and inclusive recruitment at the foundation of our human capital management approach. The Company is committed to providing fair employment opportunities, assigning suitable roles based on employees' capabilities and working conditions, and promoting a workplace that respects equal opportunity, non-discrimination and labor rights. This approach supports workforce stability, operational continuity and long-term productivity, while strengthening the Company's position as a responsible employer.

The Company also promotes inclusive employment for vulnerable groups, particularly persons with disabilities, by identifying appropriate positions that match their skills, health, safety considerations and job requirements. In 2025, Vanachai employed 39 employees with disabilities, equivalent to 116.7% of the legal requirement, demonstrating performance above minimum compliance and reinforcing the Company's commitment to inclusive employment.

**Priority risks in supply chain**

| | |
|---|---|
| Discrimination and unequal treatment | High Priority |

**Vanachai Group will continue strengthening inclusive recruitment, fair employment practices, and employee care systems to build a resilient workforce that supports operational continuity, employee trust, and long-term sustainable growth.**

## 2025 Key Workforce Highlights

**3,754**
**Total Workforce**
Full workforce under management scope

**3,343**
**Permanent Employees**
Core workforce supporting operations

**30.45%**
**Women in Permanent Workforce**
Gender diversity in the employee base

**39**
**Employees with Disabilities**
Inclusive employment in practice

## Inclusive Recruitment and Employee Care Process

1. **Equal Opportunity Recruitment**
Recruit based on capability, fairness, and non-discrimination.

2. **Suitable Role Matching**
Assign work that fits skills, health, safety, and job conditions.

3. **Employee Care from Entry**
Communicate rights, benefits, workplace standards, and support channels.

4. **Workforce Monitoring**
Track workforce structure, inclusion, turnover, and key human capital KPIs.

## Employment of Persons with Disabilities



Vanachai provides suitable job opportunities for persons with disabilities by considering skills, work conditions, health, safety, and job requirements.

In 2025, the company employed 39 persons with disabilities, demonstrating, from the commitment to inclusive employment beyond basic compliance.



# Recruitment, Retention and Return-to-Work Performance

## Strengthening workforce stability through responsible recruitment, retention and employee care

In 2025, Vanachai Group maintained a workforce structure that supports operational continuity and long-term business resilience. As of 31 December 2025, the Company managed a total workforce of 3,754 persons, comprising 3,343 permanent employees and 411 contractors or temporary workers. During the year, Vanachai recruited 107 new employees, recorded 414 employee exits, and achieved a total employee turnover rate of 12.38%, which remained below both the Construction / Building sector benchmark of 16.9% and the Thailand average of 12.9%. The Company also achieved a 91.67% return-to-work rate after maternity / parental leave, reflecting continued employee care and workforce retention.

**3,754**
**Total Workforce**
Workforce scale under management scope

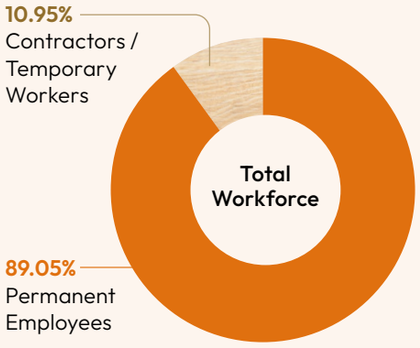
**3,343**
**Permanent Employees**
Core workforce supporting operations

**107**
**New Hires**
Controlled recruitment to support business needs

**12.38%**
**Employee Turnover Rate**
Below sector and Thailand benchmarks

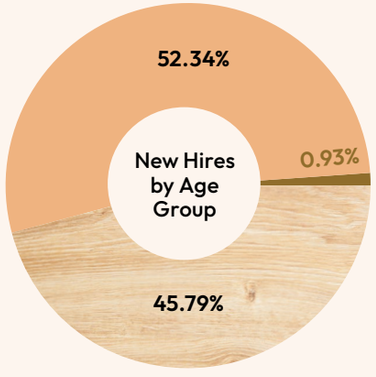
**91.67%**
**Return-to-Work Rate**
Strong employee care after maternity / parental leave

### Workforce Composition




| | |
|---|---|
| Permanent employees | 3,343 |
| Contractors / temporary workers | 411 |
| **Total workforce** | **3,754** |
| Female in total workforce | 30.66% |
| Male in total workforce | 69.34% |
| Contractor dependency | 10.95% |

### Recruitment Performance




- Below 30
- Age 30–50
- Above 50

| | |
|---|---|
| **Total new hires** | **107** |
| Female new hires | 33.64% |
| Male new hires | 66.36% |
| New hire rate | 3.20% |

Controlled hiring, moderate contractor dependency, below-benchmark turnover and a strong return-to-work rate support operational continuity, employee trust and labor risk management.

### Retention and Turnover

Employee exits **414**

**37.44%** Female exits

**62.56%** Male exits

| | |
|---|---|
| Vanachai turnover | 12.38% |
| Thailand average | 12.90% |
| Construction / Building sector | 16.90% |

Below Benchmarks

### Return-To-Work After Maternity / Parental Leave

**24** Took leave

↓

**22** Returned to work

↓

**91.67%** Return-to-Work Rate



**Supporting** employees through life-stage transitions strengthens retention, inclusion and workforce resilience.

**Vanachai Group's 2025 recruitment, retention, and return-to-work results reflect disciplined human capital management. With controlled hiring, below-benchmark turnover, and strong post-leave reintegration, the Company supports workforce stability, operational continuity, and employee confidence, while further strengthening analytics, retention actions, and employee care programs to manage key workforce risks.**

# Fair Remuneration, Benefits and Living Cost Consideration

## Strengthening employee trust through fair pay, social protection and welfare support

Vanachai Group recognizes fair remuneration, employee benefits and living cost consideration as key foundations of workforce stability and employee trust. The Company manages compensation in accordance with job responsibilities, capability, performance, legal requirements and local labor market conditions, while ensuring that entry-level wages are maintained above the local minimum wage. This approach supports fair treatment, employee retention, productivity and long-term human capital resilience.

In 2025, the Company reported a female-to-male wage ratio of 0.75:1.00, reflecting the overall wage distribution between female and male employees. Vanachai recognizes this gap as an important area for continued monitoring and improvement. The Company will continue to promote fair and equitable remuneration practices based on role, responsibility, capability, performance, and applicable labor requirements, while strengthening gender equality and non-discrimination in employment, career development, and advancement opportunities.

The Company also provided 100% social security coverage for eligible employees, with a total social security contribution of THB 25.56 million and retirement / benefit plan contribution of THB 18.05 million.

| Priority risks in supply chain | |
|---|---|
| Working conditions, fair pay and welfare | Medium to High Priority |

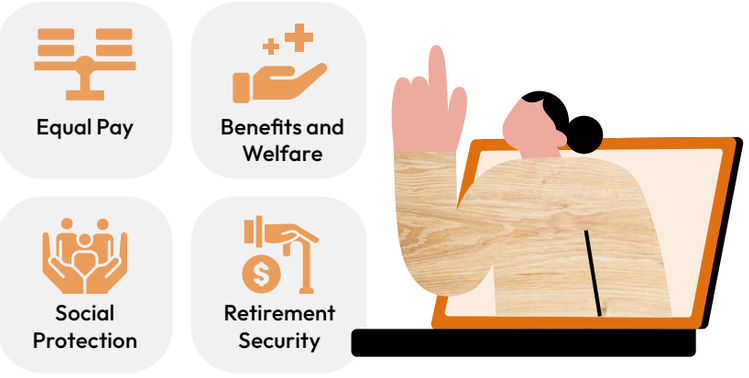



**Above Local Minimum Wage**
**Entry-Level Wage**
Living cost consideration

**THB 25.56 mn**
**Social Security Contribution**
Employee protection investment

**100%**
**Social Security Coverage**
Eligible employees covered

**THB 18.05 mn**
**Retirement / Benefit Plan Contribution**
Long-term employee security




## Fair Pay and Employee Welfare Management

| | |
|---|---|
| **Fair Remuneration** | Pay based on role, capability and performance |
| **Living Cost Consideration** | Entry-level wage above local minimum wage |
| **Pay Equity** | Monitor remuneration fairness |
| **Social Protection** | 100% social security coverage |
| **Retirement and Benefits** | Support long-term employee security |

**Vanachai Group's 2025 remuneration and benefit performance reflects our commitment to fair treatment, employee protection and long-term workforce stability. By maintaining gender wage parity, entry-level wages above local minimum wage, full social security coverage and continued retirement / benefit contributions, the Company strengthens employee trust, mitigates labor-related risks and supports sustainable human capital performance.**

# Worker Voice, Freedom of Association, and Grievance Access

## Strengthening employee trust through open dialogue, representative participation, and accessible grievance mechanisms.

Vanachai Group respects employees' rights to freedom of association, collective consultation, and accessible grievance mechanisms in accordance with applicable labor laws and internationally recognized human rights principles. Employees are encouraged to express opinions, raise concerns, elect representatives, and participate in workplace dialogue through the Employee Welfare Committee, grievance channels, supervisors, and Human Resources without fear of discrimination or retaliation. The Company reviews employee feedback, investigates concerns fairly, provides appropriate remedy where necessary, and implements corrective actions to prevent recurrence. This approach strengthens trust, promotes constructive labor relations, supports continuous improvement, and reinforces a respectful, inclusive, and responsible workplace where every employee's voice is valued.

Employee Compensation and Benefits Policy

**Priority risks in supply chain**

| | |
|---|---|
| Freedom of association and grievance access | Medium to High Priority |

## Our Commitment

**Respect for Worker Voice and Freedom of Association**
We support employees' rights to form, join, or participate in employee representative mechanisms in accordance with applicable laws. We do not interfere with these rights.

**Non-Discrimination and Non-Retaliation**
We do not tolerate discrimination, harassment, or retaliation against employees who exercise their rights or express their views in good faith.

**Good-Faith Dialogue and Participation**
We promote open and constructive dialogue between employees, employee representatives, and management to improve working conditions and employee well-being.

**Employee Dignity and Fair Treatment**
We treat all employees with respect and dignity and provide equal opportunities to participate in decisions that affect their welfare and workplace.

**Accessible Grievance and Remedy**
We provide safe and confidential channels for employees to raise concerns and ensure proper review, corrective action, and follow-up.

**Continuous Improvement**
We listen, learn, and improve our practices to strengthen labor relations and build a resilient and sustainable organization.

## Employee Welfare Committee

The Employee Welfare Committee is the Company's formal mechanism for employee representation and joint consultation with management.

**2-Year Term**
Committee members serve a term of two years.

**Voluntary Participation**
Members are selected through voluntary participation by interested employees.

**Voice & Representation**
Conveys employees' views, recommendations, and concerns on welfare, working conditions, and quality of working life.



## Participation In Action

Employee representatives participate in welfare-related matters that improve our workplace, such as:

- **Selection of food stalls across all company canteens**
- **Organization of events and activities, such as the New Year celebration**
- **Other employee welfare and engagement initiatives**

## From Worker Voice to Positive Change

**Listen**
Employees share feedback, suggestions, or concerns.

**Represent**
Committee members consolidate and raise employee voice.

**Discuss**
Good-faith dialogue between representatives and management.

**Act**
Relevant functions implement agreed actions.

**Follow Up**
Outcomes are monitored; lessons learned drive continuous improvement.

## Grievance Access and Non-Retaliation

Employees can raise concerns, submit complaints, or provide suggestions through any of the following channels without fear.

### Grievance Channels

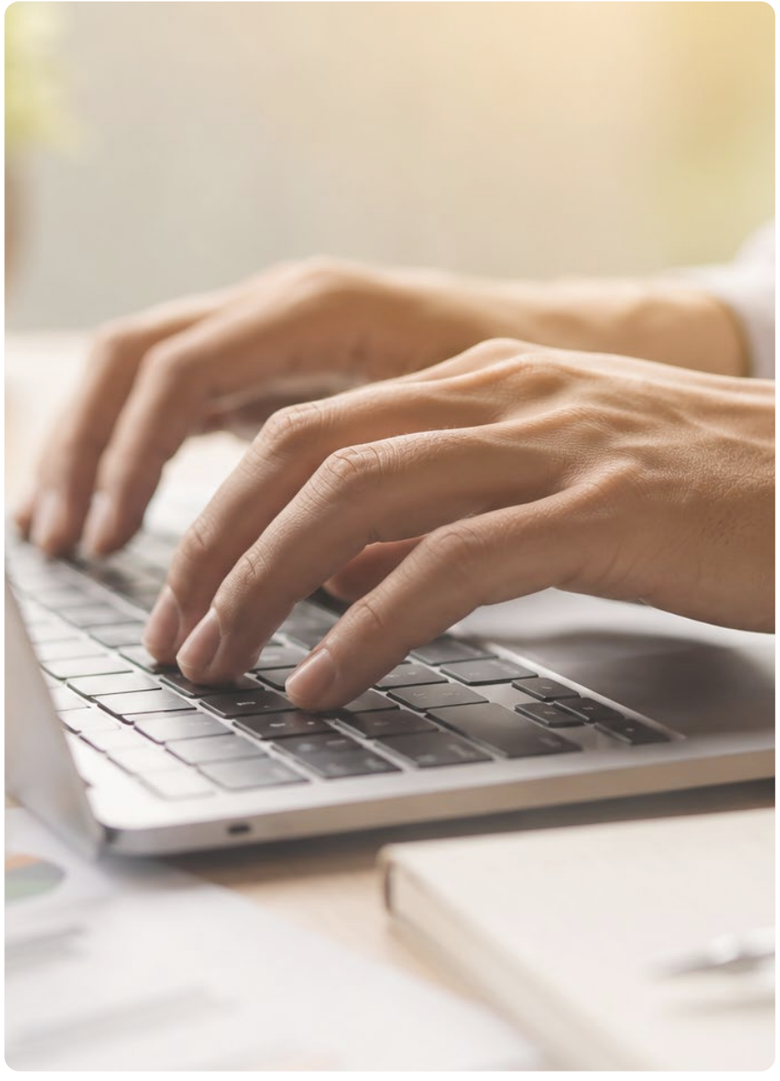
- **Direct to Supervisor or HR**
- **Email / Written Submission**
- **Employee Welfare Committee**
- **Suggestion Box / Other Channels**

### Grievance Handling Principles

**Confidential**
All reports are kept confidential.

**Fair Review**
Concerns are reviewed promptly and fairly.

**No Retaliation**
Zero tolerance for retaliation against good-faith reporters.



# Employee Well-being, Engagement and Employee Voice

**Building workforce resilience through employee listening, transparent communication, and formal employee consultation mechanisms.**

Vanachai Group promotes employee well-being and engagement through systematic listening, transparent communication, and formal employee voice mechanisms. The Company conducts an annual employee well-being and engagement survey and communicates key results to employees through internal channels such as email, and the Sustainability Report. Employee feedback is also supported through the Welfare Committee, which serves as a formal platform for consultation and workplace improvement. In 2025, Vanachai achieved an employee engagement score of 96.59%, exceeding the 80% target, supported by a 90% survey coverage target, 46 Welfare Committee members, and a minimum notice period for significant operational changes.

**Strong employee engagement and formal voice mechanisms support workforce stability, labor relations, and long-term human capital resilience.**

**96.59%**
**Employee Engagement Score**
Above 80% target

**80%**
**Engagement Target**
Annual target

**90%**
**Survey Coverage Target**
Participation target

**46**
**Welfare Committee Members**
Formal employee voice

**30 Days**
**Minimum Notice Period**
Responsible labor practice

## Employee Listening and Communication Process

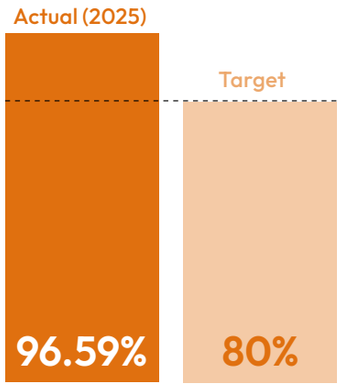
1. **Annual Survey**
   Measure well-being and engagement
2. **Review Results**
   Analyze employee feedback and trends
3. **Communicate Results**
   Email and Sustainability Report
4. **Take Action**
   Welfare Committee and workplace improvement

## 2025 Performance Highlights

**Engagement Score**




**Benchmark Comparison**




**Survey Coverage**

Survey coverage target: **90%**

**Communication Channels**

- Email
- Sustainability Report

## Employee Voice Mechanisms

- Welfare Committee
- Grievance / feedback channel
- Minimum notice period

# Employee Capability Development and Performance Management

## Building future-ready skills through structured training, upskilling and performance-driven development

Vanachai Group strengthens workforce capability through structured training, upskilling, leadership readiness, performance appraisal and individual development planning. This approach supports productivity, operational continuity, talent retention and future business transformation, while helping manage key workforce risks related to retention, insufficient skills and employee engagement. In 2025, the Company delivered 30,422 training hours, equivalent to 9.10 training hours per person per year, implemented 138 upskilling programs, invested THB 3.15 million in employee development, and maintained 100% performance appraisal coverage, reflecting our commitment to building a skilled, accountable and future-ready workforce. The Company's risk framework also identifies employee well-being, engagement and capability development as a workforce risk area, with mitigation through skills development, succession planning, engagement surveys, welfare, well-being actions, turnover monitoring and KPI tracking.

### Capability Development and Performance Management Approach

| | |
|---|---|
| **Structured Training** | Build technical and functional capability |
| **Upskilling** | Prepare employees for future business needs |
| **Leadership Readiness** | Strengthen leadership and succession pipeline |
| **Performance Appraisal** | Assess performance and accountability |
| **Individual Development** | Link learning to personal growth plans (Individual Development Plan: IDP) |

### Learning and Development Process

**1** **Assess Needs** Identify skill gaps

**2** **Develop Programs** Plan training and upskilling

**3** **Deliver Learning** Run courses and coaching

**4** **Review Performance** Track outcomes and development



**Structured development and full appraisal coverage strengthen workforce readiness and long-term human capital value. By linking training, upskilling, and performance reviews, Vanachai can close skill gaps, improve productivity, support succession planning, and build workforce resilience.**

## 2025 Development Metrics




**9.10**
Hours / person / year

**THB 3.15 mn**
Development investment

**138**
Upskilling programs

**100%**
Appraisal coverage



### Gender Breakdown

Female training hours:
**9,266.19**

Male training hours:
**21,155.63**

Average hours per employee:

Female **9.10**

Male **9.10**

**By linking training, upskilling and performance reviews, Vanachai Group strengthens productivity, retention, succession readiness and long-term human capital value.**

## Development Priorities and Next-Step Disclosure

**Structured training** aligned with business and functional needs

**Individual development** planning and supervisor coaching

**Leadership readiness** and succession planning

**Training effectiveness,** retention and productivity monitoring

**Future disclosure** by gender and employee category

**Maintain 100%** performance review coverage

# Forward Actions

## Advancing Workforce Resilience and Future-ready Human Capital

Vanachai Group will continue to strengthen workforce resilience by advancing fair employment, employee participation, capability development, welfare improvement, and transparent human capital governance. The Company recognizes that a skilled, engaged, and trusted workforce is essential to operational continuity, productivity, and long-term sustainable growth.

The Company will reinforce employee voice through the Employee Welfare Committee, which serves as a formal mechanism for consultation and workplace dialogue with a two-year term. Employee feedback and welfare-related suggestions will continue to inform practical improvements, including workplace welfare, canteen services, engagement activities, and working conditions.

Grievance channels will be communicated and monitored to ensure employees can raise concerns safely, fairly, confidentially, and without retaliation. The Company will also strengthen workforce capability through employee training, supervisory development, welfare improvement, and data-driven monitoring of human capital indicators.

Looking forward, Vanachai will focus on five priorities: listen and engage, protect and remedy, develop capabilities, enhance well-being, and measure and improve. These priorities will support employee trust, retention, productivity, labor relations stability, and future-ready organizational capability.

The Company will continue aligning our practices with international labor and human rights standards, including ILO Core Conventions, the UN Guiding Principles on Business and Human Rights, OECD Guidelines for Multinational Enterprises, the UN Global Compact, and GRI Standards..

# Future Action Plan

- **Strengthen workforce analytics**
  Track turnover, engagement, training, appraisal, diversity, and absenteeism by site, age, gender, and job group.
- **Enhance retention of critical talent**
  Identify high-risk roles and develop targeted retention, career growth, and succession plans.
- **Deepen employee engagement actions**
  Translate annual survey results into site-level improvement plans and communicate progress to employees.
- **Expand future-skill development**
  Prioritize technical, digital, safety, ESG, and leadership capabilities to support business transformation.
- **Link training with performance outcomes**
  Connect training plans, individual development plans, appraisal results, and productivity improvement.
- **Strengthen well-being and welfare programs**
  Improve employee health, financial well-being, work environment, and welfare support based on workforce needs.
- **Promote inclusive and fair employment**
  Maintain equal opportunity, pay equity, inclusive recruitment, and suitable roles for persons with disabilities.



# Occupational Health and Safety

**Embedding safety into every task, every site, every day.**

**Scan for related disclosure**
For further details, please refer to the
Safety, Occupational Health and Working Environment Policy

## Impact & Value Created

Employee safety and wellbeing support Vanachai's continuity, productivity and trust. The Group prevents injuries and occupational illness through proactive risk control, safe workplaces, emergency readiness and a shared safety culture covering employees, contractors and factory workers.

## Risks & Opportunities

Key risks include machinery, chemicals, noise, heat, confined spaces, contractors and emergencies. Strong OHS management reduces legal, operational and reputational risks while improving productivity, morale and workforce resilience.

## Our Approach

- Maintain formal OHS policy & governance.
- Identify hazards and assess risks
- Control risks through SOPs, JSA and PPE.
- Monitor work environment and equipment readiness.
- Train employees and contractors.
- Conduct emergency drills and response planning.
- Encourage reporting and employee participation.
- Investigate incidents and prevent recurrence.
- Promote health checks and wellbeing.
- Disclose OHS performance transparently.

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Implement OHS policy across all sites**<br>• **Update hazard ,registers and JSA.**<br>• **Strengthen PPE and safety inspections.**<br>• **Expand emergency drills.**<br>• **Improve contractor safety control.**<br>• **Track TRIR, LTIFR, OIFR and fatalities.** | • Integrate OHS risk into ERM.<br>• Build leading safety indicators.<br>• Expand ISO 45001 based practices.<br>• Use digital tools for risk monitoring.<br>• Strengthen health surveillance.<br>• Improve assurance readiness | • Sustain zero fatality culture.<br>• Achieve predictive safety management.<br>• Embed safety in all work design.<br>• Maintain resilient workforce wellbeing.<br>• Lead in transparent OHS disclosure.<br>• Create injury free, healthy workplaces. |

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Fatality prevention** | Maintain zero work related fatalities for employees and contractors. | Achieved zero work related deaths. | Maintain zero fatality through high-risk task controls and contractor safety. | 8 DECENT WORK AND ECONOMIC GROWTH, 15 LIFE ON LAND |
| **Incident reduction** | Reduce TRIR and LTIFR from the previous year through prevention and corrective action. | TRIR declined from 7.94 to 3.41. LTIFR declined from 2.85 to 2.02. | Strengthen root cause analysis, behavior-based safety and leading indicators. | 8 DECENT WORK AND ECONOMIC GROWTH, 15 LIFE ON LAND |
| **Occupational illness prevention** | Maintain zero occupational illness frequency rate and strengthen health surveillance. | OIFR remained zero. | Expand risk-based health checks, hearing conservation and exposure monitoring. | 15 LIFE ON LAND |
| **OHS training and competence** | Provide risk based OHS training and improve coverage for employees and contractors. | 915 employees trained, equal to 27.4 percent of employees. 24 OHS courses delivered. | Increase training coverage, quality and job specific competency tracking. | 3 GOOD HEALTH AND WELL-BEING, 4 QUALITY EDUCATION, 8 DECENT WORK AND ECONOMIC GROWTH |
| **OHS governance, monitoring and, disclosure** | Monitor OHS KPIs, report to committees and align disclosure with international standards ie. GRI etc. | OHS performance tracked across TRIC, TRIR, LTIFR, OIFR, fatalities and training. | Improve data assurance, contractor KPIs and public disclosure quality. | 3 GOOD HEALTH AND WELL-BEING, 8 DECENT WORK AND ECONOMIC GROWTH, 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |

# Occupational Health and Safety (OHS) Governance, Policy and Worker Participation

**From Board oversight to worker participation, Vanachai embeds safety accountability across every level of the organization.**

**Governance Cascade**
Vanachai's OHS governance cascades from Board oversight to frontline participation. The Board sets OHS policy and safety risk direction, while the Sustainability Committee monitors performance and reports to the Board. The OHS Committee enables employer and employee participation. The Sustainable Development Task Force audits implementation and reviews incidents. Site leaders apply daily controls, while employees, contractors and suppliers follow safety requirements, report risks and support workplace improvement.

**Board of Directors**
Provides ultimate oversight of OHS policy, safety risk direction and sustainability alignment.

**Sustainability Committee**
Owns the OHS policy, reports to the Board and drives continuous improvement.

**Sustainable Development Task Force**
Audits OHS implementation, reviews incidents and risk assessments, follows up corrective actions and supports annual improvement planning.

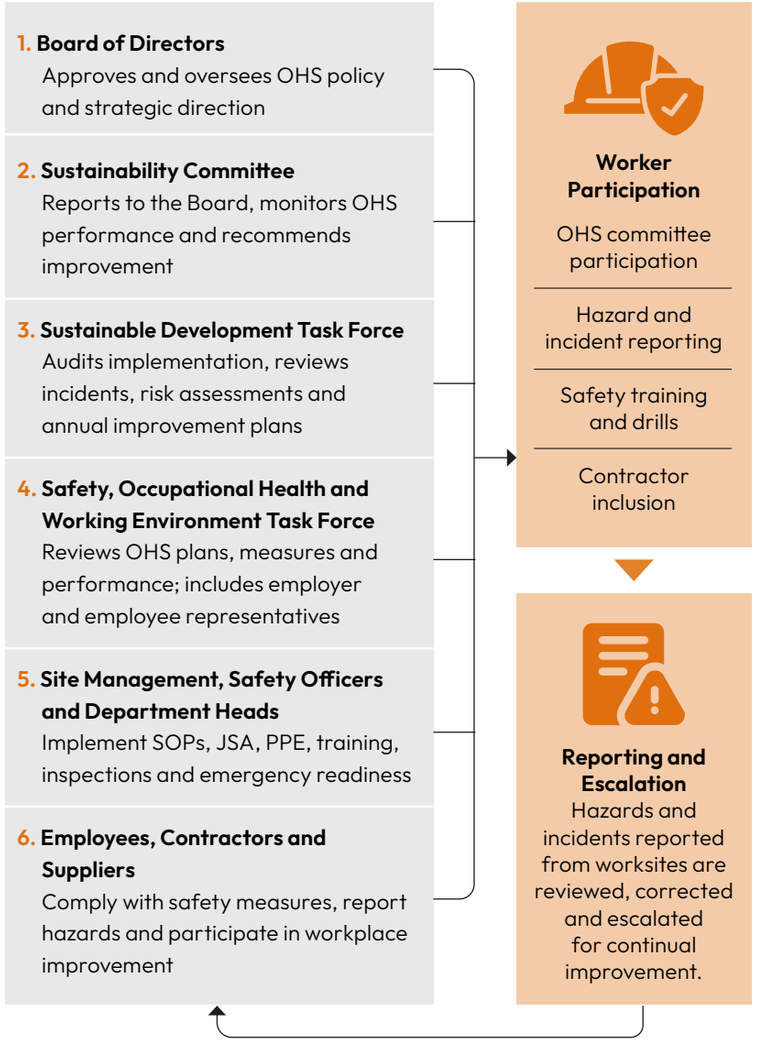
**Safety, Occupational Health and Working Environment Task Force**
This task force provides a formal platform for employer and employee representatives to review OHS plans, monitor effectiveness, ensure compliance and recommend safety improvements.

**Site Management, Safety Officers and Department Heads**
Site Safety Leaders translate OHS governance into daily operations by supervising high-risk tasks, applying SOPs, JSA and PPE, and maintaining inspections, training and emergency readiness.

**Employees, Contractors and Suppliers**
Employees, contractors and suppliers follow safety requirements, use PPE, report hazards immediately and participate in workplace improvements, extending Vanachai's safety standards across all operations.

**Worker Participation and Contractor**
Vanachai encourages employees, contractors and business partners to participate in OHS activities, including incident reporting, emergency drills, workplace improvement initiatives and safety training. Contractors and suppliers are required to comply with Vanachai's OHS Policy and safety requirements, ensuring that safety standards extend across operating areas and supply chain activities.

## The OHS Governance Flow



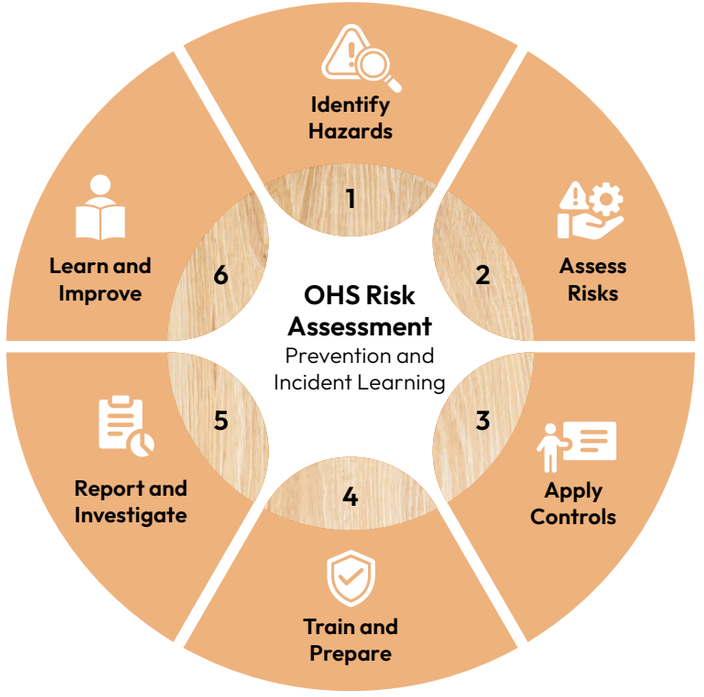
# Risk Assessment, Prevention and Incident Learning

**Identifying risks before harm occurs and turning every incident into stronger prevention.**

In 2025, Vanachai Group strengthened OHS risk management approach by linking risk assessment with prevention, training, emergency preparedness, and incident learning. Key current risks included noise exposure, emergency medical response, chemical exposure, fire and evacuation, electrical and transformer work, working at height, confined space work, mobile equipment and driving safety, crane operations, and boiler control. Potential risks included radiation exposure, disease outbreaks, workplace hygiene, and employee well-being.

The Company Group applied a continuous OHS risk assessment cycle covering hazard identification, risk assessment, control implementation, training and drills, incident reporting and investigation, and learning for improvement. This approach supports prevention before incidents occur and ensures that lessons from incidents, near misses, and emergency drills are translated into stronger controls and safer work practices.

The effectiveness of this preventive approach is reflected in improved 2025 safety performance. Total recordable injury cases decreased from 39 cases in 2024 to 27 cases in 2025, while the total recordable injury rate declined from 5.91 to 2.58 cases per million working hours, the lowest level in five years. Vanachai Group also maintained zero work-related deaths and zero occupational injury frequency rate, while LTIFR decreased from 2.12 to 1.54. The Company Group continues to use incident learning and preventive improvement to reduce accidents and injuries sustainably.




## OHS Risk Assessment Flow

1) **Identify hazards:** Identify OHS hazards from work, equipment, chemicals, and emergencies.
2) **Asses Risks:** Evaluate likelihood, severity, exposure, and legal requirements.
3) **Apply Controls:** Apply procedures, PPE, inspections, permits, and emergency plans.
4) **Train and prepare:** Conduct risk-based training and emergency drills.
5) **Report and investigate:** Report incidents and near misses, then investigate root causes.
6) **Learn and Improve:** Use lessons and safety data to strengthen controls.

## Key OHS Risks and Preventive Controls

| OHS Topic | Prevention and Control |
|---|---|
| 1) **Fire, Explosion and Evacuation Readiness** | Fire prevention, firefighting equipment checks, basic firefighting training, and annual fire suppression and evacuation drills. |
| 2) **Electrical and Transformer Safety** | Authorized work procedures, transformer training, electrical safety training, equipment inspection, safe isolation, and appropriate PPE. |
| 3) **Working at Height and Confined Space Safety** | Job-specific risk assessment, permit-to-work, fall prevention, confined space controls, rescue planning, and refresher training. |
| 4) **Mobile Equipment, Forklift and Driving Safety** | Driver authorization, safe driving and forklift training, pre-use inspection, traffic control, pedestrian separation, speed control, and incident review. |
| 5) **Lifting Operations, Crane and Boiler Safety** | Crane and boiler competency training, lifting plans, equipment inspection, exclusion zones, preventive maintenance, and emergency shutdown readiness. |
| 6) **Noise Exposure and Hearing Loss Prevention** | Hearing conservation training, hearing protection, machinery maintenance, noise control measures, and health monitoring for high-noise areas. |
| 7) **Emergency Medical Response & First Aid Readiness** | First aid, CPR and AED training, emergency equipment availability, trained responders, clear procedures, and readiness checks. |
| 8) **Chemical Exposure and Health Impact Prevention** | Chemical safety training, proper storage and labeling, safety data sheets, PPE, ventilation, spill control, and chemical leakage drills. |
| 9) **Wood Dust & Respiratory Health Protection** | Dust collection and ventilation, housekeeping, local exhaust controls, respiratory protection, and exposure monitoring. |
| 10) **Public Health, Hygiene and Employee Well-being** | Risk communication, workplace hygiene, PPE guidance, density management, visitor and contractor controls, response plans, and well-being support. |

# OHS Training and Drills

**Building safety skills before emergencies occur and turning every drill into stronger workplace readiness.**

Vanachai Group recognizes that effective occupational health and safety training is a key mechanism for preventing accidents, reducing work stoppage incidents, and strengthening employee readiness in high-risk operations. The Company Group's OHS training approach is linked to risk assessment results, past incident learning, job-specific hazards, and emergency preparedness needs. This ensures that training is not conducted only for compliance, but is designed to strengthen practical capability, safe work behavior, and prevention before harm occurs.

In 2025, the Company Group continued to provide occupational health and safety training to employees across operational areas. A total of 915 employees, representing 27.4% of all employees, received OHS training, while the number of occupational health and safety courses increased to 24 courses. The Company Group also aims to improve both the coverage and risk relevance of training, particularly for employees working in high-risk activities, and to expand communication and oversight to contractors working in factory areas to ensure consistent safety standards across the value chain.

Training topics are determined based on the Company Group's OHS Risk Assessment, training needs survey, annual training plan, and operational requirements. High-risk issues identified from the risk assessment are used as the basis for course design, while the annual training plan is monitored to ensure implementation as scheduled. Trainers are selected from qualified internal and external experts, depending on course requirements. Training effectiveness is evaluated, and employee training records are systematically maintained in SAP to support tracking, compliance, competency management, and future training planning.



" Through structured OHS training and drills, Vanachai Group reinforces commitment to building a safe and healthy workplace. The Company Group emphasizes preventive measures, employee and contractor participation, emergency readiness, and continual learning from incidents and drills. These efforts help protect the lives and health of employees and stakeholders while strengthening operational efficiency, risk control, and long-term organizational resilience. Practical occupational health training, including forklift, working at height, crane, and chemical emergency response activities, are also presented visually in the 2025 report."

## Risk-Based Training Approach

1 **Assess Risks**
Identify key OHS risks

2 **Identify Needs**
Review job-specific needs

3 **Plan Training**
Set annual plan

4 **Deliver Training**
Conduct training and drills

5 **Evaluate Results**
Review outcomes and feedback

6 **Record in SAP**
Track training history

# Occupational Health and Safety Performance Metrics and Disclosure Alignment

The following data related to Occupational Health and Safety for Vanachai Group and our subsidiaries during during 2021–2025, with 2021 as the base year.

| Disclosure Alignment | | Occupational Health and Safety Indicator | unit | Vanachai Group Performance | | | | |
|---|---|---|---|---|---|---|---|---|
| GRI | FTSE Russell | | | 2021* | 2022 | 2023 | 2024 | 2025 |
| **403-4** | SHS05 | Employee involvement in health and safety improvement through the Employee Welfare Committee and Safety, Occupational Health and Working Environment Task Force. | employees | n/a | n/a | n/a | 438 | **464** |
| **403-9** | SHS37 | Total Recordable Injury Cases: TRIC | case | 29 | 46 | 33 | 39 | **27** |
| **403-9** | SHS08 | Total Recordable Incident Rate: TRIR | case/mil. work hours | 6.15 | 8.73 | 6.37 | 7.94 | **3.41** |
| **403-9** | SHS37; SHS15 | Lost Workday Case: LWC | days lost/ 200,000 work hours | 0 | 0 | 0 | 0 | **3.92** |
| | | Lost Day Rate: LDR | % | 0% | 0% | 0% | 0% | **0.002%** |
| **403-9** | SHS15 | Lost Time Injury Frequency Rate: LTIFR | case/mil. work hours | 2.76 | 2.85 | 2.12 | 2.85 | **2.02** |
| **403-9** | SHS36 / SHS38 | Work-related Deaths per 1,000 Employees | death/1,000 people | 0 | 0 | 0 | 0 | **0** |
| **403-10** | Supplementary | Occupational Illness Frequency Rate: OIFR | case/mil. work hours | 0 | 0 | 0 | 0 | **0** |
| **403-5** | SHS13 | Employees trained in Occupational Health and Safety: OHS | employees | 213 | 822 | 693 | 947 | **915** |
| | | | % | 11.7% | 39.9% | 34.3% | 50.2% | **27.4%** |
| **403-5** | SHS13 | OHS courses | course | n/a | n/a | 7 | 8 | **24** |
| **403-8** | SHS12 | ISO 45001 certified sites: Rayong Plant | % sites | 0% | 25% | 25% | 25% | **25%** |
| **403-9** | SHS40 | Work-related contractor fatalities | case | 0 | 0 | 0 | 0 | **0** |

# Five-Year Trend of Occupational Health and Safety Performance

## Performance Trend Analysis

The Company monitors key performance indicators on an annual basis to evaluate the effectiveness of our management approach and identify areas requiring further improvement. During the reporting period, the blue indicator showed a notable decline after reaching our peak in the second year, reflecting improved control or a reduction in the measured risk. The green indicator remained at a relatively low level across the five-year period, indicating stable performance. Going forward, the Company will continue to apply a risk-based approach, strengthen preventive measures, and enhance data collection to support continuous improvement.

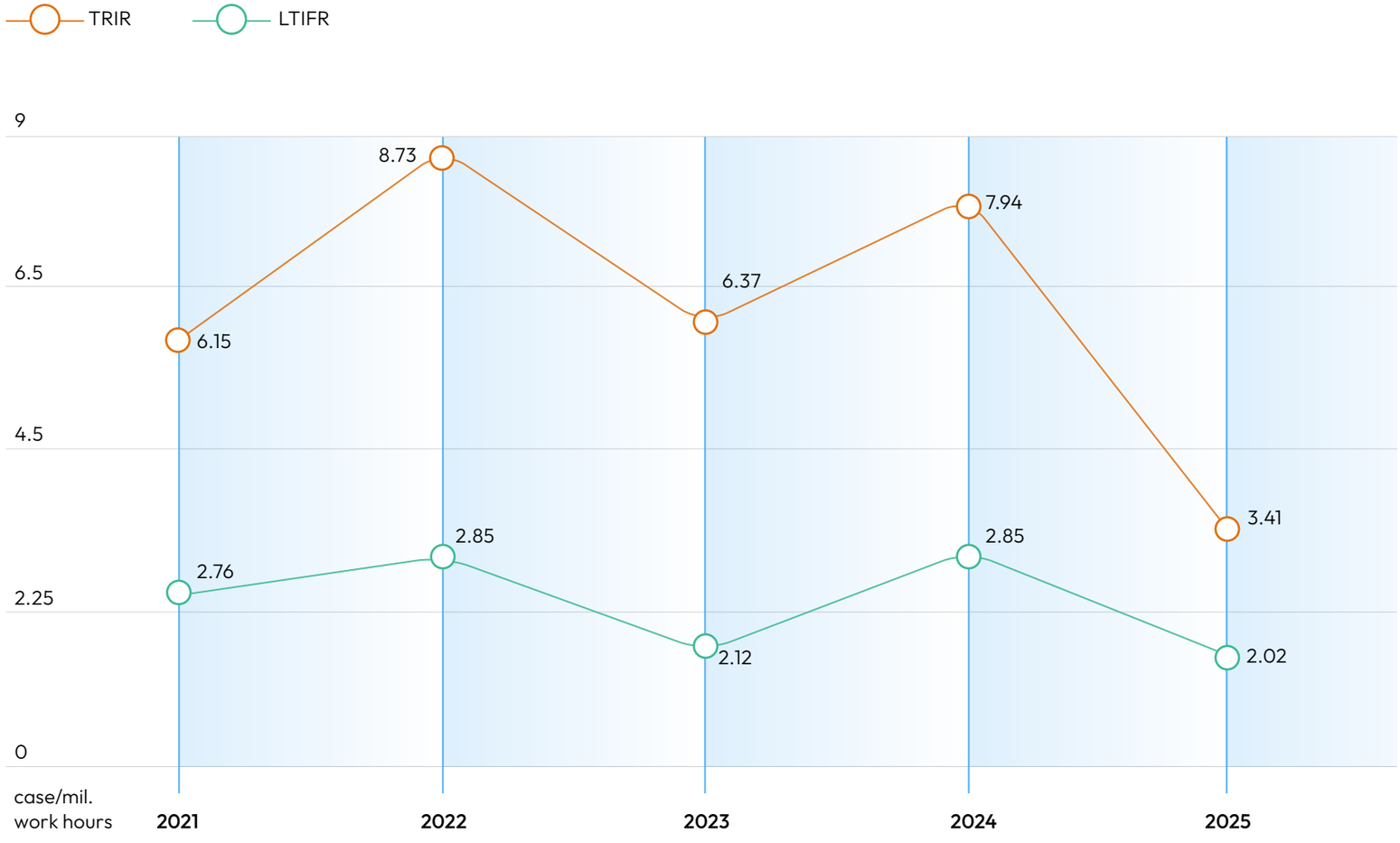
**Key observation:**
The chart shows a significant fluctuation in the orange indicator, which peaked in the second year before declining steadily in the following years. The green indicator remained comparatively low and stable throughout the period, with only minor year-to-year variation.

**Management interpretation:**
The downward trend in the orange indicator during the latest period suggests improvement in performance or reduced occurrence of the measured issue. However, the sharp movement between years indicates that continued monitoring, root-cause analysis, and preventive action remain important.

**Action going forward:**
The Company will continue to strengthen risk-based monitoring, targeted training, incident prevention measures, and data tracking to ensure consistent improvement and long-term control of key operational risks.

## Performance Trend of Key Indicators

### TRIR and LTIFR Trend (2021-2025)



# Prioritized Global Health Screening Programme

**Strengthening preventive care through risk-based screening, employee choice and community health readiness.**

In 2025, Vanachai strengthened our occupational health and preventive healthcare approach by analyzing the priority of three significant communicable diseases: **HIV/AIDS, tuberculosis and malaria**. These diseases are not normally included in the standard annual medical check-up package. However, the Company recognized that the increasing number of people affected by HIV/AIDS and tuberculosis, together with the continued relevance of malaria in certain geographic areas, may create health, workforce continuity and community-related risks.

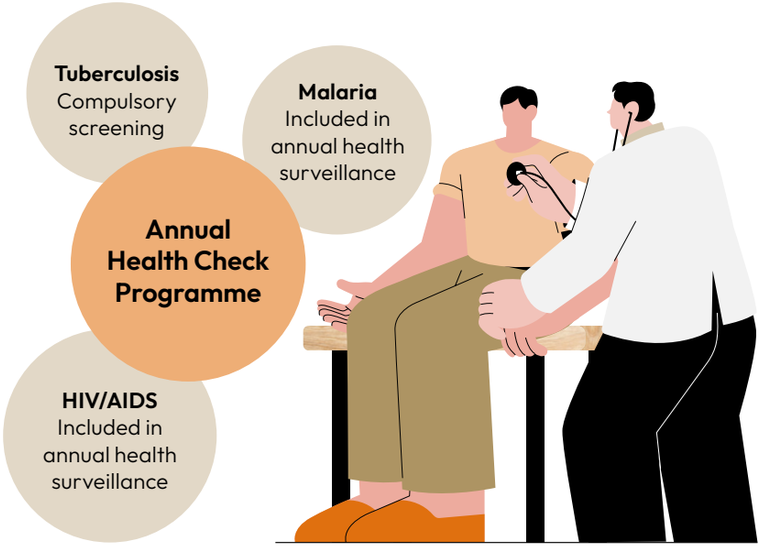
To support prevention and control, Vanachai conducted a review at the end of 2024 to assess the importance and priority of these diseases for employees and surrounding communities. The assessment considered disease sensitivity by operating location, workforce mobility, public health trends and the potential impact on employee wellbeing, workplace safety and business continuity.

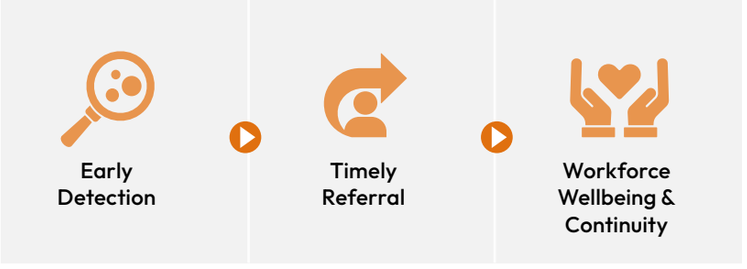
In 2025, the Company launched a **pilot extra medical check-up programme** in cooperation with the **Employee Welfare Committee**, beginning with the **Head Office in Bangkok** and the **Chonburi factory**. The programme was provided as an **optional health benefit**, not as a mandatory requirement. Employees were given awareness communication and the opportunity to voluntarily choose additional screening for HIV/AIDS, tuberculosis and malaria as part of the annual health check-up process.

"Vanachai addresses HIV/AIDS, tuberculosis and malaria through a risk-based global health programme that combines awareness, voluntary screening, confidentiality, referral support and employee participation. The 2025 pilot at Bangkok Head Office and Chonburi Factory will be expanded to all operations in 2026, with community health support initiated near selected factories."

During the pilot programme, 35% of employees selected the full three-disease screening package, while 52% selected HIV/AIDS and tuberculosis screening. The aggregate screening result showed 0% positive cases among participating employees. The pilot outcome reflected the effectiveness of awareness-based participation and provided a practical foundation for expanding the programme.

From 2026 onward, Vanachai plans to extend the programme to all plants and operations. In addition, the Company will expand the benefit beyond employees by initiating a pioneer community health project for communities located near the Chonburi and Surat Thani factories. This expansion supports Vanachai's commitment to preventive healthcare, employee wellbeing, responsible community engagement and long-term workplace resilience.




| Priority | Province | HIV/AIDS | TB* | Malaria | Action 2025 |
|---|---|---|---|---|---|
| 1 | **Bangkok** | High | High | Low | • Annual Health Check Programme with HIV/AIDS, tuberculosis and malaria<br>• Pilot programme at Bangkok Head Office and Chonburi Factory<br>• 35% selected full 3-disease screening; 52% selected HIV/AIDS and TB; 0% positive cases<br>(*TB = tuberculosis) |
| 2 | **Chonburi** | High | High | Low | |
| 3 | **Surat Thani** | Medium | Medium | High | |
| 4 | **Rayong** | Medium to High | Medium | Low | |
| 5 | **Chachoengsao** | Medium/not top 10 | Medium | Low | |
| 6 | **Saraburi** | Medium/not top 10 | Medium | Low | |

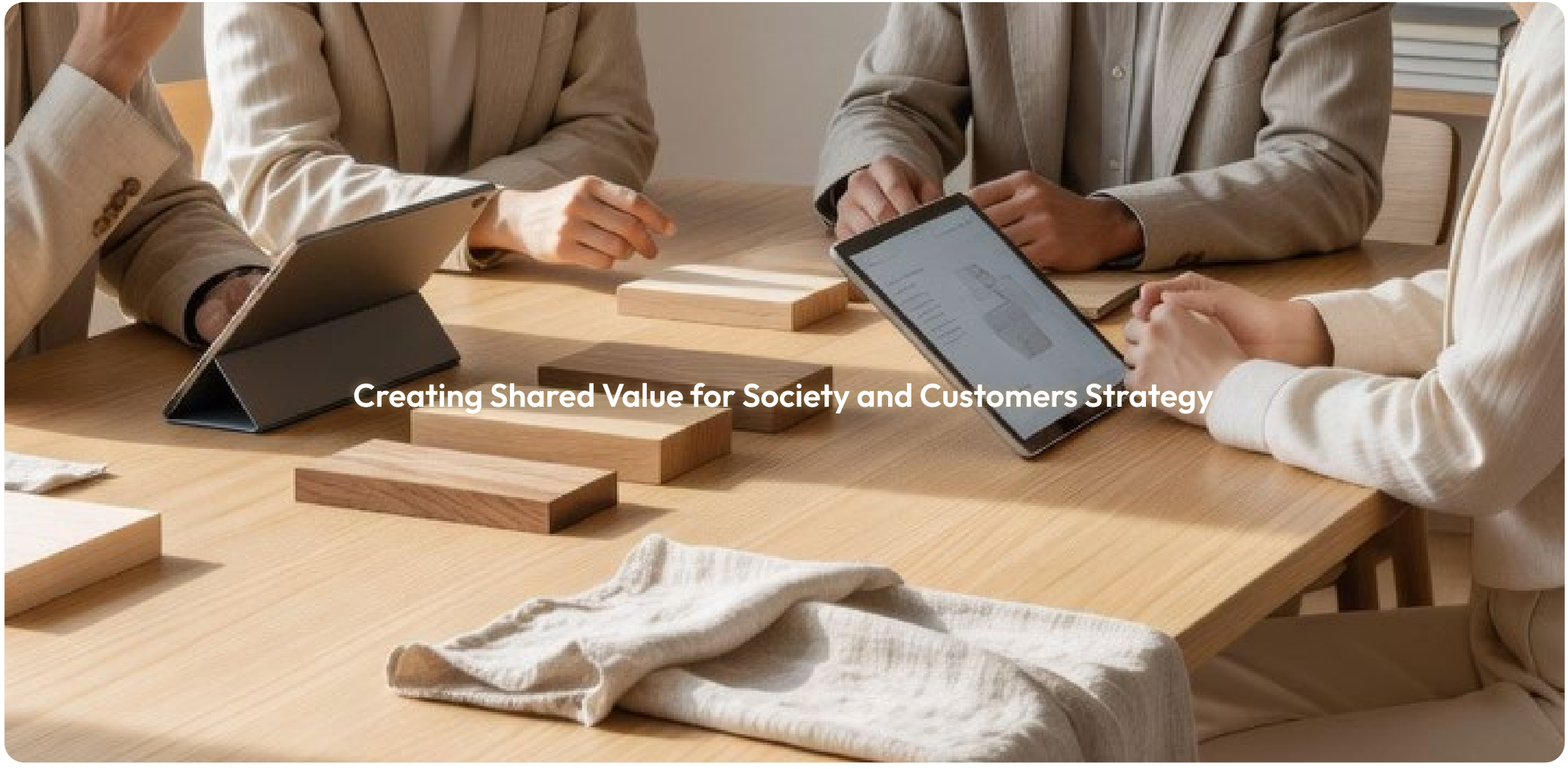
# Forward Actions

The Company Group remains committed to strengthening occupational health and safety management as a foundation for operational excellence, business continuity, and stakeholder confidence. Although safety performance improved in 2025, particularly through the reduction of total recordable injury cases and total recordable injury rate, the Company Group recognizes that sustained improvement requires stronger prevention, deeper employee participation, wider contractor coverage, and more systematic use of safety data.

Going forward, the Company Group will focus on shifting from incident response to proactive risk prevention, with the aim of reducing work-related injuries, maintaining zero fatalities, and embedding a safety culture across all operating sites and work groups.

"The Company Group will continue to integrate occupational health and safety into daily operations, risk management, and employee development. Particular emphasis will be placed on high-risk work controls, contractor safety, emergency preparedness, and practical training that reflects actual workplace hazards. Progress will be monitored through key indicators such as TRIC, TRIR, LTIFR, work-related fatalities, lost day rate, training coverage, corrective action closure, and contractor safety performance."

| Forward Action | Key Implementation Focus | Expected Outcome / Monitoring Indicator |
|---|---|---|
| 1. **Strengthen risk-based hazard identification and control** | Conduct regular job safety analysis, machine safety review, work environment inspection, and high-risk activity assessment, especially for electrical work, work at height, confined space, chemical handling, forklift, crane, and boiler operations. | Reduction in TRIC, TRIR, and LTIFR; completion rate of risk assessments and corrective actions. |
| 2. **Expand OHS training coverage and risk-specific capability** | Increase safety training participation and prioritize courses based on actual work risks, including safe driving, first aid and AED, fire response, chemical emergency response, confined space, work at height, crane operation, and contractor control. | Higher percentage of employees and relevant contractors receiving OHS training; training effectiveness evaluation. |
| 3. **Improve incident reporting, investigation, and lesson learned system** | Strengthen reporting of incidents, near misses, unsafe acts, and unsafe conditions. Apply root-cause analysis and communicate lessons learned across factories to prevent recurrence. | Number of near-miss reports, closure rate of corrective and preventive actions, recurrence rate of similar incidents. |
| 4. **Enhance contractor and supply chain safety governance** | Apply consistent safety requirements to contractors and workers operating in factory areas, including pre-work briefing, permit-to-work controls, PPE compliance, supervision, and post-work review. | Contractor safety compliance rate, contractor incident rate, audit findings closure rate. |
| 5. **Maintain emergency preparedness and public health readiness** | Continue annual emergency drills, fire drills, chemical spill drills, evacuation exercises, and disease outbreak response measures to protect employees and maintain operational continuity. | Drill completion rate, emergency response readiness, improvement actions from drill evaluation. |
| 6. **Strengthen safety culture and employee participation** | Promote visible leadership, employee participation, safety communication, behavior-based safety activities, and "care for one another" practices at operational level. | Participation in safety activities, safety observation records, employee safety engagement feedback. |



# Creating Shared Value for Society and Customers Strategy

# Respect for Human Rights and Community Development

**Respecting rights, building trust, and creating shared value with communities around our operations.**

**Scan for related disclosure**
For further details, please refer to the policies

Community and Social Engagement Policy

Bonded for Life: Vanachai Shared Value Report 2025

## Impact & Value Created

Respect for human rights and community development strengthens Vanachai's social license to operate, protects local dignity and quality of life, and creates shared value through jobs, local sourcing, skills development, and community projects. In 2025, Vanachai implemented 127 CSR projects, recorded 87% community satisfaction, and reported zero community environmental or human rights complaints.

## Risks & Opportunities

Key risks include human rights violations, community concerns, evance escalation, reputational impact, and disruption to operations. Strong human rights due diligence, accessible evance channels, and community co-development create opportunities to improve trust, reduce social risk, support local economies, and strengthen long-term business resilience.

## Our Approach

- Respect rights and dignity; Uphold stakeholder rights, dignity, and well-being.
- Prevent rights violations; Identify and manage human rights risks early.
- Listen to communities; Engage communities to understand local needs.
- Provide fair remedy; Maintain evance channels and remedy processes.
- Build local trust; Strengthen trust through responsible operations.
- Support livelihoods; Promote jobs, skills, sourcing, and local enterprises.
- Empower vulnerable groups; Support vulnerable groups inclusively.
- Create shared value; Deliver projects with measurable social benefits.

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Human rights due diligence, risk prevention, and non-discrimination** | Conduct ongoing HRDD with zero confirmed human rights violations, including discrimination and harassment cases. | No human rights complaints from employees or contracted suppliers; no community human rights impact complaints reported | Formalize annual HRDD, identify salient human rights issues by site and stakeholder group, and track mitigation actions | 8 10 16 |
| **Grievance mechanism and remedy** | Maintain complaint channels for all stakeholders and target zero confirmed human rights violations. | 0 employee and supplier human rights complaints; 0 community environmental or human rights impact complaints. | Improve grievance awareness, confidentiality, response time tracking, remedy records, and disclosure of lessons learned | 10 16 |
| **Community engagement and shared-value projects** | Implement community projects based on local needs and maintain community satisfaction at ≥85% | 127 CSR projects and activities; THB 3.46 million social/community development expenses; 87.5% community satisfaction | Prioritize projects with measurable outcomes in livelihoods, education, health, environment, and vulnerable-group support | 3 8 11 17 |
| **Employee volunteering, local value, and capacity building** | Expand employee volunteering, youth development, livelihood support, and community enterprise activities. | 3,937 employee CSR hours; 59 trained students and activity participants; 7,386 trees planted for social benefit | Strengthen engagement, livelihood links, impact measurement, and long-term community partnerships. | 4 8 11 15 17 |
| **Human rights awareness and training** | Provide human rights policy and HRDD awareness training to employees and relevant functions | Human rights policy and HRDD awareness disclosed; no complaints from employees or contracted suppliers. | Expand annual refresher training to employees, contractors, and key suppliers; improve coverage tracking by site and function | 8 10 16 |

# Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • **Update human rights policy disclosure**<br>• **Map salient human rights risks**<br>• **Strengthen grievance channels**<br>• **Track community complaints**<br>• **Maintain zero rights violations**<br>• **Measure CSR outcomes**<br>• **Maintain community satisfaction** | • Integrate HRDD into ERM<br>• Expand supplier human rights screening<br>• Strengthen remedy procedures<br>• Link projects to local livelihoods<br>• Improve impact valuation<br>• Build long-term community partnerships<br>• Enhance external assurance readiness | • Achieve mature human rights due diligence<br>• Maintain trusted social license to operate<br>• Lead in community shared-value creation<br>• Scale local economic resilience<br>• Demonstrate long-term positive social impact<br>• Disclose investor-grade social performance |

## Our Human Rights Framework



1. **Strengthen human rights due diligence across our value chain**
Covering employees, contractors, suppliers, and business partners.

2. **Support an enabling environment for respect and promotion of human rights**
Through stakeholder engagement, responsible operations, and transparent disclosure.

Supported by communication, training, and continuous improvement.

# Human Rights Governance and Due Diligence

## Ensuring clear oversight, accountability, and control for respect of human rights across operations and business relationships

Vanachai Group has established a human rights governance structure to ensure that human rights commitments are translated into effective oversight, clear accountability, operational controls, and continuous improvement. The governance structure covers employees, contractors, suppliers, customers, dealers, sub-dealers, local communities, and consumers who may be affected by the Company's business activities and relationships.




Human rights oversight is assigned at the Board and management levels to ensure that material human rights risks, due diligence outcomes, grievance trends, mitigation actions, and remedy measures are reviewed systematically. Relevant functions are responsible for implementing human rights controls in daily operations, including human resources, procurement, occupational health and safety, factory operations, compliance, customer relations, and community relations.

The Company communicates human rights expectations through policies, codes of conduct, supplier requirements, stakeholder engagement channels, training, and grievance mechanisms. Human rights training and HRDD learning activities are provided to relevant employees and functions to build understanding of human rights risks, vulnerable groups, prevention measures, and practical application in their work.

## Key Focus Areas

**Fair labor practices**
Uphold fair wages, reasonable working hours and decent working conditions.

**No-child or forced labor**
Maintain zero tolerance for child labor, forced labor and human trafficking.

**Health and safety**
Provide a safe and healthy workplace for employees and contractors.

**Non-discrimination**
Promote equal opportunity and respect for diversity and inclusion.

**Community well-being**
Contribute to the well-being and resilience of local communities.

**Access to grievance and remedy**
Ensure accessible grievance channels and appropriate remedy.

# Human Rights Governance Structure

| Governance Level | Oversight / Responsibility | Key Human Rights Control |
|---|---|---|
| **Board of Directors / Board of Executive Directors** | Oversee human rights policy, salient human rights risks, HRDD results, grievance trends, and corrective actions. | Annual review of human rights risk profile, complaints, mitigation progress, and disclosure readiness. |
| **Executive Management** | Set direction, resources, accountability, and escalation. | Approve roadmap, owners, and progress tracking. |
| **Sustainable Development Work Force** | Coordinate human rights framework alignment, reporting, and cross-functional implementation | Consolidate HRDD, KPIs, and disclosure evidence. |
| **Human Resources** | Manage labor rights, fair treatment, and employee grievance. | Training, complaint handling, and remedy. |
| **Procurement / Supplier Management** | Communicate expectations to suppliers, contractors, and business partners. | Supplier screening, audits, and corrective actions. |
| **Occupational Health and Safety** | Protect employee and contractor health and safety. | Risk assessment, training, and incident response. |
| **Factory / Site Management** | Implement controls at operating sites. | Site monitoring, contractor control, and escalation. |
| **Customer / Dealer Relations** | Ensure responsible treatment of customers and dealers. | Feedback channels, complaint response, and remedy. |
| **CSR / Community Relations** | Engage communities and monitor local concerns. | Community consultation, complaint tracking, community satisfaction, project monitoring, and social impact reporting. |
| **Internal Audit / Risk Management Work Force** | Review compliance with policies, procedures, and controls. | Independent review, internal control testing, whistleblowing follow-up, and management reporting. |

### 1. Board Of Directors / Assigned Board Committee

Oversight of policy, salient risks, HRDD, grievances, remedy, and disclosure



### 2. Executive Management

Strategy, resources, accountability, escalation, and performance review

### 3. Functional Owners

Human Resources | Procurement / Supplier Management | Occupational Health & Safety | Factory / Site Operations | Compliance / Internal Control | CSR / Community Relations | Customer Relations

### 4. Implementation Flow

1 Commit → 2 Communicate → 3 Train → 4 Implement → 5 Monitor → 6 Escalate → 7 Remedy → 8 Report

### 5. Key Stakeholders

- **Employees**
- **Customers** (Dealer, Sub-dealer)
- **Suppliers**
- **Local Communities**
- **Consumers** (End-user)

# Human Rights Due Diligence

**Identifying, preventing, mitigating, and remedying salient human rights risks across Vanachai's value chain**

## Human Rights Due Diligence Assessment

### Framework

Continuous Improvement

1. **Define Scope**
   Identify stakeholders and business activities across our operations and value chain.
2. **Identify Risks**
   Identify actual and potential human rights risks through data, engagement and inputs.
3. **Assess Impact**
   Assess severity and likelihood of risks based on scale, urgency of remedy, likelihood and frequency.
4. **Prevent & Mitigate**
   Develop and implement mitigation measures and integrate into policies,procedures and controls.
5. **Monitor & Review**
   Monitor effectiveness, track progress and review risks and controls regularly.
6. **Provide Remedy**
   Provide or cooperate in remedy for affected individuals and prevent recurrence.

### Scope

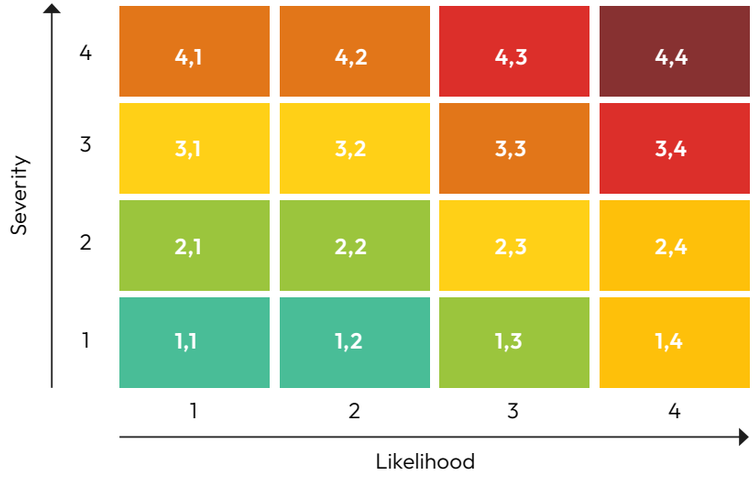
- Employees
- Suppliers & Contractors
- Local Communities
- Customers / Dealers
- Consumers / End-Users
- Children & Youth

### Grievance Machanisms & Remedy

- **Access**
  Multiple channels accessible to all stakeholders
- **Confidential**
  Confidential & anonymous reporting
- **Investigate**
  Screen, investigate and assign to responsible team
- **Remedy**
  Appropriate remedy and support to affected persons
- **Close & Learn**
  Close case, learn and improve controls

## Risk Assessment

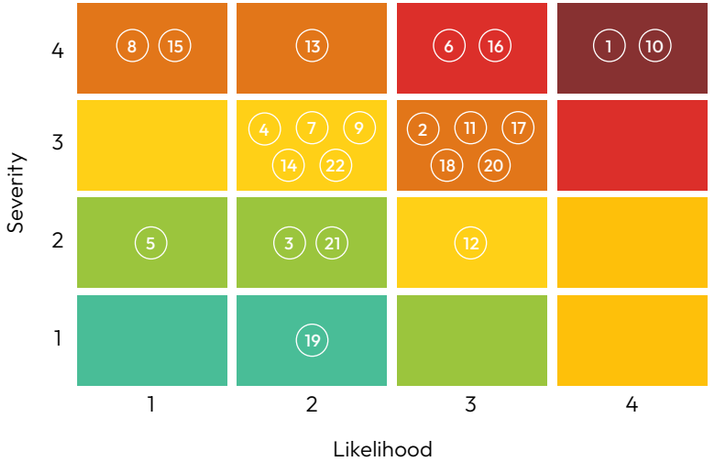
**Assess severity and likelihood of human rights risks**




| Risk Level | Score | | Priority |
|---|---|---|---|
| 1 | 1-2 | Watchlist | Low current risk; maintain basic controls and observe changes. |
| 2 | 3-4 | Monitor | Manage through routine monitoring and existing procedures. |
| 3 | 5-8 | Moderate | Requires preventive actions, training, and periodic review. |
| 4 | 9 | Significant | Requires defined action plan, respon-sible owner, and progress tracking. |
| 5 | 12 | High | Requires priority mitigation, management review, and KPI monitoring. |
| 6 | 16 | Critical | Requires immediate action, executive oversight, and corrective action plan. |

# Human Rights Assessment Findings

**Mapping key human rights risks by likelihood and severity to prioritize mitigation actions.**







### Customer

- 6 Discrimination or unfair treatment of customers, dealers, or sub-dealers.
- 7 Responsible product information, sales communication, and after-sales support.
- 8 Protection of personal data, customer records, and service information.
- 9 Non-discrimination.

### Consumer

- 13 Product health and safety risks affecting end-users or homeowners.
- 14 Clear product usage information, warranty, complaint handling, and remedy.
- 15 Protection of personal data, customer records, and service information.

### Children & Youth

- 20 Weak age verification and child labour monitoring in the supply chain.
- 21 Education and Skill Development.
- 22 Support for Children's Rights.

### Employee

- 1 Workplace accidents from unsafe work, PPE non-compliance, or lack of tool knowledge.
- 2 Occupational health risks, mental health, and targeted health checks for high-risk jobs.
- 3 Fair labor practices, working hours, overtime, job rotation, and employment conditions.
- 4 Discrimination and Harassment.
- 5 Freedom of Association.

### Supplier

- 10 Employment of workers under legal working age by contractors or subcontractors.
- 11 Supplier labor practices and safe working conditions for contractor workers.
- 12 Supplier grievance access, corrective action, and responsible procurement practices.

### Local Community

- 16 Community safety risks from transport operations, unsafe driving, or logistics activities.
- 17 High water use in production affecting community water availability during dry season.
- 18 Pollution, dust, noise, odor, or hazardous waste affecting community well-being.
- 19 Well-being and Quality of Life.

# Prioritized Human Rights Risk Rating

| Stakeholder | No. | Human Rights Risk | Priority | Mitigating Impact Risks | Redress in the Event |
|---|---|---|---|---|---|
| Employee  | 1 | Workplace accidents from unsafe work, PPE non-compliance, or lack of tool knowledge | Critical | Establish strict OHS procedures, job safety analysis, PPE control, machine guarding, lockout/tagout, contractor safety control, safety training, toolbox meetings, near-miss reporting, and regular site inspections. Assign responsible owners and monitor safety KPIs. | Provide immediate medical care, emergency response, incident investigation, root-cause analysis, corrective action plan, compensation according to law, rehabilitation support, return-to-work arrangement, and preventive communication to avoid recurrence. |
| | 2 | Occupational health risks, mental health, and targeted health checks for high-risk jobs | Significant | Conduct health risk assessment, targeted medical checks, ergonomic review, mental health awareness, workload monitoring, and job-specific exposure control. | Provide medical referral, counseling support, job adjustment, follow-up health monitoring, and corrective action where work conditions contributed to the issue. |
| | 3 | Fair labor practices, working hours, overtime, job rotation, and employment conditions | Monitor | Maintain labor law compliance, working-hour control, overtime approval, and fair employment procedures. | Correct payroll or working-hour errors, communicate resolution, and improve HR controls. |
| | 4 | Discrimination and Harassment | Medium | Communicate anti-discrimination and anti-harassment policy, provide awareness training, and maintain confidential complaint channels. | Investigate fairly, protect complainants from retaliation, apply disciplinary action where required, and provide support to affected persons. |
| | 5 | Freedom of Association | Monitor | Respect employee voice, communication channels, welfare committee, and lawful collective rights. | Review complaints, correct any restriction, and engage affected employees through appropriate channels. |
| Customer  | 6 | Discrimination or unfair treatment of customers, dealers, or sub-dealers | High | Set clear service standards, non-discrimination principles, fair sales practices, dealer communication guidelines, complaint escalation, training for sales and service teams, and monitoring of customer complaints. | Investigate the case, provide apology or service correction, ensure fair treatment, apply corrective training or disciplinary action, and review sales or service procedures to prevent recurrence. |
| | 7 | Responsible product information, communication, sales and after-sales support | Medium | Provide accurate product information, sales guidance, product training, and after-sales service channels. | Correct misinformation, provide clarification, service support, repair, replacement, or appropriate commercial remedy. |
| | 8 | Protection of personal data, customer records, and service information | Significant | Apply access control, data privacy procedures, consent management, secure recordkeeping, staff training, and incident monitoring. | Notify responsible parties, investigate breach, contain exposure, correct system gaps, and provide support or remedy to affected customers where required. |
| | 9 | Non-discrimination | Medium | Communicate fair treatment expectations to sales, service, dealers, and sub-dealers. | Investigate complaints and correct unfair practices through service recovery and staff coaching. |

| Stakeholder | No. | Human Rights Risk | Priority | Mitigating Impact Risks | Redress in the Event |
|---|---|---|---|---|---|
| Supplier  | 10 | Employment of workers under legal working age by contractors or subcontractors | Critical | Enforce Supplier Code of Conduct, contract clauses prohibiting child labor, age verification before site access, contractor screening, supplier audits, training, whistleblowing channels, and corrective action requirements. | Immediately remove the child from hazardous work, protect the child from income loss where appropriate, coordinate with parents or authorities, support education or rehabilitation, require supplier corrective action, and conduct follow-up audits. |
| | 11 | Supplier labor practices and safe working conditions for contractor workers | Significant | Screen suppliers, communicate labor and safety requirements, conduct site safety orientation, monitor contractor working conditions, and require corrective action for non-compliance. | Stop unsafe work, investigate the case, require supplier corrective action, provide remedy to affected workers, and reassess supplier eligibility. |
| | 12 | Supplier grievance access, corrective action, and responsible procurement practices | Medium | Maintain supplier complaint channels, procurement ethics, and corrective action tracking. | Review complaint, resolve issue fairly, document corrective action, and communicate closure. |
| Consumer  | 13 | Product health and safety risks affecting end-users or homeowners | Significant | Strengthen product quality control, safety testing, product labels, safe-use guidance, installation information, complaint monitoring, and dealer communication. | Investigate product issue, provide repair, replacement, refund, technical support, safety notice, or recall where necessary. |
| | 14 | Clear product usage information, warranty, complaint handling, and remedy | Medium | Provide clear usage instructions, warranty terms, complaint channels, and service response process. | Provide clarification, repair, replacement, refund, or complaint resolution based on case severity. |
| | 15 | Protection of personal data, customer records, and service information | Significant | Apply privacy controls, restricted data access, secure storage, consent-based data use, and staff awareness. | Investigate data incident, contain impact, notify relevant parties where required, and provide corrective action or remedy. |

| Stakeholder | No. | Human Rights Risk | Priority | Mitigating Impact Risks | Redress in the Event |
|---|---|---|---|---|---|
| Local Community  | 16 | Community safety risks from transport operations, unsafe driving, or logistics activities | High | Implement transport safety standards, driver training, route risk assessment, vehicle inspection, speed control, contractor logistics requirements, emergency response plan, and community communication on transport risks. | Provide emergency assistance, medical care where needed, incident investigation, compensation or support as appropriate, corrective action with transport contractors, and communication with affected communities. |
| | 17 | High water use in production affecting community water availability during dry season | Significant | Monitor water withdrawal, improve water efficiency, reuse or recycle water, conduct dry-season planning, engage communities, and track complaints. | Provide emergency water support where appropriate, investigate community impact, adjust water management measures, and communicate corrective actions. |
| | 18 | Pollution, dust, noise, odor, or hazardous waste affecting community well-being | Significant | Control emissions, dust, odor, noise, wastewater, and hazardous waste; conduct monitoring, preventive maintenance, site inspections, and community grievance tracking. | Investigate complaints, stop or correct the source, provide clean-up or support where needed, communicate results, and strengthen controls. |
| | 19 | Well-being and Quality of Life | Watchlist | Maintain community engagement, satisfaction survey, CSR activities, and local issue monitoring. | Respond to concerns, adjust community programs, and follow up with affected stakeholders. |
| Children & Youth  | 20 | Weak age verification and child labour monitoring in the supply chain | Significant | Strengthen supplier age verification, worker registration, contractor checks, supplier audits, training, and whistleblowing channels. | Remove child from work safely, coordinate protection support, require corrective action, and conduct follow-up monitoring. |
| | 21 | Education and Skill Development | Monitor | Support education, vocational learning, internships, and career readiness programs. | Review program access and improve support where gaps are identified. |
| | 22 | Support for Children's Rights | Medium | Integrate children's rights into community programs, supplier controls, safety planning, and education initiatives. | Provide protection, referral, or support if children are affected by business activities. |

**Note:** **Critical and High risks** are managed through priority mitigation plans, responsible owners, KPI monitoring, management review, and formal corrective action.
**Significant risks** are managed through preventive controls, monitoring, training, grievance access, and documented follow-up.
**Medium, Monitor, and Watchlist risks** are addressed through routine controls, awareness, stakeholder engagement, and periodic review.

# Respect for Community Development

## Growing Together with the Communities Around Us

Vanachai Group recognizes that strong communities are a foundation of long-term business resilience. As a Thai wood-based products business, the Company's operations are closely connected with local economies, communities surrounding our operating areas, suppliers, employees, public agencies, educational institutions, and civil society. Community development is therefore not treated as a one-time philanthropic activity, but as a strategic approach to creating shared value, strengthening stakeholder trust, supporting local livelihoods, and maintaining a social license to operate.

The Company's community development approach is guided by the Community and Social Engagement Policy, which commits Vanachai to promoting sustainable community development, enhancing quality of life in communities surrounding all operations, building trust and transparent communication, encouraging employee volunteerism, and integrating community engagement into the Company's sustainability strategy, corporate governance, and disclosure framework. This approach directly defines the principles and process for making community investments, and by linking community investment focus areas to the Company's business strategy.

Vanachai's long-term success depends on strong relationships with the communities surrounding our production sites, sourcing areas, and value chain. As our business grows, we recognize our responsibility to listen, respond, and create shared value through programmes that support local livelihoods, education, environmental stewardship, and quality of life.




**Social License to Operate**
Building trust through listening, transparent communication, and responsible response to community expectations.

**Shared Local Value**
Supporting livelihoods, education, local sourcing, skills, and community partic-ipation wherever feasible.

**Long-Term Resilience**
Reducing social and operational risks through engagement, evance channels, and continuous improvement.

"Strong communities strengthen Vanachai's ability to grow responsibly, operate with trust, and create long-term value"

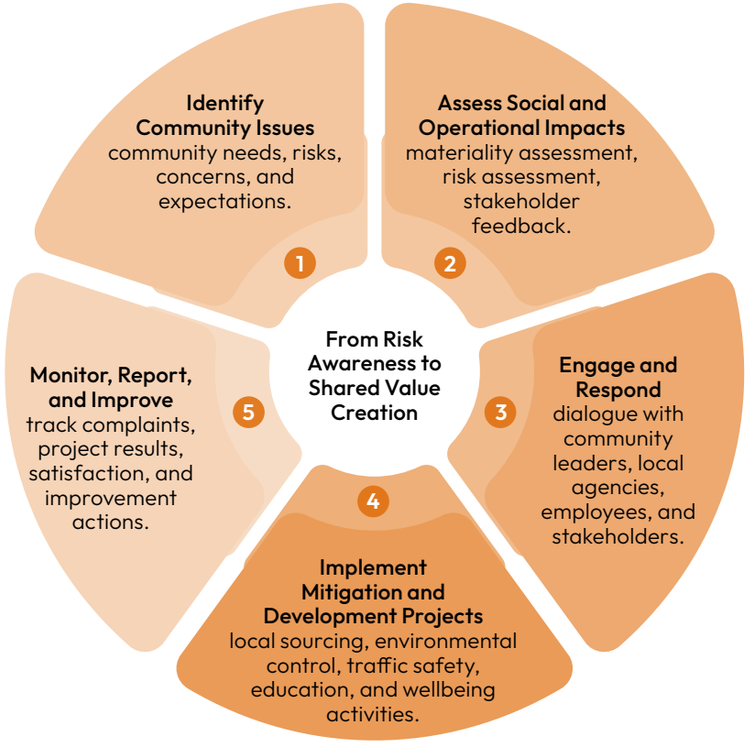
**Scan for related disclosure**
For further details, please refer to
Bonded for Life:
Vanachai Shared Value Report 2025

# Significant Community Impacts and Management Response

The Community and Social Engagement Policy states that community-related risks, impacts, and dependencies are identified through the Vanachai Integrated Materiality and Risk Assessment, integrated into ERM, and managed through social impact assessment, mitigation measures, stakeholder participation, monitoring, and reporting.

Vanachai supports local economic development by promoting local employment, sourcing local raw materials, and capacity building as appropriate. The Community and Social Engagement Policy defines local economic development as activities that promote employment, entrepreneurship, and income generation within local communities, and commits the Company to supporting local entrepreneurs, employment, and sourcing from local suppliers.

This commitment is material to Vanachai's business model because the Company's operations are linked to local communities and value chain participants. As a manufacturer of wood-based products using recovered wood resources, Vanachai sees our role in supporting local economies through job creation, support for local suppliers and entrepreneurs, and improvements in resource efficiency. The Company also supports community enterprise development through initiatives such as the Skills for Sustainable Prosperity Project, which focuses on strengthening local capability and community income generation.




**Vanachai's approach is to identify community impacts early, engage transparently, respond responsibly, and convert community needs into shared value opportunities.**

### Local Livelihoods
**Impact:** Household income insecurity and limited local economic opportunities.
**Response:** Local sourcing, fair contracting, local employment, skills development.

### Environmental Nuisance
**Impact:** Dust, odour, wood residue, noise, or waste concerns.
**Response:** Dust control, filtration, waste handling, buffer zones.

### Traffic and Transport Safety
**Impact:** Safety risks from transport routes and logistics activity.
**Response:** Safe routes, driver training, vehicle checks, timing control.

### Communication Gap
**Impact:** Insufficient information about plant activities or issue resolution.
**Response:** Community meetings, newsletters, LINE groups, grievance channels.

### Youth Opportunity and Skills
**Impact:** Limited employability skills and vocational exposure.
**Response:** Training, internships, vocational partnerships, student activities.

### Community Wellbeing
**Impact:** Health, safety, vulnerable group, and public benefit needs.
**Response:** Public health, blood donation, safe riding, and community support.

# Community Investment Principles and Focus Areas

## Investing with Purpose, Responding to Local Needs, Creating Shared Value

Vanachai Group applies a structured community investment approach based on community needs, social impact, business relevance, and long-term value creation. Priority is given to initiatives aligned with the Company's **"Forest, Future, Together"** sustainability framework. Under this framework, community initiatives are organized around environmental stewardship, local economic empowerment, education and capability building, social wellbeing, public health, cultural preservation, and urgent community support.

Community investments are selected and implemented through engagement with local stakeholders. Vanachai works through factory-based social responsibility teams and coordinates with community leaders, government agencies, and local stakeholders to identify community needs, implement projects, and follow up on results. The Company also maintains complaint channels and concern management mechanisms to strengthen transparency and reduce social risks.

This process ensures that community activities are not limited to short term assistance. Instead, Vanachai prioritizes initiatives that respond to local context, respect community culture and expectations, and create measurable positive change over time. The Company's policy further requires social impact assessments, integration of social risks into enterprise risk management, and ongoing monitoring of community relations and social development projects.

### Our Community Investment Process

1. **Listen**
   Engage with communities to understand needs, risks, and opportunities.
2. **Prioritize**
   Assess and prioritize projects based on impact and relevance.
3. **Partner**
   Collaborate with local stakeholders and trusted partners.
4. **Implement**
   Deliver projects with transparency, safety, and respect.
5. **Measure**
   Monitor outcomes and measure social and environmental impacts.
6. **Improve**
   Learn, adapt, and improve to create greater shared value.

### Community Investment Framework

1. **Environmental Stewardship**
   Tree planting, waste sorting, composting, marine restoration, and environmental awareness.
2. **Local Economic Empowerment**
   Local sourcing, fair contracting, employment where feasible, and community enterprise support.
3. **Education and Capability Building**
   Internships, vocational training, student activities, and knowledge sharing.

**Community Investment Principles**
Needs-based
Impact-oriented
Business-relevant
Long-term value

4. **Social Wellbeing and Public Health**
   Support for vulnerable groups, blood donation, health support, and safe living.
5. **Culture and Public Benefit Support**
   Cultural preservation, public utilities, educational supplies, and community infrastructure.
6. **Urgent Community Support**
   Emergency assistance, welfare support, and response to practical community needs.

**Vanachai invests in communities by listening to local needs, selecting projects with measurable impact, and creating shared value that supports both community resilience and responsible business growth.**

# Employee Engagement and Community Participation

## Mobilizing Employees to Create Shared Value with Communities

Employee participation is a key mechanism for embedding social responsibility across Vanachai Group. The Company encourages employees to take part in community initiatives through volunteering, knowledge sharing, project implementation, and collaboration with community partners. This approach is supported by the Community and Social Engagement Policy, which promotes employee volunteerism, awareness building, resource allocation, and annual monitoring of community development performance.



### 2025 Employee Participation Performance

**910**
Employees participating in social initiatives

**3,937**
Employee volunteer hours

**127**
CSR and CSV projects

**27.2%**
Volunteer participation rate

In 2025, 910 employees participated in CSV and CSR activities, contributing 3,937 employee volunteer hours. Vanachai also implemented 127 CSR and CSV projects, compared with 88 projects in 2024, reflecting broader coverage of community activities and a transition toward a more structured CSV approach. Under this approach, employees are expected not only to join activities, but also to understand community needs, support project implementation, and take greater responsibility in working with communities and stakeholders.

### From Employee Participation to Community Impact

1 **Engage Employees**
Volunteering, awareness activities, knowledge sharing, and project support.

2 **Work with Communities**
Collaboration with community leaders, local agencies, schools, and stakeholders.

3 **Create Shared Value**
Outcomes in environment, education, health, safety, livelihoods, and wellbeing.

**Employees are community partners, knowledge contributors, and shared-value creators.**

### How Employees Contribute

**Volunteer Participants**
Join environmental and social activities that support communities and improve quality of life.

**Knowledge Contributors**
Share technical, safety, environmental, or vocational knowledge with communities and local partners.

**Project Implementers**
Support planning, coordination, and implementation of CSR and CSV projects.

**Community Connectors**
Work with community leaders, schools, local agencies, and stakeholders to strengthen trust and communication.

**Shared-value Creators**
Connect business expertise with community needs to create practical outcomes.

### Community Outcomes Supported by Employees

- Environment
- Education
- Health and Wellbeing
- Safety
- Livelihoods

**Vanachai strengthens community development by mobilizing employees as volunteers, knowledge contributors, project implementers, and community partners who help translate local needs into practical shared-value outcomes.**

# Community Outcomes Supported by Employees

## Turning Employee Participation into Measurable Community Value

Vanachai Group views employee participation as a practical driver of measurable community outcomes. Through volunteering, knowledge sharing, project support, and collaboration with local stakeholders, employees help translate community needs into tangible benefits across environment, education, health, safety, livelihoods, and wellbeing. In 2025, Vanachai implemented 127 CSR and CSV projects, contributed 3,937 employee volunteer hours, planted 7,386 trees for social benefit, supported 59 trained students and student activity participants, and achieved 87.5% community satisfaction based on internal raw survey results, while maintaining zero incidents or complaints relating to environmental or human rights impacts on communities during 2021–2025.

## From Employee Contribution to Community Outcomes

**Employees Contribute**



Volunteering, knowledge sharing, coordination, and project support

**Projects are Delivered**



Environmental projects, social projects, education activities, safety initiatives, and livelihood support

**Communities Benefit**



Improved environment, stronger skills, better health, safer communities, livelihood support, and stronger wellbeing

**Trust is Strengthened**



Higher satisfaction, zero complaints, long-term relationships and shared value creation

## 2025 Outcome Snapshot

**127**

**CSR and CSV projects**
Expanded coverage of community activities

**3,937**

**Employee volunteer hours**
Employee time contributed to social value creation

**7,386**

**Trees planted for social benefit**
Environmental stewardship and green-space contribution

**59**

**Trained students and student activity participants**
Youth learning and capability-building support

**87.5%**

**Community satisfaction**
Positive community trust and acceptance

**0**

**Environmental or human rights impact complaints**
Responsible impact management and social risk prevention

These outcomes reflect Vanachai's transition from activity-based CSR toward a more structured CSV approach. Employees are expected not only to participate in activities, but also to understand community needs, support implementation, and take greater responsibility in working with communities and stakeholders. This approach supports the Company's broader goal of creating shared value through community engagement, responsible operations, and long-term trust with local stakeholders.

## Outcome Quality and Trust Indicators

**87.5%**
community satisfaction based on internal raw data

**Zero community**
impact complaints (2021–2025)

**Continuous engagement**
and feedback-driven improvement



## Six Outcome Areas Supported by Employees

**Environment**
**Employees support** activities that increase green areas, promote waste sorting, compost food scraps, and restore ecosystems.

Examples:
- Grow Green for Community
- Sort for a Better World
- Food to Fertilizer
- Reef and Marine Release

**Education**
**Employees support** student learning, vocational exposure, practical knowledge sharing, and youth development.

Examples:
- Student activities
- Internships
- Vocational partnerships
- Knowledge-sharing programmes

**Health**
Employees participate in activities that support public health and vulnerable groups.

Examples:
- Every Drop Saves Lives
- Sustainable Wellbeing

**Safety**
Employees help promote safer community behaviour and preventive safety awareness.

Examples:
- Safe Ride, Every Time

**Livelihoods**
Employees support community capability, local income generation, and community enterprise development.

Examples:
- Skills for Sustainable Prosperity
- Community enterprise support

**Wellbeing**
Employees support quality of life, social support, and community resilience.

Examples:
- Support for bedbound patients
- Children and persons with disabilities
- Public benefit activities

## Key Projects Linked to Outcomes

**Grow Green for Community**
Increase green areas and environmental restoration

**Sort for a Better World**
Promote waste sorting and recycling behaviour

**Food to Fertilizer**
Compost food scraps to create value and reduce waste

**Reef and Marine Release**
Restore marine ecosystems and biodiversity

**Every Drop Saves Lives**
Support blood donation and save lives in communities

**Safe Ride, Every Time**
Promote safe driving and reduce road accidents

**Sustainable Wellbeing**
Support wellbeing for vulnerable groups

**Skills for Sustainable Prosperity**
Build skills and generate community income

# Ongoing Key Community Development Initiatives

## From Community Needs to Sustainable Shared Outcomes with Communities

In 2025, Vanachai Group translated our community investment principles into concrete initiatives that support both environmental stewardship and social wellbeing. The Company implemented 127 CSR and CSV projects, including environmental projects such as Grow Green for Community, Sort for a Better World, Food to Fertilizer, and Marine Life for Rayong Coast Release, as well as social projects such as Sustainable Wellbeing, Every Drop Saves Lives, Safe Ride, Every Time, and Skills for Sustainable Prosperity. These initiatives demonstrate Vanachai's effort to create outcomes across environment, health, safety, livelihoods, education, and social wellbeing.

These projects are not positioned as short-term charitable activities only. They are designed to respond to local needs, strengthen community trust, support local capability, and create measurable positive change over time. Vanachai's approach is also aligned with the Company's broader commitment to shared value creation, where community engagement is connected with responsible operations, local economic development, resource efficiency, and long-term social license to operate.

### Ongoing Key Projects and their Outcomes

● = Primary contribution ○ = Secondary contribution

| Key Activities | Environment | Education | Health | Safety | Livelihoods | Wellbeing |
|---|---|---|---|---|---|---|
| 1. Grow Green for Community | ● | ○ | – | – | – | ○ |
| 2. Sort for a Better World | ● | ○ | – | – | – | – |
| 3. Food to Fertilizer | ● | ○ | – | – | ○ | – |
| 4. Reef and Marine Release | ● | ○ | – | – | – | ○ |
| 5. Sustainable Wellbeing | – | – | ● | – | – | ● |
| 6. Every Drop Saves Lives | – | – | ● | – | – | ○ |
| 7. Safe Ride, Every Time | – | ○ | – | ● | – | ○ |
| 8. Skills for Sustainable Prosperity | – | ○ | – | – | ● | ○ |

**Vanachai's key ongoing community development initiatives translate local community needs into practical action by integrating environmental stewardship, public health promotion, safety, livelihood and income generation, education, and quality of life improvement. These initiatives create long-term shared value with communities, enhance community well-being, and support the Group's sustainable operations and growth.**

# 2025 Community Initiative Portfolio

## Environmental Stewardship
Protecting natural resources and restoring ecosystems for a sustainable future

### 1. Grow Green for Community




- Tree planting and support for community green areas
- More green areas, environmental restoration and community participation

### 2. Sort for a Better World



- Waste sorting education and awareness activities
- Improved waste sorting behavior and reduced waste burden

### 3.Food to Fertilizer



- Composting food waste into fertilizer
- Reduced organic waste and increased circular resource use

### 4. Reef and Marine Release



- Release aquatic species with Rayong local fishers
- Restore coastal resources and promote shared care

## Social Wellbeing & Local Capability
Improving quality of life, strengthening capability, and creating opportunities for communities

### 5. Sustainable Wellbeing



- Support for bedbound patients, children, and persons with disabilities
- Better social support and wellbeing for vulnerable groups

### 6. Every Drop Saves Lives




- Blood donation activities
- Increased blood supply and public health contribution

### 7. Safe Ride, Every Time



- Safe driving instruction and safety helmet support
- Safer community behavior and accident prevention

### 8. Skills for Sustainable Prosperity



- Community enterprise development and capability building support
- Local skills, livelihood opportunities and income resilience

# Human Rights and Community Development Performance Metrics and Disclosure Alignment

Below are the data related to Human Rights and Community Development for Vanachai Group and our subsidiaries during 2021–2025, with 2021 as the base year.

**Remarks:** *87.5% from internal raw survey, rounded to 87% in the One Report.

| Disclosure Alignment, | | Human Rights and Community Development Indicator | unit | Vanachai Group Performance | | | | |
|---|---|---|---|---|---|---|---|---|
| | FTSE Russell | | | 2021* | 2022 | 2023 | 2024 | 2025 |
| 2-23/413-1 | SHR03 | Community and Social Engagement Policy | Policy code | n/a | n/a | n/a | VNG-SOC-CSE-PL-01 | VNG-SOC-CSE-PL-02 |
| 2-23, 204-1/203-2 | SHR05 | Sustainable procurement policy covering local sourcing / employment | Policy code | n/a | n/a | n/a | VNG-GOV-SP-PL-01 | VNG-GOV-SP-PL-02 |
| 2-24/412-2 | SHR24 | Employees trained in Human Rights Policy | Persons | n/a | n/a | n/a | n/a | 3,141 |
| | | | % | n/a | n/a | n/a | n/a | 94.0% |
| 203/413-1 | SHR17 | Total community development expenses | Million Baht | 2.5 | 2.47 | 2.73 | 7.05 | 3.46 |
| 203/413-1 | SHR17 | Budget for social initiatives | Million Baht | 1.2 | 1.2 | 1.2 | 5.54 | 2.17 |
| 203/413-1 | SHR17 | Social programme management costs | Million Baht | 1.04 | 0.94 | 1.14 | 0.20 | 0.89 |
| 203/413-1 | SHR17 | Donations to registered not-for-profit organizations | Million Baht | n/a | n/a | n/a | 1.21 | 1.04 |
| 203/413-1 | SHR17 | Other support - products or services | Million Baht | 0.26 | 0.33 | 0.39 | 0.10 | 0.46 |
| 413-1 | SHR16 | Employees participating in social initiatives | Persons/year | 629 | 668 | 802 | 1,232 | 910 |
| 413-1 | SHR16 | Employee volunteer hours | Hours/year | 2,111 | 2,612 | 3,133 | 5,544 | 3,937 |
| 413-1 | SHR16 | Volunteer hours per employee, based on total workforce | Hours/person/ year | 3.36 | 3.91 | 3.91 | 4.50 | 4.33 |
| 413-1 | SHR16 | Volunteer participation rate | % | 35.3% | 34.1% | 41.5% | 68.3% | 27.2% |
| 413-1 | SHR15 | No. of CSR / CSV projects and activities | Projects | 65 | 64 | 78 | 88 | 127 |
| 413-1 | SHR15 | No. of provinces covered by social initiatives | Provinces | 3 | 5 | 3 | 5 | 7 |
| 413-1, 101-2 | SHR15, EDB08 | Total trees planted for social benefit | Trees | n/a | 6,191 | 6,955 | 2,682 | 7,386 |
| 413-1 | SHR15 | Trained students and student activity participants | Students | 95 | 53 | 229 | 61 | 59 |
| 413-1, 2-29 | SHR15 | Community satisfaction towards the business | % | N/A | N/A | N/A | 85.0% | *87.5% |
| 2-25/2-26, 413-2 | SHR15, SHR27 | Incidents or complaints on environmental or human rights impact on communities | No. of times | 0 | 0 | 0 | 0 | 0 |
| 2-25/406-1 | SLS21, SHR27 | Incidents or complaints on discrimination | No. of times | 0 | 0 | 0 | 0 | 0 |
| 2-25/2-26 | SHR27 | Human rights complaints from employees | Complaints | 0 | 0 | 0 | 0 | 0 |
| 2-25/414-2 | SHR27, SSC18 | Human rights complaints from contracted suppliers | Complaints | 0 | 0 | 0 | 0 | 0 |
| 2-25/413-2 | SHR27 | Human rights complaints from community impacts | Complaints | 0 | 0 | 0 | 0 | 0 |

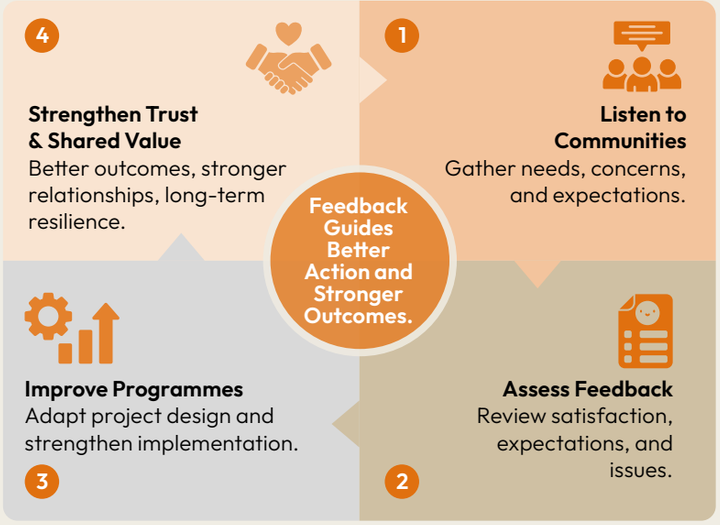
# Community Feedback and Future Communities

## Listening, improving, and growing together

Vanachai uses community feedback to improve the relevance and effectiveness of initiatives,. In 2025, community satisfaction was 87.5% based on the internal raw survey, rounded to 87% in the One Report. The company reported zero incidents or complaints relating to environmental or human rights impacts on communities during 2021-2025.

We value every voice, Feedback supports continuous improvements and strengthens accountability, stakeholder trust, and our long-term social license to operate.

### Community Feedback and Continuous Improvement




### 2025 Trust and Accountability Indicators

**87.5%**
Community satisfaction*

**0**
Community environmental or human rights impact complaints (2021–2025)

**0**
Human rights complaints from employees

**0**
Human rights complaints from contracted suppliers

*Based on internal raw survey results

**Vanachai's employee engagement creates value beyond participation.**
By combining volunteer effort, knowledge sharing, and local collaboration, employees help deliver measurable community benefits, strengthen trust, and create long-term shared value with communities.




### 2026 Improvement Roadmap

**1. Strengthen Local Livelihoods**
Expand income-generation and community enterprise support.

**2. Expand Transparent Communication**
Newsletters, LINE community groups, and regular plant-community dialogue.

**3. Improve Operational Impact Management**
Strengthen dust, odour, traffic, and wood residue management.

**4. Increase Local Partner Participation**
Involve more suppliers and local partners in CSV activities.

**5. Improve Data Quality**
Track beneficiaries, outcomes, satisfaction, and social return indicators.

**6. Develop Flagship Multi-year Projects**
Set measurable long-term targets for high-impact initiatives.

**Why this matters**

Feedback-driven improvement helps Vanachai keep community programmes relevant, responsive, and aligned with stakeholder expectations.

# Customer Responsibility and Trust Building Customer

**Building customer confidence through safe products, transparent communication, responsive complaints, and continuous improvement.**

**Scan for related disclosure**
For further details, please refer to the policies

Customer Responsibility and Consumer Protection Policy

Personal Data Protection Policy

## Action Plan

| Short Term (2025–2029) | Medium Term (2030–2037) | Long Term (2038–2050) |
|---|---|---|
| • Maintain satisfaction ≥98%<br>• Report complaints annually<br>• Resolve complaints 100% on time<br>• Strengthen product safety communication<br>• Track all-channel communication coverage<br>• Use customer feedback for improvement | • Integrate customer trust into ERM<br>• Expand digital CRM and VOC analytics<br>• Improve product traceability and labeling<br>• Strengthen verified product information<br>• Co-develop safer and healthier products<br>• Improve complaint trend analysis<br>• Prepare assurance-ready customer data | • Lead in product transparency<br>• Maintain zero unresolved complaints<br>• Sustain high customer satisfaction<br>• Build trusted product data platform<br>• Embed customer health in innovation<br>• Achieve full stakeholder communication assurance<br>• Strengthen lifelong customer trust |

## Impact & Value Created

Customer trust strengthens demand, brand reputation, competitiveness, and product acceptance. Vanachai creates value through safe, reliable products, clear communication, and customer feedback for continuous improvement.

## Risks & Opportunities

Key risks include product defects, safety concerns, unclear information, delayed complaint handling, and reputation loss. Opportunities include stronger loyalty, higher satisfaction, reduced claims, responsible product innovation, and improved ESG transparency.

## Our Approach

- Deliver safe and reliable wood-based products
- Maintain consistent product quality standards
- Ensure products meet customer requirements
- Communicate product information clearly and accurately
- Provide responsible marketing and product claims
- Share proper usage, care, and safety guidance
- Listen to customer feedback across all channels
- Respond to complaints in a timely manner
- Analyze root causes and prevent recurrence
- Improve products and services continuously
- Strengthen customer service and consultation support
- Track satisfaction, complaints, and communication coverage
- Disclose customer-related performance transparently

## Targets

| Activities | Target Plan 2025 | Result 2025 | Forward Priority | SDG |
|---|---|---|---|---|
| **Customer satisfaction** | Maintain product and service satisfaction at ≥98% | Product satisfaction 98.2%; service satisfaction 98.0% | Strengthen customer segmentation, digital survey coverage, and service improvement plans | 9, 12 |
| **Complaint reporting and resolution** | Disclose product, service, and marketing complaints; resolve complaints on schedule at 100% | Product quality complaints 2 cases; service complaints 0 cases; marketing-related complaints 0 cases; on-schedule complaint resolution 100% | Reduce repeat product complaints through root-cause analysis and corrective/preventive actions | 12, 16 |
| **Responsible product information and labeling** | Communicate accurate, accountable, and non-misleading product information, including health and safety characteristics, use, and maintenance guidance | Product categories under information/labeling requirements 14.29%; safe product communication advanced through “Bonded for Life” exhibition and short film | Expand product data sheets, QR-based product information, and customer-facing safety communication | 3, 12 |
| **Communication to key stakeholders across all channels** | Achieve 100% coverage of key communication channels, including sales, customer service, website, social media, showroom/learning center, exhibitions, and product documents | Online and offline consultation and product information access channels were used, including learning centers/showrooms; quantitative channel coverage should be formalized as a 2026 KPI. | Track % channel coverage, message consistency, response time, and stakeholder feedback across all key channels | 12, 17 |

# Customer-Centric Value Creation Model

**Our customer-centric approach connects customer voice with action, turning insights into better products, better service, and stronger trust.**

Vanachai places customers at the center of product development and service improvement. The Company believes that customer responsibility goes beyond selling products. It requires listening carefully to customer voice, understanding needs and concerns, responding through product and service development, and continuously improving to build long-term trust. Customer insights are collected through multiple channels, including customer satisfaction surveys, sales and service teams, technical support, delivery feedback, showrooms, exhibitions, and complaint channels. These insights help the Company better understand expectations related to product quality, durability, safety, usability, health, and sustainability. Vanachai then translates these insights into action by improving products, refining service processes, strengthening technical support, and developing new solutions that better respond to customer needs. This includes efforts to enhance product safety, reduce health impacts, improve durability, and provide more suitable products for changing lifestyles and applications.

The Company also emphasizes quality assurance, responsible communication, and customer support. Clear product information, proper usage guidance, and responsive service help customers make informed decisions and use products with greater confidence. Complaints and feedback are managed systematically, with a focus on timely resolution, root cause analysis, and preventive improvement.

Through this continuous cycle of listening, developing, delivering, supporting, and improving, Vanachai creates value for customers and the business at the same time. Customers receive safer and better products, clearer information, and more reliable service, while the Company strengthens satisfaction, loyalty, reputation, and long-term competitiveness.

## Customer Centric Value Creation Flow



### 1 LISTEN to Customer Voice

We gather feedback through multiple touchpoints to understand real needs and experiences.

- → Surveys & Feedback
- → Sales & Service Channels
- → Technical Support
- → Showrooms & Exhibitions
- → Complaints & Inquiries
- → Online & Offline Channels



### 2 UNDERSTAND Needs & Expectations

We analyze insights to identify key needs, pain points, and emerging expectations.

- → Product Performance
- → Health & Safety
- → Durability & Design
- → Service Experience
- → Sustainability Needs



### 3 DEVELOP Solutions

We translate insights into actions to improve products, services, and customer experience.

- → Product Improvement
- → Service Enhancement
- → Technical Solutions
- → Customer Segmentation
- → Process Optimization



### 4 CREATE Better Products

We innovate and design safe, high-quality, and sustainable wood-based products that meet customer needs.

- → Low Emission & Non-formaldehyde Products
- → Moisture & Durability
- → Innovative Designs
- → Fit-for-Purpose Solutions



### 5 ASSURE Quality & Reliability

We ensure consistent quality, safety, and reliable delivery through strong standards and controls.

- → Quality Assurance
- → Safety & Compliance
- → Reliable Delivery
- → Product Testing
- → Continuous Monitoring



### 6 SUPPORT & Communicate

We provide clear information, guidance, and responsive support to help customers make informed choices.

- → Product Information
- → Usage Guidance
- → Consultation Support
- → Education & Awareness
- → Multi-Channel Access



### 7 IMPROVE Continuously

We learn from feedback and complaints to improve, prevent recurrence, and create lasting value.

- → Complaint Resolution
- → Root Cause Analysis
- → Corrective Actions
- → Prevent Recurrence
- → Performance Tracking

## Key Performance Highlights 2025

**98.2%**
Product Satisfaction

**98.0%**
Service Satisfaction

**2**
Product Quality Complaints

**100%**
On-schedule Complaint Resolution

**0**
Marketing-related Complaints

## What We Create

**For Customers**
- Safer and better products
- More confidence
- Greater satisfaction
- Faster resolution

**For Business**
- Stronger loyalty
- Lower risks
- Better innovation
- Long-term growth

**For Society & Environment**
- Healthier indoor air
- Responsible resource use
- Sustainable lifestyles
- Positive impact

## Our Commitment

We are committed to putting customers at the center of every decision, creating value together through trust, innovation, and responsibility.

# Voice of Customer and Feedback System

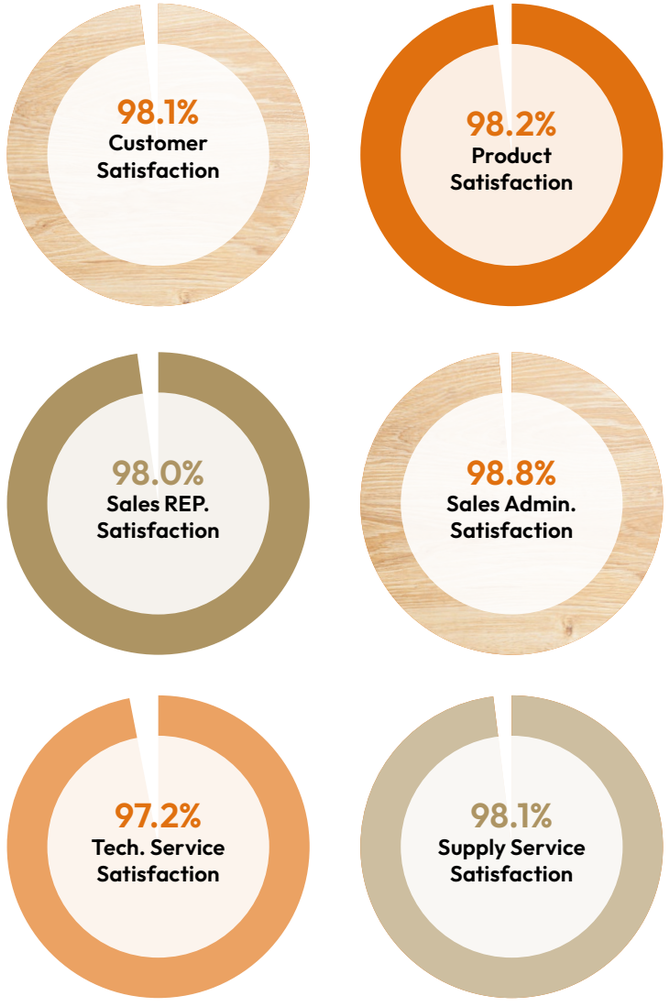
## Turning customer feedback into product, service, and trust improvement

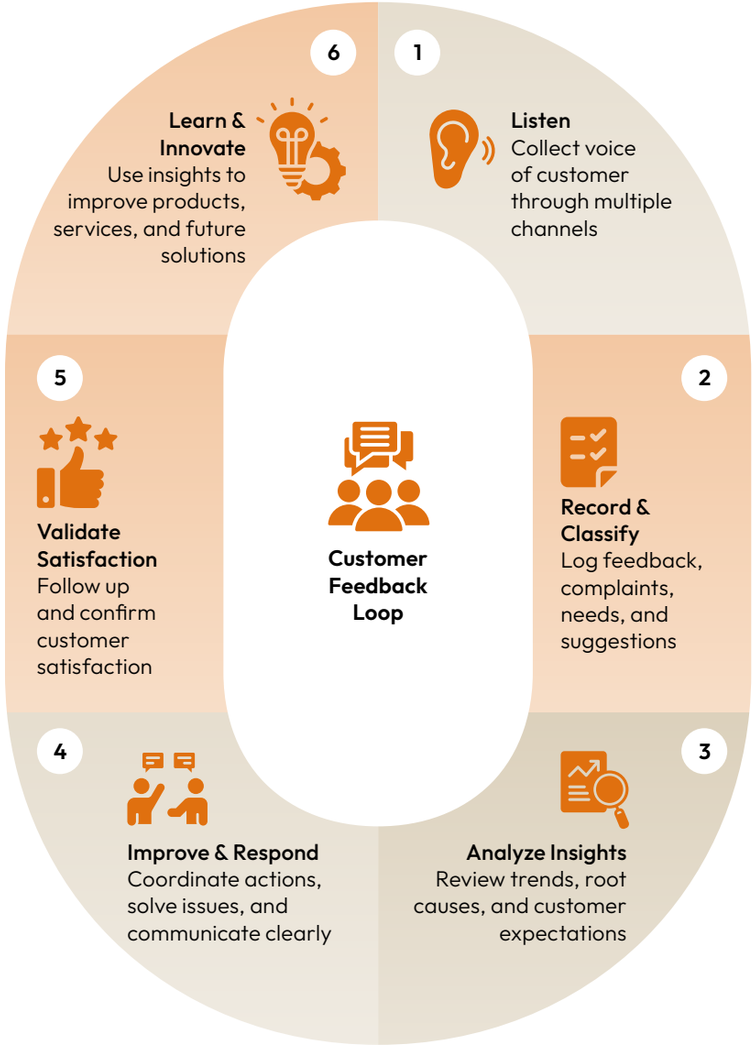
Vanachai believes that customer voice is valuable information for continuous improvement. The Company listens to customers through satisfaction surveys, recommendations from service channels, technical consultation, delivery feedback, showrooms, online and offline communication channels, and complaint mechanisms. These inputs help Vanachai understand customer expectations, product usage experience, service needs, and areas requiring improvement.

Customer feedback is reviewed and analyzed to identify key issues, recurring concerns, root causes, and opportunities for improvement. The results are then used to improve product quality, service responsiveness, delivery reliability, product information, usage guidance, and customer experience. This creates a closed-loop system of listen, analyze, improve, and communicate back, allowing customers to see concrete improvements over time.

In 2025, Vanachai achieved product satisfaction of 98.2%, service satisfaction of 98.0%, and 100% on-schedule complaint resolution, with 0 service complaints and 0 marketing-related complaints. These results reflect the Company's commitment to using customer feedback to strengthen trust, transparency, and long-term customer relationships.

### Our Customers are Engaging and Satisfied



**Listening Channels**
- Sales team and direct visits
- Email and phone
- Website and social media
- Exhibitions and events
- Complaints and after sales service

**Key Enablers**
- Multi channel communication
- Timely complaint handling
- Cross functional collaboration
- Continuous improvement mindset

**Value Created**
- Better product quality
- Faster response and resolution
- Stronger customer trust
- Customer centric innovation

**“From customer voice to continuous improvement: Vanachai listens, analyzes, acts, and reports progress to build trust through better products, better service, and clearer communication.”**

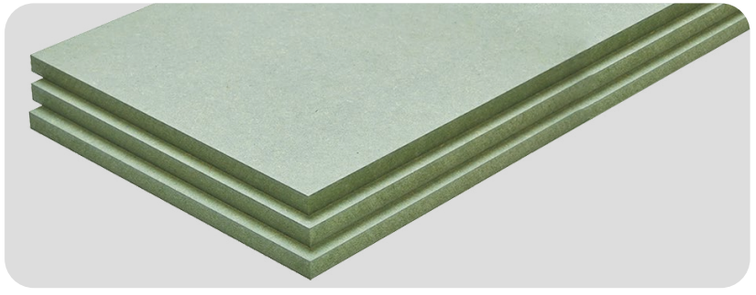
# Safe and Responsible Wood-Based Products

## Turning customer needs into safer, healthier, and more durable wood-based products

Vanachai develops safer and better wood-based products by placing customer needs, health, and real usage conditions at the center of product improvement. Feedback from customers, satisfaction surveys, service channels, and complaint mechanisms is used to strengthen product quality, safety, durability, and usability. The Company focuses on reducing potential health impacts through responsible product design and manufacturing process improvement, including the control of VOC and formaldehyde emissions and continuous enhancement of quality standards. In 2025, Vanachai developed non-VOC products for flooring and OSB to support indoor air safety and launched Hybrid HMR flooring with 72 hours water resistance, Ultra Hybrid flooring with 720 hours water resistance to reduce deterioration risk and extend product life.

### Customer Need to Product Trust Flow

1. **Customer Voice**
   Feedback, surveys, complaints, and product needs
2. **Health and Safety Needs**
   Indoor air quality, Non-Formaldehyde, and safe use
3. **Responsible Product Design**
   R&D, material selection, and process improvement
4. **Quality and Durability Assurance**
   Testing, quality control, water resistance, and longer product life
5. **Clear Product Communication**
   Product information, usage guidance, and maintenance advice
6. **Product Trust and Long Term Value**
   Safer products, customer confidence, satisfaction, and loyalty



**Our Innovative Products**

- Non-Formaldehyde flooring and OSB
- Hybrid HMR flooring with 72 hour waters resistance
- Ultra Hybrid flooring with 720 hours water resistance

# Complaint Management and Trust Recovery

## Turning complaints into corrective action, prevention, and stronger customer trust

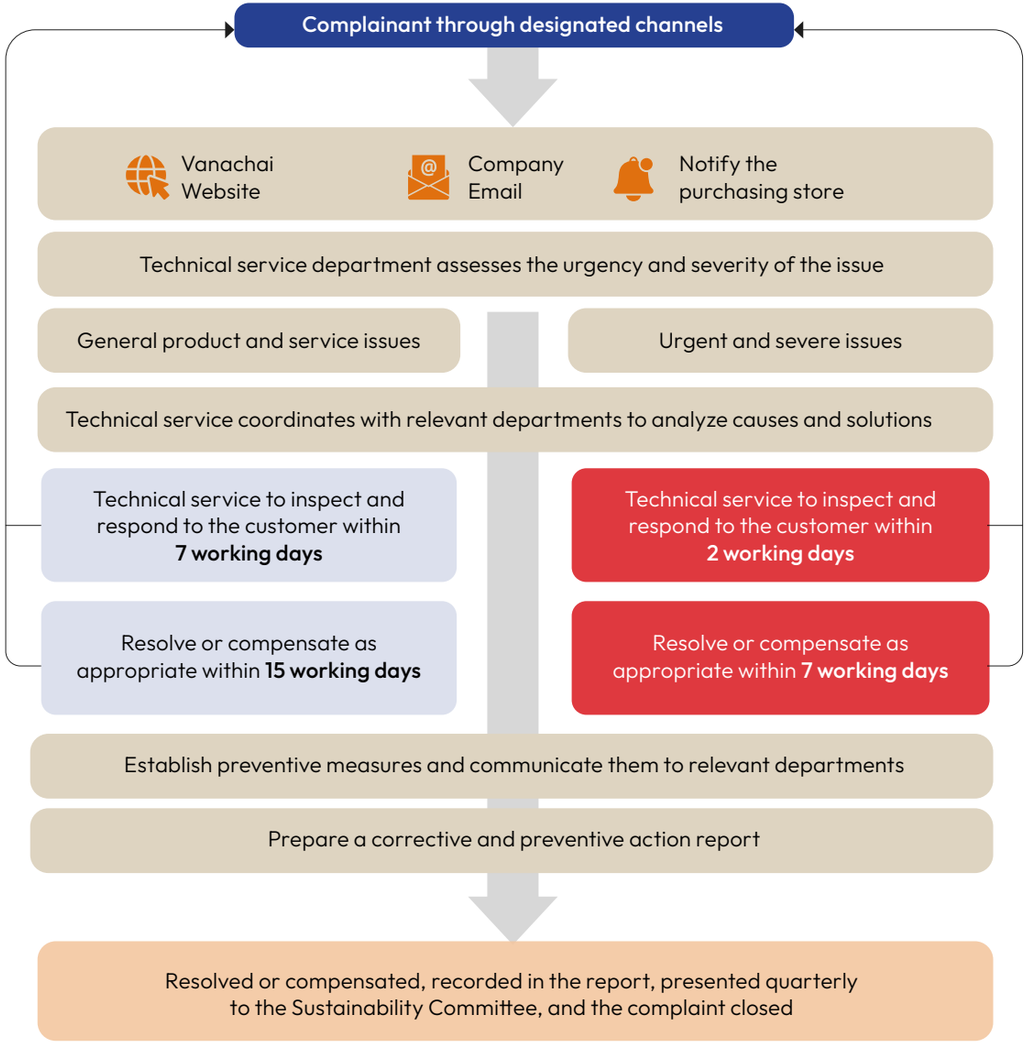
Vanachai manages customer complaints as part of customer responsibility, quality improvement, and trust recovery. The Company recognizes that complaints provide direct insight into customer experience and help identify issues that may affect product quality, service reliability, product information, delivery, and customer confidence.

The complaint management process is designed as a closed-loop system. Customer concerns are received through relevant channels, acknowledged and classified, investigated to identify root causes, and resolved through corrective action within the defined timeframe. Lessons learned from complaint cases are then used to strengthen preventive actions, improve internal processes, and reduce the likelihood of recurrence.

This approach supports Vanachai's customer-centric commitment by ensuring that complaints are not treated only as isolated cases, but as inputs for continuous improvement. By tracking complaint performance, satisfaction results, and resolution timeliness, Vanachai strengthens transparency, accountability, and long-term customer trust.

In 2025, Vanachai reported 2 product quality complaints, 0 service complaints, and 0 marketing-related complaints, while maintaining 100% on-schedule customer complaint resolution. Product satisfaction reached 98.2% and service satisfaction reached 98.0%, reflecting the Company's continued focus on responsive service, quality improvement, and customer confidence.

### Closed-loop Complaint Management Systemic




**1. RECEIVE**
**(Capture customer concerns)**
- Receive complaints from all channels
- Record and log every case
- Capture complete information

**2. ACKNOWLEDGE**
**(Respond with care and clarity)**
- Acknowledge receipt promptly
- Classify and prioritize the case
- Assign responsible team
- Communicate next steps to customer

**3. INVESTIGATE**
**(Find the root cause)**
- Collect and review relevant information
- Analyze and identify root cause
- Determine contributing factors

**4. CORRECT**
**(Take timely corrective action)**
- Implement corrective action
- Resolve complaint within timeframe
- Provide solution to customer

**5. PREVENT RECURRENCE**
**(Strengthen controls and prevent repeat)**
- Implement preventive measures
- Improve processes, products, and controls
- Update guidelines and training
- Reduce risk of recurrence

**6. REPORT BACK**
**(Close the loop and build trust)**
- Communicate outcome to customer
- Ensure customer satisfaction
- Track and monitor results
- Report performance transparently

### 2025 Performance Snapshot

| | |
|---|---|
| Product quality complaints: | **2 cases** |
| Service complaints: | **0 cases** |
| Marketing-related complaints: | **0 cases** |
| On-schedule customer complaint resolution: | **100%** |
| Product satisfaction: | **98.2%** |
| Service satisfaction: | **98.0%** |

**"Every complaint is a learning opportunity. Vanachai listens, resolves, prevents recurrence, and reports back to build stronger customer trust."**

# Fair Treatment, and Data Protection

## Protecting customer rights, privacy, and trust through fair service and responsible data governance

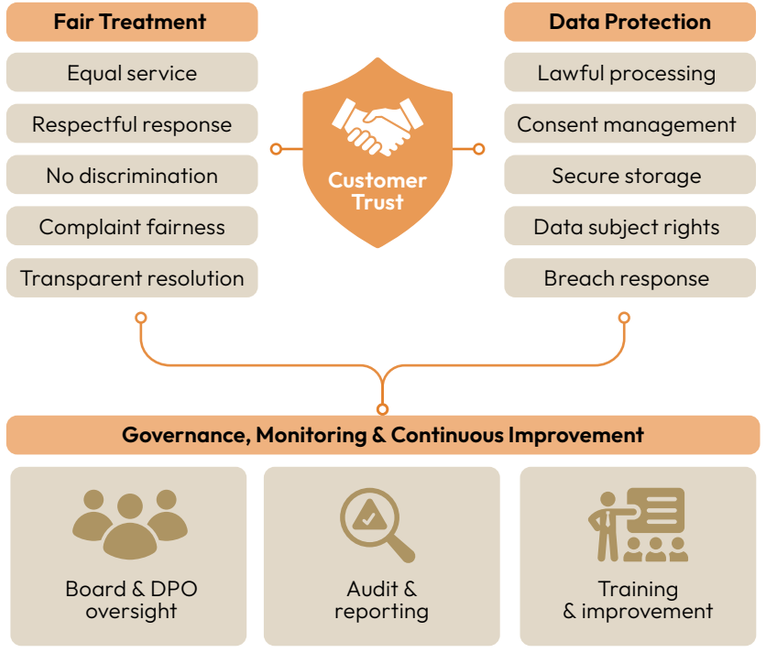
Vanachai recognizes that customer trust is built through both fair treatment and responsible protection of personal data. The Company aims to ensure that customers and consumers receive equal, respectful, transparent, and non-discriminatory service across all channels, including product consultation, customer service, complaint handling, and communication activities.

At the same time, Vanachai protects personal data collected, used, disclosed, transferred, or stored through business activities and customer interactions. The Company's Personal Data Protection Policy establishes a governance framework to ensure that personal data is managed lawfully, transparently, securely, and only for specified purposes. The policy covers customers, consumers, employees, business partners, shareholders, and other stakeholders whose personal data may be processed by the Company.

The Company has assigned clear accountability for data protection. The Board of Directors oversees policy direction, the Audit Committee monitors control effectiveness, the Risk Management and Corporate Governance Committee integrates data privacy risk into ERM, the DPO oversees compliance, and the IT Department implements technical safeguards. All employees are responsible for protecting confidentiality, preventing unauthorized disclosure, and reporting suspected or actual data breaches.

Vanachai respects the rights of data subjects, including the rights to access, correct, delete, restrict processing, and withdraw consent. Dedicated channels are provided for privacy inquiries, complaints, and data subject requests, and complaints are fairly investigated under DPO supervision. The Company also uses tools such as data privacy management systems, consent management, encryption, access control, backup and recovery, intrusion detection and prevention, and breach response planning to strengthen data protection.

Through fair treatment, clear accountability, secure data management, and transparent reporting, Vanachai aims to reduce customer rights risks, prevent data privacy incidents, strengthen confidence in customer service, and build long-term trust with customers and all stakeholders.



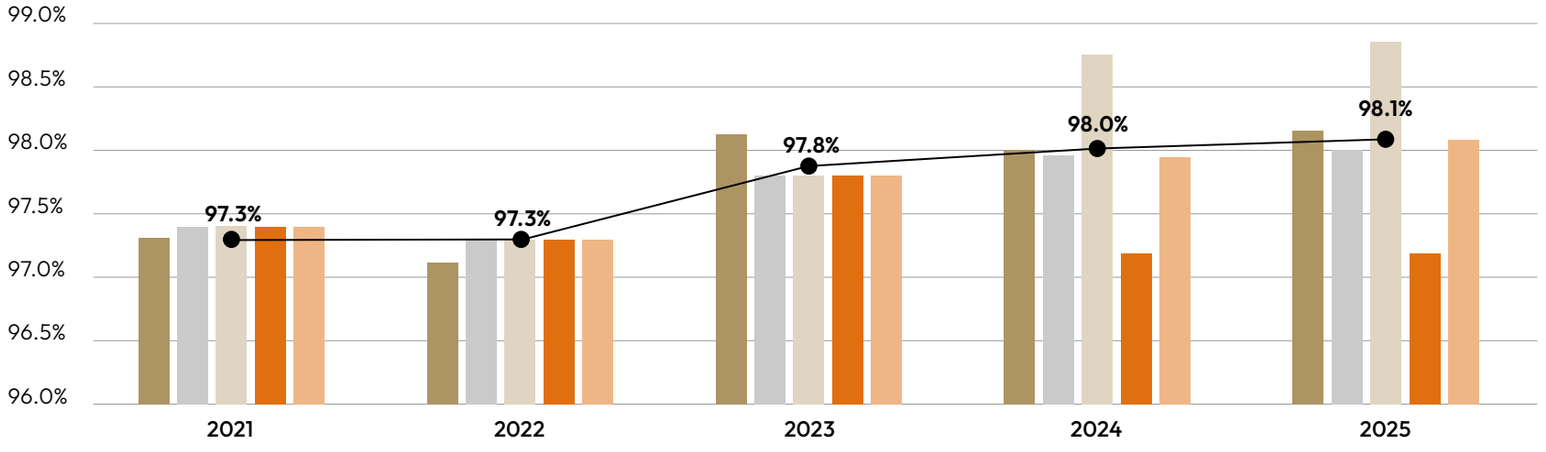
# Customer Responsibility and Trust Building Customer Metrics

The following data related to Customer Responsibility and Trust Building Customer Metrics for Vanachai Group and our subsidiaries during during 2021–2025, with 2021 as the base year.

| Disclosure Alignment | | Water Use Indicator | Unit | Vanachai Group Performance | | | | |
|---|---|---|---|---|---|---|---|---|
| | FTSE Russell | | | 2021* | 2022 | 2023 | 2024 | 2025 |
| 102-43/ 102-44 | | **Overall customer satisfaction assessment results** | **%** | **97.3%** | **97.3%** | **97.8%** | **98.0%** | **98.1%** |
| | | - From the product side | % | 97.3% | 97.1% | 98.1% | 98.1% | 98.2% |
| | | - From the sales side | % | 97.4% | 97.3% | 97.7% | 97.9% | 98.0% |
| | | - From the sales support staff side | % | 97.4% | 97.3% | 97.7% | 98.7% | 98.8% |
| | | - From the technical services side | % | 97.4% | 97.3% | 97.7% | 97.2% | 97.2% |
| | | - From the product delivery service side | % | 97.4% | 97.3% | 97.7% | 97.9% | 98.1% |
| | | **Total number of customer complaints** | **Case** | **0** | **0** | **0** | **2** | **2** |
| | | - All product quality complaints | case | 0 | 0 | 0 | 2 | 2 |
| | | - Total quantitative complaints | case | 0 | 0 | 0 | 0 | 0 |
| | | - All service complaints | case | 0 | 0 | 0 | 0 | 0 |
| | | - All packaging complaints | case | 0 | 0 | 0 | 0 | 0 |
| | | - All product delivery complaints | case | 0 | 0 | 0 | 0 | 0 |
| 102-44/ 416-2 | | **The total number of customer complaints resolved** | **Case** | **0** | **0** | **0** | **2** | **2** |
| | | - Solved issues within the specified time | Case | 0 | 0 | 0 | 2 | 2 |
| | | - Solved issues but over the specified time | Case | 0 | 0 | 0 | 0 | 0 |
| | | - Unsolved issue | case | 0 | 0 | 0 | 0 | 0 |

## Customer Satisfaction Assessment Results, 2021–2025

Vanachai Group maintained consistently high customer satisfaction from 2021 to 2025, with the overall satisfaction score improving from 97.3% to 98.1%. In 2025, satisfaction remained above the 98% target in most areas, led by sales support at 98.8%, product satisfaction at 98.2%, delivery service at 98.1%, and sales service at 98.0%. Although technical service remained at 97.2%, the Company continued to demonstrate responsive customer care, with all 2 product quality complaints fully resolved within the specified timeframe and no unresolved complaints.



# Transparent and Responsible Product Communication

**Empowering customers with accurate, non-misleading, and practical product information for safer and more confident choices.**

Vanachai believes that responsible communication is an essential part of customer responsibility. Clear and accurate product information helps customers understand product properties, health and safety characteristics, suitable applications, usage methods, maintenance requirements, and sustainability value before making purchasing decisions.

The Company communicates product information through both online and offline channels, including product information materials, sales and technical consultation, customer service channels, showrooms, learning centers, exhibitions, and customer education activities. Communication is designed to be accurate, accountable, and non-misleading, with a focus on supporting informed product selection and proper product use.

Vanachai also promotes customer education on safe material selection and indoor air quality. From late 2025 to 2026, the Company communicated the concept of safe products through the “Bonded for Life” exhibition and short film to raise awareness of how indoor materials can affect living environments and health. These activities help customers better understand product options that are suitable for their needs and support greater confidence in product origin, quality, and characteristics.

Through transparent and responsible product communication, Vanachai aims to reduce misunderstanding, support safer and more appropriate product use, strengthen customer satisfaction, and build long-term trust based on transparency, proven quality, and responsible business practice.

## Responsible Product Communication Flow

| | | |
|---|---|---|
| 1 | **Product Information** | Product properties, quality, safety, use, and maintenance |
| 2 | **Communication** | Accurate, accountable, and non-misleading claims |
| 3 | **Customer Education** | Consultation, showroom, learning center, exhibition, and media |
| 4 | **Informed Decision** | Customers select suitable products for real use |
| 5 | **Product Trust** | Confidence in quality, safety, origin, and long-term value |

### What We Communicate

- Product properties and applications
- Health and safety characteristics
- VOC and formaldehyde considerations
- Product use and installation guidance
- Maintenance and care recommendations
- Product quality and durability features
- Sustainable consumption and resource efficiency
- Product origin and traceability, where available

### How We Communicate

- Product information and labeling
- Product data sheets and sales materials
- Sales and technical consultation
- Website and online channels
- Social media and customer service channels
- Woodsmith centers, showrooms, and learning centers
- Exhibitions and customer education campaigns
- Short film and awareness communication, such as “Bonded for Life”

### Value Created

- Customers make better-informed choices
- Customers understand safe and suitable product use
- Reduced misunderstanding of product properties
- Stronger confidence in product quality and origin
- Better alignment with customer lifestyle and project needs
- Higher trust through transparent and non-misleading communication
- Stronger support for customer responsibility and ESG disclosure

## "BOND for Life", Exhibition for Creating Awareness of Air Quality in your house, Health and Longevity.

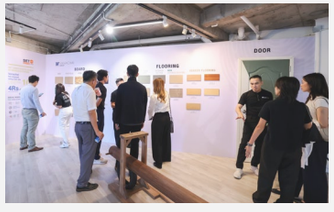






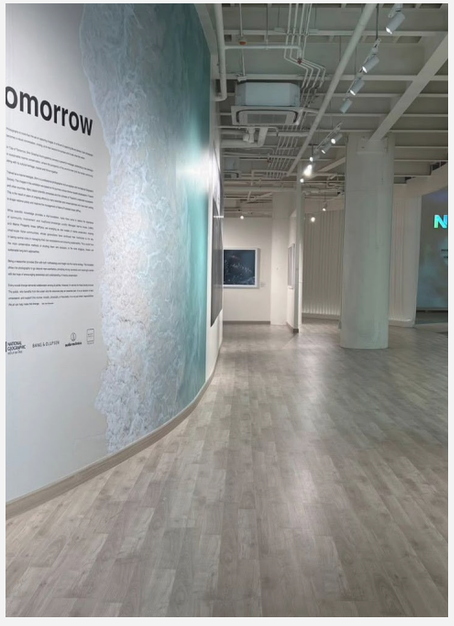








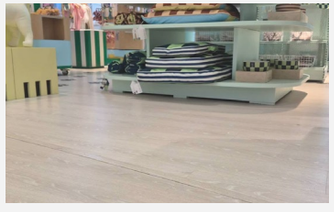
## Join with "NEXTOPIA", Siam Paragon for a Sustainable Product live-display

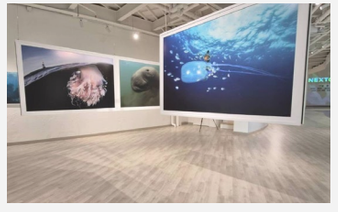














# Forward Actions

## Advancing customer trust through safer products, better service, transparent communication, and responsible data governance

Vanachai will continue strengthening customer responsibility and trust by improving how we listen to customers, responds to complaints, communicates product information, and protects customer rights and personal data. The Company will use customer feedback to enhance product quality, safety, service responsiveness, and transparent communication across all touchpoints. Over time, Vanachai aims to build a more customer-centric system that connects customer insight, safer wood-based product development, responsible service, fair treatment, and data protection to support long-term customer confidence and sustainable business relationships.

- Develop an integrated voice-of-customer and CRM system to capture insights, complaints, and satisfaction data more effectively
- Use customer feedback and complaint data to improve product quality, service standards, and customer support responsiveness
- Strengthen product traceability and digital access to clear, accurate product information
- Expand customer education on safe, suitable, and responsible use of Vanachai's wood-based products
- Continue innovation in safer, healthier, and more durable wood-based products
- Strengthen digital communication channels and product transparency platforms
- Enhance data privacy governance through compliance audits, internal controls, and partner assessment
- Embed customer trust, fair complaint handling, privacy protection, and customer rights into management review and sustainability culture
- Strengthen customer responsibility disclosure to support assurance readiness and alignment with ESG expectations



# Appendix

## You can scan the QR code for more details.

Environmental, Social, and Governance (ESG) Performance

GRI Content Index

External Verification Results



VANACHAI GROUP

FROM
**FOREST ROOTS**
TO THE
# NET ZERO FUTURE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